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THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



40

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

Bureau of Materials & Research
February 28, 2018

REQUESTED ACTION

Authorize the Department of Transportation to enter into an Agreement totaling \$66,400 with the City of Dover (Vendor #177380), for a total fee not to exceed \$66,400. Funding is provided by the **Federal State Transportation Innovation Councils (STIC) Incentive Program** through project STIC Incentive for AASHTO SPaT Challenge (NHDOT 40792D), effective upon Governor and Council approval, through January 31, 2019. 100% Federal Funds.

Funding to support this request are anticipated to be available in the following account in State FY 2018:

04-96-96-963515-3054	<u>FY 2018</u>
Consolidated Federal	
046-500464 General Consultants Non-Benefit	\$66,400

EXPLANATION

The purpose of the STIC Incentive Program is to provide funding to support the costs of standardizing innovative practices in a state transportation agency or other public sector.

This project will help the Department respond to AASHTO's Signal Phasing and Timing (SPaT) Challenge – a challenge to state and local public sector transportation infrastructure owners and operators to cooperate together to achieve deployment of Dedicated Short Range Communications (DSRC) infrastructure with SPaT broadcasts in at least one corridor or network (approximately 20 signalized intersections) in each of the 50 states by January 2020.

The city of Dover is a leader in New Hampshire for transportation technology, with 14 intersections operating McCain Advanced Transportation Controllers in four coordinated systems all connected to a central management system. As such, the city of Dover is a natural test bed for innovative technologies such as Vehicle to Infrastructure (V2I).

STIC Incentive funds provide a Federal share of 80 percent. The 20 percent non-Federal match may come from project sponsors or other allowable funding sources. For reference, the following table shows the funding allocations:

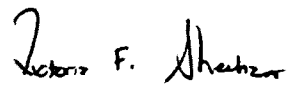
Agency	Federal STIC Funds	City of Dover Funds	Project Total
Cost	\$66,400 (80%)	\$16,600 (20%)	\$83,000

Authorization is requested to allow the Department to enter into this agreement with the sub-recipient to ensure compliance with Federal Aid requirements and to permit State personnel to supervise the project and the Department to expend Federal funds.

This Agreement has been approved by the Attorney General as to form and execution and the Department has verified that the necessary funds are available. Copies of the fully-executed Agreements are on file at the Secretary of State's Office and the Department of Administrative Services, and subsequent to Governor and Council approval will be on file at the Department of Transportation.

It is respectfully requested that authority be given to enter into a sole-source Agreement for consulting services as outlined above.

Sincerely,

A handwritten signature in black ink, appearing to read "Victoria F. Sheehan". The signature is written in a cursive style with a large initial "V".

Victoria F. Sheehan
Commissioner

Attachments

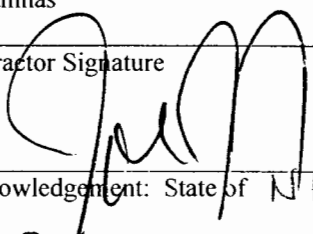
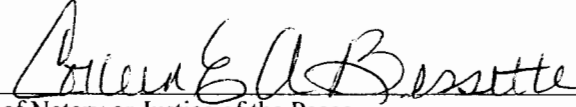
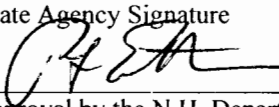
Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name New Hampshire Department of Transportation		1.2 State Agency Address 7 Hazen Drive Concord, NH 03302	
1.3 Contractor Name City of Dover		1.4 Contractor Address 288 Central Avenue Dover, NH 03820	
1.5 Contractor Phone Number 603-516-6030	1.6 Account Number 04-96-96-962015-3054-046	1.7 Completion Date January 31, 2019	1.8 Price Limitation \$66,400.00
1.9 Contracting Officer for State Agency Peter E. Stamnas		1.10 State Agency Telephone Number 603-271-1486	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory J. Michael Joyal Jr. City Manager	
1.3 Acknowledgement: State of <u>NH</u> , County of <u>Strafford</u> On <u>3-7-18</u> , before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace [Seal] 			
1.13.2 Name and Title of Notary or Justice of the Peace <u>Colleen E. A. Besette, Executive Assistant</u>			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory <u>PETER E. STAMNAS</u> Director of Project Development	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable) By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution) (if applicable) By: <u>Allan Bygrenstia</u> On: <u>4/11/18</u>			
1.18 Approval by the Governor and Executive Council (if applicable) By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 (“State”), engages Contractor identified in block 1.3 (“Contractor”) to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference (“Services”).

3. EFFECTIVE DATE/COMPLETION OF SERVICES.
3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 (“Effective Date”).
3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

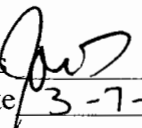
CONDITIONAL NATURE OF AGREEMENT.
Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.
5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State I have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.
5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.
6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. In addition, the Contractor shall comply with all applicable copyright laws.
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.
6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 (“Equal Employment Opportunity”), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor’s books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.
7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this

Contractor Initials 
Date 3-7-18

Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA Chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement.

Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than thirty (30) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("*Workers' Compensation*").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

19. CONSTRUCTION OF AGREEMENT AND TERMS.

This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

Exhibit A

Dover NH SPaT Challenge Work Plan

2/8/18

I Challenge Overview:

The NHDOT is proposing to respond to AASHTO's Signal Phasing and Timing (SPaT) Challenge – “a challenge to state and local public sector transportation infrastructure owners and operators to cooperate together to achieve deployment of Dedicated Short Range Communications (DSRC) infrastructure with SPaT broadcasts in at least one corridor or network (approximately 20 signalized intersections) in each of the 50 states by January 2020. SPaT broadcasts are expected to be accompanied by a data file of the physical intersection geometry (MAP) and Radio Technical Commission for Maritime Services (RTCM) broadcasts.”¹

The SPaT message is relatively simple to deploy and fundamental to a number of Vehicle to Infrastructure (V2I) applications. It can be obtained from an Advance Transportation Controller (ATC) via a standard query protocol and can be broadcast by most DSRC roadside devices as a standardized data message. For some future applications, global navigation satellite differential correction information, as standardized by the Radio Technical Commission for Maritime Services (RTCM), will also need to be broadcast to enable applications on the vehicle to properly reference and interpret the MAP information being broadcast.

Overall the SPaT Challenge is intended to explore the existing technology options for V2I, lay the groundwork for future deployments, and to demonstrate to the automobile industry that public infrastructure owners are committed to building the necessary infrastructure to support V2I and entice them to move forward with these applications.

Available Funding

The federal Highway Administration awarded \$66,400 of State Transportation Innovation Council's (STIC) Incentive Funds to the New Hampshire Department of Transportation. NHDOT intends to partner with the City of Dover, and its traffic consultant Sebago Technics, to administer these funds in a responsible manner. Sebago, with the assistance of University of New Hampshire's Connectivity Research Center, will provide the technical engineering, oversight, testing and reporting associated with this Project under the direction of NHDOT's Traffic Bureau and Dover's Community Services Department.

Proposed Tasks

The city of Dover is a leader in New Hampshire for transportation technology, with 14 intersections operating McCain ATC controllers in four coordinated systems all connected to a central management system. As such, the city of Dover is a natural test bed for innovative technologies such as V2I.

As funding is limited, it was determined that the scope of the project would be narrowed to the 3 intersections on Silver Street and a map of the Silver Street intersections is attached. These intersections were recently upgraded with McCain ATC controllers, Gridsmart 360° cameras, and a Fiber based network interconnect. The focus of this project will be on exploring technology options for V2I and testing existing deployment software, such as the V2I hub, rather than outfitting a large number of intersections. In addition it was decided that the development of the RTCM GPS correction message would be excluded due to the difficulties of developing and testing the message.

¹ AASHTO SPaT Challenge [Website](#)

To meet the objectives of the SPaT Challenge we are proposing the following:

- A. Install a DSRC set up at three intersections within the city of Dover located on Silver Street
- B. Utilize the existing network to send the SPaT message over the LTE network
- C. Determine the potential benefits of using a combination of both the DSRC set up and the LTE network

Each of these objectives are detailed on the attached figure and are described in further detail below.

A: DSRC Radio

The implementation of the DSRC Radios is proposed to be accomplished by the following tasks;

- A1) The DSRC radios, the mini PCs running the V2I hub software, and the receiving DSRC radio will all be configured and tested in a lab environment.
- A2) Each intersection signal cabinet will be equipped with both a DSRC radio and V2I hub mini PC.
- A3) The McCain ATC controller would then be connected to the mini PC to transfer the SPaT message.
- A4) The map data would then be produced using both the MAP message creation tool developed by Leidos through the USDOT and the methodology used for the V2I hub. The two MAP messages will then be compared to determine the ease of creating the message and the relative accuracy of both methods. One of the MAP messages will then be stored on the mini PC to be used by the V2I hub software.
- A5) The V2I software would then be activated, which will combine the SPaT message from the controller and the MAP message in the J2735 message format and then send the J2735 message to the DSRC radio to be broadcast.
- A6) The J2735 message broadcast from the signal cabinet will be tested using a receiving DSRC radio connected to a computer based vehicle unit.

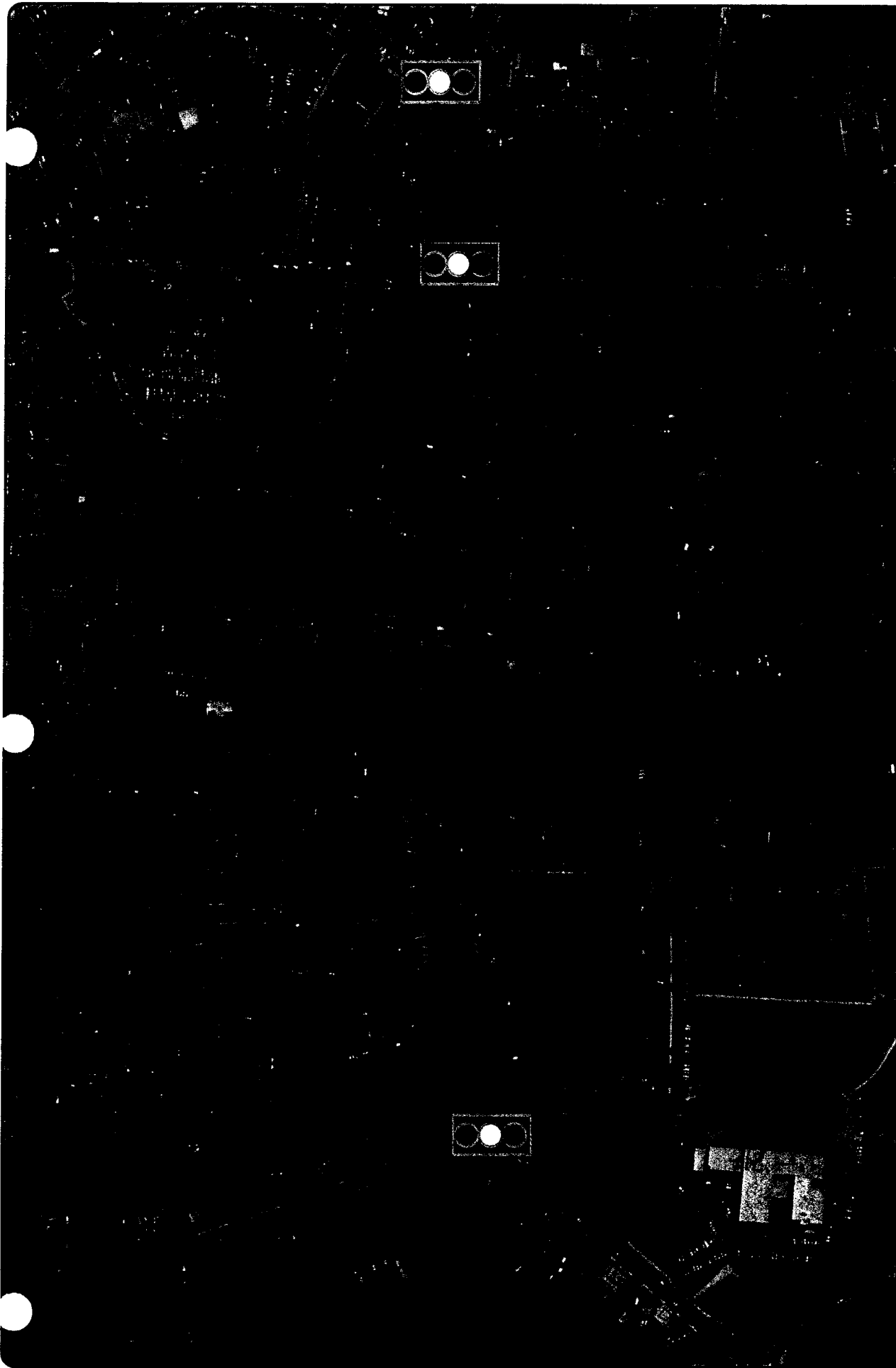
B: Central Management System and The LTE Network

The following tasks outline an alternative method of broadcasting the J2735 message using the existing traffic network and the LTE network.

- B1) A mini PC running the V2I hub will be installed and connected into a test network in a lab environment to be configured and tested. Connectivity to the V2I hub mini PC will be tested through a LTE network.
- B2) The V2I hub mini PC will be installed and connected into Dover's traffic network
- B3) The V2I hub mini PC will request the SPaT messages from the desired controllers through the traffic network.
- B4) The V2I Hub on the mini PC will combine the SPaT messages with the MAP message produced in Task A3 to produce the J2735 message.
- B5) The J2735 message for each intersection would then be stored on a IP accessible location.
- B6) Accessing the J2735 message will then be tested in field using a LTE enabled device within a vehicle.

C: DSRC Radio With The LTE Network

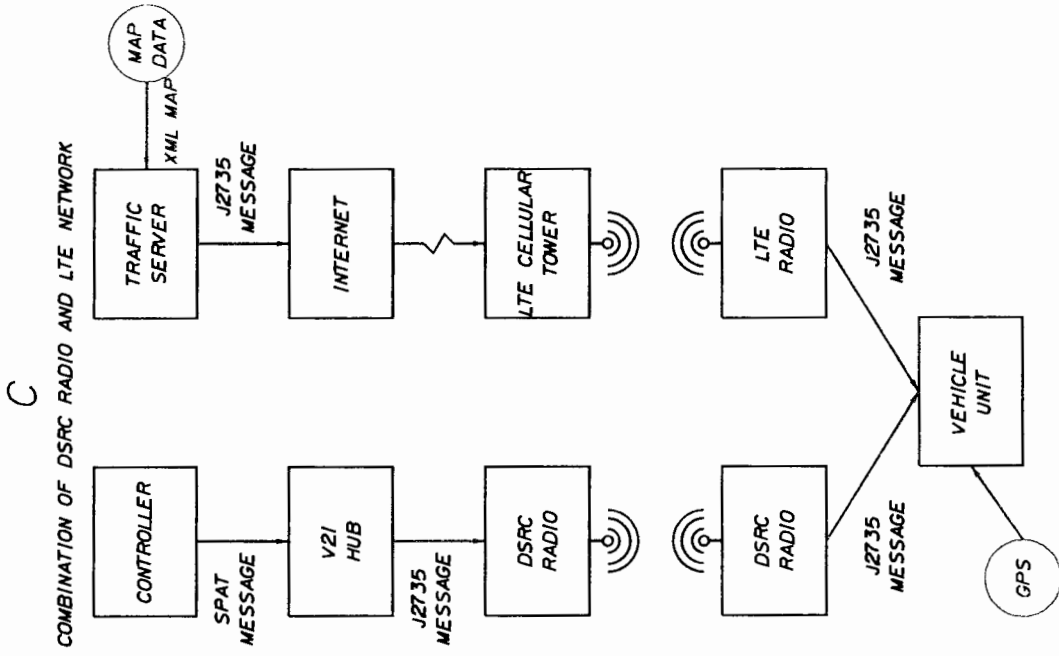
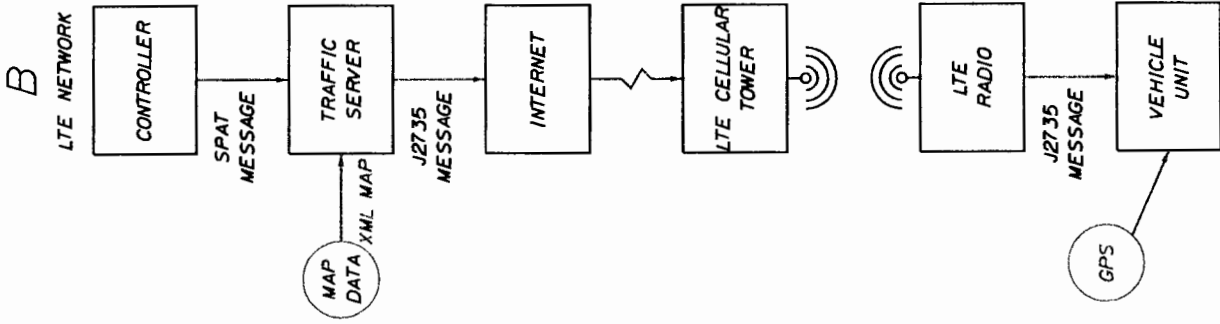
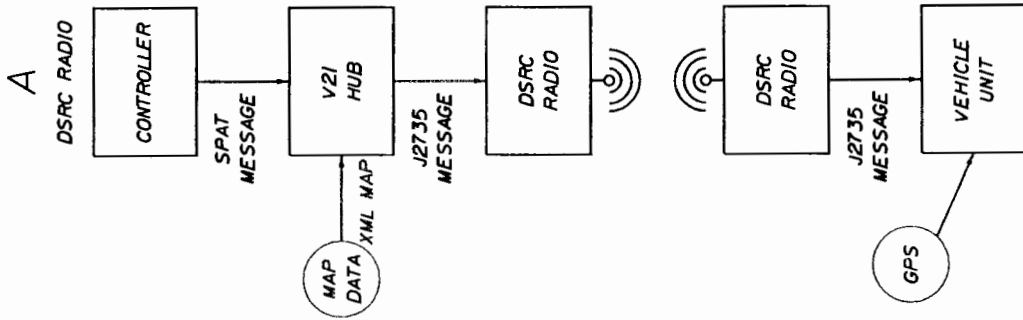
A combination of the DSRC and LTE technologies will be tested to explore any potential benefits of using both technologies together.



SCALE: 1" = 350'
DATE: 1-19-18
SHEET: 1 OF 1

SILVER STREET SIGNALIZED INTERSECTIONS
DOVER, NEW HAMPSHIRE

SEBAGO
TECHNICS
WWW.SEAGOTECHNICS.COM
75 John Roberts Rd.
Suite 4A
South Portland, ME 04106
Tel. 207-200-2300



SCALE: NTS
DATE: 1/19/18
SHEET: 1 OF 1

SPAT CHALLENGE TASKS

Exhibit B

Dover NH SPaT Challenge Funding

2/8/18

Funding Allocation:

Hardware Costs

DSRC Radio and Related Equipment Purchase Cost	\$5,000/Radio	\$15,000
Installation Labor Costs		\$2,500
Mini PC for the V2I Hub Software	\$400/Mini PC	\$1,600
Vehicle Computer with GPS		\$1,000
4G LTE Capable Device		<u>\$300</u>
Total:		\$20,400

Engineering and Testing

Task A1: Lab Testing of DSRC Radio		\$4,000
Tasks A2, A3, and B2: Installation and setup for V2I Hub Mini PCs		\$5,600
Task A4: Creation of Map Data		\$4,000
Task A6: Field Testing of the DSRC Radio		\$13,000
Task B1: Lab Testing of the LTE Network		\$4,000
Tasks B2 and B3: Installation and configuration of the mini PC on the traffic Network		\$2,000
Task B5: Field Testing of the LTE Network		\$13,000
Task C: Combination of DSRC Radio and LTE Network Testing		<u>\$17,000</u>
Total:		\$62,600

Overall \$83,000

The Federal Highway Administration awarded \$66,400 of State Transportation Innovation Council's (STIC) Incentive Funds to the New Hampshire Department of Transportation.

UNH will provide the local match as a subcontractor with Sebago Technics and provide documentation for their contributions to the Project including their staff time, any equipment purchases, and how they met the 20% federal match of \$16,600.

Project Schedule:

Notice to Proceed	by May 1, 2018
Prepare a solicitation and procure the radios for installation	by May 21, 2018
Secure the necessary DSRC licensing	by June 15, 2018
Lab test the DSRC Radios and LTE Network	by June 29, 2018
Install the radios in the field	by August 30, 2018
Field test, demonstrate, and report results	by October 31, 2018

**EXHIBIT C
SPECIAL PROVISIONS
FOR**

**CITY OF DOVER
STATE VENDOR #: 177380
STATE PROJECT #: 40792D
FEDERAL PROJECT #: A004(671)**

This contract shall be administered in general accordance with the general provisions of the Agreement found in Form P-37 as modified by the following terms.

C.1. Amend P-37 Section 5. CONTRACT PRICE/PRICE LIMITATION PAYMENT by adding the following:

5.5 The contractor shall submit quarterly progress reports and invoices to the State for reimbursement of its share of the amounts paid to engineering and research consultants for the performance of the work set forth in the Agreement. The invoice structure shall include details of work completed consistent with the Scope of Work as defined in the Agreement, as well as backup information to support the charges. The Contractor shall certify that the invoices properly represent payment for work that has been completed and paid for by the Contractor.

5.6. The Contractor is required to maintain all project and financial records pertinent to the development of the Project for three (3) years beyond the date of the State's final voucher. The State will send a letter to the Contractor with the date of this approval. If there is a failure to maintain this documentation, State and/or Federal Highway Administration could take an action up to and including requesting a refund of all reimbursed project costs.

5.7. That this Agreement is contingent upon the appropriation of sufficient funds from the State of New Hampshire Legislature and/or the Federal Highway Administration. If sufficient funds are not appropriated, the Department may terminate this Agreement upon thirty (30) days' written notice to the Contractor. Such termination shall relieve the Department and the Contractor from obligations under this Agreement after the termination date.

C.2. Amend P-37 Section 6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY by the following:

Add the following sentence to 6.1:

In connection with the performance of the Services, the Contractor shall comply with all Federal and State of New Hampshire laws and rules, regulations, and policies as applicable under the Federal-aid Highway Program.

Substitute 6.2 with following paragraph:

The Contractor agrees that it will comply with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d—2000d-4 (referred to as the ACT), and all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, US State of Transportation, Subtitle A, Office of the Secretary, Part 21, “Non-discrimination in Federally-Assisted Programs of The State of Transportation – Effectuation of Title VI of the Civil Rights Act of 1964” (referred to as the “REGULATIONS”), the Federal-aid Highway Act of 1973, and other pertinent directives, to the end that no person shall on the grounds of race, color, national origin, sex, age, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity for which the Contractor receives Federal financial assistance extended by the State of New Hampshire. This Agreement obligates the Contractor for the period during which Federal financial assistance is extended.

C.3. Amend P-37 Section 14. INSURANCE by adding the following:

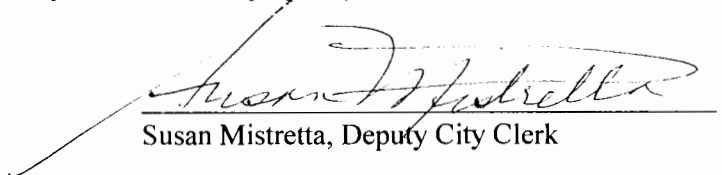
14.4. The Contractor shall defend, indemnify and hold harmless the State and its officials, agents and employees from and against any and all claims, liabilities or suits arising from (or which may be claimed to arise from) any act or omission of the Contractor or its subcontractors in the performance of this Agreement. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State of New Hampshire which immunity is hereby reserved. This covenant shall survive the termination of this Agreement.

CERTIFICATE OF AUTHORITY

I, Susan M. Mistretta, Deputy City Clerk for the City of Dover, New Hampshire, do hereby certify that the City Council authorized the City Manager on May 3, 2017 to accept AASHTO signal Phasing and Timing (SPAT) Challenge NHDOT #40792D funds and enter into agreement with the Department of Transportation for the purposes of a signal phasing and timing project. They authorized the City Manager to execute any documents which may be necessary for the City of Dover; this authorization has not been revoked, annulled or amended in any manner whatsoever, and remains in full force and effect as of the date hereof; and the following now occupies the office indicated above:

JAMES MICHAEL JOYAL, JR., CITY MANAGER

IN WITNESS WHEREOF, I have hereunto set my hand as the Deputy City Clerk of Dover, New Hampshire this 7th day of March, 2018.


Susan Mistretta, Deputy City Clerk

STATE OF NEW HAMPSHIRE
COUNTY OF STRAFFORD

On this the 7th day of March, 2018, before me, the undersigned officer, personally appeared Susan Mistretta, Deputy City Clerk, who acknowledged herself to be the Deputy City Clerk for the City of Dover New Hampshire and that she, as such Deputy City Clerk, being authorized to do so, executed the foregoing instrument for the purpose therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.


Notary Public **LAUREN FONTAINE, Notary Public**
My Commission Expires May 15, 2018

(Seal)

My Commission expires: _____



CERTIFICATE OF COVERAGE

The New Hampshire Public Risk Management Exchange (Primex³) is organized under the New Hampshire Revised Statutes Annotated, Chapter 5-B, Pooled Risk Management Programs. In accordance with those statutes, its Trust Agreement and bylaws, Primex³ is authorized to provide pooled risk management programs established for the benefit of political subdivisions in the State of New Hampshire.

Each member of Primex³ is entitled to the categories of coverage set forth below. In addition, Primex³ may extend the same coverage to non-members. However, any coverage extended to a non-member is subject to all of the terms, conditions, exclusions, amendments, rules, policies and procedures that are applicable to the members of Primex³, including but not limited to the final and binding resolution of all claims and coverage disputes before the Primex³ Board of Trustees. The Additional Covered Party's per occurrence limit shall be deemed included in the Member's per occurrence limit, and therefore shall reduce the Member's limit of liability as set forth by the Coverage Documents and Declarations. The limit shown may have been reduced by claims paid on behalf of the member. General Liability coverage is limited to Coverage A (Personal Injury Liability) and Coverage B (Property Damage Liability) only, Coverage's C (Public Officials Errors and Omissions), D (Unfair Employment Practices), E (Employee Benefit Liability) and F (Educator's Legal Liability Claims-Made Coverage) are excluded from this provision of coverage.

The below named entity is a member in good standing of the New Hampshire Public Risk Management Exchange. The coverage provided may, however, be revised at any time by the actions of Primex³. As of the date this certificate is issued, the information set out below accurately reflects the categories of coverage established for the current coverage year.

This Certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend, or alter the coverage afforded by the coverage categories listed below.

Participating Member: City of Dover 288 Central Avenue Dover, NH 03820	Member Number: 280	Company Affording Coverage: NH Public Risk Management Exchange - Primex ³ Bow Brook Place 46 Donovan Street Concord, NH 03301-2624
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Type of Coverage	Effective Date (month/year)	Expiration Date (month/year)	Limits - All Damages	Limits - Any Auto Policy
<input checked="" type="checkbox"/> General Liability (Occurrence Form) Professional Liability (describe) <input type="checkbox"/> Claims Made <input type="checkbox"/> Occurrence	7/1/2017	7/1/2018	Each Occurrence \$ 5,000,000 General Aggregate \$ 5,000,000 Fire Damage (Any one fire) Med Exp (Any one person)	
Automobile Liability Deductible Comp and Coll: \$1,000 <input type="checkbox"/> Any auto			Combined Single Limit (Each Accident) Aggregate	
<input checked="" type="checkbox"/> Workers' Compensation & Employers' Liability	7/1/2017	7/1/2018	<input checked="" type="checkbox"/> Statutory Each Accident \$2,000,000 Disease - Each Employee \$2,000,000 Disease - Policy Limit	
<input checked="" type="checkbox"/> Property (Special Risk includes Fire and Theft)	7/1/2017	7/1/2018	Blanket Limit, Replacement Cost (unless otherwise stated)	Deductible: \$1,000

Description: Proof of Primex Member coverage only.

CERTIFICATE HOLDER:	Additional Covered Party	Loss Payee	Primex³ - NH Public Risk Management Exchange
			By: <i>Tammy Deaver</i>
			Date: 2/21/2018 tdenver@nhprimex.org
State of New Hampshire Department of Transportation 7 Hazen Dr Concord, NH 03302			Please direct inquires to: Primex³ Claims/Coverage Services 603-225-2841 phone 603-228-3833 fax