



New Jersey Turnpike Authority

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August 11, 2017

TO ALL PROPOSERS:

RE: New Jersey Turnpike Authority
Request for Proposal
Roadway Weather Information System Equipment and Services ("RWIS")
RM-133818

Responses to Inquiries

Dear Sir/Madam:

Below are the New Jersey Turnpike Authority's responses to inquiries received with respect to the above-referenced Request for Proposals ("RFP").

Response to Inquiry:

1. Page 21: B. Remote processing Unit: When you reference "Firmware" are you referring to a specific software solution or is the term "Firmware" used as a generic type of software that provides control, monitoring and data manipulation of engineered products and systems?

ANSWER: The term "firmware" refers to a generic type of software that provides control, monitoring and data manipulation of engineered products and systems.

2. Page 23: B.vi.F.1.1.2 Can you please provide a definition or clarification of what you require with the terminology "Provide Compressed Data"?

ANSWER: The term "Provide Compressed Data" refers to the requirements of Section F.1.1.2 of published standard NTCIP 1204, which explains the need for compressed data. The standard also defines which data objects should be compressed in the Protocol Requirements List (PRL) Table (Section 3.3.7), but doesn't require a specific compression method. As such, Proposers should indicate their compliance with the standard and are not limited to a specific compression method.

3. Page 32: B.iii What frames per second (FPS) and what resolution (bandwidth) be acceptable to meet this requirement or will video snapshots played as a stream satisfy this requirement?

ANSWER: A specific displayed video frame rate is not specified in the RFP. The intent of the video image is to verify and convey present weather and road surface conditions. Proposals should describe a solution that will satisfy this intent.

4. Page 33: BB.v. How many characters will be required for the comments viewable by all users?

ANSWER: A maximum character limit is not specified in the RFP. The intent is to enter and display short and concise user comments pertaining to station equipment or site status. A typical example of such a comment may be "Local power failure – electricians notified".

5. Page 36: D.v. Will NJ Turnpike be providing the vendor the route specific treatment plans with the detail per chemical type, amount, etc.?

ANSWER: Yes, the Authority's Snow and Ice Control Manual as well as FHWA Guidelines will be provided to the Vendor.

6. Is "measuring distance" for the noninvasive from the lens to the measuring surface or from the pole base to the measuring surface? 2.a.i (page 18).

ANSWER: The "measuring distance" for noninvasive sensors is from the lens to the measuring surface.

7. Will an all in one (combining wind speed/direction, temp, humidity, pressure) weather sensor solution be acceptable? 2.a.iii (page 19), 2.a.vi (page 20).

ANSWER: As stated in the RFP, "devices that have the capability to combine multiple measurements are acceptable if they provide an identified benefit to the Authority". Proposals should identify and explain any variations from the specified requirements.

8. Is the intent to have an invasive and a non-invasive sensor at each station? Please clarify the intent of sections 2.a.i (page 18), 2.a.vii (page 21).

ANSWER: The intent of Section 2.a.i is to provide non-invasive sensors capable of meeting the specified requirements. The intent of Section 2.a.vii is to provide sensors capable of providing surface chemical concentration and surface solution freeze point information. It is assumed that an invasive sensor is required to meet this requirement. The two sensor requirements are not mutually exclusive.

9. What de-icing chemicals does New Jersey Turnpike currently use? 2.a.vii (page 21).

ANSWER: A salt brine with pretreated rock salt (Granular Sodium Chloride treated with Liquid Magnesium Chloride and Organic Based Performance Enhancer (OBPE) is applied as a pretreatment. Liquid Magnesium Chloride with OBPE is used for on-board wetting. Liquid Magnesium Chloride with low molecular carbohydrate (EPA DfE designation) is used for direct application where required.

10. Can the ESS trailer differ in products but have same capabilities as other ESS stations to reduce power consumption? 2.d.ii (page 26).

ANSWER: It is the Authority's preference for the ESS trailer to be provided with the same products as fixed location stations in order to minimize maintenance training and spare parts inventory requirements. Variations from or exceptions to the specified requirements should be identified and explained in the proposal for consideration by the Authority.

11. Will NJ Turnpike accept a Non-invasive pavement surface state and temperature sensor with outputs of Dry, damp, wet, snow/ice, and critical wetness? 2.a.i. (page 18).

ANSWER: The operational specifications of proposed sensors should be documented in the Technical Compliance Matrix and submitted data sheets for consideration by the Authority. Any variation from or exception to the specified requirements should be identified and explained in the Technical Compliance Matrix or proposal.

12. Will NJ Turnpike accept a Non-invasive pavement surface state and temperature resolution of 0.18F and accuracy of +/- 1.44F? 2.a.i. (page 19).

ANSWER: See Answer to No. 11

13. Will NJ Turnpike accept a subsurface temperature resolution of 0.18F and accuracy of +/- 0.36F? 2.a.ii (page 19).

ANSWER: See Answer to No. 11

14. Will NJ Turnpike accept air temperature resolution accuracy of +/- 0.36F in the range (-4 to 122F) and +/- 0.9F? 2.a.iii (page 19).

ANSWER: See Answer to No. 11

15. Will NJ Turnpike accept a humidity sensor accuracy of 2%? 2.a.iii (page 19).

ANSWER: See Answer to No. 11

16. Will NJ Turnpike accept a solution for Visibility and present weather that does not provide Present Weather Identification? 2.a.v. (page 20).

ANSWER: See Answer to No. 11

17. Will NJ Turnpike accept a present weather sensor with an operating range of -40 to 122F? 2.a.v (page 20).

ANSWER: See Answer to No. 11

18. Will NJ Turnpike accept a wind sensor with a wind speed accuracy of +/- 0.67mph or 3% whichever is greater (5% for >78.3mph) with a resolution of 0.22mph? 2.a.vi (page 20).

ANSWER: See Answer to No. 11

19. Will NJ Turnpike accept a wind sensor with a wind direction accuracy of +/- 3 degrees? 2.a.vi (page 20).

ANSWER: See Answer to No. 11

20. Will the NJ Turnpike accept a Surface chemical concentration temperature accuracy of +/- 0.18F (-4 to 68C) else +/- 0.36C? 2.a.vii (page 21).

ANSWER: See Answer to No. 11

21. Will the NJ Turnpike accept a Surface chemical concentration water film accuracy of +/- 4mm? 2.a.vii (page 21).

ANSWER: See Answer to No. 11

22. Will the NJ Turnpike accept a weather verification camera with an operating temperature of -22 to 140F? 2.a.viii (page 21).

ANSWER: See Answer to No. 11

23. Will the NJ Turnpike accept a Remote processing unit that does not use a remote NTP server? Please note, typically the time is set against the polling server with each poll with NTCIP. 2.b.x (page 24).

ANSWER: The intent of Section 2.b.x is to provide time synchronization between weather stations. If time synchronization is provided at the server level, the operational intent will have been met.

24. In lieu of basing pavement forecasting on thermal mapping data will the NJ Turnpike accept meteorologist enhanced pavement forecasts, using graphical forecast editor (GFE)? III.D.3.c.vi (page 33).

ANSWER: The intent of including thermal mapping data in pavement forecasting is to meet the requirement to interpolate ESS data across all roadway segments and present the pavement forecast as a continuous dynamic color coded map in map view. Proposals may include alternative methods to achieve this requirement; however, any variation from or exception to the specified requirements should be identified and explained in the proposal.

25. Will the NJ Turnpike accept service software installed on the central server as the means to push firmware, updates, and diagnose stations remotely? III.D.3.c.xii (page 34).

ANSWER: The Authority acknowledges that equipment firmware updates and remote diagnostics might require manufacturer specific or third-party service software. This would be deemed acceptable as long as the proposed solution is identified as meeting the specified requirements.

26. "III.D.3.c.i 31 Forecasted alarms by road segment up to 24 hours in advance"
a. Will NJTA identify the road segments required to receive alerts?
b. Alerts should be based off of the pavement forecast, correct?
c. How should alerts be provided to NJTA officials?

ANSWER:

- a. Yes. Road segments will correspond with the jurisdictional boundaries of Authority maintenance districts.
b. Yes.
c. Section 3.c.x specifies acoustic, visual, email, and text notification of alarms and conditional alerts. Contact lists should be customizable by the Authority.

27. "III.D.3.c.vi 33 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."

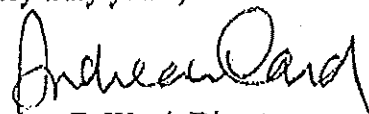
Will NJTA provide the winning provider with weather forecasting information? If not, will it be the responsibility of the winning bidder to work with the current weather forecasting provider to NJTA? Note: It is recognized that using the RWIS information is required for generating the real-time analysis of the pavement condition but a weather forecast is necessary for generating the future hours of the forecast.

ANSWER: The Authority will work with the Vendor to share atmospheric weather forecasting information received from its contracted forecast provider.

PROPOSALS ARE DUE ON Thursday, August 24, 2017 at 4:30 PM EST.

AEW:am
Enc.

Very truly yours,


Andrea E. Ward, Director
Procurement and Materials Management