

Addendum #6
Contract E5N82
Brevard County Advance Traffic Management System
February 10, 2011

The Request for Proposal for the above referenced project is amended as follows:

ATTACHMENTS

- Attachment 1: Design/Build Utility Agreement
- Attachment 2: Division I Design Build Specifications
- Attachment 3: SP0090503ES (Only applies to FM 428597-1-52-01)
- Attachment 4: SP0070111ES (Only applies to FM 428597-1-52-01)
- Attachment 5: SP0090801ES (Only applies to FM 428597-1-52-01)
- Attachment 6: ITS Damage Recovery Specifications
- Attachment 7: Traffic Adaptive System
- Attachment 8: Permit Exemption Policy Memo
- Attachment 9: SP0072800**

The attachments listed in the table of contents are by this reference hereby incorporated into and made a part of this RFP as though fully set forth herein.

I. Introduction.

The Florida Department of Transportation (Department) has issued this Request for Proposal (RFP) to solicit competitive bids and proposals from Proposers for the design and construction of ITS infrastructure and ITS sub-system components along the following corridors in Brevard County, Florida:

- **SR 500 (US 192) from the I-95 Southbound Ramps to ~~Babeock Street~~ Dairy Road**
- SR 518 (Eau Galle Blvd/Montreal Ave) from CR 509 (Wickham Road) to Pineapple Ave.
- SR 520 (King Street) from Clearlake Road to Banana River Drive
- SR 5 (US 1) from Peachtree Street to Eyster Blvd.
- **SR 5 (US 1) from ~~Aurora Road~~ Lake Washington Road to ~~SR 5054 (Sarno) Road~~ Babcock St**
- SR 50 (Cheney Hwy) from I95 to SR 405
- SR 405 (Columbia Blvd) from SR 50 (Cheney Hwy) to SR 5 (US1)
- Palm Bay Road from Minton to Robert J. Conlan Blvd.
- Minton Road from I95 overpass to Emerson Drive NW
- CR 509 (Wickham Road) from SR 5054 (Sarno Road) to SR 500 (US 192)

Description of Work

Sub-Project 1 – (FM 428597-1) has a maximum bid price of \$874,558.00 and includes the installation and/or adjustment of the ITS sub-components to include a FON and a CCTV camera system for:

- Corridor 1 (SR 500/US 192) – From I95 South Bound Ramps to ~~Babeock Street~~ Dairy Road
- Corridor 2 (SR 518/Eau Galle Blvd/Montreal Ave) – From CR 509/Wickham Road to Pineapple Ave.

Proposers shall note a sketch of the existing ITS infrastructure known throughout the limits of Corridor 1 in Sub-Project 1 is provided as Document 2 for use in evaluation of design and construction of the work described above. Use of existing conduit and aerial infrastructure for design and installation of the new 72-strand, 12-fiber buffer, fiber optic cable is encouraged. Proposers shall submit technical and price proposals per the instructions specified in section VII of this RFP.

In the event that the Design/Build Firm’s bid for Sub-Project 1 is below the maximum bid amount for Sub-Project 1, the required installation of wireless VDS’s to include implementation of traffic adaptive signal control shall be added to the scope of work for Sub-Project 1 as Options in order to maximize the scope of work accomplished within the maximum bid price. Any Options added to Sub-Project 1 shall not cause the bid price for Sub-Project 1 to exceed the maximum bid price established. Each Option shall be individually added in the order as shown in the table below:

Options	Locations
Option 1	SR 500 (US 192) and I-95 Southbound Ramps
Option 2	SR 500 (US 192) and I-95 Northbound Ramps
Option 3	SR 500 (US 192) and Dike Road
Option 4	SR 500 (US 192) and John Rodes Boulevard
Option 5	SR 500 (US 192) and CR 509 (Wickham Road/Minton Road)
Option 6	SR 500 (US 192) and Meadowland Avenue
Option 7	SR 500 (US 192) and Dayton Boulevard
Option 8	SR 500 (US 192) and Laila Court
Option 9	SR 500 (US 192) and Evans/Hollywood Road
Option 10	SR 500 (US 192) and McClain Drive
Option 11	SR 500 (US 192) and Melbourne Square Entr.
Option 12	SR 500 (US 192) and Dairy Road
Option 13	SR 500 (US 192) and Airport Boulevard
Option 14	SR 500 (US 192) and South Country Club Road
Option 15	SR 500 (US 192) and Babcock Street
Option 13	SR 518 (Eau Gallie Blvd) and Croton Rd
Option 14	SR 518 (Eau Gallie Blvd) and Commadore Blvd
Option 15	SR 518 (Eau Gallie Blvd) and SR 5 (US 1)

Option 16	SR 518 (Eau Gallie Blvd) and Highland Ave
Option 17	SR 518 (Eau Gallie Blvd) and Pineapple
Option 18	SR 518 (Montreal Ave) and Highland Ave
Option 19	SR 518 (Montreal Ave) and Pineapple Ave

Specification, guidelines and references that pertain to the American Recovery and Reinvestment Act of 2009 (ARRA) that are contained within this RFP shall only be applicable to the scope of work for Sub-Project 1 (FM 428597-1-52-01).

Sub-Project 2 – (FM 428919-1) includes all remaining Options that are not included in the bid price proposal for Sub-Project 1 and installation and/or adjustment of the ITS sub-components to include a FON, CCTV camera system, wireless VDS and traffic adaptive signal control for:

- Corridor 3 (SR 520) – From Clearlake Road to South Banana River Drive
- Corridor 4 (SR5/US 1) – From Peachtree Street to Eyster Blvd
- Corridor 5 (SR5/US 1) – From Aurora Road Lake Washington Road to SR 5054 (Sarno) Road Babcock St.
- Corridor 6 (SR 50/Cheney Hwy) – From I95 to SR 405
- Corridor 7 (SR 405/Columbia Blvd) – SR 50/Cheney Hwy to SR5/US1

Corridor 3 of Sub-Project 2 involves the installation, replacement and/or adjustment of bridge conduit and FOC at the Merritt Island Causeway between US 1 and Tropical Trail and between Skyes Creek Pkwy and S. Banana Drive. Although, the Design Build Firm shall be required to add a new 72 Strand, 12-fiber buffer FOC at the aforementioned locations, the Design Build Firm shall note that new conduit will be installed on the Merritt Island Causeway between US1 and Tropical Trail as a part of another project. The Design Build Firm shall utilize said conduit and must coordinate with the Department as to the availability of the conduits preparedness for fiber installation. Additionally, the Design Build Firm shall remove and dispose of the existing HDPE conduit attached to the Merritt Island Causeway at said location.

II. Schedule of Events.

Below is the current schedule of the remaining events that will take place in the selection process. The Department reserves the right to make changes or alterations to the schedule as the Department determines is in the best interest of the public. Proposers will be notified sufficiently in advance of any changes or alterations in the schedule. Unless otherwise notified in writing by the Department, the dates indicated below for submission of items or for other actions on the part of a Proposer shall constitute absolute deadlines for those activities and failure to fully comply by the time stated shall cause a Proposer to be disqualified.

Date	Event
October 4, 2010	Shortlist meeting
October 11, 2010	Deadline for submission of written questions prior to the pre-proposal meeting

October 12, 2010	Pre-proposal meeting at 1:30 p.m. local time in Cypress A Conference Room, District Office - 719 S. Woodland Blvd., Deland, FL
December 21, 2010	Final deadline for submission of questions/information
November 3, 2010	Technical Proposals due in District Office by 2:00 p.m. local time. NOTE: This submittal will be considered null and void.
November 23, 2010	Revisions to Technical Proposal sections that are affected by question 7 and 16 of the DB Questions and Responses on the website are due in District Office (attention: Chela Wood) by 2:00 p.m. local time. Do not resubmit the entire proposal. Submit only those pages that include any updated changes, and changes made are to be highlighted. NOTE: This submittal will be considered null and void.
February 16, 2011	Deadline for submission of written questions prior to the pre-proposal meeting
February 17, 2011	Pre-proposal meeting at 10:00 a.m. local time in Cypress A Conference Room, District Office - 719 S. Woodland Blvd., Deland, FL
March 16, 2011	Final deadline for submission of questions/information
March 1, 2011	Technical Proposals due in District Office by 2:00 p.m. local time. This is the only Technical Proposal submittal that will be considered.
to be determined March 15, 2011	Question and Answer Session in the Lake Volusia County Conference Room, District Office – 719 S. Woodland Blvd, DeLand, FL. Times will be assigned during the pre-proposal meeting. One hour will be allotted for questions and responses.
to be determined March 23, 2011	Price Proposals due in District Office by 2:00 p.m. local time.
to be determined March 23, 2011	Public announcing of Technical Scores and opening of Price Proposals at 2:00 p.m. local time in Volusia County Conference Room, District Office - 719 S. Woodland Blvd, Deland, FL
to be determined March 28, 2011	Public Meeting of Selection Committee to determine intended Award at 8:15 a.m. in the District Office – 719 S. Woodland Blvd, Deland, FL
to be determined March 28, 2011	Posting of the Department’s intended decision to Award (will remain posted for 72 hours/days)
to be determined April 1, 2011	Anticipated Award Date
to be determined April 22, 2011	Anticipated Execution Date
to be determined May 6, 2011	Anticipated Notice to Proceed Date (NTP) – Start of Contract Time

E. Question and Answer Session

The Department shall meet with each Proposer, formally, for a Question and Answer session. FHWA shall be invited on FA Oversight Projects. The purpose of the Q & A session is for the Technical Review Committee to

seek clarification and ask questions, as it relates to the Technical Proposal, of the Proposer. The Question and Answer sessions will occur after the date the Technical Proposals are due, and be part of the Overall Technical Proposal Scoring. The Department will terminate Question and Answer Sessions promptly at the end of the allotted time. The Department may tape record or videotape all or part of the Question and Answer Sessions. Such recordings will become part of the Contract Documents in accordance with the Specifications. The Question and Answer session will not constitute “discussions” or negotiations. Proposers will not be permitted to ask questions of the Department except to ask the meaning of a clarification question posed by the Department. **Within one (1) week of the Q&A session, the Design-Build Firm shall submit to the Department a written clarification letter summarizing the clarifications provided during the Q&A session.** No additional time will be allowed to research answers.

The Department will provide some (not necessarily all) proposed questions to each firm as it relates to their technical proposal approximately 24 hours before the scheduled Question and Answer Session. No supplemental materials, handouts, etc. will be allowed to be presented in the Question and Answer Session.

There will be no limit to the number of staff members that the proposing firms can bring to the Question and Answer Sessions; however, it is highly recommended that the staff members be limited to those with knowledge and decision-making authority of the Question and Answer Session topics, and those who will actually be providing the services.

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

ii. Closed Circuit Television (CCTV) and Digital Video Encoder

1. Table 1 – CCTV Required Locations

<i>Corridor</i>	<i>Intersection</i>	<i>Quadrant</i>
US 192	SR 500 (US 192) and CR 509 (Wickham Road/Minton Road)	SW
US 192	SR 500 (US 192) and Evans/Hollywood Road	NW
US 192	SR 500 (US 192) and Dairy Road	NW
US 192	SR 500 (US 192) and Babcock Street	SE
SR 518	SR 518 (Eau Gallie Blvd) and Croton Rd	NE
SR 518	SR 518 (Eau Gallie Blvd) and Commadore Blvd	SE
SR 518	SR 518 (Eau Gallie Blvd) and SR 5 (US 1)	SE
SR 518	SR 518 (Eau Gallie Blvd) and Pineapple Ave	SE

SR 518	SR 518 (Montreal Ave) and Highland Ave	SW
SR 518	SR 518 (Montreal Ave) and Pineapple Ave	NE
SR 520	SR 520 & Clearlake Rd	NW
SR 520	SR 520 & SR 519 (Fiske Blvd)	NW
SR 520	SR 5 (US1) & SR 520	NW
SR 520	SR 520 (Willard St) & Forrest Ave (existing mast arm mount)	SW
SR 520	SR 520 (King St) & Brevard Ave (existing mast arm mount)	SE
SR 520	SR 520 between King St and Willard St on west end of Humphrey Bridge (new ITS pole)	N/A
SR 520	SR 520 between roadways on east end of Humphrey Bridge (new ITS pole)	N/A
SR 520	SR 520 & SR 3	NW
SR 520	SR 520 & Sykes Creek Pkwy	SE
SR 520	SR 520 & Newfound Harbor Dr	NW
SR 520	SR 520 & S. Banana River/Milford Pt Dr.	NW
US 1	SR 5 (US 1) and Rosa L Jones Blvd	SW
US 1	SR 5 (US 1) and Barton Blvd	NE
US 1	SR 5 (US 1) and Eyster Blvd	SW
US 1	SR 5 (US 1) and Lake Washington	SW
US 1	SR 5 (US 1) and Aurora Rd	NE
US 1	SR 5 (US 1) and Sarno Rd	SW
US 1	SR 5 (US 1) and Babcock Street	S
SR 50	SR 50 (Cheney Hwy) and I-95 Southbound Ramps	SE
SR 50	SR 50 (Cheney Hwy) and SR 405 (Columbia Blvd)	NW
SR 405	SR 405 (Columbia Blvd) and Target Entrance	NW
SR 405	SR 405 (Columbia Blvd) and Barna Ave	S
SR 405	SR 405 (Columbia Blvd) and SR 407	SE
SR 405	SR 405 (Columbia Blvd) and Sisson Rd	NW
Palm Bay Road	Palm Bay Rd & Minton Rd	SW

Palm Bay Road	Palm Bay Rd & I-95 Southbound Ramps	SE
Palm Bay Road	Palm Bay Rd & Hollywood Blvd	SE
Palm Bay Road	Palm Bay Rd & Dairy Rd	SE
Palm Bay Road	Palm Bay Rd & Babcock St	SW
Palm Bay Road	Palm Bay Rd & Lipscomb/Clearmont St NE	SE
Palm Bay Road	Palm Bay Rd & Robert J Conlin Blvd	SE
Minton Road	Minton Rd & Norfolk Pkwy	NE
Minton Road	Minton Rd & Emerson Dr NW	SW
Wickham Road	CR 509 (Wickham Rd) & Wright Ave	SW
Wickham Road	CR 509 (Wickham Rd) & Ellis Rd	SE
Wickham Road	CR 509 (Wickham Rd) & Sheridan Rd	NW

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

iii. Vehicle Detection System (VDS)

1. Table 2 – VDS Required Locations

<i>Corridor</i>	<i>Intersection</i>
US 192	SR 500 (US 192) and I-95 Southbound Ramps
US 192	SR 500 (US 192) and I-95 Southbound Off Ramp Queue Detection
US 192	SR 500 (US 192) and I-95 Northbound Ramps
US 192	SR 500 (US 192) and I-95 Northbound Off Ramp Queue Detection
US 192	SR 500 (US 192) and Dike Road
US 192	SR 500 (US 192) and John Rodes Boulevard
US 192	SR 500 (US 192) and CR 509 (Wickham Road/Minton Road)
US 192	SR 500 (US 192) and Meadowland Avenue

US 192	SR 500 (US 192) and Dayton Boulevard
US 192	SR 500 (US 192) and Laila Court
US 192	SR 500 (US 192) and Evans/Hollywood Road
US 192	SR 500 (US 192) and McClain Drive
US 192	SR 500 (US 192) and Melbourne Square
US 192	SR 500 (US 192) and Dairy Road
US 192	SR 500 (US 192) and Airport Boulevard
US 192	SR 500 (US 192) and South Country Club Road
US 192	SR 500 (US 192) and Babcock Street
SR 518	SR 518 (Eau Gallie Blvd) and Croton Rd
SR 518	SR 518 (Eau Gallie Blvd) and Commadore Blvd
SR 518	SR 518 (Eau Gallie Blvd) and SR 5 (US 1)
SR 518	SR 518 (Eau Gallie Blvd) and Highland Ave
SR 518	SR 518 (Eau Gallie Blvd) and Pineapple Ave
SR 518	SR 518 (Montreal Ave) and Highland Ave
SR 518	SR 518 (Montreal Ave) and Pineapple Ave
SR 520	SR 520 & Clearlake Rd
SR 520	SR 520 & Varr Ave
SR 520	SR 520 & SR 519 (Fiske Blvd)
SR 520	SR 520 & Blake Ave
SR 520	SR 5 (US1) & SR 520
SR 520	SR 520 (Willard St) & Forrest Ave
SR 520	SR 520 (Willard St) & Brevard Ave
SR 520	SR 520 (Willard St) & Delannoy Ave
SR 520	SR 520 (King St) & Forrest Ave
SR 520	SR 520 (King St) & Brevard Ave
SR 520	SR 520 (King St) & Delannoy Ave
SR 520	SR 520 (King St) & Riveredge Blvd

SR 520	SR 520 & Tropical Trail
SR 520	SR 520 & SR 3/S. Courtenay Pkwy
SR 520	SR 520 & Big Lots Entrance
SR 520	SR 520 & Plumosa St
SR 520	SR 520 & Merritt Square Mall Entr
SR 520	SR 520 & Sykes Creek Pkwy
SR 520	SR 520 & Kiwanis Island Park Rd
SR 520	SR 520 & Newfound Harbor Dr
SR 520	SR 520 & N. Banana River Dr
SR 520	SR 520 & S. Banana River/Milford Point Dr
SR 520	S. Courtenay Pkwy & Magnolia Ave
SR 520	S. Courtenay Pkwy & Fortenberry Rd
US 1	SR 5 (US 1) and Peachtree St
US 1	SR 5 (US 1) and Rosa L Jones Blvd
US 1	SR 5 (US 1) and Florida Ave
US 1	SR 5 (US 1) and Longwood Ave
US 1	SR 5 (US 1) and Barton Blvd
US 1	SR 5 (US 1) and Rockledge Square Entr
US 1	SR 5 (US 1) and Eyster Blvd
US 1	SR 5 (US 1) and Lake Washington
US 1	SR 5 (US 1) and CR 511 (Aurora Rd)
US 1	SR 5 (US 1) and Sarno Rd
US 1	SR 5 (US 1) and Babcock Street
SR 50	SR 50 (Cheney Hwy) and I-95 Southbound Ramps
SR 50	SR 50 (Cheney Hwy) and SR 405 (Columbia Ave)
SR 405	SR 405 (Columbia Ave) and Windover Trail
SR 405	SR 405 (Columbia Ave) and Target Entrance
SR 405	SR 405 (Columbia Ave) and Barna Ave

SR 405	SR 405 (Columbia Ave) and SR 407
SR 405	SR 405 (Columbia Ave) and Grissom Pkwy
SR 405	SR 405 (Columbia Ave) and Sisson Rd
Palm Bay Road	Palm Bay Rd & Minton Rd
Palm Bay Road	Palm Bay Rd & Athens Dr
Palm Bay Road	Palm Bay Rd & Culver Dr/Norfolk Pkwy
Palm Bay Road	Palm Bay Rd & I-95 SB Ramps
Palm Bay Road	Palm Bay Rd & I-95 NB Ramps
Palm Bay Road	Palm Bay Rd & Hollywood Blvd
Palm Bay Road	Palm Bay Rd & Dairy Rd
Palm Bay Road	Palm Bay Rd & Port Malabar Blvd NE
Palm Bay Road	Palm Bay Rd & Stack Blvd
Palm Bay Road	Palm Bay Rd & Rivera Dr NE
Palm Bay Road	Palm Bay Rd & Babcock St
Palm Bay Road	Palm Bay Rd & Lipscomb/Clearmont St NE
Palm Bay Road	Palm Bay Rd & Troutman Blvd NE
Palm Bay Road	Palm Bay Rd & Robert J Conlin Blvd
Palm Bay Road	Norfolk Pkwy & Shopping Center Dr
Minton Road	Minton Rd & Norfolk Pkwy
Minton Road	Minton Rd & Hield Rd
Minton Road	Minton Rd & Emerson Dr NW
Wickham Road	CR 509 (Wickham Rd) & Fountainhead Blvd
Wickham Road	CR 509 (Wickham Rd) & Wright Ave
Wickham Road	CR 509 (Wickham Rd) & Technology Dr
Wickham Road	CR 509 (Wickham Rd) & Harper Rd
Wickham Road	CR 509 (Wickham Rd) & Ellis Rd
Wickham Road	CR 509 (Wickham Rd) and Greenboro Dr/Idlewylde Cir
Wickham Road	CR 509 (Wickham Rd) & Sheridan Rd

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

iv. Fiber Optic Network (FON)

1. Table 3 – FON Required Locations

<i>Corridor</i>	<i>Intersection</i>	<i>FOC</i>	<i>Type</i>
US 192	SR 500 (US 192) and Wickham/Minton Rd to SR 500 (US 192) and Dayton Road	72 Strand-6 Buffer	Trunkline
US 192	SR 500 (US 192) and Wickham/Minton Rd	12 Strand- 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Meadowlane Ave	12 Strand- 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Dayton Road	12 Strand- 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Dayton Road to SR 500 (US 192) and Laila Court	72 Strand-6 Buffer	Trunkline
US 192	SR 500 (US 192) and Laila Court	12 Strand- 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Laila Court to SR 500 (US 192) and Dairy Road	72 Strand- 6 Buffer	Trunkline
US 192	SR 500 (US 192) and Evans Road	12 Strand- 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and McClain Drive	12 Strand 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Melbourne Square	12 Strand 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Dairy Road	12 Strand	Drop Cable

		1 Buffer	
US 192	SR 500 (US 192) and Dairy Road to SR 500 (US 192) and Babcock Street	72 Strand 6 Buffer	Trunkline
US 192	SR 500 (US 192) and Airport Blvd	12 Strand 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and South Country Club Rd	12 Strand 1 Buffer	Drop Cable
US 192	SR 500 (US 192) and Babcock Street	12 Strand 6 Buffer	Drop Cable
SR 518	SR 518 (Eau Gallie Blvd) and Wickham Road to SR 518 (Montreal Ave) and Pineapple Ave	72 Strand- 6 Buffer	Trunkline
SR 518	SR 518 (Eau Gallie Blvd) and Croton Rd	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Eau Gallie Blvd) and Commadore Blvd	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Eau Gallie Blvd) and SR 5 (US 1)	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Eau Gallie Blvd) and Highland Ave	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Eau Gallie Blvd) and Pineapple Ave	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Montreal Ave) and Highland Ave	12 Strand 1 Buffer	Drop Cable
SR 518	SR 518 (Montreal Ave) and Pineapple Ave	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and SR 501 (Clearlake Road) to SR 520 and SR 5 (US 1)		Remove Cable
SR 520	SR 520 and SR 501 (Clearlake Road) to SR 520 and SR 5 (US 1)	72 Strand 6 Buffer	Trunkline

SR 520	SR 520 & Varr Ave	12 Strand-1 Buffer	Drop Cable
SR 520	SR 520 & SR 519 (Fiske Blvd)	12 Strand-1 Buffer	Drop Cable
SR 520	SR 520 & Blake Ave	12 Strand-1 Buffer	Drop Cable
SR 520	SR 520 and SR 5 (US 1) to SR 520 and Tropical Trail		Remove Cable
SR 520	SR 520 and SR 5 (US 1) to SR 520 and Tropical Trail	72 Strand 6 Buffer	Trunkline
SR 520	SR 520 (Willard St) and Delannoy Ave	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 (King St) and Brevard Ave	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 (King St) and Delannoy Ave	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 (King St) and Riveredge Blvd	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 (W. Merritt Island Cswy) and west end of Humphrey Bridge CCTV pole	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 (W. Merritt Island Cswy) and east end of Humphrey Bridge CCTV pole	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Tropical Trail to SR 520 and Sykes Creek Pkwy		Remove Cable
SR 520	SR 520 and Tropical Trail to SR 520 and South Banana River Drive	72 Strand 6 Buffer	Trunkline
SR 520	SR 520 and Tropical Trail	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and SR3 / South Courtenay Pkwy	12 Strand 1 Buffer	Drop Cable

SR 520	SR 520 and Big Lots Entrance	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Plumosa Street	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Merritt Square Mall Entr	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Sykes Creek Pkwy	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Kiwannis Island Park Rd	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 and Newfound Harbor Dr	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 & N. Banana River Dr	12 Strand 1 Buffer	Drop Cable
SR 520	SR 520 & S. Banana River Dr	12 Strand 1 Buffer	Drop Cable
US 1	SR 5 (US 1) and CR 511 (Aurora Rd) Lake Washington Rd to SR 5 (US 1) and Sarno Rd Babcock St.	72 Strand 6 Buffer	Trunkline
US 1	SR 5 (US 1) and Lake Washington	12 Strand 1 Buffer	Drop Cable
US 1	SR 5 (US 1) and CR 511 (Aurora Rd)	12 Strand 1 Buffer	Drop Cable
US 1	SR 5 (US 1) and Sarno Rd	12 Strand 1 Buffer	Drop Cable
US 1	SR 5 (US 1) and Babcock St.	12 Strand 1 Buffer	Drop Cable
SR 50	SR 50 (Cheney Hwy) and I-95 Southbound Ramps to SR 50 (Cheney Hwy) and SR 405 (Columbia Blvd)	72 Strand 6 Buffer	Trunkline

SR 50	SR 50 (Cheney Hwy) and I-95 Southbound Ramps	12 Strand 1 Buffer	Drop Cable
SR 50	SR 50 (Cheney Hwy) and SR 405 (Columbia Blvd)	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and SR 50 (Cheney Hwy) to SR 405 (Columbia Blvd) and SR 5 (US 1)		Remove Cable
SR 405	SR 405 (Columbia Blvd) and SR 50 (Cheney Hwy) to SR 405 (Columbia Blvd) and SR 5 (US 1)	72 Strand 6 Buffer	Trunkline
SR 405	SR 405 (Columbia Blvd) and Windover Trail	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and Target Entrance	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and Barna Ave	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and SR 407	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and Grissom Pkwy	12 Strand 1 Buffer	Drop Cable
SR 405	SR 405 (Columbia Blvd) and Sisson Rd	12 Strand 1 Buffer	Drop Cable
Minton Road	Minton Rd and I-95 DASH III Hub to Minton Rd and Emerson Drive NW	72 Strand 6 Buffer	Trunkline
Minton Road	Minton Rd & Norfolk Pkwy	12 Strand 1 Buffer	Drop Cable
Minton Road	Minton Rd & Hield Rd	12 Strand 1 Buffer	Drop Cable
Minton Road	Minton Rd & Emerson Dr NW	12 Strand 1 Buffer	Drop Cable
Minton Road	Minton Rd and Palm Bay Rd		Connection to Palm

			Bay Rd FOC
Wickham Road	CR 509 (Wickham Rd) and SR 5054 (Sarno Rd to CR 509 (Wickham Rd) and Ellis Rd	72 Strand 6 Buffer	Trunkline
Wickham Road	CR 509 (Wickham Rd) & Fountainhead Blvd	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Wright Ave	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Technology Dr	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Harper Rd	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Ellis Rd	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Harper Rd – to Harper Rd and City of Melbourne Public Works Traffic Engineering office	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) and Ellis Rd to CR 509 (Wickham Rd) and SR 500 (US 192)	72 Strand 6 Buffer	Trunkline
Wickham Road	CR 509 (Wickham Rd) and Greenboro Dr/Idlewylde Cir	12 Strand 1 Buffer	Drop Cable
Wickham Road	CR 509 (Wickham Rd) & Sheridan Rd	12 Strand 1 Buffer	Drop Cable

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

v. Arterial Travel Time (ATT)

The Arterial Travel Time (ATT) software shall be installed on a server running Fedora 10 operating system with MySQL Database and Apache HTTP server. The Arterial Travel Time (ATT) software must have the capability to establish travel time data through the re-identification of magnetic signatures of vehicles captured at upstream and downstream VDS devices. The ATT software must be configurable and scalable to sample data from all

mainline VDS sensors of all corridors and shall be capable of archiving all ATT data with the ability to provide a graphing interface and the output of .xls and .csv format files. The ATT software must be capable of populating a real time colored coded arterial map from the magnetic signature sampling. This map shall be composed of segments with each segment indicating through color codes the current level of congestion. Segment labels on the map shall be capable of displaying:

- Median Travel Time (sec)
- 80th percentile Travel Time (sec)
- 90th percentile Travel Time (sec)
- Vehicles in segment (number)
- Length of segment (miles)

In addition to the map display, the ATT software must be capable of providing a real time XML data feed which will include data such as:

- Segment identification number
- Time interval (seconds)
- Time of day when vehicle enters a segment
- Minimum travel time within the current interval
- 10th percentile through 90th percentile travel time within the current interval
- Maximum travel time within the current interval
- Number of vehicles counted over upstream array in current interval
- Number of vehicles counted over downstream array in current interval
- Number of matches used to generate the aggregate

v. Arterial Travel Time Sensors

The Design Build firm shall be responsible for designing and building a Bluetooth Arterial Travel Time (BATT) system. The BATT system shall be defined as all hardware (Bluetooth reading devices, etc.), software (service, website access, back end support system, etc.) and any other components necessary to provide accurate real-time speed and travel time data of the deployment corridors and must meet the minimum requirements as described in the RFP.

The Bluetooth Reading Devices (Sensors) shall be deployed at the designated locations shown in Table 4 below, and must be capable of sampling data such as the Machine Address Code (MAC) of portable devices for the purpose of producing Travel Time data. The BATT system software must be capable of providing a service to receive, process, match, and filter the Bluetooth MACs received from the Bluetooth sensors and the service must generate travel time data from the successive matches sampled along the corridor. ... The Bluetooth sensors must communicate with the central system and service via the ITS FON utilizing Ethernet connectivity. The BATT system must also be capable of combining the data from multiple pairs of Bluetooth sensors to produce route information for entire corridors or segments. Each route must display the first and last sensor with travel time and speed for the designated segment.

The Bluetooth sensors must be designed to receive power from within the traffic controller cabinet, through the NEMA TS 2 detection rack. The Bluetooth sensor card rack interface must be no more than one (1) card rack unit wide. A coaxial cable will be utilized to connect the Bluetooth sensor card to the external antenna. The coaxial cable may be installed in the same conduit with other cabling as required for other subsystems of this project. The external antenna may be either an omnidirectional or a unidirectional Yagi-Uda style antenna as directed by the manufacturer and mounted no higher than fifteen (15) feet above roadway. The detector card

must provide an Ethernet port, as a serial to Ethernet converter will not be accepted. The Ethernet/IP controller must be capable of static and DHCP IP addressing, with support for gateway and domain. To sample the Bluetooth MAC, a minimum CSR Bluecore4 Class 1 Industrial Specification embedded radio is required, no USB dongle types will be accepted. The Bluetooth sensors must contain advanced features designed to allow the unit to operate efficiently in a remote environment and must be capable of sending diagnostic heartbeat information such as voltage and temperature monitoring as well as software stability information. The Bluetooth sensors must be capable of automatically rebooting if a condition is detected that requires such action and in the event of a total system recovery, the Bluetooth sensors must be designed to automatically re-image the system memory.

In addition, the Bluetooth sensors must have the ability to download software patches and upgrades remotely via the network without the need to physically visit the unit.

The backend support system shall exist to process the data collected by the Bluetooth sensors. Such support shall also include a secure web-based user interface to enable the County to view, analyze, and configure data outputs. The data must be available for viewing in real time or as post processed. Data processing information shall include travel time, flow, speed, and MAC address counts. The data processing shall also provide filtering of the following as needed to deliver the most accurate information:

- Pedestrian
- Vehicular
- Smoothing
- Mean, Median, statistical
- 2-stage filter

Data uploaded from the Bluetooth sensors shall be hosted and stored by the BATT system manufacturer on a dedicated server in a state-of-the-art mission critical environment facility (Cybercenter) for hosting. The Cybercenter shall meet the following requirements at a minimum:

- SAS 70 Type II Internal Control Standards
- Physical Security including biometric scanners for access, indoor and outdoor 24/7 surveillance, security desk check-in
- HVAC and fire suppression – N+1 Redundant chilling/heating system and redundant, multi-zoned fire suppression systems.
- Power redundancy in the form of battery backup UPS sufficient to power the center until N+1 diesel generators can power up
- Public network connectivity – linked to tier one OC-192 IP network or better

The BATT System shall include the following, as a complete turnkey operations and maintenance package for the County:

- Web-based Map with device location and information including:
 - Dynamic Color coded links based on average speeds versus speed limit
 - Pop up on each link displaying link name, average speed & speed limit
- Real-time chart displaying origin, destination, time stamp, travel-time & speed
- 48 hour graphs displaying the following:

- Travel-Time or Average Speed in 15 minute increments with the following options being displayed on the same graph:
 - # of matches on a bar graph
 - Raw data matches being displayed as tick marks
- 12 month rolling data storage
- Historical reports showing matched pairs, travel times and speeds based on user defined dates and times
- Historical report showing number of unique MAC detects by unit based on user defined dates and times
- XML and CSV Feed on all reports
- Ability for the provider to run a query of a specific MAC address for diagnostic purposes
- Web-based GUI for Operations and Maintenance
- Software Bug Fixes
- Software Performance Improvements
- Firmware Updates
- 24 x 7 Monitoring for each device
- Email/Text Alerting
- 48 Hour Depot return on Hardware

Software Interface to FL-ATIS System:

The Design/Build firm shall be responsible for coordinating with the Department, County, and bluetooth manufacturer to develop a software plug-in to allow the Brevard County travel time data stored at the Cybercenter to be exported to the FL511 website (FL-ATIS) system. The Bluetooth manufacturer shall be responsible for developing the software plug-in. The Design/Build firm shall be responsible for funding the development of the software plug-in as a part of this project.

The software plug-in must translate the manufacturer-provided travel time data from the established format and protocol into the format and protocol specified by FDOT's FL-ATIS software.

The manufacturer shall be responsible for all hardware and software for the plug-in. The manufacturer must also provide all necessary network connectivity from the plug-in production environment to the FL-ATIS Collector server located at the FL-ATIS Tampa Colo facility.

Any software agreements or licensing of the FL-ATIS system will be the responsibility of Brevard County and not the manufacturer of the Bluetooth travel-time system. Any costs associated with licensing of the FL -ATIS system will the responsibility of Brevard County.

1. Table 4 – Travel Time Sensor Locations

<i>Corridor</i>	<i>Intersection</i>
US 192	SR 500 (US 192) and I-95 Southbound Ramps
US 192	SR 500 (US 192) and John Rodes Boulevard
US 192	SR 500 (US 192) and CR 509 (Wickham Road/Minton Road)
US 192	SR 500 (US 192) and Dayton Boulevard

US 192	SR 500 (US 192) and Evans Road/Holiday Boulevard
US 192	SR 500 (US 192) and Shoppes of West Melbourne/Melbourne Square
US 192	SR 500 (US 192) and Dairy Road
SR 518	SR 518 (Eau Gallie Blvd) and Wickham Road
SR 518	SR 518 (Eau Gallie Blvd) and Croton Rd
SR 518	SR 518 (Eau Gallie Blvd) and Commadore Blvd
SR 518	SR 518 (Eau Gallie Blvd) and SR 5 (US 1)
SR 518	SR 518 (Eau Gallie Blvd) and Pineapple Ave
SR 518	SR 518 (Montreal Ave) and Pineapple Ave
SR 520	SR 520 and Clearlake Rd
SR 520	SR 520 and SR 519 (Fiske Blvd)
SR 520	SR 520 and SR 5 (US 1)
SR 520	SR 520 (King St) and Delannoy Ave
SR 520	SR 520 (Willard St) and Delannoy Ave
SR 520	SR 520 and Tropical Trail
SR 520	SR 520 and Sykes Creek Pkwy
SR 520	SR 520 and S. Banana River Drive/Milford Point
US 1	SR 5 (US 1) and Rosa L Jones Blvd
US 1	SR 5 (US 1) and Florida Ave
US 1	SR 5 (US 1) and Barton Blvd
US 1	SR 5 (US 1) and Eyster Blvd
US 1	SR 5 (US 1) and Lake Washington Rd
US 1	SR 5 (US 1) and CR 511 (Aurora Rd)
US 1	SR 5 (US 1) and Sarno Rd
US 1	SR 5 (US 1) and Babcock St
SR 50	SR 50 (Cheney Hwy) and I-95 Southbound Ramps
SR 50	SR 50 (Cheney Hwy) and SR 405 (Columbia Ave)

SR 405	SR 405 (Columbia Ave) and Target Entrance
SR 405	SR 405 (Columbia Ave) and Barna Ave
SR 405	SR 405 (Columbia Ave) and SR 407
SR 405	SR 405 (Columbia Ave) and Sisson Rd
SR 405	SR 405 (Columbia Ave) and SR 5 (US 1)
Palm Bay Road	Palm Bay Rd and Minton Rd
Palm Bay Road	Palm Bay Rd and I-95 SB Ramps
Palm Bay Road	Palm Bay Rd and Hollywood Blvd
Palm Bay Road	Palm Bay Rd and Dairy Rd
Palm Bay Road	Palm Bay Rd and Babcock St
Palm Bay Road	Palm Bay Rd and Lipscomb/Clearmont St NE
Palm Bay Road	Palm Bay Rd and Robert J Conlin Blvd
Minton Road	Minton Rd and Norfolk Pkwy
Minton Road	Minton Rd and Emerson Dr NW
Wickham Road	Wickham Rd and Sarno Rd
Wickham Road	Wickham Rd and Wright Ave
Wickham Road	Wickham Rd and Ellis Rd
Wickham Road	Wickham Rd and Sheridan Rd

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

viii. Central Management System (CMS)

The central system software and supporting hardware (Central Management System or CMS) shall be installed and configured in two locations as shown below:

- The Central Management System shall be divided into two (2) Systems
 - System 1 shall be located at The Brevard County Traffic Engineering Center in Viera and shall include the following three (3) servers:
 - Server 1 shall include:
 - Sensor Network Archive, Proxy and Statistics (SNAPS) software for the

Wireless Magnetometer System

- ~~Server 2 shall include:~~
 - ~~Arterial Travel Time Data Software~~
- Server 2 shall include:
 - Traffic Adaptive Software
- Server 3 shall include:
 - Video Management Software
- System 2 shall be located at The Brevard County Traffic Operations Center on Merritt Island and shall include the following three (3) servers:
 - Server 1 shall include:
 - Backup ATMS.now Software (software provided by Brevard Co.)
 - Server 2 shall include:
 - Backup Traffic Adaptive Software
 - Server 3 shall include:
 - Backup Video Management Software

The Design Build Firm shall be responsible for providing all hardware and software as described within this RFP.

The CMS shall provide management and control of field devices (detectors, etc.) installed as well as performs data processing, analysis, and automated response as described below.

The Central Management System shall include a Device Management and Travel Time software server for the Wireless Magnetometer System.

VI. Design and Construction Criteria

P. Intelligent Transportation System (ITS)

5. Design and Construction Criteria

vii. Network Equipment

Furnish and install a Services Gateway / Firewall at the Traffic Operations Center on Merritt Island in the existing 19" rack in server room. The Services Gateway shall provide the primary security functions between the County ITS network, the FDOT regional network and Brighthouse Internet connection. This device shall provide any necessary switching, routing, and security functionality through, at minimum, these fixed I/O ports: 16 X 10/100/1000BASE-T and 2 SFP ports for Gigabit Ethernet fiber optic connections. The Services Gateway shall provide for secure remote connectivity through IPSec VPN with minimum 10 Dynamic Clients.

Additional capabilities, requirements, and supported security methods shall include as a minimum:

- 1 GB DRAM, 1GB Flash RAM
- JUNOS operating system
- Firewall performance – 1.5 Gbps
- VPN performance – 250 Mbps
- Maximum concurrent sessions – 128K
- Firewall features
 - Network Attack Detection
 - DoS and DDoS protection
 - TCP reassembly for fragmented packet protection
 - Brute force attack mitigation
 - SYN cookie protection
 - Zone-based IP spoofing
 - Malformed packet protection

- URL Filtering
- Deep Packet Inspection
- Intrusion Prevention System
 - Stateful protocol signatures
 - Attack detection and response mechanisms
 - Worm protection
 - Trojan protection
 - Spyware/adware/keylogger protection
 - Protection against attack proliferation from infected systems
 - Reconnaissance protection
 - Compound attack protection
 - Attacker and target audit trail and reporting
- Unified Access Control (UAC) system utilizing 802.1x port control in remote network devices
- Multicast Routing, PIM and IGMP
- OSPF Routing
- NAT and PAT

The Services Gateway shall include a 5-year subscription for enterprise security including Antivirus, Web filtering, Antispam, and Intrusion Detection and Prevention(IDP).

Please respond upon receipt, and direct any questions to Michelle Sloan at (386) 943-5528, or at michelle.sloan@dot.state.fl.us

Posted: February 10, 2011 @ 2:30 pm

By: Michelle Sloan

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

**LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – E-VERIFY.
(REV 1-19-11) (2-11)**

SECTION 7 (Pages 56 – 80) is expanded by the following new Article:

7-28 E-Verify.

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of all persons employed by the Contractor during the term of the Contract to perform employment duties within Florida and all persons, including subcontractors, assigned by the Contractor to perform work pursuant to the Contract with the Department.

BID BLANK
DESIGN BUILD - MAJOR

Let by: District 5 - DeLand

(Void if used by any bidder other than one this Form issued to)

FINANCIAL PROJECT NO(S). 428597-1-52-01, 428919-1-52-01, 428920-1-52-01

CONTRACT CALENDAR DAYS: _____

CONTRACT NO. E5N82

DATE BIDS DUE: March 23, 2011

TOTAL AMOUNT: \$ _____

DATE OF AWARD: _____

**DATE OF CONTRACT
EXECUTION:** _____

Appropriation FY: 2011

Appropriation Category: 563007/563022

8.18 % DBE Availability



PROPOSAL

The Bidder's Proposal must meet the requirements and design and construction criteria as stated in the FDOT Request for Proposal

The Brevard County Advance Traffic Management System

in Brevard County(ies)

NOTE: Attach your Proposal Guaranty to this bid blank. All Extensions must be carried out. Any changes made in unit bid prices must be initialed by bidder.