



**NEW JERSEY TURNPIKE AUTHORITY
REQUEST FOR PROPOSAL
FOR
ROADWAY WEATHER INFORMATION SYSTEM
EQUIPMENT AND SERVICES
RM-133818**

JULY 2017

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SECTION I -- INTRODUCTION

Enclosed herewith is a Request for Proposal (“RFP”) by the New Jersey Turnpike Authority (“Authority”) for a vendor to provide system design services, furnish environmental sensing station (“ESS”) hardware, furnish and install roadway weather information system (“RWIS”) software. In addition, the RWIS vendor (“Vendor”) will provide system activation and warranty maintenance services to monitor and record pavement and environmental conditions along the New Jersey Turnpike (“Turnpike”) and the Garden State Parkway (“Parkway”)(collectively “Roadways”). All the services are further detailed in Section III, the (“Services”). The Authority also contracts with a third party atmospheric weather forecasting service (“Weather Forecaster”), which in conjunction with RWIS, will serve as a pavement forecasting and real-time technology-based tool to alert the Authority’s Maintenance and Operations staff of weather and pavement surface conditions. The Successful Proposer (as hereinafter defined) will be awarded a contract (the “Services Agreement”) for a term of one (1) year, with the option to extend for four (4) one-year terms at the Authority’s sole discretion.

The Authority seeks proposals (“Proposals”) from all interested and qualified providers (“Proposers”). Such Proposals must be responsive to all of the requirements of this RFP. The Authority intends to select one Proposer (the “Successful Proposer”) to perform the Services based on the evaluation criteria set forth in Section IV.

The solicitation of Proposals is being conducted pursuant to the statutes and laws of the State of New Jersey, as found in *N.J.S.A. 27:23-6.1*, and Executive Order No. 37 (Corzine, 2006), and the regulations and policies of the Authority with regard to the procurement of professional services. Furthermore, Proposals are being solicited through a fair and open process in accordance with *N.J.S.A. 19:44A-20.1*, et seq. In addition, Proposers are required to comply with the Equal Employment Opportunity (“EEO”) requirements of P.L. 1075, C.127 and (*N.J.A.C. 17:27*).

Upon review of all Proposals, the Authority may request that one or more Proposers appear for an oral presentation focusing on how their proposed approach and solution will satisfy the requirements of this RFP. The Authority may limit the number of Proposers that can make oral presentations to permit efficient competition among the most highly rated Proposals. Should an oral presentation be requested, it will be an opportunity for each invited Proposer to introduce its staff to the Authority, address how the Proposer will provide the Services, and to present supplementary information regarding its Proposal and credentials as related to the specific needs of the Authority. The Proposer may use handouts, display boards, products and other materials during this oral presentation; provided, however, that the presentation will be restricted to a maximum time period specified by the Authority, including the time allotted for a question and answer period. Information relating to the Proposer’s recent experience on similar assignments, approach to the Services and the use of innovative and/or cost effective measures should be included in the oral presentation.

Proposer(s) invited to make an oral presentation may submit a best and final offer (“BAFO”) either during oral presentation or within **two (2)** business days following the presentation. The

BAFO can modify any aspect of the Proposal provided the RFP requirements continue to be satisfied and provided further that the revised price proposal of the BAFO is not higher than the original price proposal.

After evaluating Proposals of those invited to make an oral presentation, an evaluation committee consisting of representatives of the Authority (“Evaluation Committee”) may enter into negotiations with same. The primary purpose of negotiations is to maximize the Authority’s ability to get the best value based on the requirements and evaluation criteria set forth in the RFP. Negotiations may involve the identification of significant weaknesses ambiguities and other deficiencies in the Proposal, including price, which could preclude awarding a Services Agreement to the Proposer. More rounds of negotiations may be held with one Proposer than another. Negotiations will be structured to safeguard information and ensure that all Proposers in the competitive range are treated fairly.

After evaluation of the BAFO submissions and any subsequent negotiations, the Evaluation Committee will recommend to the Executive Director to award a contract to the Proposer whose Proposal, conforming to the RFP, is most advantageous to the Authority, price and other factors considered. The Executive Director may accept, reject or modify the recommendation of the Evaluation Committee. The Executive Director may negotiate further reductions in price with the recommended Proposer.

Negotiations will be conducted only in those circumstances where they are deemed by the Authority to be in the Authority’s best interests and to maximize the Authority’s abilities to get the best value. Therefore, Proposers are advised to submit their best price proposals in response to this RFP, because the Authority, may, after evaluation, make an award based solely on the content of these initial submissions, without further negotiations with the Proposer.

A DRAFT FORM OF THE SERVICES AGREEMENT IS ATTACHED. (See Appendix 1). ANY PROPOSED MODIFICATIONS TO THE SERVICES AGREEMENT MUST BE IDENTIFIED AND SUBMITTED WITH YOUR RESPONSE TO THIS RFP; OTHERWISE, BY SUBMISSION OF YOUR RESPONSE, YOU WILL BE DEEMED TO HAVE ACCEPTED THE SERVICES AGREEMENT ATTACHED HEREIN AND WILL BE FORECLOSED FROM NEGOTIATING ANY CHANGES TO THE SERVICES AGREEMENT.

End of Section I

SECTION II -- ADMINISTRATIVE AND CONTRACTUAL INFORMATION

A. Purpose

This RFP contains a Scope of Services (Section III) that outlines the Authority's needs.

B. Inquiries

ONLY type-written inquiries concerning the RFP will be accepted. They should be directed to Andrea E. Ward, Director, Procurement and Materials Management ("PMM") Department, New Jersey Turnpike Authority, P.O. Box 5042, Woodbridge, New Jersey 07095-5042. Inquiries by FAX or e-mail are acceptable. The FAX number is 732-750-5399. The email address is mcnally@turnpike.state.nj.us. The inquiry deadline is **4:30 PM E.T., August 7, 2017**. Inquiries will not be entertained after this date and time.

A PROPOSER IS NOT PERMITTED TO MAKE INQUIRIES OF OR DISCUSS OR QUESTION ANY AUTHORITY EMPLOYEE, STATE EMPLOYEE OR COUNSEL OR CONSULTANT TO THE AUTHORITY ABOUT THIS RFP WHILE THIS RFP IS OUTSTANDING, EXCEPT AS OTHERWISE SET FORTH HEREIN. IT IS NOT APPROPRIATE FOR ANY PROPOSER TO CONTACT ANY AUTHORITY COMMISSIONER OR ANY STATE OFFICIAL OR EMPLOYEE DURING THE RFP PROCESS. FAILURE TO COMPLY WITH THIS GUIDELINE MAY RESULT IN DISQUALIFICATION OF THE PROPOSER.

C. Closing Date

One (1) original and seven (7) copies of the Proposer's Proposal, as well as three (3) copies in an electronic format must be received no later than **4:30 PM E.T., August 24, 2017** addressed to: Andrea E. Ward, Director, Procurement and Materials Management Department as follows:

<u>Regular Mail</u>	OR	<u>Federal Express or Other Overnight Delivery</u>
New Jersey Turnpike Authority		New Jersey Turnpike Authority
P. O. Box 5042		One Turnpike Plaza
Woodbridge, NJ 07095		Woodbridge, NJ 07095

Proposals not delivered by the stated time and date shall not be considered unless the time is extended by the Authority pursuant to a written addendum issued by the Authority (the "Addendum").

Proposers mailing Proposals should allow for normal mail delivery time to ensure timely receipt of their RFP Responses. Please be advised that using overnight/next-day delivery service does not guarantee overnight/next-day deliveries to our location.

D. The Proposals

It is anticipated that the Proposal will provide a concise and precise delineation of the Proposer's ability to meet all of the requirements of the Authority as provided for in this RFP.

E. Proposer vs. Vendor

The terms "Proposer" and "Vendor" are used frequently, and may be used interchangeably; however, "Proposer" is intended to identify the entity submitting a Proposal, while "Vendor" or "Consultant" is the entity to whom the Services Agreement is awarded (also referred to as the Successful Proposer.)

F. Signatures

Proposals must be signed by an officer authorized to make a binding commitment for the Proposer.

G. Incurring Costs

The Authority shall not be liable for any costs incurred by any Proposer in the preparation of its Proposal.

H. Addendum to RFP

If at any time prior to receiving Proposals it becomes necessary to revise any part of this RFP, or if the Authority determines that additional information is necessary to enable Proposers to adequately interpret the provisions of this RFP, the Authority will issue an Addendum to this RFP. Upon issuance, each such Addendum shall be deemed to be a part of this RFP.

I. Acceptance of Proposals

This RFP does not commit the Authority to make an award. The contents of the Proposal shall become a contractual obligation, if, in fact, a Proposal is accepted and a Services Agreement is entered into with the Authority. The Authority may award a Services Agreement solely on the basis of the Proposal submitted without any negotiations. The Authority reserves all rights to engage in negotiations as described in Section I if it deems it in its best interests. Failure of a Proposer to adhere to and/or honor any or all of the obligations of its Proposal may result in rescission of any award of the Services Agreement by the Authority.

J. Rejection of Proposals

The Authority reserves the right to reject any and all Proposals. The Authority shall not be obligated at any time to make an award to any Proposer.

K. Final Agreement

Any Services Agreement entered into with a Successful Proposer shall be satisfactory to the Authority in accordance with the laws of the State of New Jersey. The

provisions of the attached Services Agreement, not otherwise set forth in this RFP, are hereby incorporated into this RFP. It is understood that any Services Agreement that may be awarded will be on the basis of a professional agreement for services within the intent of the statutes and laws of the State of New Jersey, including, without limitations *N.J.S.A. 27:23-6.1*.

L. Dissemination of Information

Information included in this document or in any way associated with this RFP is intended for use only by the Proposer and the Authority and is to remain the property of the Authority. Under no circumstances shall any of said information be published, copied or used, except in replying to this RFP.

M. Public Records

Any Proposal received from a Proposer in response to this RFP constitutes a public document that will be made available to the public upon request pursuant to New Jersey's Open Public Records Act, *N.J.S.A. 47:1A-1 et seq.* A Proposer may request the Authority's General Counsel to deem certain sections of its proposal containing personal, financial or proprietary information non-disclosable, which determination shall be in accordance with such act.

N. News Releases

No news releases pertaining to this RFP or any project to which it may relate shall be made without the Authority's approval.

O. Affirmative Action

The Proposer must certify that it does not discriminate in the hiring or promotion of any minorities, as designated by the Equal Employment Opportunity Commission of the United States of America, or the Department of Civil Rights of the State of New Jersey; and that it does not discriminate against any person or persons on the basis of race, creed, age, color, sex, national origin, ancestry, marital status and affectional or sexual orientation or handicap.

In addition, the Proposer must complete the appropriate forms. The following are included in Section VI:

Exhibit A – Mandatory Equal Employment Opportunity Language

Exhibit B – Affirmative Action Information Sheet

However, if a Proposer maintains a current Letter of Federal Approval, or a current Certificate of Employee Information Report Approval as issued by the Department of the Treasury, State of New Jersey, it may be submitted in place of the State of New Jersey Affirmative Action Employee Information Report ("Form AA-302"). The appropriate form must be completed and submitted to the Authority by the Successful Proposer immediately after being notified of award of the Agreement.

P. Small Business Enterprises Requirements

It is the policy of the Authority that small businesses (each a “small business enterprise” or “SBE”) as determined and defined by the State of New Jersey, Division of Minority and Women Business Development (“Division”) and the New Jersey Department of the Treasury (“Treasury”) should have the opportunity to participate in Authority contracts (*N.J.A.C. 17:13-1.1*, et seq.).

To the extent the Proposer engages subcontractors or sub-consultants to perform any of the Services for the Authority pursuant to the Services Agreement, the Proposer must demonstrate to the Authority’s satisfaction that a good faith effort will be made to utilize subcontractors and sub-consultants who are registered with the Division as SBEs in the State of New Jersey.

As set forth in *N.J.A.C. 17:13-4.3*, a “good faith effort” is described as follows:

1. Proposers shall attempt to locate qualified potential small business subcontractors;
2. Proposers must obtain a listing of small businesses from the Treasury website if none are known to the Proposer;
3. Each Proposer shall keep a record of its efforts, including the names of businesses contacted and the means and results of such contacts;
4. Proposers shall provide all potential subcontractors with detailed information regarding the specifications; and
5. Proposers shall attempt, wherever possible, to negotiate prices with potential subcontractors submitting higher than acceptable price quotes.

Furthermore, the Proposer shall submit proof of its subcontractors’ and/or sub-consultants’ SBE registrations on the form attached as Exhibit K, if applicable, and shall complete such other forms as may be required by the Authority for reporting to the State of New Jersey as to SBE participation.

Q. Division of Revenue Registration

Pursuant to the terms of *N.J.S.A. 52:32-44*, the Successful Proposer is required to provide to the Authority proof of valid business registration with the Division of Revenue in the Department of the Treasury, prior to entering into an agreement with the Authority. **The Services Agreement shall not be entered into by the Authority unless the Proposer first provides proof of valid business registration.** In addition, the Successful Proposer is required to receive from any sub-consultant it uses for goods and services under the Services Agreement, proof of valid business registration with the Division of Revenue and provide to the Authority proof thereof. The Authority shall not enter into a Services Agreement unless the sub-consultant first provides proof

of valid business registration. Please include a copy of the Proposer's and any sub-consultants' Certificate of Registration with the Proposal submission. (Exhibit J).

All questions regarding this requirement should be referred to the Division of Revenue hotline at (609) 292-9292.

R. State Political Contributions Notice: Public Law 2005, Chapter 51 and Executive Order 117

The Successful Proposer will receive the applicable forms, Chapter 51 and E.O. 117, from the Authority's PMM Department to be completed and returned to the Authority for submission to the State Treasurer. Upon approval by the State Treasurer, the Authority will prepare a Service Agreement for execution. (Appendix 2)

S. Affidavit of Moral Integrity

Together with the Proposal, the Proposer must submit an Affidavit of Moral Integrity on the form attached hereto for review by the Authority's General Counsel. (Exhibit C)

T. Code of Ethical Standards

Applicants are advised that the Authority has adopted the New Jersey Uniform Code of Ethics ("Code"), a copy of which can be viewed by going to the following web site: <http://nj.gov/ethics/docs/ethics/uniformcode.pdf>. By submitting a response hereto, Proposer agrees to be subject to the intent and purpose of said Code and to the requirements of the New Jersey State ("State") Ethics Commission.

1. No vendor shall pay, offer to pay, or agree to pay, either directly or indirectly, any fee, commission, compensation, gift, gratuity, or other thing of value of any kind to any State officer or employee or special State officer or employee, as defined by *N.J.S.A. 52:13D-13b.* and *e.*, in the Department of the Treasury or any other agency with which such vendor transacts or offers or proposes to transact business, or to any member of the immediate family, as defined by *N.J.S.A. 52:13D-13i.*, of any such officer or employee, or any partnership, firm, or corporation with which they are employed or associated, or in which such officer or employee has an interest within the meaning of *N.J.S.A. 52:13D-13g.*
2. The solicitation of any fee, commission, compensation, gift, gratuity or other thing of value by any State officer or employee or special State officer or employee from any State vendor shall be reported in writing forthwith by the vendor to the Attorney General and the Executive Commission on Ethical Standards.
3. No vendor may, directly or indirectly, undertake any private business, commercial or entrepreneurial relationship with, whether or not pursuant to employment, contract or other agreement, express or implied, or sell any interest in such vendor to, any State officer or employee or special State officer or employee having any duties or responsibilities in connection with the

purchase, acquisition or sale of any property or services by or to any State agency or any instrumentality thereof, or with any person, firm or entity with which he is employed or associated or in which he has an interest within the meaning of *N.J.S.A. 52:13D-13g*. Any relationships subject to this provision shall be reported in writing forthwith to the Executive Commission on Ethical Standards, which may grant a waiver of this restriction upon application of the State officer or employee or special State officer or employee upon a finding that the present or proposed relationship does not present the potential, actuality or appearance of a conflict of interest.

4. No vendor shall influence, or attempt to influence or cause to be influenced, any State officer or employee or special State officer or employee in his official capacity in any manner which might tend to impair the objectivity or independence of judgment of said officer or employee.
5. No vendor shall cause or influence, or attempt to cause or influence, any State officer or employee or special State officer or employee to use, or attempt to use, his official position to secure unwarranted privileges or advantages for the vendor or any other person.
6. The provisions cited shall not be construed to prohibit a State officer or employee or special State officer or employee from receiving gifts from or contracting with vendors under the same terms and conditions as are offered or made available to members of the general public subject to any guidelines the Executive Commission on Ethical Standards may promulgate as stated above.

U. Tolls

It is the policy of the Authority not to offer toll free passage on its Roadways for its contractors, providers or vendors. See *N.J.S.A. 27:23-25* and *N.J.A.C. 19:9-1.19*.

V. Proposals Become Property of the Authority

All Proposals shall become the property of the Authority upon receipt and will not be returned.

W. Right To Audit Clause

The Successful Proposer shall keep and maintain proper and adequate books, records and accounts accurately reflecting all costs and amounts billed to the Authority with regard to this RFP. The Authority, its employees, officers, or representatives shall have the right upon written request and reasonable notice, to inspect and examine all books and records related to the Successful Proposer's books and records specific to the Proposal and Agreement. Such records shall be retained by Successful Proposer for at least five (5) years after termination of the Service Agreement. In no event shall books and records be disposed of or destroyed prior to five (5) years or during any dispute or claim between the Authority and the Successful Proposer with regard to the RFP.

In accordance with the New Jersey Office of the State Comptroller (“OSC”) document retention policy *N.J.S.C. 17:44-2.2*, relevant records of private vendors or other persons entering into contracts with the Authority are subject to audit or review by the New Jersey Office of the State Comptroller. Therefore, the Successful Proposer shall maintain all documentation related to products, transactions or services under this Agreement for a period of five (5) years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

X. Ownership Disclosure Form

Each Proposer shall return to the Authority with its Proposal a completed, Ownership Disclosure Form set forth as Exhibit D. Failure to include the completed and signed form may be grounds for rejection of a Proposers’ Proposal.

Y. Vendor Disclosure Form N.J.S.A. 52:34-13.2

Pursuant to *N.J.S.A. 52:34-13.2*, every contract entered into by the Authority primarily for the performance of services shall specify that all services performed under the contract or performed under any subcontract awarded under the contract shall be performed within the United States. The statute requires all Proposers to disclose the origin and location of the performance of their services, including any subcontracted services that are the subject matter of the contract. Each Proposer shall return to the Authority with its Proposal as completed, dated and certified Vendor Disclosure Form set forth as Exhibit E.

Z. Notice to All Proposers of Set-Off for State Tax

Each Proposer shall return to the Authority with its Proposal a signed and dated “Notice of Set-Off for State Tax” set forth as Exhibit G which advises Proposers of the State of New Jersey’s right to set-off any tax indebtedness from payments made under agreements with the Authority.

AA. Affidavit of Non-Collusion

Each Proposer shall return to the Authority with its Proposal a completed, dated, signed and witnessed Affidavit of Non-Collusion set forth as Exhibit I. Failure to include the completed and signed form may be grounds for rejection of a Proposer’s Proposal.

BB. Disclosure of Investment in Iran

Pursuant to *N.J.S.A. 52:32-58*, the Proposer must certify that neither the Proposer, nor one of its parents, subsidiaries, and/or affiliates (as defined in *N.J.S.A. 52:32-56(e)(3)*), is listed on the Department of the Treasury’s List of Persons or Entities Engaging in Prohibited Investment Activities in Iran and that neither is involved in any of the investment activities set forth in *N.J.S.A. 52:32-56(f)*. If the Proposer is unable to so certify, the Proposer shall provide a detailed and precise description of such activities. Each Proposer shall return to the Authority with its Proposal the completed dated form entitled “Disclosure of Investment Activities in Iran” as set forth in Exhibit F. Failure

to include the completed and signed form may be grounds for rejection of Proposer's Proposal.

CC. Liabilities to the Authority

In the event of any liabilities and debts of the Proposer to the Authority, whether or not related to the Services are unpaid past their due date at the time the Proposal was submitted, a Proposer's Proposal will be rejected.

DD. Proposal Schedule

Closing Date for Submission of Inquiries (4:30 PM, E.T.)	August 7, 2017
Closing Date of Receipt of Proposals (4:30 PM, E.T.)	August, 24 2017
Oral Presentation [Tentative]	Week of September 4, 2017
Best and Final Offers [Tentative]	September 6, 2017
Tentative Commission Approval	September 26, 2017

End of Section II

SECTION III -- SCOPE OF SERVICES

A. Organization and Function of the New Jersey Turnpike Authority

The Authority owns and operates the New Jersey Turnpike and the Garden State Parkway and owns the PNC Bank Arts Center. It was created by the New Jersey Turnpike Authority Act of 1948, as amended and supplemented *N.J.S.A. 27:23-1 et seq.* (the “Act”). The Act authorizes the Authority to construct, maintain, repair, and operate the New Jersey Turnpike, to collect tolls, and to issue Turnpike revenue bonds or notes, subject to approval of the Governor. On May 27, 2003, the Act was amended to empower the Turnpike to assume all powers, rights, obligations and duties of the New Jersey Highway Authority, which owned and operated the Garden State Parkway and owned the PNC Bank Arts Center. The Authority Board of Commissioners consists of eight members: five members appointed by the Governor, one appointed by the Governor upon the recommendation of the President of the Senate, one appointed by the Governor upon recommendation of the Speaker of the General Assembly, and the Commissioner of the State Department of Transportation. At this time, the Commissioner of the Department of Transportation serves as Chair of the Authority.

B. Background

The New Jersey Turnpike and the Garden State Parkway are two of the busiest toll roads in the nation. As a public agency, the Authority’s mission is dedicated to the safe and efficient movement of people and goods over those two roadways. The Authority’s roadways are a critical link in the transportation network of the Northeast I-95 Corridor. Every day, these roadways provide the safest, quickest, and most convenient routes for hundreds of thousands of motorists. As a public entity, the Authority is committed to exercising best agency practices and, as such, is seeking to measure, collect, and disseminate current, accurate, and location specific atmospheric and pavement condition data to enhance weather forecasting information, provide awareness of current and forecasted pavement conditions, support roadway treatment management decisions, and improve motorist safety and mobility.

C. General Scope

The Authority is seeking proposals from Proposers for system design and support services in connection with the furnishing, testing and commissioning of twenty-four (24) ESSs, and the installation of a roadway weather information system, including, maintenance decision and support system (“MDSS”) software and Mobile Application software. In addition, the Services Agreement will provide warranty maintenance and technical services for the collection and dissemination of weather and pavement condition data. ESS civil, mechanical, and electrical construction will be performed by other firms under a separate construction contract.

The proposed solution should meet the goals and expectations of the Authority, which include the following:

- Identify the optimum amount and locations of ESS for the best meteorological, visibility, and pavement state data collection. The proposed solution should take into consideration station redundancy, geographic diversity, and areas of specific concern, such as a tendency for fog or road freezing.
- Provide accurate and current meteorological data such as air temperature, barometric pressure, wind speed, wind direction, and precipitation status for immediate situational awareness and for transmission to a third party weather forecasting service for improved forecast reports.
- Provide accurate and current pavement temperature, surface status (i.e. dry, wet, frozen), traction, and chemical concentration data to provide immediate situational awareness, alert users of water pooling or icing hazards, and forecast areas of potential road freezing.
- Interpolate pavement point data across a dynamic map for contiguous reporting and display of the road surface status.
- Provide road treatment decision support to help assess the effectiveness of the active treatment processes, identify areas that warrant modified treatment, minimize the use of treatment chemicals while maximizing their effectiveness, and assist in the scheduling and deployment of the treatment work force.
- Provide accurate and current visibility information for immediate situational awareness and identification of hazardous driving conditions.
- Provide RWIS data, forecasting and alerts to mobile users via a smart phone application.
- Gather and archive RWIS data for reports, queries and historical analysis.
- Disseminate near real-time RWIS data to Authority maintenance districts, operation centers, management, and outside agencies authorized by the Authority.
- Minimize RWIS cost of ownership by providing reliable low maintenance components, maximizing the use of existing Authority owned communication and computer facilities, and providing economical software licensing and support services.
- Maximize motorist and Authority benefits by minimizing winter treatment resource costs and improving motorist safety and mobility through road treatment and highway information dissemination improvements.

D. Detailed Scope

1. Project Management and Design Support Services

Proposers shall identify one contact person as their Project Manager to coordinate all deliveries, system configuration and integration, testing, and other activities with the Authority designated point-of-contact. Proposals shall indicate concurrence with the Preliminary ESS Location List enumerated in Appendix 3 or include a revised list with alternate locations and an explanation for the proposed revisions. The preliminary list was based on analysis of pavement thermal mapping conducted in 2015 and familiarity with climatic variations and roadway concerns. A graphic representation of the thermal data is attached in Appendix 5 for informational purpose. The Vendor shall perform a detailed analysis of ESS locations based on the Vendor's meteorological and RWIS-specific expertise, as well as on input from the Authority and provide guidance for final selection by the Authority of the final amount and location of ESS required to satisfy system requirements within budget constraints. Final selection will be based on multiple factors, including climatic zone coverage, site redundancy, area specific concerns such as a tendency for reduced visibility or road freezing, the availability of utility power, and (to the extent possible) existing Authority-owned communication facilities. The Vendor's Project Manager shall also coordinate as necessary with an Authority-contracted Construction Designer during the construction design process and with an Authority contracted Construction Contractor during the construction process of ESS sites.

The Vendor shall provide review services for submitted preliminary and final station site plans for each ESS location and typical ESS construction details to verify that the design layout and details are suitable for the Vendor's products and system requirements. The Vendor will be provided a two-week review period to review the plans and provide written comments to the Authority. The Vendor may also be required to attend, in person or by teleconference, no more than four design review meetings at the Authority's Executive Office in Woodbridge, New Jersey, at no additional cost to the Authority.

Proposers shall include in their Proposal the name, title, location, and qualifications of key individuals assigned to this project, including but not limited to the following:

- Project Manager
- Design Engineer or Meteorologist
- Field Technician(s) (for site commissioning and maintenance)
- Technical Support Technician(s)

2. ESS Hardware

Twenty-four (24) Environmental Sensing Station locations have been preliminarily identified throughout the statewide NJTA system and are listed in Appendix 3. Proposers shall assume that each ESS will be equipped with the same data collection (sensor, RPU, etc.) equipment.

The Vendor shall furnish sensors and ESS cabinets with stainless steel mounting brackets and hardware for rigidly attaching the sensors to an ESS structure without requiring any machining operation. The Vendor shall submit shop drawings for the mounting brackets and hardware for the Authority's approval. A truss or pole structure for the ESS will be furnished and installed by others under a separate Construction Contract.

Proposers shall complete the attached Excel RWIS Technical Compliance Form (Section VI of the RFP) and submit it with their proposal to verify their compliance with or state their exception to the hardware requirements specified in this Section. Proposers shall also submit original equipment manufacturer data sheets for each proposed sensor, camera and RPU.

- a. **Sensors:** Each Environmental Sensing Station shall include sensors that provide present weather and pavement condition data measurements that meet the following minimum performance requirements. Devices that have the capability to combine multiple measurements are acceptable if they provide an identified benefit to the Authority. Sensors shall allow for interoperability between multiple vendor Remote Processing Units ("RPU") and RPUs shall allow for interoperability between multiple vendor sensors. Note that mobile sensors and fixed location communication devices are not part of this RFP.
 - i. **Pavement Surface State and Temperature Sensors** – Should measure real-time surface temperature, surface status (i.e. dry, damp, wet, ice, black ice, and frost), depth of water, ice or snow layer, and level of surface grip (friction). Sensors shall be pole or tower mounted, non-invasive, capable of measuring surface temperatures and conditions, and meet the following criteria:
 - Operating Temperature: -40°F to 140°F
 - Operating Humidity: 0% to 100% RH
 - Measuring distance: 10 to 50 feet
 - Detected moisture conditions: Dry, wet (not frozen), snow/frost, ice and slush
 - Pavement coefficient of friction (grip): 0.09 to 0.82, in 0.01 units or equivalent scale

- Temperature Measurement Range: -40°F to 140°F
 - Measurement Resolution: 0.1°F
 - Measurement Accuracy: $\pm 0.2^\circ\text{F}$
 - Data Refresh Time: 60 seconds (max.)
- ii. **Subsurface Temperature Sensors** – Should be designed for installation under the roadway shoulder or adjacent to the roadway to monitor the temperature of the ground area beneath the surface. The proposed sensor shall be designed to be installed between 18 and 24 inches below the surface and meet the following criteria:
- Operating Temperature: -40°F to 140°F
 - Temperature Measurement Range: -40°F to 140°F
 - Measurement Resolution: 0.1°F
 - Measurement Accuracy: $\pm 0.2^\circ\text{F}$
- iii. **Air Temperature and Relative Humidity Sensors** – Should measure the air temperature, relative humidity, and dew point and should incorporate maintenance-free radiation shields to protect from solar radiation and precipitation. The radiation shields shall provide ventilation as well as block direct and reflected solar radiation. The proposed sensors shall meet the following criteria:
- Operating Temperature: -40°F to 140°F
 - Relative Humidity Measurement Range: 0% to 100%
 - Relative Humidity Accuracy: $\pm 1\%$
 - Temperature Measurement Range: -40°F to 140°F
 - Temperature Resolution: 0.1°F
 - Temperature Accuracy: $\pm 0.1^\circ\text{F}$
- iv. **Barometric Pressure Sensors** – Should measure the atmospheric barometric pressure and meet the following criteria:
- Operating Temperature: -40°F to 140°F

- Pressure Measurement Range: 500 mB to 1100 mB
 - Measurement Resolution: 0.1 mB
 - Measurement Accuracy: ± 1.0 mB
- v. **Visibility and Present Weather Sensors** – Should measure visibility distance as well as the intensity and accumulation of precipitation and should identify the cause of reduced visibility (fog, mist, haze), identify precipitation type (rain, drizzle, mixed rain/snow, snow). The cause of the reduced visibility and precipitation type shall be reported in accordance with the codes as defined in WMO 4680. The proposed sensors shall include a hood heater to prevent the buildup of ice/snow in the optical path and meet the following criteria:
- Operating Temperature: -40°F to 140°F
 - Operating Relative Humidity: 0% to 100%
 - Visibility Measurement Range: 32 feet to 6500 feet
 - Visibility Accuracy: $\pm 10\%$, range 32 feet to 6500 feet
 - Present Weather Identification: rain, drizzle, mixed rain/snow, snow, fog, haze (smoke, sand), clear
 - Precipitation Measurement Sensitivity: ≤ 0.05 mm/hr within 10 min.
 - Report: WMO 4680 (SYNOP) and NWS code tables
 - Maximum Power Consumption with hood heater: ≤ 72 Watts
- vi. **Wind Speed and Direction Sensors** – Should measure wind speed and wind direction. The proposed sensor shall be ultrasonic for low maintenance operation, heated for the specified operating temperature range, provided with a bird prevention kit to prevent nesting, and meet the following criteria:
- Operating Temperature: -40°F to 140°F
 - Wind Speed Measurement Range: 0 to ≥ 100 mph
 - Wind Speed Accuracy: ± 0.5 mph
 - Wind Speed Resolution: 0.03 mph
 - Wind Direction Measurement Range: 0° to 360°

- Wind Direction Accuracy: $\pm 2.0^\circ$
- Wind Direction Resolution: 0.1°
- Wind Speed and Direction data output rate: 250 milliseconds

vii. **Surface Chemical Concentration Sensors** – Should determine the amount of de-icing chemicals, pavement surface salinity and freeze point of the current surface solution. Sensors should also provide a chemical concentration value of pounds per lane-mile and meet the following criteria:

- Operating Temperature Range: -40°F to 140°F
- Temperature Measurement Range: -40°F to 140°F
- Temperature Resolution: 0.1°F
- Temperature Accuracy: $\pm 0.2^\circ\text{F}$
- Water Thickness Measurement Range: 0 to 7 mm

viii. **Weather Verification Camera** – Should verify the present weather condition by capturing and sending video or still images optimized for day or night viewing under minimal lighting conditions. The proposed camera shall be a dual sensor, fixed position type and meet the following criteria:

- Operating Temperature: -40°F to 140°F
- Environmental Protection Rating: IP66
- Min. Light Sensitivity: Day – 0.1 lux at 1/60 sec.
Night – 0.02 lux at 1/60 sec.
- Max. Frame Rate: 8 fps at 6MP
- Compression: MJPEG, JPEG, H.264
- Communications Port: Ethernet
- Max. Power Consumption: 10 watts
- Ability to overlay time/date stamp and user configurable text

b. **Remote Processing Unit (RPU)** – Each ESS shall include an RPU with firmware to collect, process, log, and transmit data from the connected meteorological and

pavement sensors. Firmware embedded in the RPU (and applicable sensors listed in Section III.D.2.a) shall be capable of updates and upgrades via a local laptop as well as remotely from the central server or software utility. The proposed RPU shall meet the following requirements:

- i. The RPU shall consist of a modular card cage configuration with the microprocessor and other individual components arranged so that they are easily replaceable in the event of a failure, for maintenance, and/or other repairs.
- ii. The RPU shall be capable of being replaced utilizing common hand tools and shall be UL-listed for the designated purpose. The RPU shall adhere to the following minimum technical specifications:
 - Operating Voltage Range: 10 to 32 VDC (24 VDC Nominal)
 - Operating Temperature: -40°F to 140°F
- iii. The RPU shall include Ethernet and serial ports, analog and digital drivers, and inputs to fully support and correctly interpret the proposed pavement sensors, meteorological sensors, and camera without expansion modules. Ethernet ports shall support Power over Ethernet (PoE) for connected devices. The RPU shall have the capability for future expansion of the number of serial ports, analog I/O ports, and digital I/O ports. Incorporate a field bus to communicate with meteorological sensors, allowing the sensors to be located remotely from the RPU. Each RPU shall be capable of collecting data from the number of sensors needed to satisfy the requirements specified in Section III.D.2.a.
- iv. The RPU shall include an Ethernet or serial port for interface to a laptop computer to perform diagnostic testing, configuration of the RPU, calibration of the sensors connected to the RPU, and uploads of specific sensor data from the RPU. The serial port shall be capable of operating at a minimum baud rate of 19200 bps.
- v. The RPU shall include embedded software detection to determine out-of-program conditions and automatically reset the microprocessor. The RPU shall also be capable of being commanded to reset remotely from the RWIS Server or a laptop. The RPU design shall use solid-state components and circuit boards for reliability and ease of maintenance. All circuitry, including voltage inputs, sensor inputs, and communications ports shall be designed and tested to provide transient protection. Transient voltage surge protection shall also be provided at the incoming power point.
- vi. Communications between the RWIS Server and RPU shall utilize NTCIP 1201 and 1204 protocols over a TCP/IP communications link. The use of an external NTCIP protocol converter shall not be permitted. Communications equipment

and media will be provided by others as part of a separate construction contract, except as specified in Section III.D.2.d for portable ESS. The Vendor shall coordinate with the Authority and provide space, mounting provisions, and a DC power source in the ESS cabinet for the installation by others of a remote communications device (i.e., cellular router, radio power injector, or fiber optic media converter).

- vii. Communications shall conform to the latest adopted version of NTCIP 1201 – Global Object Definitions and NTCIP 1204 – Environmental Sensor Station Interface. The implementation shall provide Full Standardized Object Range (FSOR) support of all objects required by these procurement specifications. The maximum response time for any object or group of objects shall be 200 ms. The implementation shall support all the mandatory requirements as defined in the standard. **Proposers shall submit third party testing and NTCIP compliance certification with their proposal documentation.**

In addition, the implementation shall support all mandatory requirements for the user needs listed below; and support and conform to its associated requirements as found in Section 3.3.7, Protocol Requirements List (PRL), in NTCIP 1204. The PRL is a listing of mandatory and optional requirements specified for this standard. The following User Need ID's are required for this contract:

- 2.5.2.1 Monitor Weather Conditions
 - 2.5.2.1.1 Monitor Pressure
 - 2.5.2.1.2 Monitor Winds
 - 2.5.2.1.3 Monitor Temperature
 - 2.5.2.1.4 Monitor Humidity
 - 2.5.2.1.5 Monitor Precipitation
 - 2.5.2.1.7 Monitor Visibility
- 2.5.2.2 Monitor Pavement
 - 2.5.2.2.2 Monitor Icing Conditions
- 2.5.2.3 Monitor Subsurface Conditions
 - 2.5.2.2.1 Monitor Pavement Surface Condition
- F.1.1.2 Provide Compressed Data

- F.1.1.3 Provide Off-line Log Data

The Vendor shall provide to the Authority the Management Information Base (MIB) for any manufacturer specific objects not included in the standard NTCIP protocol.

- viii. The RPU shall transmit collected sensor data to the RWIS Server when polled. The RWIS Server may poll the RPU at a time interval (configurable from one minute to one hour) that can be changed at a workstation linked to the RWIS Server. The RPU shall also have the ability to auto-report its data to the RWIS Server every time there is a change in its sensor data.
- ix. The RPU shall include on-board memory to store up to 24 hours of sensor data when remote communication is lost and retransmit the time-stamped data when communication is restored.
- x. The RPU shall support Network Time Protocol (NTP) to synchronize its clock with a remote NTP sever.
- xi. The RPU shall have the ability to automatically initiate a message and transmit alarm conditions to the RWIS Server upon the detection of an abnormal condition. Additionally, upon request from the RWIS Server, the RPU shall return a status indicating current operating conditions and sensor data collected.

The minimum alarm, information and requirements to be supplied include the following:

- RPU address
 - Sensor data collected
 - Date/time stamp
 - Power fail indication
 - Communications failure/recovery indication
 - Operation from portable computer
 - Error detection reports used to guard against incomplete or incorrect information transmissions and message generation as well as hardware failures. All errors and equipment failures shall be logged and reported to the RWIS Service and the local laptop (if connected).
- xii. The RPU shall have security and diagnostic features for:

- Redundant checking of all data received and transmitted
 - Status monitoring for communication line malfunction or break
 - Content validation of all received transmissions
 - Checking for and reporting logic or data errors
 - Checking operation and failure of power supplies
- c. **Cabinet** – For each ESS, the Vendor shall furnish a prewired ESS cabinet with stainless steel mounting brackets and hardware for rigid attachment to an ESS structure (furnished and installed by others), in accordance with the following minimum requirements:
- i. Furnish a NEMA 3R or 4X rated weatherproof and corrosion resistant cabinet constructed of sheet stainless steel Type 316 or aluminum ASTM B 209, Alloy 5052-H3, with a minimum 0.125-inch thickness. Minimum dimensions shall be 24 inches wide by 30 inches high by 13 inches deep.
 - ii. The cabinet shall be pre-wired and house the RPU, power supplies, and associated hardware and equipment. The RPU shall be rack-mounted, rail-mounted, or installed on the top shelf in the cabinet. The cabinet shall have the provisions for the installation of two conduit nipples for communications and power. The Vendor shall provide all necessary incidental components, cables, and hardware required for a fully operational ESS including but not limited to patch cords, power line cords, POE injectors, surge protectors, circuit breakers, receptacles and terminal strips.
 - iii. Sufficient space, shelves, rails, and/or racks shall be provided in the cabinet for additional power and communications equipment to be furnished and installed by the construction contractor (i.e., cellular router, fiber optic media converter, or radio power injector).
 - iv. Furnish full width doors fitted and gasketed to provide complete weatherproofing. Equip each door with corrosion resistant locks (keyed alike; provide 2 keys per cabinet) and an adjustable hold open bar. Mount a plastic weatherproof pouch suitable for storing a maintenance manual to the inside of the main door for each cabinet.
 - v. Use only stainless steel nuts and bolts in the cabinet assembly. Mount internal components so that there are no external protrusions.
 - vi. Furnish a minimum of two 120 VAC single pole circuit breakers in the cabinet and one duplex NEMA Type 5-15R ground-fault circuit interruption utility receptacle. One circuit breaker shall be for ESS equipment and one circuit

breaker shall be for the utility receptacle. Mount the receptacle in a readily accessible location inside the cabinet.

- vii. Carry the ground side of service through the cabinet without a break. Furnish a ground bus having sufficient connections for all sensor signal cables and surge protectors plus a minimum of 50% spare capacity. The ground bus shall be bonded to the cabinet by direct attachment to the cabinet wall. Run equipment grounds directly and independently to the ground bus.
 - viii. Each ESS cabinet shall house a battery backup power source with a 12-hour minimum battery runtime. The battery backup system shall continuously power the RPU, all provided sensors, a remote communications device (approx. 20 watt load) and shall include a 120 VAC input battery charging and management system. The battery backup system shall use batteries with a -40°F to 140°F operating temperature range and a 5-year replacement warranty. The RPU shall have the ability to monitor the batteries and AC utility power, send an alert to the RWIS server of a power fail condition, and systematically shed sensor loads in stages to prolong battery runtime.
 - ix. **Proposers shall provide typical wiring diagrams and drawings of the RPU cabinet with their proposal documentation.** The selected Vendor shall provide detailed wiring diagrams and working drawings of the RPU cabinet for approval prior to product fabrication.
 - x. The Vendor shall label the end of all cable assemblies, patch cords, and power cords installed in the ESS cabinet. Patch cords and power cords shall be labelled at both ends. Labels shall consist of water resistant adhesive-backed tape securely fastened to the cable or device and machine printed with large black text indicating the associated device and connection point.
- d. Portable Environmental Sensing Station** – The Vendor shall furnish prefabricated and operational “turn-key” portable ESS that meets the following requirements:
- i. The portable ESS shall include all necessary features to be deployed to any location along the Authority system in order to collect weather and pavement condition data, obtain power through photovoltaic technologies and communicate data wirelessly to the RWIS central server via a Vendor-supplied cellular modem.
 - ii. The portable ESS shall be fully equipped with the sensors identified in Section III.D.2.a and an RPU as specified in Section III.D.2.b.
 - iii. The portable RWIS station shall be powered by a photovoltaic system including battery backup. The solar panels and batteries shall be designed to meet the following minimum requirements:

- The solar panels and batteries shall be sized such that the system is capable of recharging the batteries at a rate of 4 hours of sun for 24 hours of usage.
 - The charged batteries shall be capable of operating the portable ESS for a period of seven (7) continuous days without recharge. The batteries shall have a depth of discharge of 80% (7 day economy). Low Voltage Disconnects shall be provided.
- iv. The portable ESS shall include an outdoor rated flexible AC line cord for operation of the ESS equipment or charging the batteries from 120-volt AC electrical service.
- v. The portable ESS shall be equipped with remote trailer diagnostics, such as battery level and charging output, and a LTE/4G cellular modem equipped with a GPS receiver and antenna and capable of transmitting location coordinates in NMEA and TAIP formats. The modem SIM card and cellular account (Verizon) will be provided by the Authority.
- vi. The portable ESS shall include a trailer platform, registered for roadway use in New Jersey, with the following features:
- Maximum size, including tongue, shall be 14 feet long by 7 feet wide by 8 feet high.
 - Lighting package with electrical brake and marker lights with wire connections in accordance with New Jersey law.
 - Primed and painted with powder coated orange color, fitted with manual telescoping outriggers with adjustable jacks sized to counter full mast extension.
 - Four (4) 3,500-pound, drop leg, top wind screw jacks.
 - All equipment secured to prevent theft or separation from platform.
 - Capable of 24/7 operation in all weather conditions.
 - Locking NEMA-4X cabinets for operational controls and batteries (same key as used for fixed location RPU cabinets).
 - Removable wheels (with wheel locks) when trailer is in deployed position.
 - Operation manual with a copy placed in the storage bin.

- vii. The portable RWIS station shall include a mast with the following minimum requirements:
- 150-pound payload capacity.
 - 29 feet to 32 feet of extension with capability to mount sensors and an antenna.
 - Driven by a galvanized or stainless steel cable.
 - Spiral conduit for cables.
 - Compactly retractable when nested into storage container at the bottom and foldable for easy transport.
 - Operated by a power winch with a safety brake.
 - Capable of being raised or lowered during sustained wind speeds of 30 miles per hour.
- viii. The Vendor shall deliver the portable ESS to the Authority fully assembled and operational. All hardware shall be secured in-place and tested by the Vendor prior to delivery. Portable ESS shall be compatible with fixed location stations and the software specified in Section III.D.3.
- ix. **Proposers shall submit typical drawings showing the portable ESS dimensions, features, and layout with their proposal.** The selected Vendor shall provide detailed mechanical drawings, wiring diagrams and support documents for approval prior to product fabrication. Submittal and testing requirements are as follows:
- Submit shop drawings and component data sheets to the Authority for review and approval prior to manufacturing / assembling the portable ESS.
 - An in-factory 10-day operational test shall be completed by the Vendor. The in-factory test results shall be submitted to the Authority for review and approval prior to delivery.
- x. Maintenance and support shall be provided for the portable RWIS stations in accordance with Section III.D.6.

3. RWIS Server Software

- a. **Server Architecture:** The Vendor shall provide RWIS central server software to monitor and manage the RWIS system data collected by Environmental

Sensing Stations or host the server application from a Vendor owned and operated facility and provide RWIS management software services in accordance with the Agreement terms. The Authority's preferred solution is for the RWIS central software to be installed and operated from Authority owned and operated server hardware, resident at two Authority facilities, and connected to the Authority's private network. Proposals conforming to this preferred solution will receive a higher evaluation score for Server Architecture than proposals offering an alternative solution.

i. Option 1 - Customer Hosted Software (Preferred Solution):

The Vendor shall furnish, install and configure the RWIS central server software application and all required software support modules on existing Authority-owned, operated and maintained hardware at two Authority facilities in New Jersey. One facility will host the primary RWIS server application and another facility will host a secondary or backup RWIS application. The Authority-owned hardware will consist of an enterprise-grade Microsoft Hyper-V cluster environment installed with an operating system in accordance with Vendor specified software requirements and residing in an enterprise-grade, fault tolerant, and environmentally controlled computer room environment. Processor and memory parameters of virtual servers will be configured by the Authority to meet or exceed Vendor requirements. The Vendor may optionally elect to have Authority IT staff perform RWIS software installation and configuration under direction and support of the Vendor.

ii. Option 2 - Vendor Hosted Software (Alternative Solution):

The Vendor shall provide the specified RWIS software application and all required software support modules as a vendor-hosted software service accessible over the Internet from standard HTML browsers such as Microsoft IE or Google Chrome. The initial term for vendor-hosted software service shall be one (1) year from the time of Agreement commencement with an option to extend service for an additional four (4) years in one (1) year increments.

If a vendor hosted software environment is proposed, the Vendor shall also provide a means to stream near-real-time data to an Authority-owned and operated server for third-party data distribution and archival purposes. Any vendor-specific data delivery or database software needed to support this requirement shall be included at no extra cost as part of the vendor-hosted software service. All data gathered from Authority owned ESS and servers shall remain the property of the Authority and shall not be sold, shared, or distributed without the express consent of the Authority.

b. **General Software Requirements** - The RWIS software, regardless of the server architecture, shall include the following components and capabilities:

- i. The RWIS software application shall be concurrently accessible from a minimum of thirty (30) Authority workstations. Proposers shall specify in their proposal if installed client side software is required or if browser-based. Browser-based client software is preferred by the Authority and will be scored higher than an installed client software solution. Browser-based software shall be compatible with Microsoft Internet Explorer and Google Chrome. The software shall utilize the latest adopted version of NTCIP ESS communication protocols and be capable of transferring data to and from the Authority's contracted third-party atmospheric forecasting service. Pavement surface mobile sensors are not part of this RFP; however, the proposed RWIS software shall have the capability to integrate this data into the software package at a later date. The software shall have the capability to dynamically export RWIS data to the Authority's existing Esri ArcGIS platform and to third party software applications through standardized protocols and in XML format. The proposed software shall be capable of storing and accessing a minimum of five (5) years of RWIS data. Customer hosted software shall be furnished and installed at two Authority data center sites and have the ability to run in an active-active or active-passive server environment across the two sites. Vendor-hosted software shall be installed in a minimum of two servers and shall have the ability to run in an active-active or active-passive server environment across the two servers.
- ii. The RWIS software application shall allow the management of a network of Environmental Sensing Stations and include the option of a Maintenance Decision Support System (MDSS) (See Section III.D.3.d). The software shall be internet/network based with data being reported by ESS reporting to the central server. Users shall be able to access the software and RWIS data from any internet capable computer by using the user's specific username and password. Data collection shall be done automatically at regular intervals via a remote communications network. Remote communication equipment for fixed location ESS will be furnished and installed by others. All measured data shall become the property of the Authority to be used at its sole discretion. The software shall allow the user to get an overall view of the RWIS network, as well as detailed information from each station connected to the network. This information shall allow the user to view the precise condition of the pavement monitored by the ESS and the meteorological sensors connected to the ESS for any given location at any given time. The software shall include an application programming interface or software development kit to provide the capability to exchange data, in real-time, in a format compatible with third-party software, including but not limited to XML, FTP, ASCII, CSV, and NetCDF. The software shall also be able to read, compile, and utilize data from other existing or future NTCIP-compliant ESS owned and operated by the Authority and the New Jersey Department of Transportation.
- iii. The Authority's preferred licensing model for customer hosted software is a perpetual license with major and minor version upgrades and patches included

under an annual software maintenance agreement for the length of the agreement. The Authority's preferred licensing model for vendor hosted software is for licensing, major and minor version upgrades, and software maintenance/support to be included in the annual software service agreement for the length of the agreement. **Proposers shall provide details of their proposed software licensing model and software development life cycle plan with their Proposal.**

- c. **Core Software Requirements** - The RWIS Core Software shall be a single platform with the following functions:
 - i. Dynamic Map view for display of all RWIS data with the following features and capabilities:
 - Color-coded ESS icons with configurable data parameters and alarm levels to provide an at-a-glance overview of conditions across the network
 - Dynamic icon legend indicating color-coded threshold levels
 - Capable of displaying individual station sensor data and camera images by selecting ESS icons
 - Icon visibility controllable by user selected filter groups
 - Full map navigation and zoom capabilities, with map scale and compass always visible
 - Capable of multiple maps and views
 - User selectable layer control
 - Capable of importing and overlaying satellite imagery, weather radar, lightning, thermal mapping, and terrain map layers
 - Current and forecasted pavement condition status and metrics, including temperature and grip, shown contiguously across road segments
 - Forecasted alarms by road segment up to 24 hours in advance
 - User selectable timeline for history and forecast data
 - ii. Station summary view for display of all RWIS data with the following features and capabilities:

- Display tabular summary data for all ESS on a single scrollable page
 - Each tabular row includes the ESS ID, data date/time stamp, all applicable sensor metrics, a link to open the associated camera image, and a link to open the station detail page
 - Capability for users to select which parameters appear in the table and re-order the data by column or row to match user requirements
 - Capability for users to select the time of the displayed data including, past, present, and any future forecast up to 24 hours from either side of present
 - Capability for users to define, save and select station filter groups so only the selected group is displayed
 - Only display data from stations or sensors that are correctly reporting. Missing, errant, or out-of-date data should be removed or clearly identified to indicate the errant condition. Automatically refresh current data to always show the latest data when it becomes available.
- iii. Station detail view for display of RWIS data from a single ESS with the following features and capabilities:
- Display real-time, historical, or forecast data for each station on a single user selectable station detail page
 - Display all available real-time station data, including the station video image, in form view on a single page sized to not require scrolling to simultaneously view all available data
 - Capability to display historical and forecast data in both tabular and line graph formats
 - User-selectable ability to display historical data in hourly, daily, or monthly intervals with selectable start and end times or dates.
 - Capability for users to select which data parameters appear in form, table and graph views
 - Capability to display forecasted graphical data simultaneously with measured data for forecast comparison
- iv. Dashboard view for display of real-time metrics, status, and key performance indicators. Each individual user in the system, whether Executive, Operations,

Maintenance, or Information Technology personnel shall have the ability to configure his/her dashboard based on their individual needs and permissions. A user shall be able to tailor his/her dashboard based on their role in the organization and the dashboard shall display the desired single point of view. The dashboard shall be customizable to display real-time and summary data. A user shall have the ability to save the dashboard layout and this layout shall be viewable upon login. Users shall have the ability to display up to 10 widgets on a single screen. Widgets shall be customizable based on user preference and be customizable to display numeric and chart formats. From the dashboard interface, a user shall be able to run reports. A user shall have the ability to export reports in Excel and PDF formats.

- v. The station summary and detail views should include the option to display a user comment field where users with the appropriate permission level can enter comments viewable by all users. The intended purpose of this feature is to post temporary information pertaining to station equipment or site status.
- vi. Generation and display of 72-hour pavement forecasting based upon actual (real-time) RWIS station data, weather forecast data, and thermal mapping data provided by the Authority. The pavement forecast shall interpolate ESS data across all roadway segments and present the pavement forecast as a continuous dynamic color coded map in map view or a graphical representation of a user selected segment in station detail view. Road segment color in the dynamic map shall indicate current or forecasted pavement temperature and the potential for freezing. Pavement thermal mapping data was captured for the Authority in 2015 under extreme, damped, and intermediate weather conditions and will be provided to the Vendor in Esri geodatabase (.gdb) format.
- vii. User accessible context sensitive help screens for all software functions
- viii. Ability to monitor, display, alert and report system health/status such as but not limited to, loss of ESS communications or errant or missing sensor data.
- ix. Ability for data queries for a minimum of ten years of data archives and the ability to be expanded for additional years of data archives.
- x. Acoustic, visual, email, and text notification of alarms and conditional alerts
- xi. Report generation for weather data, log files, and system status with the ability to run search queries based on a data type, date range, locations, and/or geographic areas.
- xii. Remote configuration, firmware updates, and diagnostics (including power failure conditions) of RPU's and applicable sensors from the central software

xiii. Allow for the future integration of the following maintenance vehicle and mobile sensor information:

- Vehicle ID
- Location
- Driver
- Speed
- Direction
- Vehicle operation information
- Plowing, spreading, mowing etc.
- Mobile sensor data

xiv. Ability to manage user groups and user accounts. Each user account shall be defined with a name, a password and the group it belongs to; however, Windows Active Directory integration is preferred. A system administrator shall be able to issue user access rights, preferably through Active Directory groups via the Active Directory interface, to software functions as follows, but not limited to:

- Refused access: the function shall not be accessible to this group of users
- Authorized access: the functions shall be accessible to this group of users

xv. All software functions shall be capable of being protected by password.

xvi. Authority roadways are divided among maintenance districts between certain landmarks and mileposts. The software shall allow the grouping of ESS data based on districts, mileposts, or permissions for generating district-specific reports including alarms, alerts, and weather conditions as a group.

d. **Maintenance Decision Support System Requirements** - Provide an integrated and route-based Maintenance Decision Support System (MDSS) module with the following features and requirements:

i. Alert Summary Screen features:

- Color-coded condition state alerts over mapping

- Alert Status Interface: Snapshot of weather and road hazards for periods up to 48 hours with separate increments for 0 to 12 hours; 12 to 24 hours; and 24 to 48 hours for road and weather
- Parameter Selection Interface: Selection module for forecast alerts and weather parameters based on pavement treatment alternatives
- Animation Control Interface: Manual and automatic looping of alerts and weather parameters throughout the 48 hour forecast period
- Alert Summary Interface (Map): Roadway forecast points depicted by colored dots; outlined forecast zones; forecast zone is color coded to show the worst conditions within a particular zone

ii. Local Areas Summary Screen features:

- Selection module for treatment options and graphical interface with treatment selections with the forecast timelines
- Ability to place cursor over an ESS (point on map) to view site specific condition updates
- Provide optimized treatment solutions and the ability for Authority staff to run “What-If” scenarios as described in “Alternative Treatment Screen features” below

iii. Alternative Treatment Screen features:

- Treatment material selection, including “Plow Only”, “NaCl”, “MgCl”, “CaCl”, or “Sand”
- Amount selection (lbs/lane-mile)
- Start time selection
- Treatment selector screen with:
 - Choices for the desired result options for mobility factor, snow depth on road, road surface temperature, chemical concentration, and remaining chemical stock
 - Graph of the desired results metric (y-axis) and time (x-axis) with plot lines for No Treatment, Recommended Treatment, and Alternative Treatment

- Recommended treatment selection consistent with FHWA values
- Alternative treatment selection option with the ability to update as needed (The Authority will provide guidelines from NJTA Winter Operations-Snow and Ice Control Manual)
- Controls to view the operations database, to add new treatment scenarios, and to close the treatment selector interface

iv. Operations Database Screen features:

- Current time and route selector
- Treatment plan box
- Actual treatment box
- Treatment constraints
- Maintenance personnel shift parameters (shift scheduling)

v. Route Optimization Module features:

- Ability to set up an unlimited number of routes to aid in resource management
- Ability to group routes according to the operational workflow
- Ability to process and query data to generate diagnostic and prognostic mapping of road conditions along identified corridors
- Route-specific pavement condition forecast information
- Route-specific treatment recommendations based on chemical type and amount
- Objective evaluations of prediction reliability and effectiveness of applied treatments for specific routes and weather conditions
- Reports to include equipment, manpower, and resource usage

- e. **Mobile Application Requirements** - Provide a Mobile Application (App) for smart-phone or tablet display of RWIS data. **Proposals shall include typical architecture and security parameter details with the proposal.** Where software development is necessary, detailed architecture and security parameters shall be submitted for Authority review and approval prior to software development. The Mobile App shall support the following operating systems and features:
- i. Android Operating System (Android OS) App
 - Compatible with Android OS
 - Map tool (road map and/or satellite imagery)
 - Portal/pop-up menu to view historical road conditions and RWIS data (clickable on map)
 - Portal/pop-up menu to view real-time road conditions and RWIS data (clickable on map)
 - Portal/pop-up menu to view forecasted road conditions and RWIS data (clickable on map)
 - ii. Apple iOS App
 - Compatible with Apple mobile operating system
 - Map tool (road map and/or satellite imagery)
 - Portal/pop-up menu to view historical road conditions and RWIS data (clickable on map)
 - Portal/pop-up menu to view real-time road conditions and RWIS data (clickable on map)
 - Portal/pop-up menu to view forecasted road conditions and RWIS data (clickable on map)
 - iii. The Mobile App should not collect any user information that is not essential to the RWIS function.
- f. **Data Distribution** - Weather and pavement data collected by ESS shall be delivered to the RWIS server(s) using secured Internet connections and/or the Authority's private network. Maximum use of the Authority's private network is preferred. The Authority's private network utilizes static IP addressing and includes fiber optic communications between most toll and maintenance facilities and limited areas of roadside control cabinets. It also includes broadband IP radio communications between

most Authority microwave radio towers and most roadside control cabinets and cellular gateways configured with VPN tunneling. The Authority will maintain exclusive ownership of all RWIS data collected from the hardware procured under this contract.

Communications between Authority-owned central server(s) and client workstations shall utilize the Authority's private network. Communications between Vendor-hosted central server(s) and client workstations shall utilize secured Internet connections.

Data delivery to third-party applications, such as the Authority's contracted weather forecasting service, shall utilize secured Internet connections.

4. System Commissioning and Testing

- a. **Proposers shall include a preliminary system commissioning and test plan in their proposal.** The successful Vendor shall submit a comprehensive test plan for the Authority's review and approval at least 30 days in advance of anticipated testing of the first ESS location. System commissioning and testing activities will be completed in conjunction with an Authority contracted construction contractor. The Vendor shall provide representatives to perform system commissioning and testing. The commencement of system commissioning at each ESS location shall not begin until the ESS construction, device installation, power, and communication connections have been completed at that location.
- b. The Vendor shall provide the following documents to support system commissioning and testing activities prior to beginning any commissioning or testing:
 - i. Hardware testing criteria
 - ii. Data tolerance
 - iii. Test equipment devices
 - iv. Diagnostic routines to be utilized for verifying proper installation and system operations
 - v. Sensor manufacturer calibration certification
- c. The following typical diagrams and information shall be submitted by the Vendor to the Authority prior to commencement of construction:
 - i. Wiring and grounding layout

- ii. Equipment functionality
- iii. Communication requirements
- d. Local Field Testing and Commissioning
 - i. The Vendor shall field visit all project ESS locations to ensure installation completeness and commission readiness prior to commission scheduling.
 - ii. The Vendor shall provide a dedicated field technician to perform on-site ESS commissioning. Commissioning includes a field test at each station and demonstration of ESS components after physical installation is complete and power and communications are connected and available.
 - iii. Local Field Testing and Commissioning shall be constrained to no more than one 6-hour work day per ESS.
 - iv. The construction contractor will provide safe access to each ESS site for commissioning. The Vendor shall coordinate with the construction contractor for any traffic control required for ESS Commissioning.
 - v. The Vendor shall coordinate with the construction contractor and the Authority to schedule and access each ESS site a minimum of fourteen (14) calendar days in advance of the site visit.
 - vi. After all equipment and communications links have been installed, configured and calibrated at each ESS site, the Vendor, with support from the construction contractor, shall demonstrate that all provided ESS components are working in accordance with the Vendor's specifications and Authority requirements. The Vendor shall ensure that the ESS is connected to and communicating with the central server system. This process shall occur for each specific ESS.
 - vii. ESS test results shall be documented, signed by the Vendor's and Authority's representative, and submitted to the Authority.
 - viii. The Vendor's local field testing plan shall include:
 - A site inspection check list, including proper mounting, cabling, and labelling and the absence of any mechanical, cosmetic, or environmental damage or anomalies

- Serial number, model, and applicable factory calibration date of the RPU and all sensors
 - Measured voltages, impedances, and other electrical parameters in accordance with Vendor requirements
 - Verification of proper configuration, operation, and in-tolerance accuracy of the RPU and all sensors
 - Verification of applicable error and alarm generation
 - Verification of proper grounding and measured grounding system resistance
 - Test of the battery backup system and power fail alarm
- e. Central Server Testing and System Commissioning
- i. After the Local Field Testing of each ESS has been completed, the Vendor shall demonstrate central server operation and reporting of the active ESS and systems. The RWIS central server test shall be performed to verify that ESS components are integrated, controllable and operational through the Vendor's central server software. The test results shall be documented, signed and submitted to the Authority. The Vendor's comprehensive server and software application test procedure shall be submitted for the Authority's review and approval at least three (3) weeks prior to commencement of central server testing.
 - ii. The Central server comprehensive test plan shall include, but not be limited to, testing and verification of all software features and operations specified in Section III.D.3 from the two Authority resident servers or the Vendor hosted servers. Data archiving and data replication or backup server fail-over operations shall also be tested and verified.
- f. Continuous Operation Test
- i. After completion of Central Server Testing and Commissioning, a Continuous Operation Test shall be conducted for 30 consecutive calendar days. The Vendor shall exercise the systems on a 24 hour basis.
 - ii. Failure of any component of the RWIS network to collect, store, display, and process data for an accumulated time exceeding 8 hours during the 30 day period shall be cause for the Vendor to correct the

deficiencies and for the Continuous Operation Test to be started over. If repairs to correct the deficiencies take less than 8 hours to complete, then the clock will resume on the next day after the repairs have been completed and one day will be added to the testing period. If 6 or more failures occur, then the Vendor shall submit a Corrective Action Plan (CAP) which shall be submitted for the Authority's review and approval. After the CAP has been approved and the repairs have been completed, the 30 day testing period will be reset to day zero and testing can resume. Failure of the RWIS network, its peripheral equipment, or of a communication link not furnished or installed by the Vendor will not be cause for restarting the 30 day continuous operating test, provided the Vendor demonstrates to the Authority that the failure was not caused by any of the Vendor furnished or installed materials or equipment.

g. Final System Acceptance

- i. Final System Acceptance will occur upon completion and Authority acceptance of all work, testing and deliveries specified in the Detailed Scope of this RFP.
- ii. Prior to Final System Acceptance, the Vendor shall demonstrate to the Authority that all deficiencies identified by the Authority during the Continuous Operation Test have been corrected. This demonstration must be completed by the Vendor and accepted by the Authority prior to Project Substantial Completion.
- iii. The Vendor shall submit all signed and finalized test documentation to the Authority prior to final acceptance.

5. Training and Documentation

The Vendor shall provide technical, operational, and administrative documentation and training to Authority Operations, Maintenance, and ITS Department staff on the provided RWIS hardware and software. Technician training shall include equipment operation, configuration, troubleshooting, and repair procedures. Software User training shall demonstrate and explain the user-interface and all feature sets of the provided RWIS software. Software Administrator training shall demonstrate and explain RWIS server software administrative features and system configuration procedures such as the management of user accounts, adding/editing sensor stations, data archiving, and active server switchover.

- a. Training shall be completed prior to completion of Final System Acceptance, as described below:
 - i. A minimum of four classes with four to six hours of instruction per class.

- ii. Three technician training classes shall occur at the Authority's Central Inventory/Central Service Facility in Woodbridge, NJ. Two of the classes will be scheduled for up to 15 technicians each during the daytime shift between 8:00 AM and 3:00 PM. One class will be scheduled for up to 10 technicians during the evening shift between 3:30 PM and 9:30 PM. Hardware training will include classroom instruction and a hands-on session using one of the portable RWIS stations for training and demonstration purposes.
 - iii. One software administrator training class shall occur at the Authority's Executive Offices in Woodbridge, NJ and shall be scheduled for up to 5 administrators during the daytime shift between 9:00 AM and 5:00 PM.
 - iv. Software users training shall be designed and offered for a large number of users of various departments, covering multiple shifts, and located at multiple locations. Proposals shall include interactive and recorded online training options to accommodate this requirement in an efficient and cost effective manner.
- b. Technical and operational documentation shall be provided by the RWIS Vendor. Draft copies of an ESS Maintenance Manual(s), Software User's Manual and Software Administrator's Manual shall be submitted to and reviewed by the Authority at least 30 days prior to training. Final versions, reflecting requested changes, shall be submitted and approved by the Authority prior to training. An electronic copy and three hard copies of each final document shall be delivered to the Authority designated Project Manager. In addition, one hard copy of each ESS device maintenance/user's manual shall be provided to each person attending the technician training classes. An electronic copy of the applicable user's manual and context sensitive help screens shall be available from the RWIS software menus for system users and administrators. Additional instructive handouts may be made available for each person attending the software user and administrator training classes. Hard copy manuals shall be professionally printed and bound and have a date and revision number on the cover. Drawing, schematic, and plan attachments shall be no larger than 11 inches by 17 inches with text no smaller than 0.0625 inches. Electronic documents shall be delivered in native format, such as Microsoft Word or AutoCAD, and in Adobe Acrobat format.
- i. ESS Maintenance Manual(s) - ESS Maintenance Manual(s) shall provide detailed technical and operational information on the provided RPU, sensors, power, and communications equipment including the following:

- Assembly drawings showing the location of all components, keyed to a parts list that includes sufficient information to purchase replacement parts from the RWIS Vendor or an original equipment manufacturer.
 - Cabling and wiring routing diagrams.
 - Schematic wiring diagrams covering all conductors and connectors, including the communications, signal, power, and grounding systems.
 - Functional description of the RWIS system and circuitry.
 - Detailed theory of operation.
 - Diagnostic, calibration, and test procedures for fault isolation and operational verification.
 - Recovery procedures to be followed in case of malfunction.
 - Recommended preventive maintenance procedures.
 - Complete performance specifications (both electrical and mechanical) for each major electrical component.
 - Detailed explanation of all component switch and jumper settings.
 - Operating instructions for all configuration settings, menus, and software functions of the RPU, sensors and provided support equipment.
- ii. Software User's Manual - The Software User's Manual shall provide detailed operating instructions for all aspects, commands, and features of the provided RWIS software and support utilities.
- iii. Software Administrator's Manual - The Software Administrator's Manual shall provide detailed installation, configuration, user administration, device administration, data importing/exporting, data archiving, and active server switch-over instructions for the provided RWIS software and support utilities.

6. Maintenance and Warranty

The Vendor shall provide a 1-year full service maintenance warranty and the option for up to four limited service 1-year extensions. **Proposers shall submit a**

warranty statement and maintenance plan as part of their proposal. The maintenance plan shall address and include the requirements specified in the following parts of this Section. The Vendor shall carry an Authority issued traffic permit and required insurance throughout the duration of the covered full service maintenance term. All work shall be performed in accordance with Authority guidelines and regulations.

- a. ESS Full Service Warranty - The Vendor shall maintain all aspects of the provided ESS equipment, including parts, labor, and technical support for all RPU's, sensors and support equipment provided under this Agreement. The full service warranty shall commence upon each ESS commissioning and for one full year from Final System Acceptance. The ESS full service maintenance warranty shall include parts, labor, travel, mobilization, system verification testing, and corrective maintenance. Utility power delivery and communications equipment/service not provided by the Vendor are excluded from this warranty.
- b. ESS Limited Service Warranty - The Vendor shall provide the option for up to four limited service 1-year warranty extensions. Each limited warranty extension shall cover replacement parts and technical support for all provided ESS equipment. It shall not cover labor for field repair. Each limited service warranty term shall commence upon written notification from the Authority and completion of the preceding warranty term.
- c. The Authority will provide a bucket truck and traffic control safety provisions when the maintenance, repair or replacement of ESS components are necessary during the ESS full service warranty period. Traffic control and lane closures will be dependent on the area of need, time of day, and average daily traffic (ADT). Lane closures may need to occur after normal working hours or during off-peak hours, as determined by the Authority, for scheduled maintenance. The Authority requires a minimum of seven days' notice in advance of requested lane closures.
- d. Call-out procedure: A maintenance call-out shall occur when the Vendor's representative receives a written authorization to perform work by the Authority. All service requests shall be responded to by the Vendor within 48 hours and a site visit shall occur within 5 business days of the response. Repairs shall be made during the initial visit, to the extent possible, or during a follow-up visit within 10 business days of the initial visit. The Vendor shall provide the name, email address, and phone number of the contact person(s) who will be responsible for coordinating all repair work associated with the resulting contract.
- e. Full service and limited service warranties shall provide for repair or replacement of units shipped to the Vendor, including return shipping within 2 weeks (14 calendar days) of receipt of the returned part, at no additional cost to

the Authority. The Authority will pay for shipping to the Vendor and the Vendor will pay for shipping to the Authority.

- f. The Vendor shall submit a written and signed report to the Authority within 30 calendar days of maintenance completion. The report shall contain inspection and test results and an itemized list of all work and materials performed and/or installed at each location, and shall note any outstanding deficiencies, malfunctions, unsafe conditions or required repairs to electrical systems, devices, appurtenances, fixtures or the surrounding area.
- g. Technical support, via telephone and email, shall be made available 24 hours per day, 7 days per week, and 365 days per year for the term of the warranty. The contractor shall provide the Authority with an after-hours contact phone number to reach a technical support person for hardware or software support on a 24 hour basis. Email response time shall be a maximum of one business day from transmission of the message.
- h. Software Warranty – For a customer hosted server software solution, as defined in Section III.D.3.a.i, the Vendor shall provide a 1-year software maintenance and support warranty with the option to extend the warranty term for up to four additional years. The software warranty shall include major and minor version upgrades, maintenance patches, and technical support at no extra cost for the length of the warranty period. The initial software warranty period shall commence upon commissioning and acceptance of the server software by the Authority and each extension period shall commence upon written notification from the Authority and completion of the preceding warranty term. For a vendor hosted server software solution, as defined in Section III.D.3.a.ii, the software warranty shall include major and minor version upgrades, maintenance patches, and technical support and shall be included at no extra cost to the Authority under the hosted software service term.

7. Spare Parts and Support Equipment

- a. The Vendor shall provide spare parts kits consisting of each type of provided sensor, RPU, power supply, surge protector, any provided communications equipment, an ESS battery bank, and a wired RPU cabinet with all normally provided mounting hardware, cable assemblies, and power distribution and supply equipment for typical fixed location and portable RWIS stations.
- b. Each spare parts kit shall also include one each of any specialized test or calibration fixtures or devices needed for routine sensor testing or calibration, including but not limited to a visibility and present weather calibration device and an ultrasonic wind sensor verifier.

- c. All the spare parts shall be identical to those provided for an ESS and shall be packaged in a manner that protects them from moisture, static electricity, and rough handling. Each package shall be clearly labeled with its contents.
- d. Prior to shipment, all spare parts shall pass the same inspection and testing that the RWIS Vendor applies to parts used in the production stations. Spare parts shall be delivered to the Authority before the warranty period is permitted to begin.

Proposers shall include an itemized list of all spare parts and support equipment included in the Proposal.

8. Equipment Delivery

- a. ESS equipment will be installed under a separate construction contract with an expected one year duration. The RWIS Vendor is therefore required to coordinate deliveries with the Authority to minimize storage space and duration requirements. It is expected that up to four staggered deliveries will be required over the course of the construction contract to locations in New Jersey designated by the Authority to accommodate the construction schedule. Construction is expected to begin in 2018. In addition, portable ESS and server software shall be delivered and installed no later than 60 days after receipt of an order so they can be made operational for the 2017-18 snow season.
- b. ESS components shall be packaged and secured to wooden pallets as kits containing all components required for a single ESS location. All delivery containers shall be provided with appropriate markings on the outside of each container identifying its contents and order information. Each container shall be packaged in a manner that protects its contents from moisture, static electricity, and rough handling. All deliveries shall be prepaid, FOB destination, and delivered to the location(s) designated by the Authority. The cost of packaging and delivery shall be included in the cost for equipment listed in the Price Proposal. No separate payment will be made for packaging and delivery.

9. Measurement and Payment

- a. ESS Hardware and Portable ESS will be measured by the number of fixed location kits or Portable ESS delivered to the Authority in new and fully operational condition. Seventy-five percent (75%) of the Proposal unit price for ESS Hardware and Portable ESS will be paid upon delivery of the ESS Hardware and Portable ESS to the Authority designated delivery site(s) in good condition, as determined by examination. The remaining twenty-five percent (25%) will be paid when the fixed location equipment is installed by others at the final roadway locations and when fixed location or Portable ESS pass the ESS Commissioning Test and the Continuous Operation Test for each completed ESS.
- b. Spare Parts and Support Equipment will be measured and paid for in full by the number of kits delivered to the Authority in good condition, as determined by examination.
- c. ESS Testing and Commissioning Services will be measured and paid for in full by the number of ESS sites commissioned and accepted by the Authority.
- d. Project Management and Design Support Services will be measured on a lump sum basis. Twenty-five percent (25%) of the Proposal unit price will be paid upon delivery and Authority acceptance of the final ESS Location List. Twenty-five percent (25%) of the Proposal unit price will be paid upon completion of the construction contract design review task and delivery of final review comments. Twenty-five percent (25%) of the Proposal unit price will be paid upon completion and Authority acceptance of the Central Server Software Test results and the Continuous Operation Test for the first two fixed site ESS locations. Twenty-five percent (25%) of the Proposal unit price will be paid upon Final Acceptance of the RWIS system.
- e. Training and documentation will be measured on a lump sum basis and paid in full upon completion of all training classes and delivery of the specified documentation and course material.
- f. Furnished and installed Core Software, Maintenance Decision Support System Software, and Mobile Application Software will be measured and paid for on lump sum basis and paid in full upon successful completion and acceptance of all software testing and the Continuous Operation Test.
- g. Vendor-hosted Core Software, Maintenance Decision Support System Software, and Mobile Application Software Service will be measured and paid for on an annual lump sum basis for the selected years of service.
- h. Full and Limited Service Warranty for ESS will be measured and paid for on an annual lump sum basis for the selected years of service.

- i. Server Software Warranty and Technical Support will be measured and paid for on an annual lump sum basis for the selected years of service. This item will not be measured or paid for separately if Vendor hosted software service is provided.
- j. The Authority requests that final pricing be held firm for a minimum of 24 months after receipt of a purchase order in the event that additional equipment is ordered. Proposers should confirm compliance with this requirement or describe alternate terms in the Proposal.

End of Section III

SECTION IV – RFP RESPONSE, EVALUATION FACTORS AND CRITERIA

A. General

1. A Proposal is requested from the Proposer. The Proposal will detail the Proposer's experience, personnel, proposed scope and approach, compliance with the technical specifications and any other relevant information. The Proposer is advised to thoroughly read and follow all instructions contained in this RFP in preparing and submitting its proposal.
2. All portions of this RFP and the Proposal are considered to be part of the Services Agreement to be entered into between the Authority and the Successful Proposer and will be incorporated by reference.

B. Prior Experience

In order for Proposals to be considered responsive, Proposers must meet these minimum prior experience requirements.

1. Proposals must clearly demonstrate that the Proposer has more than ten (10) years of experience in RWIS that involves furnishing, testing and commissioning ESS sensors and RPU, development, configuration, testing and support of RWIS software, providing RWIS design support services such as guidance for ESS location selection, and providing warranty support including troubleshooting and repair of roadside electronic equipment.
2. Proposals shall demonstrate customer satisfaction. Provide at least three (3) references that include client contact name, phone number, email address, and the type of work performed for each.

A Proposer's failure to meet these minimum prior experience requirements will cause their proposal to be considered non-responsive and their proposal will be rejected.

C. Proposals

1. The Scope of Services (Section III) is intended to outline the Authority's needs. The Proposal should thoroughly define the Proposer's proposed scope, approach to the Services and demonstrate compliance with the Authority's needs.
2. Each Proposal shall be limited to fifty (50) pages, excluding items identified below as not included in this page limitation. Type size shall be no less than an 11-point font. The Proposal should include a complete table of contents and all

pages sequentially numbered. Bindings and covers should be provided at the Proposer's discretion. The Proposals shall be organized as instructed below in Section IV RFP Response, Evaluation Factors and Criteria.

3. The following table identifies what Proposal items are excluded from the page limits:
 - All reference forms submitted in Proposal Section 1 (Section IV.D.3)
 - All resumes submitted in Proposal Section 1 (Section IV.D.3)
 - Equipment and software datasheets
 - Proposal Appendices and Attachments

D. Required Components of the Proposal:

1. *Cover Page* - The Cover Page shall include the NJTA Procurement/ Contract/ Agreement No., the Project/Service Title, Proposer's and its Sub-consultants' and/or Subcontractors' names and Federal Employer Identification Number (FEIN). In addition, the Proposer shall include the name of an authorized representative (with authority to legally bind the Proposer), title, mailing address, phone number, fax number and Internet e-mail address, address of office location(s), and address of office(s) where the Work shall be performed, if available.
2. *Executive Summary* - Provide an executive summary of not more than two pages identifying and sustaining the basis of your contention that you are the best qualified vendor to provide the requested services to the Authority.
3. *Section 1: Project Team Qualifications and Demonstrated Experience:*
 - a) Describe the Proposer's experience in completing similar projects to this Project. Experience with meteorological and RWIS consultation, ESS location selection, ESS device manufacturing, RWIS software development, pavement condition forecasting, pavement treatment decision support, field servicing, and technical support will be considered in the evaluation.
 - b) All Proposers must complete Exhibit O, the Proposer Reference Forms, to list three projects that specifically cover Roadway Weather Information System implementation and integration of a similar nature that have been successfully completed by the Proposer or its parent company as a Prime (not Subcontractors). Higher value is given to projects where Proposer was contracted for a majority of the tasks specified in Section III.
 - c) The following elements should be included in the project experience description as required in Exhibit O, the Proposer Reference Form (Reference Form Part 1):
 - i. For each completed project, provide the name of the company or agency and project manager the Proposer performed work for, with current contact information; the status of the project; the term of the contract; the type of work that was performed, and the total dollar value of the contract(s)

governing said work.

- ii. Include a brief description of the work that was performed, including the type of equipment and systems that were installed and implemented, documentation on the actual system and service performance, and a comparison of the example project to this RFP work scope.
 - iii. Identify key personnel on these projects and what role, if any, these key personnel are proposed to play on this Project.
 - iv. Provide contact information for the client - failure to provide up-to-date contact information for references may result in impacts to the Proposer reference check scoring.
- d) Describe the experience and provide resumes (not to exceed two (2) pages per team member, not included in Proposal page limit) of Proposer's Key Personnel as defined in Section III.D.1, Detailed Scope, with the stipulation that no changes or substitutions of any of these Key Personnel will be allowed without prior written Approval of the Authority.
- e) Submit a list (not included in Proposal page limit) of Subcontractors, significant vendors, and other persons and organizations, which are to furnish the principal items of material, services and equipment. Such a list shall be accompanied by an identification of key staff to be assigned to the Project, an experience statement with pertinent information as to similar projects and other evidence of qualification and experience for each such Subcontractor, vendor, person and organization. Agreements/contracts the Proposer has with such entities shall be included. Also identify the projects where the Proposer has performed joint work with the entity that is of similar nature to this Project.
- f) Identify any existing or potential conflict of interest, or any relationships that might be considered a conflict of interest, that may affect or involve the provisions of Services to the Authority, including but not limited to conflicts with financial advisors, law firms providing services to the State or the Authority and State employees or Authority employees.
- g) Describe any pending, concluded or threatened litigation, administrative proceedings or federal or state investigations or audits, subpoenas, or other information requests of or involving your firm or the owners, principals or employees thereof during the period beginning January 1, 2015 to date. Describe the nature and status of the matter and the resolution, if any.
- h) Proposers shall provide copies of audited financial statements or federal income tax returns for their firm for the past three years. Also, Proposers are encouraged to provide current independent financial ratings from New Jersey state and nationally recognized/consensus rating bureaus (e.g. AM Best,

Moody's, Standard & Poor's), if applicable.

4. *Section 2: System Proposal:*

- a) Describe the overall proposed system and how it will best meet the needs and goals of the Authority as listed in Section III.C of the RFP.
- b) Describe the proposed system approach and project schedule. The Proposer must set forth its understanding of the requirements of this RFP and approach for providing the services, hardware, and software to accomplish the work outlined in the Scope of Services and ability to meet the project schedule.
- c) Provide a preliminary list of proposed ESS locations with site specific justification for each location. Locations should be moderately based on Appendix 3 – Preliminary ESS Locations; however, adjustments may be made by the Proposer, such as alternate locations or the total number of locations based on the Proposers meteorological and RWIS experience and expertise. Location justification should include meteorological reasoning, such as climatic zones and the availability of existing outside agency data collection points, the reliability of road surface reporting, forecasting and treatment decision support factors, system resiliency/redundancy, and – to the extent possible - area specific conditions such as fog or icing expectancy. (A final list of proposed ESS locations will be delivered by the successful vendor after contract award.)
- d) Describe the proposed server software architecture, licensing, and maintenance support plan. Describe the proposed software lifecycle, including the deployment of major and minor version changes and maintenance patches. Explain in detail how the proposed plan will benefit the Authority over other alternatives.

5. *Section 3: Technical Proposal:*

- a) Provide the make, model, and technical details of all proposed sensors, RPU, cabinets, support equipment, and major hardware components for ESS installations. Include detailed equipment data sheets to demonstrate compliance with the project specifications. Include typical shop drawings showing the proposed sensor layout, attachment methods, and wiring for typical ESS pole and tower mounted in installations.
- b) Provide NTCIP compliance certification and a detailed description of the proposed software, including typical screen captures. Describe all major aspects and features of the proposed core, maintenance decision support system, and mobile application software modules.
- c) Provide a warranty statement detailing the proposed terms, coverage hours, response time, and time to repair. Describe the proposed contact method and response availability for after-hours technical support. Describe the proposed call-out, repair authorization, and follow-up reporting procedures for field service. Provide an itemized spare parts and support equipment list and other

documents as specified or appropriate to support and verify compliance with the Scope of Services provided in Section III.

- d) Describe the proposed the proposed Technician, Software User, and System Administrator training plans and technical documentation.

6. *Section 4: Proposal Forms:*

Provide all Proposal Forms required to be submitted as part of the Solicitation. Submit completed forms provided in **SECTION VI: CHECKLIST AND EXHIBIT DOCUMENTS**. Please refer to this for a checklist and additional information on the forms to be completed.

7. *Section 5: Exceptions and Assumptions:*

- a) All Proposers shall also be required to complete and submit the Conformance Matrix, included in Exhibit P, which covers each of the requirements in Section III – Scope of Services.

The Compliance Code should indicate whether the requirement is:

- Full Compliance, No Exceptions Taken (C) – No comment necessary
- Partial Compliance (P) – Most, but not all requirements met; explain areas of non-compliance
- Alternative Proposed (A) – Replacing specified functionality with similar functionality to satisfy requirement intent; explain and justify alternative
- Non-compliant or Not Provided (N) – Explain reason for non-compliance or omission

Explanations of the status of functionalities listed as “P”, “A” or “N” should be provided in the Comments Section of the Conformance Matrix.

- b) Proposers shall not identify any exceptions in the Price Proposal. All exceptions should be noted in the Conformance Matrix, as directed in the manner set forth above.
- c) Proposers shall not include any assumptions in their Price Proposals. All assumptions should be identified and documented in Section 5 of the Proposal. Any assumptions included in the Price Proposals will not be considered by the Authority as a part of the Proposal and will not be evaluated or included in any Agreement between the Authority and the Proposer, should the Proposer be selected to perform the Work.

- d) Failure to take exception in the manner set forth above will be deemed a waiver of any objection. Exceptions may be considered during the Proposal evaluation process at the sole discretion of the Authority.
- e) The Authority, in its sole discretion, reserves the right to waive minor irregularities and to waive a requirement under this RFP provided that it does not materially affect the procurement or the Agencies' interests associated with the procurement.

8. *Appendices:*

Proposers shall submit the following materials in the form of Appendices (not included in page count):

Appendix 1: Product Data Sheets for key system components as described in the Detailed Scope.

Appendix 2: Preliminary Environmental Sensing Station Locations List as described in Section III.E.1.

Appendix 3: Remaining documents specified in Section III, Scope of Services, and listed in the RFP Appendix 4.

E. Price Proposal

The Price Proposal shall be submitted on the Price Proposal Forms included as Section VI Exhibit Q. Price Proposals that contain conditions that are unacceptable to the Authority or that are considered by the Authority not to be responsive or constitute a material deviation from the requirements of the RFP may be evaluated accordingly. Include with the Price Proposal an itemized breakdown with unit pricing for all components included in the proposal items for a single ESS and Spare Parts and Support Equipment Kit.

Fees shall include all professional, administrative and clerical services and all out-of-pocket expenses including but not limited to, photo copying, fax, email and computer usage incurred in connection with the completion of the Services required here. Travel time or costs are not reimbursable. Regardless of the rate(s) proposed, the Authority will not compensate the Proposer for any administrative or clerical staff time, or for travel time.

F. Evaluation Factors and Criteria

The Proposal will be carefully evaluated for conformance with the requirements of this RFP. Selection of a Proposer will be based upon the Proposal. Proposers will be awarded a maximum of 100 points based upon the following factors:

Points**1. Understanding the Authority's needs and approach to the Services: 10**

Evaluation will include quality and soundness of plan, general comprehension of the requirements to provide the specified equipment and services, and general competence. Each Proposer is expected to provide a preliminary delivery and work schedule.

2. Proposer Experience and Qualifications: 10

The Proposal shall include the Proposer's history in performing work similar in scope to the Services required in Section III. Evaluation will include the Proposer's ability to support this project as demonstrated by its proposed staffing given its existing projects, ability to complete specific assignments in timely fashion as demonstrated by similar past projects, compliance with professional errors and omissions insurance.

3. Compliance with Technical Specifications: 50

Evaluation will include the Proposer's compliance with the Authority's needs and specified hardware, software, and service requirements of Section III. Additional weight will be given to preferred solutions when alternative solutions are allowed. All proposals must include a detailed Exceptions List including the specific items and areas of non-compliance or divergence from the RFP. Proposals may include features and design improvements that exceed or add value to the requirements of the RFP. All added features and design improvements should be included and identified on the Exceptions List for consideration in the evaluation process. The Evaluation Team will evaluate the merit of all listed value-added features and design improvements and will add to the weighted score as appropriate.

4. Cost for Equipment and Services: 30

Price Proposals will be evaluated based on the cost for twenty-four (24) fixed location ESS, for a one-year term and four (4) one-year extensions for software, warranty, and technical support services. The lowest cost proposal will receive the maximum number of points allocated to cost. The point allocations for cost on the other proposals will be determined by the following formula:

$$\frac{(\text{Cost of Lowest Price Proposal}) \times (\text{Maximum Points for Cost})}{(\text{Cost of Proposal Being Evaluated})} = \text{POINTS}$$

End of Section IV

SECTION V: INSURANCE AND INDEMNIFICATION

A. Insurance

Prior to the commencement of any activity pursuant to a contract awarded under this RFP, the Consultant shall procure and maintain at its own expense, throughout the term of any resulting contract and until acceptance by the Authority of the Services performed under such contract, or for a duration as otherwise provided herein, from an insurance carrier acceptable to the Authority, the following insurance coverages:

1. **Commercial General Liability Insurance** Consultant shall maintain commercial general liability insurance (CGL) with a primary coverage limit of not less than **\$2,000,000** each occurrence. CGL insurance shall be written on the latest ISO occurrence form without any added restrictions or diminution in coverage (or a substitute form providing at least equivalent coverage) and shall cover liability for bodily injury and property damage arising from premises, operations, independent contractors, products-completed operations and for liability arising from personal injury and advertising injury, and liability assumed under contract. This insurance shall also provide coverage for mental anguish or other mental injury arising from bodily injury. The insurance shall be endorsed to delete the coverage restriction related to work conducted within fifty (50) feet of a railroad, and the XCU exclusions. "The New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers" shall be included as additional insureds on the latest ISO forms providing such status for ongoing operations and products-completed operations without any added restrictions or diminution in coverage (or substitute forms providing at least equivalent coverage). This insurance shall be endorsed to apply as primary insurance and not contribute with any other insurance or self-insurance programs afforded to the Authority. This insurance shall be endorsed to waive the insurance carrier's right of subrogation against The New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers. This insurance shall not contain any provision under which claims made by the Authority against the Consultant would not be covered due to the operation of an insured versus insured exclusion. With respect to products and completed operations insurance, Consultant shall maintain such insurance for a period of not less than three (3) years following the termination of this Contract.
2. **Commercial Automobile Liability Insurance.** Consultant shall maintain commercial automobile liability insurance covering all vehicles owned or used by Consultant with a primary coverage limit of not less than **\$5,000,000** each occurrence. Auto insurance shall be written on the latest ISO form without any added restrictions or diminution in coverage (or a substitute form providing at least equivalent coverage) and shall cover liability for bodily injury and property damage. This insurance shall also provide coverage for mental anguish or other mental injury arising from bodily injury. "The New Jersey Turnpike Authority and its members, commissioners, officers, agents,

employees, guests, consultants and volunteers” shall be included as additional insureds. This insurance shall apply as primary insurance and not contribute with any other insurance or self-insurance programs afforded to the Authority. Such insurance shall be endorsed to waive the insurance carrier’s right of subrogation against The New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers. **The required policy limit for this insurance can be provided by a combination of primary and excess coverages, provided that primary coverage shall be not less than \$2,000,000 and that the excess coverage shall be at least as broad as the primary policy.** This insurance shall not contain any provision under which claims made by the Authority against the Consultant would not be covered due to the operation of an insured versus insured exclusion.

Should the Services to be provided pursuant to this RFP require the Consultant or any subcontractors, to transport any hazardous materials, hazardous substances, hazardous wastes and contaminated soils, the Consultant shall provide the Authority with evidence of levels of financial responsibility as required by the Motor Carrier Act of 1980 and 49 C.F.R., Part 387. The Consultant and/or subcontractor, as the case may be, shall provide the Authority with an Endorsement for Motor Carrier Policies of Insurance for Liability under Sections 29 and 30 of the Motor Carrier Act of 1980 (Form MCS-90) issued by the insurer.

3. **Workers’ Compensation and Employers’ Liability Insurance.** Consultant shall maintain workers’ compensation and employers’ liability insurance. Employers’ liability coverage shall be in a limit not less than \$1,000,000 Bodily Injury by Disease Each Employee, \$1,000,000 Bodily Injury by Accident- Each Accident, \$1,000,000 Bodily Injury by Disease – Policy Limit. Workers’ Compensation Insurance shall be provided in accordance with the requirements of the laws of the State of New Jersey and shall include all-states insurance to extend coverage to any state which may be interpreted to have legal jurisdiction. Such policies shall include endorsements to ensure coverage under the U.S. Longshore’s and Harborworkers’ Compensation Act and Maritime Act (Death on the High Seas Act) where required.
4. **Professional Liability Insurance** Consultant shall maintain Professional Liability Insurance covering its errors and omissions and liability assumed under contract with a coverage limit of not less than **\$5,000,000** each occurrence. This insurance shall be endorsed to apply as primary insurance and not contribute with any other insurance or self-insurance programs afforded to the Authority. This insurance shall be endorsed to waive the insurance carrier’s right of subrogation against The New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers.
5. **Cyber Liability Insurance** Consultant shall maintain Privacy and Network Security insurance covering liability arising from; (1) hostile action, or a threat of hostile action, with the intent to affect, alter, copy, corrupt, destroy, disrupt, damage, or provide unauthorized access/unauthorized use of a computer system including exposing or

publicizing confidential electronic data or causing electronic data to be inaccessible; and (2) computer viruses, Trojan horses, worms and any other type of malicious or damaging code; and (3) dishonest, fraudulent, malicious, or criminal use of a computer system by a person, whether identified or not, and whether acting alone or in collusion with other persons, to affect, alter, copy, corrupt, delete, disrupt, or destroy a computer system or obtain financial benefit for any party or to steal or take electronic data; and (4) denial of service for which the Consultant is responsible that results in the degradation of or loss of access to internet or network activities or normal use of a computer system; and (5) loss of service for which the Consultant is responsible that results in the inability of a third party, who is authorized to do so, to gain access to a computer system and conduct normal internet or network activities; and (6) access to a computer system or computer system resources by an unauthorized person or persons or an authorized person in an unauthorized manner with a limit not less than **\$10,000,000** per occurrence. This insurance shall provide coverage for personal injury (including emotional distress and mental anguish). This insurance shall not contain any provision under which claims made by the Authority against the Consultant would not be covered due to the operation of an insured versus insured exclusion.

6. Any additional insurance policies necessary to obtain required permits or otherwise comply with applicable law, ordinances or regulations regarding the performance of the Work will be provided upon request of the Authority.
 7. All insurance policies shall specify that the territorial limits shall be on a worldwide basis or as otherwise agreed with the Authority. All insurance policies shall provide that not less than 30 days advance written notice of cancellation or material change of any insurance referred to therein shall be given by registered mail to the Law Department, New Jersey Turnpike Authority at P.O. Box 5042, One Turnpike Plaza, Woodbridge, New Jersey 07095. All insurance companies providing coverage shall be authorized to do business in the State of New Jersey and maintain an A.M. Best rating of A-VII or better.
- B.** Any other insurance carried by Consultant or subcontractors shall be considered to be primary and any insurance carried by or self-insurance programs afforded to the Authority shall be considered excess and non-contributing with such primary insurance.
- C.** Any other insurance carried by Consultant or subcontractors shall also contain a waiver of subrogation clause in favor of the New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers.
- D.** Prior to commencing any services under this Contract and thereafter upon the Authority's request, Consultant shall furnish the Authority with a certificate(s) of insurance satisfactory to the Authority and, if requested by the Authority, applicable endorsements and/or a certified duplicate copy of the insurance policy(s) required, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth herein. The Certificates of Insurance shall state that each of the above-required

policies has been amended to include the following endorsements and shall be accompanied by copies of the endorsements:

- a. "The New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers" shall be included as additional insureds." This statement is not required for the Consultant's workers' compensation and employers' liability insurance or Professional Liability insurance policies.
- b. Thirty (30) days' notice of cancellation or material change in coverage shall be given by registered mail to the New Jersey Turnpike Authority as specified above.
- c. All policies shall contain a waiver of subrogation clause in favor of the New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers.
- d. With respect to all policies, the other insurance clause under each policy shall be amended to read as follows: "This policy will act as primary insurance and not contribute with policies issued to or self-insurance programs afforded to the New Jersey Turnpike Authority and its members, commissioners, officers, agents, employees, guests, consultants and volunteers"
- e. All certificate(s) shall be mailed to: Director of Procurement and Materials Management, New Jersey Turnpike Authority, P.O. Box 5042, Woodbridge, New Jersey 07095.

- E. In the event that Consultant subcontracts any portion of its obligations pursuant to this RFP, Consultant shall require such subcontractor to comply with all of the above insurance requirements as if the subcontractor's name were substituted for any reference to Consultant. If any subcontractor cannot comply with this requirement, then such subcontractor shall be added under the Consultant's policies as an additional insured.

It is agreed and understood by the parties that the obligation of the Consultant to obtain and maintain insurance policies required in accordance with this RFP is an essential term of the RFP and that the Authority relies on the Consultant to perform such obligation. The parties further acknowledge and agree that the failure of the Authority to require strict compliance with all the terms and conditions regarding insurance, as set forth in this RFP, and as evidenced by any Certificates of Insurance, Slips and/or Binders, copies of insurance policies, or otherwise, shall not constitute a waiver or amendment of any of the terms, conditions and requirements of this RFP regarding the provision of insurance coverage by the Consultant.

The Consultant shall ensure that the activities to be performed under this RFP do not violate the terms and conditions of any insurance policy which is or may be provided by

the Consultant hereunder, and that it shall take all measures necessary to avoid any actions which may lead to cancellation or avoidance of such insurance policies.

- F. In the event that the Consultant fails or refuses to maintain or renew any insurance policy required to be maintained herein, or if such policy is cancelled or modified so that the insurance does not meet the requirements contained herein, the Authority may refuse to make payment of monies due under this RFP. The Authority in its sole discretion may use such monies to purchase insurance on behalf of the Consultant or subcontractor. During any period when the required insurance is not in effect, the Authority may suspend performance of the Agreement. If the Agreement is so suspended, no additional compensation or extension of time shall be due on account of such suspension. The Authority may waive or modify any insurance requirement set forth herein.

Due to future changes in economic, financial, risk and/or insurance market conditions the Authority at its discretion may modify the above stated insurance requirements

- G. NOTWITHSTANDING THAT MINIMUM AMOUNTS OF INSURANCE COVERAGE CARRIED OR REQUIRED TO BE CARRIED BY THE CONSULTANT ARE SPECIFIED HEREIN, THE LIABILITY OF THE CONSULTANT SHALL NOT BE LIMITED TO THE AMOUNTS SO SPECIFIED AND SHALL EXTEND TO ANY AND ALL LIABILITY IN EXCESS OF THE INSURANCE COVERAGES SO PROVIDED NOR SHALL THESE MINIMUM LIMITS PRECLUDE THE AUTHORITY FROM TAKING ANY ACTION AVAILABLE TO IT UNDER THE PROVISIONS OF THE CONTRACT OR OTHERWISE IN LAW.
- H. Terms and Deductibles. The Consultant shall be responsible for any deductible or self-insured retention, exclusions or lack of coverage in the insurance policies described above. Any deductible or self-insured retention greater than \$5,000 per occurrence must be disclosed to and approved by the Authority. The Authority reserves the right to require that any deductible or self-insured retention be no greater than \$5,000 per occurrence.

End of Section V

SECTION VI: CHECKLIST AND EXHIBITS

CHECKLIST OF ITEMS

THE FOLLOWING ITEMS MUST BE SUBMITTED WITH YOUR PROPOSAL ALONG WITH THIS CHECKLIST ITSELF:

CHECK OFF AS READ, SIGNED & SUBMITTED

	CHECK LIST	
A.	MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE (Professional Services)	
B.	AFFIRMATIVE ACTION INFORMATION SHEET	
C.	AFFIDAVIT OF MORAL INTEGRITY	
D.	OWNERSHIP DISCLOSURE FORM	
E.	VENDOR FIRM DISCLOSURE FORM – EXECUTIVE ORDER 129	
F.	DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN	
G.	NOTICE TO ALL PROPOSERS SET-OFF FOR STATE TAX	
H.	NJ ELECTION LAW ENFORCEMENT COMMISSION REQUIREMENT FOR DISCLOSURE OF POLITICAL CONTRIBUTIONS	
I.	AFFIDAVIT OF NON-COLLUSION	
J.	NJ BUSINESS REGISTRATION CERTIFICATE	
K.	SMALL BUSINESS ENTERPRISE/MINORITY BUSINESS ENTERPRISE/WOMAN BUSINESS ENTERPRISE FORM	
L.	SMALL BUSINESS ENTERPRISE FORM SBE FORM -- PROPOSED SCHEDULE OF SMALL BUSINESS ENTERPRISE PARTICIPATION	
M.	INSURANCE (see Section V of RFP) for Insurance Requirements for the Services Agreement) Submit proof of insurance- either certificate of insurance or letter from broker with proposal.	
N.	FINANCIALS (Provide copies of audited financial statements or federal income tax returns for the past three years.)	
O.	PROPOSER REFERENCE FORM	
P.	TECHNICAL COMPLIANCE MATRIX	
Q.	PRICE PROPOSAL FORM	
R.	THERMAL DATA	

(Firm)

(Title)

(Signature)

(Date)

(Name – please print or type)

(Telephone Number/Fax Number)

EXHIBIT A: MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE

N.J.S.A. 10:5-31 et seq., N.J.A.C. 17:27

GOODS, PROFESSIONAL SERVICES AND GENERAL SERVICES AGREEMENTS

During the performance of the Services Agreement, the Contractor agrees as follows:

- A. The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.
- B. The contractor or subcontractor, where applicable, will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity, or expression, disability, nationality or sex.
- C. The contractor or subcontractor will send to each labor union, of with which it has a collective bargaining agreement, a notice to be provided by the agency contracting officer, advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The contractor or subcontractor where applicable agrees to comply with any regulations promulgated by the Treasurer pursuant to ***N.J.S.A. 10:5-31 et seq.***, as amended and supplemented from time to time and the Americans with Disabilities Act.
- E. The contractor or subcontractor agrees to make good faith efforts to meet targeted county employment goals established in accordance with ***N.J.A.C. 17:27-5.2***.
- F. The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity, or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.
- G. The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personal testing conforms to the principles of job-related testing, as

established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

- H. In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity, or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.
- I. The Contractor shall submit to the public agency, after notification of award but prior to execution of a goods and Services Agreement, one of the following three documents:
 - i. Letter of Federal Affirmative Action Plan Approval
 - ii. Certificate of Employee Information Report
 - iii. Employee Information Report Form AA302 (electronically provided by the Division and distributed to the public agency through the Division's website at www.state.nj.us/treasury/contract_compliance)

The contractor and its subcontractor shall furnish such reports or other documents to the Division of Purchase & Property, CCAU, EEO Monitoring Program as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Purchase & Property, CCAU, EEO Monitoring Program for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code at N.J.A.C. 17:27**

The parties to the Services Agreement do hereby agree that the provision of *N.J.S.A. 10:5-31 et seq.* dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereunto, are hereby made a part of the Services Agreement and are binding upon them.

Submitted by:

Firm Name: _____

By: _____

Title: _____

Date: _____

EXHIBIT B: AFFIRMATIVE ACTION INFORMATION SHEET

IN ACCORDANCE WITH THE TERMS OF THE ATTACHED SERVICES AGREEMENT PROPOSERS ARE REQUIRED TO SUBMIT ONE OF THE FOLLOWING FORMS RELATING TO COMPLIANCE WITH AFFIRMATIVE ACTION REGULATIONS. PLEASE COMPLETE AND RETURN THIS FORM WITH THE PROPOSAL.

1. The Proposer has submitted a Federal Affirmative Action Plan Approval which consists of a valid letter from the Office of Federal Contract Compliance Programs (Good for one year of the date of letter).

YES _____ NO _____

If Yes, a photo copy of the Letter of Approval is to be submitted with the bid.
(OR)

2. The Proposer has submitted a Certificate of Employee Information Report pursuant to (N.J.A.C. 17.27-1.1) and The State Treasurer has approved said report.

YES _____ NO _____

If Yes, a photo copy of the Certificate is to be submitted with the bid. (Expiration Date on Certificate)

Certificate of Approval Number _____
(OR)

3. If Proposer has already submitted the Employee Information Report form to the States' Affirmative Action Office, please return a copy of it with the bid.

If you are the successful Proposer and have none of the above, please contact the Procurement and Materials Management Department at **(732) 750-5300 ext. 8628** within five (5) days of notification of award for AA-302 Form. This AA-302 Form must be forwarded to the States' Affirmative Action Office with a copy returned to the Authority's Procurement and Materials Management Department.

The signature below certifies that one of the above forms of Affirmative Action evidence has been submitted, and all information contained above is correct to the best of my knowledge.

Signed _____ Date Signed _____

Print Name and Title _____

Proposers Company Name _____

Address _____

Telephone Number _____ Fax Number _____

EXHIBIT C: AFFIDAVIT OF MORAL INTEGRITY

STATE OF _____

Ss:

COUNTY OF _____

I, _____, the _____ (Pres., Vice Pres., Owner/Partner) of

_____ (Proposer), being first duly sworn, deposes and says:

1. That the Proposer wishes to demonstrate moral integrity in accordance with the services to be rendered/goods to be provided in accordance with the Proposer's proposal.

2. That as of the date of signing this Affidavit, neither Proposer nor any of its Principals, Owners, Officers, or Directors are involved in any Federal, State or other Governmental Investigation concerning criminal or quasi-criminal violations, except as follows: **(If none, so state):**

3. Proposer further states that neither the Proposer, nor any of its Principals, Owners, Officers or Directors, has ever engaged in any violation of a Federal or State Criminal Statute; or ever been indicted, convicted, or entered a plea of guilty, *non vult* or *nolo contendere* to any violation of a Federal or State Criminal Statute; or ever engaged in violation of any nature regarding work on the Agreements performed by it, except as follows: **(If none, so state):**

4. That Proposer authorizes any depository or other agency to supply the Authority with any information necessary to verify any statement made in this Affidavit of Moral Integrity.

5. That as of the date of signing this Affidavit, outstanding liens filed against this Proposer are as follows: **(if none, so state).**

6. That the undersigned, being authorized to act on behalf of Proposer certifies that I am personally acquainted with the operations of said Proposer, have full knowledge of the factual basis comprising the contents of this Affidavit of Moral Integrity and that the same are true to my knowledge.

7. That this Affidavit of Moral Integrity is made to induce the Authority to accept the Proposer as a qualified provider of goods and/or services, knowing that the said New Jersey Turnpike Authority relies upon the truth of the statements herein contained.

Sworn and Subscribed to Before Me This

_____ Day of _____ 20__

Signature_____
Notary Public_____
Title

(Corporate Seal)

EXHIBIT D: OWNERSHIP DISCLOSURE FORM

NEW JERSEY TURNPIKE AUTHORITY OWNERSHIP DISCLOSURE FORM				
Name of Firm:			OPS No.	
INSTRUCTIONS: Provide below the names, home addresses, dates of birth, offices held and any ownership interest of all officers of the firm named above. If additional space is necessary, provide an attached sheet.				
Name:	Home Address:	Date of Birth:	Office Held:	Ownership Interest (shares Owned or % of Partnership):
INSTRUCTIONS: Provide below the names, home addresses, dates of birth and ownership interest of all individuals not listed above, and any partnerships, corporations and any other owner having a 10% or greater interest in the firm named above. If a listed owner is a corporation or partnership, provide below the same information for the holders of 10% or more interest in that corporation or partnership. If additional space is necessary, provide that information on an attached sheet. If there are no owners with 10% or more interest in your firm, enter "NONE" below. Complete the certification at the bottom of this form				
Name:	Home Address:	Date of Birth:	Office Held:	Ownership Interest (shares Owned or % of Partnership):
COMPLETE ALL QUESTIONS BELOW			YES	NO
1. Within the past 5 years has another company or corporation had a 10% or greater interest in the firm identified above? <i>(if yes, complete and attach a separate Ownership Disclosure form reflecting previous ownership interests)</i>				
2. Has any person or entity listed in this form or its attachments ever been arrested, charged, indicted or convicted in a criminal or disorderly persons matter by the State of New Jersey, or any other State or the U.S. Government? <i>(if yes, attach a detailed explanation for each instance)</i>				
3. Has any person or entity listed in this form or its attachments ever been suspended, debarred or otherwise declared ineligible by any agency of government from bidding or contracting to provide services, labor, material, or supplies? <i>(if yes, attach a detailed explanation for each instance)</i>				
4. Are there now any criminal matters or debarment proceedings pending in which the firm and/or its officers and/or managers are involved? <i>(if yes, attach a detailed explanation for each instance)</i>				
5. Has any Federal, State or Local license, permit or other similar authorization, necessary to perform the work applied for herein and held or applied for by any person or entity listed on this form, been suspended or revoked, or been the subject of any pending proceedings specifically seeking or litigating the issue of suspension or revocation? <i>(if yes, attach a detailed explanation for each instance)</i>				
CERTIFICATION: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge that the New Jersey Turnpike Authority is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the New Jersey Turnpike Authority to notify the Authority, in writing of any changes to the answers or information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false state or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreements (s) with the New Jersey Turnpike Authority and that the Authority at its option, may declare any contract(s) resulting from this certification void and unenforceable.				
I, being duly authorized, certify that the information supplied above, including all attached pages, is complete and correct to the best of my knowledge, I certify that all of the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.				
Company Name:			Address:	
Signature:			Name:	
			(Print or Type)	
Date:			Title:	
			(Print or Type)	

NJTA-OD-4-2014

EXHIBIT E: VENDOR DISCLOSURE FORM

Please be advised that, the New Jersey Turnpike Authority (the "Authority") has developed this form under the policy and procedures in accordance with *N.J.S.A. 52:34-13.2*. Under this order, the Authority must consider the requirements of New Jersey's contracting laws, the best interests of the State of New Jersey and its citizens, as well as applicable federal and international requirements.

The Authority shall insure that all Proposers seeking to enter into the Services Agreement in which services are procured on his behalf must disclose:

- a. The location by country where the services under the Services Agreement will be performed;
and
- b. Any subcontracting of services under the contract and the location by country where the subcontracted services will be performed.

LOCATION BY COUNTRY WHERE SERVICES UNDER THE SERVICES AGREEMENT WILL BE PERFORMED:

The Proposer _____
(Location by Country)

Name: _____

Address: _____

Title: _____

Subcontractor: _____
(Location by Country)

Name: _____

Address: _____

Title: _____

I certify that all information is true and correct to the best of my knowledge.

Proposer: _____ Title: _____

EXHIBIT F: DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

RFP Number: _____

Proposer: _____

PART 1: CERTIFICATION

CONTRACTORS/BIDDERS **MUST COMPLETE** PART 1 BY CHECKING **EITHER BOX**. ***FAILURE TO CHECK ONE OF THE BOXES SHALL RENDER THE PROPOSAL NON-RESPONSIVE.***

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list follows this certification and can also be found on the State of New Jersey, Department of Treasury, Division of Purchase and Property website at <http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf>. Contractors/Bidders **must** review this list prior to completing the below certification. **FAILURE TO COMPLETE THE CERTIFICATION WILL RENDER A CONTRACTOR'S/BIDDER'S PROPOSAL NON-RESPONSIVE.** If the Authority finds a person or entity to be in violation of law, it shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

PLEASE CHECK THE APPROPRIATE BOX:

☐ **I certify, pursuant to Public Law 2012, c. 25, that neither the contractor/bidder listed above nor any of the contractor's/bidder's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and I am authorized to make this certification on its behalf. **I will skip Part 2 and sign and complete the CERTIFICATION below.****

OR

☐ **I am unable to certify as above because the contractor/bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department's Chapter 25 list. I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the CERTIFICATION below. Failure to provide such will result in the proposal being rendered a non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.**

**Part 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO
INVESTMENT ACTIVITIES IN IRAN**

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the requested information below. Please provide thorough answers to each question. If you need to make additional entries, provide the requested information on a separate sheet

Name: _____ Relationship to Proposer: _____

Description of Activities: _____

Duration of Engagement: _____ Anticipated Cessation Date: _____

Proposer Contact Name: _____ Contact Phone Number: _____

**CERTIFICATION
MUST BE SIGNED BY PROPOSER**

I being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above referenced person or entity. I acknowledge that the New Jersey Turnpike Authority (“Authority”) is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the Authority to notify the Authority in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the Authority and that the Authority at its option may declare any contract(s) resulting from this certification void and unenforceable.

FULL NAME (print): _____ SIGNATURE: _____

TITLE: _____ DATE: _____



State of New Jersey

DEPARTMENT OF THE TREASURY
DIVISION OF PURCHASE AND PROPERTY
OFFICE OF THE DIRECTOR
33 WEST STATE STREET
P. O. BOX 039

TRENTON, NEW JERSEY 08625-0039

<https://www.njstart.gov>

Telephone (609) 292-4886 / Facsimile (609) 984-2575

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

FORD M. SCUDDER
State Treasurer

JIGNASA DESAI-McCLEARY
Director

The following list represents entities determined, based on credible information available to the public, to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25"):

1.	Bank Markazi Iran (Central Bank of Iran)	18.	Indian Oil Corporation
2.	Bank Mellat	19.	Kingdome PLC
3.	Bank Mellat Iran	20.	Maize Technimont SpA
4.	Bank Tejarat	21.	Natiran Intratrade Company (NICO)
5.	National Iranian Tanker Company (NITC)	22.	Oil and Natural Gas Corporation (ONGC)
6.	Amona	23.	Oil India Limited
7.	Bank Saderat PLC	24.	Persia International Bank
8.	Bank Sepah	25.	PetroChina Company, Ltd.
9.	Belaz	26.	Petroleos de Venezuela (PDVSA Petróleo, SA)
10.	Belneftkhim (Belarusneft)	27.	Sameh Alzar Tajak Co. (SATCO)
11.	China International United Petroleum & Chemicals Co., Ltd. (Unipet)	28.	Shandong FIN CNC Machine Company, Ltd.
12.	China National Offshore Oil Corporation (CNOOC)	29.	Sinohydro
13.	China National Petroleum Corporation (CNPC)	30.	SKS Ventures
14.	China National United Oil Corporation (ChinaOil)	31.	Som Petrol AS
15.	China Petroleum & Chemical Corporation (Sinopec)	32.	Zhuhai Zhenrong Company
16.	China Precision Machinery Import-Export Corp. (CPMIEC)		
17.	Grimley Smith Associates		

List Date: January 30, 2017

EXHIBIT G: NOTICE TO ALL PROPOSERS SET-OFF FOR STATE TAX

Please be advised that pursuant to P.L. 1995. c. 159, effective January 1, 1996 and notwithstanding any provision of the law to the contrary, whenever any taxpayer, partnership, or S corporation under the Agreement to provide goods or services or construction projects to the State of New Jersey or its agencies or instrumentalities, including the legislative and judicial branches of State government, is entitled to payment for those goods or services or construction projects and at the same time the taxpayer, or the partner or shareholder of that entity, is indebted for any State tax, the Director of the Division of Taxation shall seek to set-off that taxpayer's, partner's or shareholder's share of the payment due to the taxpayer, partnership, or S corporation. The amount of set-off shall not allow for the deduction of any expenses or other deductions which might be attributable to a partner or shareholder subject to set-off under this act. No payment shall be made to the taxpayer, the provider of goods or services, or the contractor or subcontractor of construction projects pending resolution of the indebtedness.

The Director of Division of Taxation shall give notice to the set-off to the taxpayer, the provider of goods or services, or the contract or subcontractor of construction projects and provide an opportunity for a hearing with thirty (30) days of such notice under the procedures for protests established under R.S. 54:49-18. No requests for conference, protest or subsequent appeal to the Tax Court from any protest under this section shall stay the collection of the indebtedness. Interest that may be payable by the State pursuant to P.L. 1987, c. 184 (c.52:32-32et seq.) to the taxpayer, the provider of goods or services, or the contractor or subcontractor of construction projects shall be stayed.

"I HAVE BEEN ADVISED OF THIS NOTICE."

COMPANY _____

SIGNATURE _____

NAME _____

TITLE _____

DATE _____

EXHIBIT H: DISCLOSURE OF POLITICAL CONTRIBUTIONS**NEW JERSEY ELECTION LAW ENFORCEMENT COMMISSION REQUIREMENT FOR
DISCLOSURE OF POLITICAL CONTRIBUTIONS**

All business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if they receive in excess of \$50,000.00 from public entities in a calendar year. Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us

**DISCLOSURE OF CONTRIBUTIONS TO NEW JERSEY ELECTION LAW ENFORCEMENT
COMMISSION IN ACCORDANCE WITH N.J.S.A. 19:44A-2027**

STATE OF _____ :SS
COUNTY OF _____

I, _____ of the _____ of _____ in the County of _____ and the State of _____ of full age, being duly sworn according to law on my oath depose and say that:

I am _____, a _____ in the firm of _____
(Name) (Title, Position, etc.)

_____, the Proposer making the Proposal in response to the Request for Proposal to Furnish and Provide the Services referenced herein; that I executed said Proposal with full authority to do so; and that the Proposer acknowledges our responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if in receipt of in excess of \$50,000.00 from public entities in a calendar year. I further acknowledge that business entities are solely responsible for determining if filing is necessary and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that the New Jersey Turnpike Authority relies upon the truth of the statements contained in said Proposal and in statements contained in this affidavit in awarding the Services Agreement for the Services.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Services Agreement upon an agreement or understanding for commission, percentage proposerage, or contingent fee, except bona fide employees of the Proposer, and as may be permitted by law.

Print Name: _____

Subscribed and Sworn to before me this _____ day of _____ 20____

Notary Public of _____

My Commission Expires: _____

EXHIBIT I: AFFIDAVIT OF NON-COLLUSION

STATE OF :
 :
COUNTY OF :

The undersigned, being duly sworn according to law, deposes and says:

1. That, as the party submitting the foregoing Proposal, that such Proposal is genuine and not collusive or a sham; that said Proposer has not colluded, conspired, connived, or agreed, directly or indirectly, with any Proposer or person, to put in a sham Proposal or to refrain from participating in this solicitation, and has not, in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the price of affiant or of any other Proposer, or to fix any overhead, profit, or cost element of said price, or of that of any other Proposer, or to secure any advantages against the New Jersey Turnpike Authority ("Authority"), or any person interested in the proposed Services Agreement; and that all statements in said Proposal are true.
2. That he/she has not been convicted or found liable for any act prohibited by state or federal law involving conspiracy or collusion with respect to proposing or bidding on any public contract within the last three years. Such act or conviction does not automatically disqualify a Proposer, but may be grounds for administrative suspension or grounds for consideration by the Authority as to whether the Authority should decline to award the Services Agreement to such a Proposer on the basis of a lack of responsibility. If Proposer has been convicted of any act prohibited by state or federal law involving collusion with respect to proposing or bidding on any public contract within the past three years, Proposer should attach an explanation of the circumstances surrounding that conviction.

FIRM NAME

NAME

TITLE

SIGNATURE

Subscribed and sworn to and
before me this day
of , 20____.

EXHIBIT J: NJ DIVISION OF REVENUE BUSINESS REGISTRATION**[Attach]**

For information regarding the New Jersey Division of Revenue Business Registration Requirement, Proposers can contact the Bureau of Client Registration at (609) 292-9292.

If you wish to file your application online, you may do so by visiting the following website:
<http://www.nj.gov/treasury/revenue/forms/njreg.pdf>

EXHIBIT K: SMALL / MINORITY / WOMAN BUSINESS ENTERPRISE FORM**SMALL BUSINESS ENTERPRISE / MINORITY BUSINESS / WOMAN OWNED BUSINESS**

If Proposer is registered with the State of New Jersey as a Small Business Enterprise (SBE), and/or Certified as a Woman Business Enterprise (WBE) or Minority Business Enterprise (MBE) you must send a copy of the Registration/ Certification Form with your Proposal. Please check off the gross receipt category of your business if registered as an SBE

- SBE CATEGORY 1 \$0- \$500,000 _____
- SBE CATEGORY 2 \$500,001 thru \$5,000,000 _____
- SBE CATEGORY 3 \$5,000,001 thru \$12,000,000 _____
- NOT APPLICABLE _____

SBE Registration # _____

Please check below if applicable

Woman Business Enterprise _____ Minority Business Enterprise _____

Proposer Name: _____

EXHIBIT L: SMALL BUSINESS ENTERPRISE FORM**SBE FORM -- PROPOSED SCHEDULE OF SMALL BUSINESS ENTERPRISE
PARTICIPATION****SMALL BUSINESS ENTERPRISE FORM
SBE FORM -- PROPOSED SCHEDULE OF SMALL BUSINESS ENTERPRISE
PARTICIPATION**

NAME & ADDRESS OF SBE (SUB)CONSULTANT SUPPLIER	TYPE OF WORK TO BE PERFORMED	ESTIMATED PERCENTAGE OF (SUB)CONSULTANT WORK

(Attach additional sheet if necessary)

Proposer (Print Name)_____
Proposer's SBE Liaison officer (if applicable)_____
Telephone Number

All Proposers must complete and submit this form with their Proposal (if no subcontracting is involved state so.)

EXHIBIT M: INSURANCE

[Attach Certificate of Insurance or Letter from Broker]

EXHIBIT N: FINANCIAL STATEMENTS

[Attach Audited Financial Statements or Federal Income Tax Returns for the Past 3 years]

EXHIBIT O: PROPOSER REFERENCE FORM**PART 1A: COMPANY REFERENCES / EXPERIENCE**

Proposer shall use this attachment to clearly show how Proposer meets the requirements set forth in the Proposal Requirements for company experience. Each reference provided may be contacted to determine the Proposer's ability to meet the Proposal requirements. Please copy this form as needed to comply with the requirements outlined in the RFP.

RFP Number: _____ **Proposer:** _____

Reference Company/Agency Name:	
Address:	
City:	State: Zip Code:
Phone Number:	Fax Number:
Project Manager:	
E-mail:	
Proposer's role on project and years of participation (mm/dd/yy to mm/dd/yy)	
Project location, scope, cost, start / end date and status of the project:	
Description of project functions and operations including number of ESS locations:	
Relevant hardware and software used and services provided:	
Comparison to Authority RWIS requirements:	
Installed System documented performance:	
Key personnel involved and role who are also proposed on Authority RWIS project:	

PART 1B: CLIENT LIST

[illegible]

EXHIBIT P: COMPLIANCE MATRIX

The Proposer shall download the Excel spreadsheet version of the Technical Compliance Matrix, complete the requested information accurately and correctly and submit the printed version of the spreadsheet in the Technical Proposal.

EXHIBIT Q: PRICE PROPOSAL FORM**PART 1: SYSTEM PRICE PROPOSAL**

ITEM	PRODUCTS/SERVICES	QTY	UNIT	UNIT PRICE	AMOUNT
1	ENVIRONMENTAL SENSING STATION HARDWARE; Submit an itemized breakdown of the proposed components in Part 2: Cost Breakdown.	24	Each	\$	\$
2	PORTABLE ENVIRONMENTAL SENSING STATION	2	Each	\$	\$
3	SPARE PARTS AND SUPPORT EQUIPMENT KIT; Submit an itemized breakdown of the proposed components in Part 2: Cost Breakdown.	2	Each	\$	\$
4	ESS TESTING AND COMMISSIONING SERVICES	24	Each	\$	\$
5	PROJECT MANAGEMENT AND DESIGN SUPPORT SERVICES	1	Lump Sum	\$	\$
6	TRAINING AND DOCUMENTATION	1	Lump Sum	\$	\$
7	RWIS CENTRAL SERVER CORE SOFTWARE (OPTION 1 - CUSTOMER HOSTED)	1	Lump Sum	\$	\$
8	MAINTENANCE DECISIONS SUPPORT SYSTEM SOFTWARE (OPTION 1 - CUSTOMER HOSTED)	1	Lump Sum	\$	\$
9	MOBILE APPLICATION SOFTWARE (OPTION 1 - CUSTOMER HOSTED)	1	Lump Sum	\$	\$
10	RWIS CORE SOFTWARE SETUP AND SERVICE - YEAR ONE (OPTION 2 - VENDOR HOSTED)	1	Lump Sum	\$	\$
10A	LINE ITEM 12 - YEAR TWO EXTENSION (If and when directed)	1	Lump Sum	\$	\$
10B	LINE ITEM 12 - YEAR THREE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
10C	LINE ITEM 12 - YEAR FOUR EXTENSION (If and when directed)	1	Lump Sum	\$	\$
10D	LINE ITEM 12 - YEAR FIVE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
11	MAINTENANCE DECISIONS SUPPORT SYSTEM SOFTWARE (MDSS) SETUP AND SERVICE - YEAR ONE (OPTION 2 - VENDOR HOSTED)	1	Lump Sum	\$	\$
11A	LINE ITEM 13 - YEAR TWO EXTENSION (If and when directed)	1	Lump Sum	\$	\$
11B	LINE ITEM 13 - YEAR THREE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
11C	LINE ITEM 13 - YEAR FOUR EXTENSION (If and when directed)	1	Lump Sum	\$	\$

11D	LINE ITEM 13 - YEAR FIVE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
12	MOBILE APPLICATION SETUP AND SERVICE - YEAR ONE (OPTION 2 - VENDOR HOSTED)	1	Lump Sum	\$	\$
12A	LINE ITEM 14 - YEAR TWO EXTENSION (If and when directed)	1	Lump Sum	\$	\$
12B	LINE ITEM 14 - YEAR THREE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
12C	LINE ITEM 14 - YEAR FOUR EXTENSION (If and when directed)	1	Lump Sum	\$	\$
12D	LINE ITEM 14 - YEAR FIVE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
13	MAINTENANCE AND WARRANTY - YEAR ONE - FULL SERVICE FOR 24 ENVIRONMENTAL SENSING STATIONS (ESS)	1	Lump Sum	\$	\$
13A	LINE ITEM 15 - YEAR TWO EXTENSION LIMITED SERVICE FOR 24 ESS (If and when directed)	1	Lump Sum	\$	\$
13B	LINE ITEM 15 - YEAR THREE EXTENSION - LIMITED SERVICE FOR 24 ESS (If and when directed)	1	Lump Sum	\$	\$
13C	LINE ITEM 15 - YEAR FOUR EXTENSION - LIMITED SERVICE FOR 24 ESS (If and when directed)	1	Lump Sum	\$	\$
13D	LINE ITEM 15 - YEAR FIVE EXTENSION - LIMITED SERVICE FOR 24 ESS (If and when directed)	1	Lump Sum	\$	\$
14	MAINTENANCE AND WARRANTY FOR SERVER SOFTWARE (OPTION 1 - CUSTOMER HOSTED) - YEAR ONE	1	Lump Sum	\$	\$
14A	LINE ITEM 17 - YEAR TWO EXTENSION (If and when directed)	1	Lump Sum	\$	\$
14B	LINE ITEM 17 - YEAR THREE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
14C	LINE ITEM 17 - YEAR FOUR EXTENSION (If and when directed)	1	Lump Sum	\$	\$
14D	LINE ITEM 17 - YEAR FIVE EXTENSION (If and when directed)	1	Lump Sum	\$	\$
TOTAL					\$

Enter "Not Included" for items such as software hosting options not included in the Proposal.

Enter an itemized breakdown with make and model numbers unit pricing in Exhibit Q Part 2, Price Breakdown, for all components included in Item 1, ESS Hardware, and Item 4, Spare Parts and Support Equipment Kit.

PART 2: PRICE BREAKDOWN

ITEM	PRODUCT	MAKE	MODEL	UNIT PRICE
1	ENVIRONMENTAL SENSING STATION HARDWARE. List all components and unit pricing for a single ESS listed as Item 1 in the Price Proposal. Add, remove or revise items as necessary to provide a complete breakdown of the proposed hardware.			
1A	PAVEMENT SURFACE TEMPERATURE SENSOR			\$
1B	PAVEMENT SURFACE STATE SENSOR			\$
1C	SUBSURFACE TEMPERATURE SENSOR			\$
1D	AIR TEMPERATURE AND RELATIVE HUMIDITY SENSOR			\$
1E	BAROMETRIC PRESSURE SENSOR			
1F	VISIBILITY AND PRESENT WEATHER SENSOR			\$
1G	WIND SPEED AND DIRECTION SENSOR			\$
1H	SURFACE CHEMICAL CONCENTRATION SENSOR			\$
1J	WEATHER VERIFICATION CAMERA			\$
1K	REMOTE PROCESSING UNIT (RPU)			\$
1L	RPU CABINET (FULLY WIRED)			\$
4	SPARE PARTS AND SUPPORT EQUIPMENT KIT. List all components and unit pricing for a single Spare Parts and Support Equipment Kit listed as Item 4 in the Price Proposal. Add, remove or revise items as necessary to provide a complete breakdown of the proposed spare parts and equipment.			
4A	PAVEMENT SURFACE TEMPERATURE SENSOR			\$
4B	PAVEMENT SURFACE STATE SENSOR			\$
4C	SUBSURFACE TEMPERATURE SENSOR			\$
4D	AIR TEMPERATURE AND RELATIVE HUMIDITY SENSOR			\$
4E	BAROMETRIC PRESSURE SENSOR			\$
4F	VISIBILITY AND PRESENT WEATHER SENSOR			\$
4G	WIND SPEED AND DIRECTION SENSOR			\$
4H	SURFACE CHEMICAL CONCENTRATION SENSOR			\$
4J	WEATHER VERIFICATION CAMERA			\$
4K	REMOTE PROCESSING UNIT (RPU)			\$
4L	RPU CABINET (FULLY WIRED)			\$
4N	VISIBILITY AND PRESENT WEATHER SENSOR CALIBRATER			\$
4O	ULTRASONIC WIND SENSOR VERIFIER			\$

APPENDICES

1. Draft Services Agreement
2. State Contractor Political Contribution Compliance Public Law 2005, Chapter 51 and Executive Order 117
3. Preliminary Environmental Sensing Station Locations
4. Scope of Services Required Attachment List

APPENDIX 1: DRAFT SERVICES AGREEMENT**AGREEMENT FOR _____**

THIS SERVICES AGREEMENT (the “Agreement”) is dated and effective _____, 201_ by and between the New Jersey Turnpike Authority, a body corporate and politic of the State of New Jersey, with its principal offices located at One Turnpike Plaza, Woodbridge, New Jersey 07095 (the “Authority”); and _____, a _____ of the State of _____, having its principal offices at _____ (the “Consultant”).

WITNESSETH:

WHEREAS, the Authority requires the services of a professional firm with adequate staff and experience to provide _____; in accordance with a Request for Proposal, dated as of _____ (collectively, with all addenda, the “RFP”, attached hereto as Exhibit A); and

WHEREAS, the Consultant is a professional company which is proficient in _____ and has submitted to the Authority a written proposal, dated _____; and

WHEREAS, the Consultant was invited to make an oral presentation to the Authority on _____, following which the Consultant was further invited to submit a best and final offer (“BAFO”); and

WHEREAS, on _____, the Consultant submitted in writing a BAFO which clarified and expanded upon the statements contained in the aforesaid _____ proposal (collectively, with the initial _____ proposal dated _____, 20__, the “Proposal”, attached hereto as Exhibit B); and

WHEREAS, the Authority evaluated the Proposal in accordance with the criteria stated in the RFP and, after comparison with other submitted proposals was deemed to be the most advantageous to the Authority; and

WHEREAS, on _____ the Authority adopted Agenda Item _____ awarding a professional services contract to the Consultant; and

WHEREAS, the Authority wishes to memorialize and enter into this Agreement with the Consultant setting forth the terms and conditions of the parties’ rights and obligations with respect to the procurement of the services as hereinafter defined;

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

1. DEFINITIONS.

“Authority” shall mean the New Jersey Turnpike Authority as established in accordance with *N.J.S.A. 27:23-1, et seq.*, and shall be the members of the Authority acting in accordance with said statute.

“Consultant” shall mean _____, with its principal offices located at _____.

“Completion Consultant” shall mean the consultant that the Authority selects and uses, pursuant to Section 8 of the Agreement, to complete the Services upon termination of the Consultant pursuant to Section 7 hereof.

“Director” shall refer to the Authority’s [department head] or his/her designee acting on his/her behalf as employees of the Authority with regard to this Agreement.

“Services” shall refer to _____ in accordance with the Proposal and the RFP. The RFP and the Proposal are incorporated by reference into this Agreement and attached thereto as Exhibits A and B, respectively.

All other defined terms as used in this Agreement and not defined herein shall have the same meaning as defined and used in the RFP (Exhibit A) or the Proposal (Exhibit B), as the case may be.

2. COMPENSATION.

(a) The authorized amount of compensation to be paid to the Consultant under this Agreement shall be a [fixed] fee of \$_____ for _____ [and an amount not to exceed \$_____ for _____] in accordance with the Proposal. Payments shall include all professional fees, administrative service fees and all material expenses. The Authority shall have the right to audit all payroll and direct costs or expenses of the Consultant in accordance with Section 11 of this Agreement. The Consultant shall keep available, for Authority inspection, records of all costs and expenses for a period of not less than five (5) years after the term of this Agreement.

(b) No increase in the fees or expenses set forth in Section 2(a) hereof shall take effect unless such increased fees or expenses are approved by the members of the Authority in accordance with the statutes and laws of the State of New Jersey. The Consultant acknowledges and agrees to its responsibility to maintain control of all fees and expenses, and further acknowledges and agrees that the total compensation in the amount of \$_____ is a total amount not to be exceeded and is sufficient to complete the Services under the terms of this Agreement.

(c) Any payments made to the Consultant by the Authority under the terms of this Agreement shall not be deemed a waiver of the Authority’s right to seek damages for

remediation in the event there are any deficiencies in the Services.

(d) In the event of any conflicting claim or claims by the Consultant regarding the right to receive payments that may be due, or to become due, from the Authority under the terms of this Agreement, the Authority may withhold the amount of payments pertinent to such conflicting claim or claims, as determined by the Authority, until such dispute, or disputes, be finally resolved to the reasonable satisfaction of the Authority.

(e) With the award of this contract, the successful Consultant will be required to receive their payment(s) electronically and invoices should be emailed to; invoicefb@turnpike.state.nj.us. In order to receive your payments via automatic deposit from the Authority, complete and return the "Authorization Agreement for Direct Payments (ACH Credits)" Form with an **original voided check or bank letter**. The form must include ABA number (routing or transit number), bank account number and if the bank account is a checking or savings account. The form and instructions are located in the Instruction to Bidders on the Authority's website <http://www.state.nj.us/turnpike/purchasing.html>. The completed form along with the required voided check or bank letter should be emailed to achvendor@turnpike.state.nj.us.

3. STANDARD OF CARE. The Director may disapprove any item of Service rendered by the Consultant if it is not in accordance with the requirements of the Agreement or the standard of care of the Consultant as set forth herein. The Consultant represents and warrants that it shall exercise that degree of care and skill ordinarily exercised under similar circumstances by members of its profession performing the kind of services hereunder and practicing in the same or similar locality at the same time. In the event of non-fulfillment of the foregoing warranty, upon written demand of the Authority, the Consultant shall perform such corrective services (within the original scope of work) as may be necessary to conform to the foregoing warranty; provided further however, it is understood that the Director shall have the right throughout the term of the Agreement to review the Consultant's work and request reasonable remedial efforts and corrections, provided that such changes or corrections are substantially consistent with the RFP and the Proposal, and are limited to ensuring that the Consultant has provided the Services in accordance with the requirements of this Agreement and this standard of care. All costs incurred by the Consultant in performing any corrective Services shall be borne by the Consultant.

4. SERVICES. The Consultant represents itself to be experienced and competent to perform the Services in accordance with the requirements of this Agreement and the Standard of Care set forth in Section 3 herein. The Consultant agrees that the Services to be performed hereunder shall be those specified in the RFP and the Proposal. Should any ambiguity or conflict exist among the Agreement, the RFP, and the Proposal in the interpretation, scope or content of any term or condition, the language in the body of each of these documents shall supersede one another and control according to the hierarchy set forth in Section 25.

5. TERM. This Agreement shall be in effect for a period of _____ year(s) from the effective date of this Agreement. This Agreement also provides the Authority with the option for _____ additional (1) year extension(s) of the Services with the concurrence of the Consultant for additional services necessary or incidental to the subject matter of this Agreement. During the term of the Agreement the Authority will have the right to procure additional services at the pricing and in conformity with the Services outlined in the Proposal.

6. PERSONNEL. The Consultant agrees that the key personnel identified in the Proposal will be those individuals that are assigned to the Services, and that the assignment of such individuals is a material term of this Agreement. The Consultant agrees to promptly notify the Authority in writing of the identity of any individuals that it desires to assign to perform the Services as a replacement for, or in addition to, the key individuals named and listed in the Proposal. All replacements shall be subject to the approval of the Authority; provided, however, that such approval will not be unreasonably withheld if any replacement possesses qualifications and experience that are equal to, or greater than, the subject of the replacement.

7. TERMINATION. This Agreement at the discretion of the Authority may be terminated or suspended by the parties pursuant to the following terms and conditions;

(a) The Authority may terminate the Agreement as follows:

- (i) Immediately upon failure by the Consultant to remedy a material breach of its obligations under of this Agreement within five (5) days of the date of written notice from the Authority of such material breach;
- (ii) For convenience, upon thirty (30) days prior written notice by Authority;
- (iii) If the Consultant shall become insolvent or make an assignment for the benefit of the creditors or files a voluntary petition in bankruptcy, or if any involuntary petition in bankruptcy is filed against the Consultant and the act of bankruptcy alleged is not removed or dismissed within sixty (60) days;
- (iv) Immediately upon the indictment of an owner of Consultant.

Then and in such case, the Authority may at its option forthwith terminate this Agreement;

(b) The Consultant may terminate the Agreement as follows:

- (i) Upon thirty (30) days prior written notice to the Authority from the Consultant upon failure to remedy a material breach of its obligations under this Agreement within thirty (30) days of the written notice from the consultant to cure such material breach;

8. RIGHTS UPON TERMINATION. In the event of a termination, pursuant to Section 7 hereof, the total amount paid to the Completion Consultant exceeds the compensation stated in this Agreement, the Consultant shall pay the Authority any reasonable excess cost incurred by the Authority as a result of engaging the Completion Consultant.

9. OBLIGATION FOR TRANSITION. At such time as this Agreement is terminated, whether pursuant to Section 7 hereof or by the expiration of the term and/or extension of the term pursuant to Section 5 hereof, the Consultant will make all reasonable efforts, in cooperation with the Authority and such parties as may be selected by the Authority to perform the Services after the termination of this Agreement in order to effect a smooth transition of services. In furtherance of this commitment, the Consultant shall, for example, but without limitation, retain and timely transfer all relevant files (including electronic files) to the appropriate recipient, confer with the Authority, and with any other party at the Authority's instruction.

10. FORCE MAJEURE. Neither party shall be liable for any delays or failure in performance due to causes beyond its control, including but not limited to, acts of any government, war, natural disasters, strikes, civil disturbances, fires, equipment failure or failures of third parties to provide (or delays in so providing) equipment, software or services. The parties shall act, to the extent reasonably possible, to minimize any such delays. In the event either party is subject to delays due to such a cause for more than sixty (60) days, either party may, at its option, terminate this Agreement for convenience upon written notice to the other, or, upon mutual agreement, extend the time for performance by the period of time equal to the time lost, whether the delay is less than sixty (60) days or not.

11. RIGHT TO AUDIT. Consultant shall:

(a) Permit during ordinary business hours for the term of this Agreement and for a period of five (5) years after final acceptance of the Services, the examination and audit by the officers, employees and representatives of the Authority of such records and books relating to the Services and also any records and books of any company which is owned or controlled by the Consultant, or which owns or controls the Consultant, if said company performs services similar to those performed by the Consultant anywhere in the State of New Jersey.

(b) If any audit pursuant to Section 11(a) requires the Authority's officers, employees and representatives to travel outside the State of New Jersey to the Consultant's principal place of business where the Consultant's records and books are maintained, then the Consultant shall bear the additional cost of the audit.

(c) The Authority shall provide reasonable prior notice to the Consultant of any anticipated audit under this Section.

12. INSURANCE. The Consultant shall procure and maintain at its own expense, for the entire term of the Agreement, insurance for liability for damages imposed by law, in

accordance with Section V of the RFP.

NOTWITHSTANDING THAT MINIMUM AMOUNTS OF INSURANCE COVERAGE CARRIED OR REQUIRED TO BE CARRIED BY THE CONSULTANT ARE SPECIFIED HEREIN, THE LIABILITY OF THE CONSULTANT SHALL NOT BE LIMITED TO THE AMOUNTS SO SPECIFIED AND SHALL EXTEND TO ANY AND ALL LIABILITY IN EXCESS OF THE INSURANCE COVERAGES SO PROVIDED NOR SHALL THESE MINIMUM LIMITS PRECLUDE THE AUTHORITY FROM TAKING ANY ACTION AVAILABLE TO IT UNDER THE PROVISIONS OF THE AGREEMENT OR OTHERWISE IN LAW OR EQUITY.

13. INDEMNIFICATION. The Consultant agrees to defend, indemnify and save harmless the Authority, its officers, employees, and agents and each and every one of them against and from all liabilities, judgments, threatened, pending or completed actions, suits, demands for damages or costs of every kind and description actually and reasonably incurred (including attorneys' fees and costs and court costs) (collectively "Liabilities") including, without implied limitations, Liabilities for damage to property or Liabilities for injury or death of the officers, agents and employees of either the Consultant or the Authority), resulting from any act or omission or willful misconduct of the Consultant or any of its officers, agents, sub-consultants, or employees in any manner related to the subject matter of this Agreement. In the event that the Consultant fails to defend, indemnify and save harmless the Authority, its officers, employees, and agents and each and every one of them in accordance with this Section, any money due to the Consultant under and by virtue of this Agreement as shall be considered necessary by the Authority may be retained by the Authority and held until any and all Liabilities shall have been settled and suitable evidence to that effect furnished to the Authority. The obligations in this Section shall survive the termination, expiration or rescission of this Agreement.

14. EEO/AFFIRMATIVE ACTION. The Consultant agrees that:

1. It does not discriminate in the hiring or promotion of any minorities, as designated by the Equal Employment Opportunity Commission of the United States of America, or the Division on Civil Rights of the New Jersey Department of Law and Public Safety; and that it does not discriminate against any person or persons on the basis of race, religion, color, national origin, nationality, ancestry, sex, marital status, domestic partnership status, familiar status and affectional or sexual orientation;
2. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

3. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;
4. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$ 50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and
5. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

In addition, the Consultant agrees to complete the appropriate forms attached as follows:

- (a) Mandatory Affirmative Action Language; and
- (b) State of New Jersey Affirmative Action Employee Information Report ("Form AA-302")

However, if the Consultant maintains a current Letter of Federal Approval, or a current Certificate of Employee Information Report Approval as issued by the Department of the Treasury, State of New Jersey, it may be submitted in lieu of the Form AA-302.

15. DIVISION OF REVENUE REGISTRATION. [Pursuant to the terms of *N.J.S.A.* 52:32-44, the Consultant is required to provide to the Authority proof of valid business registration with the Division of Revenue in the Department of the Treasury, prior to entering into an agreement with the Authority. No agreement shall be entered into by the Authority unless the Consultant first provides proof of valid business registration. The Consultant is required to receive from any sub-consultant it uses for goods and services under this Agreement, proof of valid business registration with the Division of Revenue. No sub-consultant agreement shall be entered into on account of any agreement with the Authority unless the sub-consultant first provides proof of valid business registration.

16. CONFIDENTIALITY.

(a) Each party agrees that all information and materials shared under the terms of this Agreement are privileged and shall be held in strict confidence by the receiving party and shall only be used in connection with the purposes of this Agreement to conduct such other activities as are necessary and proper to carry out the purposes of this Agreement. Each party shall take all necessary and appropriate measures to ensure that any person who is granted access to any shared information or materials or who participates in work on common projects or who otherwise assists any counsel or technical consultant in connection with the performance of this Agreement complies with the terms of this Agreement. Each party shall protect from disclosure all information and materials shared by the parties and their respective counsel, or with technical consultants, to the fullest extent permitted by law.

(b) Upon the termination or expiration of this Agreement, to the extent reasonably practicable, confidential materials shall be returned to the disclosing party, including all copies thereof. Following termination, each party shall remain obligated to preserve the confidentiality of all confidential information received or disclosed pursuant to this Agreement.

(c) In the event information or materials disclosed under this Agreement are sought by a third party by way of subpoena, request pursuant to the Open Public Records Act, *N.J.S.A. 10:4-6 et seq.*, or by any other manner, the party receiving the request will promptly notify the other party to enable it to respond to such request and each party shall take all necessary and appropriate steps to invoke any applicable privileges to prevent disclosure, and the Consultant shall have primary responsibility to defend any attempt by a third party to obtain from the Authority any information which the Consultant considers to be confidential.

17. NEWS RELEASES. No news releases pertaining to the Services shall be made without the Authority's prior approval which shall not be unreasonably withheld, conditioned or delayed.

18. NOTICES. Any notices to the Parties pursuant to the terms of this Agreement shall be in writing and addressed to:

As to [Consultant]:

As to New Jersey Turnpike Authority:

[Department Head]
New Jersey Turnpike Authority
P.O. Box 5042
Woodbridge, New Jersey 07095

With a copy to:

General Counsel
New Jersey Turnpike Authority
P.O. Box 5042
Woodbridge, New Jersey 07095

19. PERSONAL LIABILITY. In carrying out the provisions of this Agreement, or in exercising any power or authority granted it by its position, the Consultant agrees that neither the members of the Authority nor any officer, agent or employee of the Authority shall be personally charged by the Consultant with any liability.

20. APPLICABLE LAWS. The Consultant shall perform the Services in compliance with all applicable Federal, state, and local laws, ordinances, rules, regulations and orders.

21. GOVERNING LAW. The terms of this Agreement shall be governed by and construed under the laws of the State of New Jersey. Any action brought by either party involving any dispute related to this Agreement shall be brought only in the Superior Court of the State of New Jersey.

22. INDEPENDENT CONSULTANT. Neither party shall be considered nor hold itself out as an agent of the other, it being acknowledged that neither party has the authority to bind the other. The Consultant shall perform the Services as an independent contractor.

23. ASSIGNMENT. This Agreement, or any part thereof, shall not be assigned by the Consultant, without the specific prior written permission of the Authority. Any attempted assignment without such prior permission shall be null and void.

24. FOREIGN CORPORATION. The Consultant agrees that, if applicable, it shall register as a "Foreign Corporation" with the Office of the Secretary of New Jersey, designating a resident agent for the service of process and shall provide written proof of such registration prior to the Authority's execution of this Agreement (*N.J.S.A. 14A:13-3*).

25. INTEGRATION. This Agreement, together with Exhibits A and B, constitutes the entire Agreement between the parties and supersedes all provisions, agreements, promises, representations, whether written or oral, between the parties with respect to the subject matter herein.

Should any ambiguity or conflict exist among this Agreement, Exhibit A (the RFP) and Exhibit B (the Proposal) in the interpretation, scope or content of any term or condition, the language in the body of each of these documents shall supersede one another and control according to the following hierarchy:

- (a) Agreement;
- (b) RFP (Exhibit A)

- (c) Proposal (Exhibit B);

[Notwithstanding the foregoing, the following sections of the Proposal shall take precedence over Section _____ of the RFP.]

26. PARTIES BOUND. This Agreement shall be binding upon the Consultant and the Authority, their respective successors and assigns.

27. SEVERABILITY. If any provision of this Agreement shall be declared invalid or illegal for any reason whatsoever, then, notwithstanding such invalidity or illegality, the remaining terms and provisions of this Agreement shall remain in full force and effect in the same manner as if the invalid or illegal provision did not exist herein.

28. CODE OF ETHICS. The Consultant is advised that the Authority has promulgated a Code of Ethics pursuant to the laws of the State of New Jersey, a copy of which has been previously provided. By entering into this Agreement, the Consultant agrees to be subject to the intent and purpose of said code and to the requirements of the State Ethics Commission.

29. PROFESSIONAL SERVICES AGREEMENT. This Agreement between the parties is an Agreement for Professional Services within the meaning of the Statutes and Laws of the State of New Jersey.

30. SECTION HEADINGS. The Section headings herein contained have been inserted only as a matter of convenience or reference and in no way define, limit or describe the scope or intent of any terms or provisions of this Agreement.

[Signatures on following page]

IN WITNESS THEREOF, the Parties have caused their duly authorized representatives to execute this Agreement and to affix their respective corporate seals on the day and year first above written.

ATTEST:

NEW JERSEY TURNPIKE AUTHORITY

Kim Schurman
Secretary to the Authority

[Corporate Seal]

By:_____
Joseph W. Mrozek
Executive Director

Approved by the Law Department

ATTEST:

NAME OF CONSULTANT

[Name]
[Title]
[Corporate Seal]

By:_____
[Name]
[Title]

Services Agreement

Exhibit A

[RFP]

Services Agreement

Exhibit B

[Proposal]

APPENDIX 2: State Contractor Political Contributions Compliance

Public Law 2005, Chapter 51 and Executive Order 117

In order to safeguard the integrity of State government procurement by imposing restrictions to insulate the award of State contracts from political contributions that pose the risk of improper influence, purchase of access, or the appearance thereof, Executive Order 134 (McGreevey) was signed on September 22, 2004 and became effective October 15, 2004. EO134 was applicable to all State agencies, the principal departments of the executive branch, any division, board, bureau, office, commission within or created by a principal executive branch department, and any independent State authority, board, commission, instrumentality or agency. EO134 was superseded by P.L. 2005, c. 51, signed into law on March 22, 2005 (“Chapter 51”). In September 2008, Executive Order 117 (Corzine) was signed and became effective November 15, 2008. EO117, which applies only prospectively, extends Chapter 51’s political contribution restrictions by expanding the definition of “business entity” to include, for example, more corporate shareholders and sole proprietors. EO117 and Chapter 51 contain restrictions and reporting requirements that will necessitate a thorough review of their provisions by bidders.

Pursuant to the requirements of Chapter 51 and EO117, the terms and conditions set forth in this Appendix are material terms of any contract entered into by the Authority.

DEFINITIONS

For the purpose of this Appendix, the following shall be defined as follows:

a) “**Contribution**” – means a contribution reportable by the recipient under the New Jersey Campaign Contributions and Expenditures Reporting Act, P.L. 1973, c. 83, *N.J.S.A. 19:44A-1 et seq.*, and implementing regulations set forth at *N.J.A.C. 19:25-7* and *N.J.A.C. 19:25-10.1 et seq.*, made on or after October 15, 2004. As of January 1, 2005, contributions in excess of \$300 are reportable.

b) “**Business Entity**” – means any natural or legal person; business corporation (and any officer, person, or business entity that owns or controls 10% or more of the corporation’s stock); professional services corporation (and any of its officers or shareholders); limited liability company (and any members); general partnership (and any partners); limited partnership (and any partners); in the case of a sole proprietorship: the proprietor; a business trust, association or any other legal commercial entity organized under the laws of New Jersey or any other state or foreign jurisdiction, including its principals, officers, or partners. The definition of a business entity also includes (i) all principals who own or control more than 10 percent of the profits or assets of a business entity; (ii) any subsidiaries directly or indirectly controlled by the business entity; (iii) any political organization organized under section 527 of the Internal Revenue Code that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee; and (iv) if a business entity is a natural person, that person’s spouse, civil union partner or child, residing in the same household, except for contributions by spouses, civil union partners, or resident children to a candidate for whom the

contributor is eligible to vote, or to a political party committee within whose jurisdiction the contributor resides.

PROHIBITION ON THE AGREEMENTS/BREACH OF EXISTING THE AGREEMENT

As set forth in Chapter 51 and EO117, the Authority shall not enter into a the Agreement to procure from any Business Entity services or any material, supplies or equipment, or to acquire, sell or lease any land or building, where the value of the transaction exceeds \$17,500, if that Business Entity has solicited or made any contribution of money, or pledge of contribution, including in-kind contributions, to a candidate committee and/or election fund of any candidate for or holder of the public office of Governor or Lieutenant Governor, or to any State, county or municipal political party committee, or legislative leadership committee during specified time periods.

Further, it shall be a breach of the terms of any contract with the Authority for any Business Entity who has been awarded the contract, during the term of the contract or any extension thereof, to:

- (i) make or solicit a contribution in violation of Chapter 51 or EO117;
- (ii) knowingly conceal or misrepresent a contribution given or received;
- (iii) make or solicit contributions through intermediaries for the purpose of concealing or misrepresenting the source of the contribution;
- (iv) make or solicit any contribution on the condition or with the agreement that it will be contributed to a campaign committee or any candidate of holder of the public office of Governor or Lieutenant Governor, or to any State, county or municipal party committee, or legislative leadership committee;
- (v) engage or employ a lobbyist or consultant with the intent or understanding that such lobbyist or consultant would make or solicit any contribution, which if made or solicited by the Business Entity itself, would subject that entity to the restrictions of Chapter 51 or EO117;
- (vi) fund contributions made by third parties, including consultants, attorneys, family members, and employees;
- (vii) engage in any exchange of contributions to circumvent the intent of Chapter 51 or EO117; or
- (viii) directly or indirectly through or by any other person or means, do any act which would subject that entity to the restrictions of Chapter 51 or EO117.

CERTIFICATION AND DISCLOSURE REQUIREMENTS

Prior to the award of any contract or agreement, the Authority shall notify any Business Entity to which it intends to award a contract of the need to submit to the Authority a completed Certification and Disclosure of Political Contributions form, as issued by the State Treasurer. **The intended awardee will receive the applicable form from the Authority's Procurement and Materials Management Department to be completed and returned to the Authority for submission to the State Treasurer.**

In completing this form, the Business Entity must certify that no contributions prohibited by Chapter 51 or EO117 have been made by the Business Entity and must report all contributions the Business Entity made during the preceding four years to any political organization organized under 26 U.S.C. § 527 of the Internal Revenue Code that also meets the definition of a “continuing political committee” within the meaning of *N.J.S.A.* 19:44A-3(n) and *N.J.A.C.* 19:25-1.7. Failure to submit the required forms will preclude award of the contract at issue, as well as future contract opportunities.

Upon approval by the State Treasurer, the Authority will prepare the Services Agreement for execution. However, if the State Treasurer determines that any contribution or action by a Business Entity poses a conflict of interest in the awarding of the contract or agreement at issue, the State Treasurer shall disqualify the Business Entity from award of such contract.

Once approved by the State Treasurer, a Business Entity’s Political Contributions Certification is valid for a two (2) year period from the date of approval. If, prior to the award of a contract, the State Treasurer confirms to the Authority that the intended awardee has an approved certification that will remain valid for the term of the contract, the Authority may waive the requirement that the awardee complete an additional Certification and Disclosure of Political Contributions form.

Any Business Entity entering into a contract with the Authority is required, on a continuing basis, to report to the Authority any contributions it makes during the term of the contract, and any extension(s) thereof, at the time any such contribution is made. Such reports shall be subject to review by the Authority and the State Treasurer. If the State Treasurer determines that any such contribution poses a conflict of interest, such contribution shall be deemed a material breach of the contract or agreement at issue.

APPENDIX 3: PRELIMINARY ENVIRONMENTAL SENSING STATION LOCATIONS LIST

No.	Road	Mile	Segment	Latitude	Longitude	Location Name
1	NJT	120.1	SN95L	40.873908	-73.994496	Overpeck Creek, Teaneck
2	NJT	114.9	NSW	40.819257	-74.040301	Hackensack River, Carlstadt
3	NJT	109.1	SNW	40.758679	-74.115858	109 U-Turn, Kearny
4	NJT	N4.9	HWE	40.697267	-74.077102	Hudson County Extension
5	NJT	88.3	SNO	40.526171	-74.339263	Interchange 10 / I-287
6	NJT	71.5	NSO	40.318850	-74.488029	Molly Pitcher Service Area
7	NJT	60.6	SNO	40.193817	-74.599476	Interchange 7A
8	NJT	P1.4	PEW	40.110170	-74.806460	Pearl Harbor Memorial Extension
9	NJT	28.7	NS	39.870090	-75.025897	I-295, Haddonfield
10	NJT	20.2	SN	39.815466	-75.163581	Woodbury Heights
11	NJT	13.3	SN	39.757663	-75.269039	Maintenance District 1
12	NJT	1.25	SN	39.681189	-75.469390	Deepwater Tower
13	GSP	166.4	SN/NS	40.981714	-74.071130	Pascack Valley
14	GSP	146.9	SN	40.755383	-74.209784	East Orange
15	GSP	133.65	SN	40.592690	-74.322850	Colonia
16	GSP	123.9	NSL	40.464086	-74.286582	Cheesequake Service Area
17	GSP	118.8	NSL	40.421247	-74.214772	Matawan
18	GSP	98.6	NS	40.175622	-74.100927	Belmar
19	GSP	90.0	SN	40.062995	-74.163076	Lakewood
20	GSP	78.4	NS	39.906384	-74.212684	Berkley
21	GSP	53.6	NS	39.613685	-74.423457	New Gretna
22	GSP	28.8	NS	39.307285	-74.618634	Great Egg Harbor
23	GSP	22.8	NS	39.232280	-74.672773	Shoemaker Holly Picnic Area
24	GSP	4.1	NS	39.011391	-74.865582	Wildwood

The above listed preliminary ESS locations are subject to change based on evaluation and recommendations from the successful RWIS Vendor and the Authority's Construction Designer.

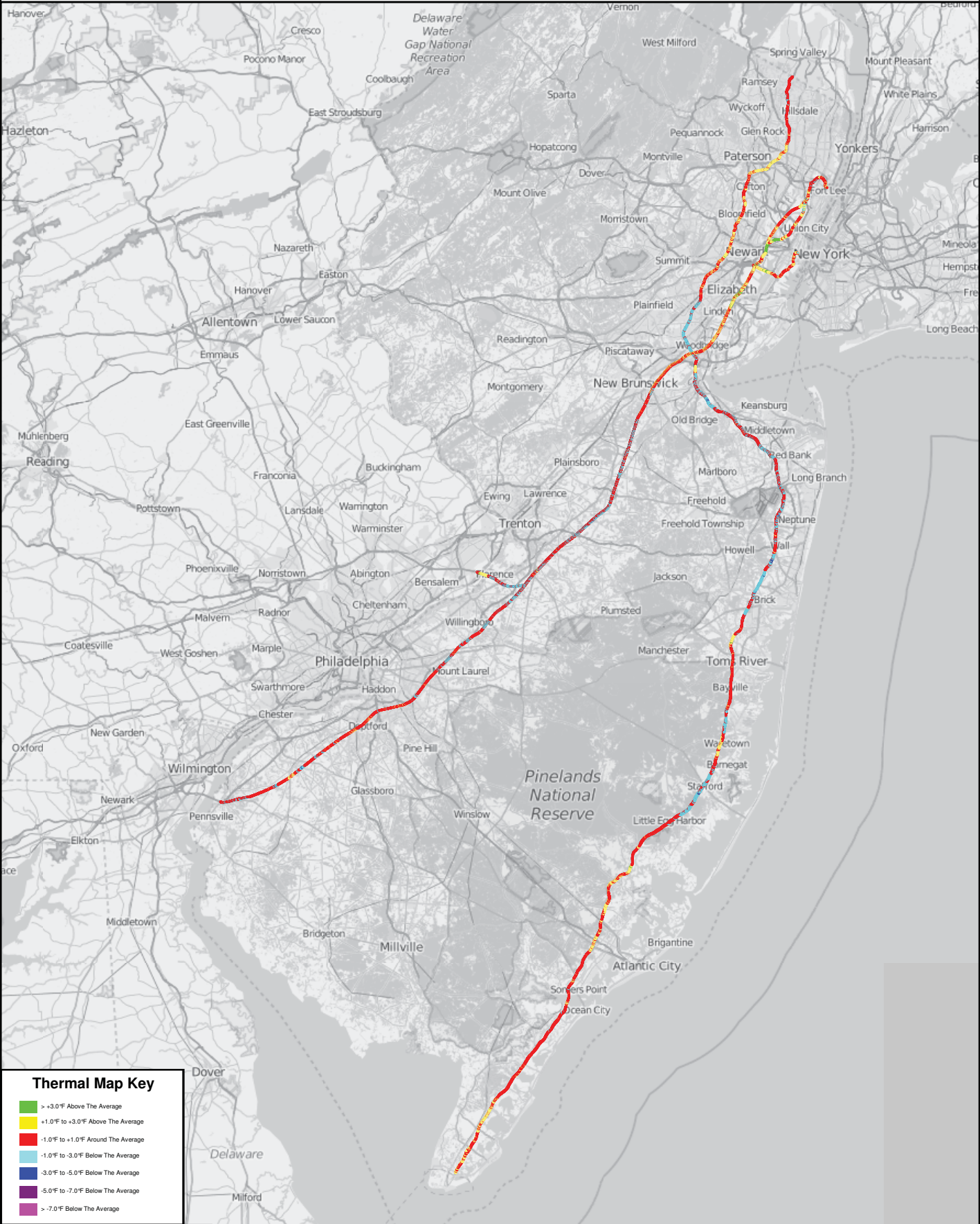
APPENDIX 4: SCOPE OF SERVICES REQUIRED ATTACHMENT LIST

The following are a listing of required attachments to the Proposal as specified in Section III, Scope of Services. These attachments are not included in the Proposal page limitation. Items 6 and 7 below may be included in the Proposal narrative rather than as separate attachments.

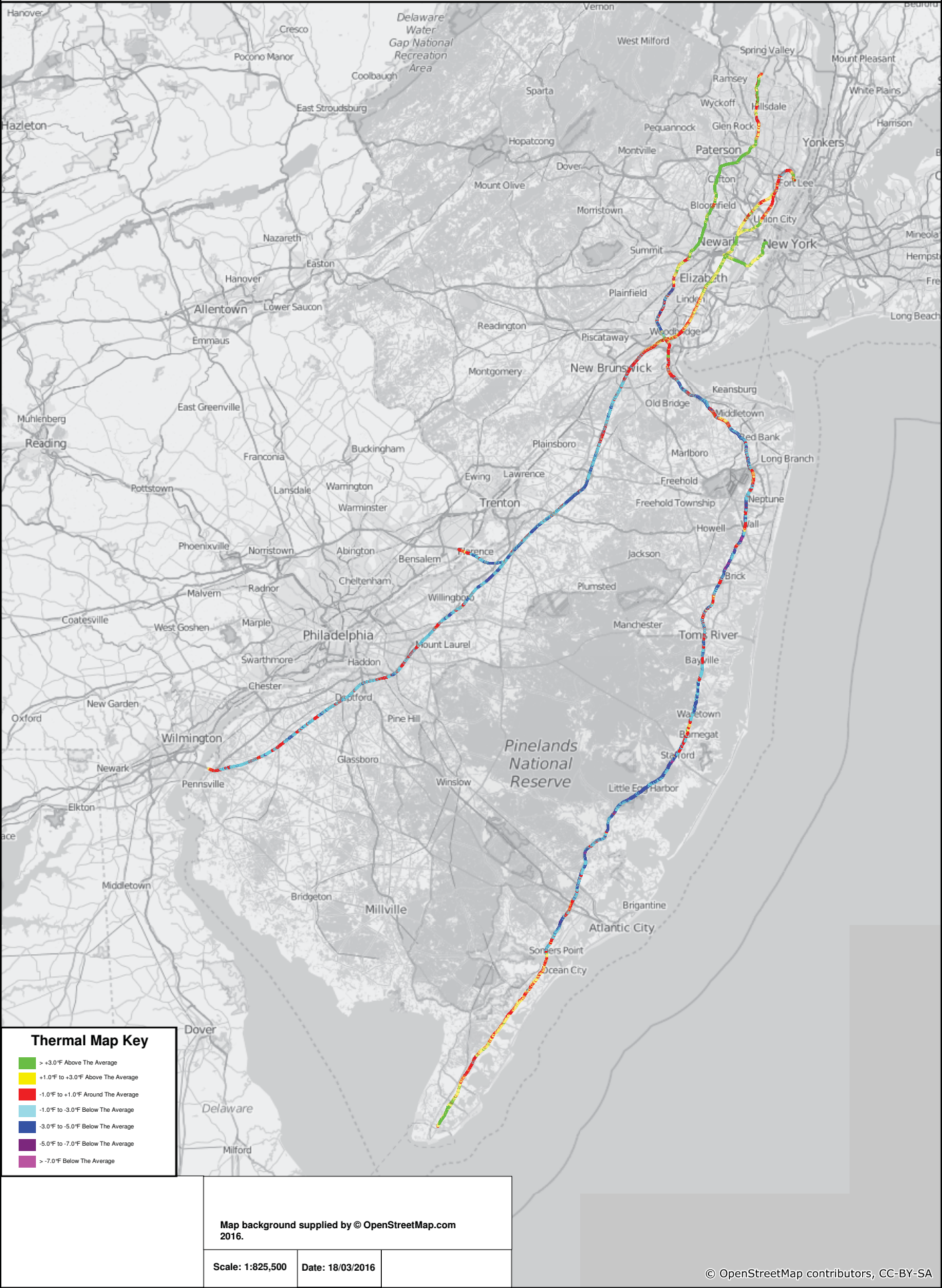
1. Proposers shall complete the attached RWIS Technical Compliance Form and submit it with their proposal to verify compliance or state exception with the hardware requirements specified in this Section (III.D.2, page 18).
2. Proposers shall also submit original equipment manufacturer data sheets for each proposed sensor, camera and RPU with their proposal (III.D.2, page 18).
3. Proposers shall submit third party testing and NTCIP compliance certification with their proposal documentation (III.D.2.b.vii, page 23).
4. Proposers shall provide typical wiring diagrams and drawings of the RPU cabinet with their proposal documentation (III.D.2.c.ix, page 26).
5. Proposers shall submit typical drawings showing the portable ESS dimensions, features, and layout with their proposal (III.D.2.d.ix, page 28).
6. Proposers shall provide details of their proposed software licensing model and software development life cycle plan with their Proposal (may be included in Proposal narrative) (III.D.3.b.iii, page 31).
7. Proposals shall include typical mobile application architecture and security parameter details with the proposal (may be included in Proposal narrative) (III.D.3.e, page 37).
8. Proposers shall include a preliminary system commissioning and test plan in their proposal (III.D.4.a, page 38).
9. Proposers shall submit a warranty statement and maintenance plan as part of their proposal (III.D.6, page 43).
10. Proposers shall include an itemized list of all spare parts and support equipment included in the Proposal (III.D.7, page 46).

APPENDIX 5: THERMAL DATA

New Jersey Turnpike Authority Damped Thermal Map 2015/16
Figure 3 Overall (Version 1.0, March 2016)

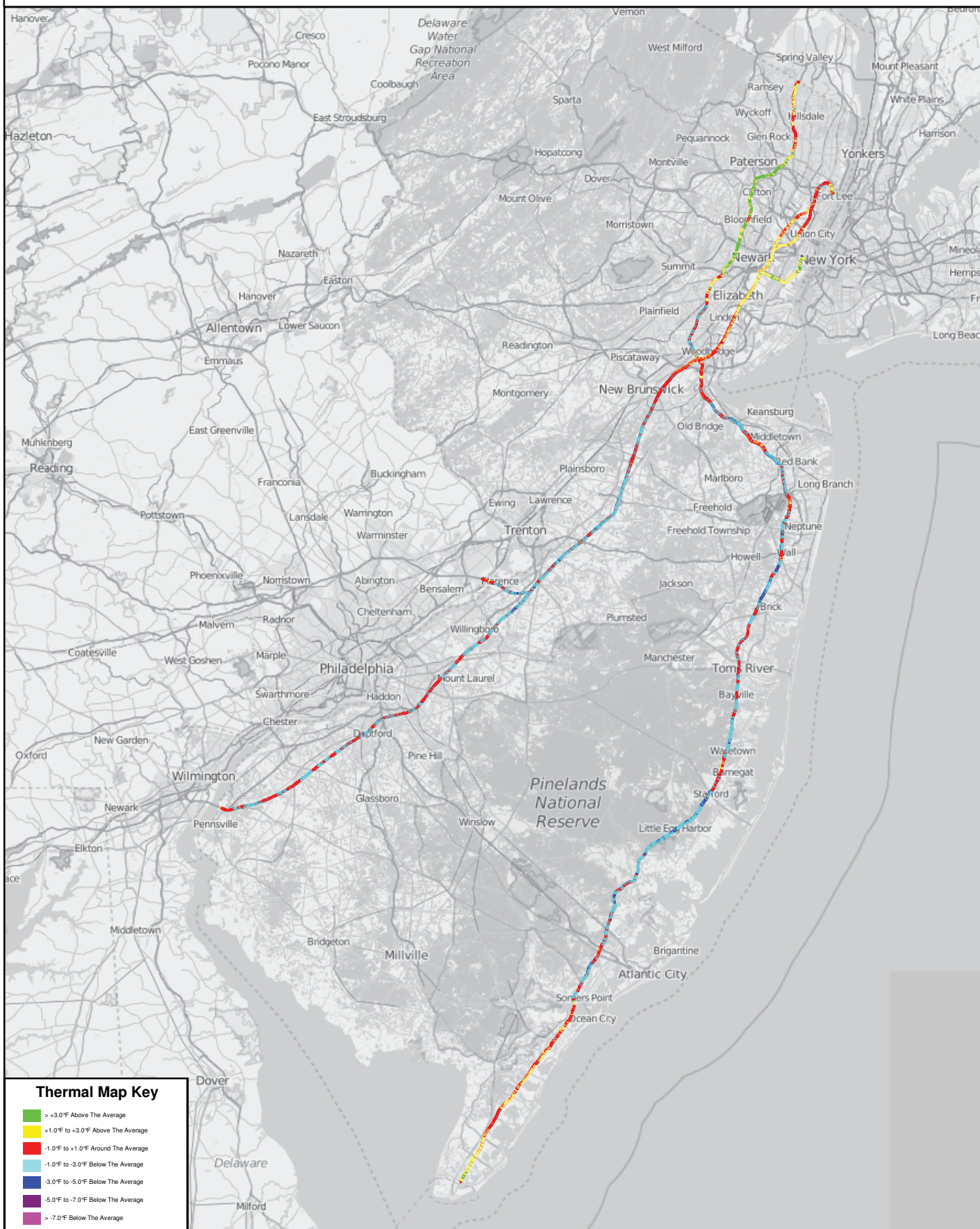


New Jersey Turnpike Authority Extreme Thermal Map 2015/16
Figure 1 Overall (Version 1.0, March 2016)



New Jersey Turnpike Authority Intermediate Thermal Map 2015/16

Figure 2 Overall (Version 1.0, March 2016)



Map background supplied by © OpenStreetMap.com 2016.

Scale: 1:825,500

Date: 18/03/2016

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