

Request for Quote

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
 ONE CAPITOL HILL
 PROVIDENCE RI 02908

BUYER: Hill, Lisa
 PHONE #: 401-574-8118

CREATION DATE : 18-FEB-16
 BID NUMBER: 7550311
 TITLE: TRUCK WITH MOUNTED ATTENUATOR UNIT - DOT
 BID CLOSING DATE AND TIME: 22-MAR-2016 10:30:00

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 DOT MAINTENANCE BUSINESS OFFICE
 360 LINCOLN AVE
 WARWICK, RI 02888
 US

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 WARWICK, RI 02888
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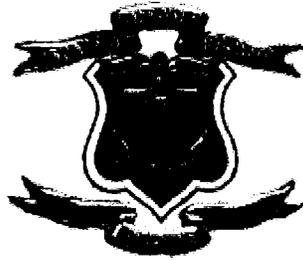
Requisition Number: 1443718

Line	Description	Quantity	Unit	Unit Price	Total
1	NEW, NEWEST MODEL TRUCK WITH MOUNTED ATTENUATOR UNIT PER ATTACHED SPECIFICATIONS YEAR _____ MAKE _____ MODEL _____ ATTENUATOR _____ ANTICIPATED DELIVERY _____	2.00	Each		
2	OPTIONAL MESSAGE DOWNLOAD SOFTWARE, PER SEPCIFICATIONS	2.00	Each		
3	OPTIONAL TIME CLOCK OPERATIONS SOFTWARE, PER SPECIFICATIONS	2.00	Each		
4	OPTIONAL COMPUTER BASE STATE OPERATION, PER SPECIFICATIONS	2.00	Each		

Delivery: _____

Terms of Payment: _____

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer



STATE OF RHODE ISLAND
DIVISION OF PURCHASES

SOLICITATION #7550311
TRUCK WITH MOUNTED ATTENUATOR
BIDDER INSTRUCTIONS

1. Bidders are advised to acknowledge the make, model and of all equipment
2. Bidders are required to describe, in writing on a separate page, any exceptions to any of the bid specifications contained in this solicitation.
3. Bidders are to submit their specifications for the proposed goods IN DUPLICATE.
4. Questions concerning this solicitation must be addressed to lisa.hill@purchasing.ri.gov no later than March 15, 2016 at 4:00 p.m. Telephone questions are not acceptable.

2016 Truck & Mounted TMA Spec.

DIMENSION:	Requested GVWR: 25500. Calc. GVWR: 25999 Calc. Start / Grade Ability: 26.44% / 2.06% @ 55 MPH Calc. Geared Speed: 85.6 MPH Wheelbase: 195.00, CA: 84.00, Axle to Frame: 75.00
ENGINE, DIESEL:	245 HP @ 2200 RPM, 660 lb-ft Torque @ 1300 RPM, 2400 RPM, Governed Speed, 245 Peak HP (Max)
TRANSMISSION, AUTOMATIC:	{Allison 2500_RDS_P} 5th Generation Controls; Wide Ratio, 6-Speed, with Double Overdrive; with PTO Provision, Less Retarder, with 33,000-lb GVW & GCW Max
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT NON-DRIVING:	{Meritor MFS-10-143A} Wide Track, I-Beam Type, 10,000-lb Capacity
AXLE, REAR, SINGLE:	{Dana Spicer 17060S} Single Reduction, 17,500-lb Capacity, 190 Wheel Ends Gear Ratio: 5.29
CAB:	Conventional 6-Man Crew Cab
TIRE, FRONT:	(2) 11R22.5 G661 HSA (GOODYEAR) 497 rev/mile, load range G, 14 ply
TIRE, REAR:	(4) 11R22.5 G622 RSD (GOODYEAR) 497 rev/mile, load range G, 14 ply
SUSPENSION, RR, SPRING, SINGLE:	Vari-Rate; 20,000-lb Capacity, With 4500 lb. Auxiliary Rubber Spring
PAINT:	Cab schematic 100GA Location 1: 9219, White (Std) Chassis schematic N/A

Base Chassis with 195.00 Wheelbase, 84.00 CA, and 75.00 Axle to Frame.

TOW HOOK, FRONT (2) Frame Mounted

FRAME RAILS High Strength Low Alloy Steel (80,000 PSI Yield); 10.250" x 3.092" x .0375"
(260.4mm x 78.5mm x 9.5mm); 427.0" (10846mm) Maximum OAL

LICENCE PLATE HOLDER Includes Upper & Lower Mounting Plate Hardware, Mounted in Existing
Holes in Front Bumper

BUMPER, FRONT, Full Width, Aerodynamic, Steel; 0.142" Material Thickness

Includes:

2016 Truck & Mounted TMA Spec.

- : BUMPER, FRONT Powder Coated Gray (Argent) Color
- : WHEELBASE RANGE 134" (340cm) Through and Including 197" (500cm)
- : AXLE, FRONT, NON-DRIVING {Meritor MFS-10-143A} Wide Track, I-Beam Type, 10,000-lb Capacity

Notes:

- : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes; Front Air Cam; Wheels; Tires.

SUSPENSION, FRONT, SPRING Parabolic, Taper Leaf; 10,000-lb Capacity; With Shock Absorbers

Includes:

- : SPRING PINS Rubber Bushings, Maintenance-Free

Notes:

- : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes; Front Air Cam; Wheels; Tires.

BRAKE SYSTEM, AIR Dual System for Straight Truck Applications

Includes:

- : BRAKE LINES Color and Size Coded Nylon
- : DRAIN VALVE Twist -Type
- : GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster
- : PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel
- : PARKING BRAKE VALVE For Truck
- : QUICK RELEASE VALVE Bendix on Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4
- : SLACK ADJUSTERS, FRONT Automatic
- : SLACK ADJUSTERS, REAR Automatic
- : SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4

Notes:

- : Front and Rear Dust Shields not Included
- : Rear Axle is Limited to 19,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCL BRAKES, REAR, AIR CAM Regardless of Axle/ Suspension Ordered.
- : Rear Axle is Limited to 20,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Code 04NCG BRAKES, REAR, AIR CAM Regardless of Axle/Suspension Ordered.
- : Rear Axle is Limited to 23,000-lb GAWR with Code 04091 BRAKE SYSTEM, AIR and Standard Rear Air Cam Brakes Regardless of Axle/Suspension Ordered.

DRAIN VALVE {Bendix DV-2} Automatic; With Heater; for Air Tank

Includes:

2016 Truck & Mounted TMA Spec.

: DRAIN VALVE Mounted in Wet Tank

AIR BRAKE ABS {Bendix Anti-Lock Brake System} Full Vehicle Wheel Control System (4-Channel)

AIR DRYER {Bendix AD-IP} With Heater

Includes:

AIR DRYER LOCATION Inside Left Rail, Back of Cab

Description:

BRAKE CHAMBERS, FRONT, AXLE {Haldex} 20 SqIn

BRAKE CHAMBERS, REAR AXLE {Haldex GC3030LHDHO} 30/30 Spring Brake

Includes:

- : BREAK CHAMBERS, SPRING (2) Rear Parking; WITH TRUCK BREAKS: All 4x2, 4x4; WITH TRACTOR BREAKS: All 4x2, 4x4; 6x4 & 6x6 with Rear Tandem Axles Less Than 46,000-lb. or GVWR Less Than 54,000-lb.

BRAKES, FRONT, AIR CAM S-Cam; 15.0" x 4.0"; Includes 20 Sq. In Long Stroke Brake Chambers.

Notes:

- : Front Axle with 14,000-lb GAWR is Limited to 13,200-lb GAWR when used in Conjunction with 15" BRAKES, FRONT, AIR CAM.
- : The following features should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.

BRAKES, REAR, AIR CAM S-Cam; 16.5" x 7.0", Includes 30/30 Sq. In. Long Stroke Break Chamber and Spring Actuated Parking Brake

Notes:

- : The following should be considered when calculating Front GAWR: Front Axles; Front Suspension; Brake System; Brakes, Front Air Cam; Wheels; Tires.

AIR COMPRESSOR {Bendix Tu-Flo 550} 13.2 CFM Capacity

STEERING COLUMN Tilting

STEERING WHEEL 2-Spoke, 18" Diam. Black

STEERING GEAR {Sheppard HD94} Power

EXHAUST SYSTEM Single, Horizontal, After-treatment Device Frame Mounted Right Side Back of Cab, Includes Horizontal Tail Pipe

2016 Truck & Mounted TMA Spec.

Includes:

: NOTE: The Horizontal Tailpipe Includes a Temperature Control Device

SWITCH, FOR EXHAUST 2 Positon, Lighted & Latching, ON/OFF Type, Mounted in IP, Inhibits Diesel Particulate Filter Regeneration as Long as Switch is in ON Position

ELECTRICAL SYSTEM 12-Volt, Standard Equipment

Includes:

- : BATTERY BOX Steel
- : DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab
- : FUSES, ELECTRICAL SAE Blade -Type
- : HAZARD SWITCH Push On/Push Off, Located on Top of Steering Column Cover
- : HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever
- : JUMP START STUD Located on Positive Terminal of Outermost Battery
- : PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light
- : STARTER SWITCH Electric, Key Operated
- : STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector
- : TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Features
- : TURN SIGNALS, FRONT Includes Reflectors and Auxiliary Side Turn Signals, Solid State Flashers; Flush Mounted
- : WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever
- : WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted
- : WIRING, CHASSIS Color Coded and Continuously Numbered

POWER SOURCE Cigar Type Receptacle without Plug and Cord.

ALTERNATOR {Leece-Neville AVI160P2013} Brush Type; 12 Volt 160 Amp. Capacity, Pad Mount, With Remote Sense

BODY BUILDER WIRING Back of Standard Cab at Left of Frame or Under Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn /Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn

BATTERY SYSTEM: Maintenance-Free (2) 12-Volt 1300CCA Total

RADIO AM/FM/WB/ Clock/ 3MM/Auxiliary Input, with Multiple Speakers, With CD Player

BACK-UP ALARM Electric, 102 dBA

STOP, TURN TAIL & B/U LIGHTS {Truck Lite} Super 44, With LED Lamps for Stop, Turn & Tail Lights and Truck Lite Super 40 Lamps for Backup lights, Less Power Module, Less Rubber Mount, and Includes Separate Rear Reflectors

2016 Truck & Mounted TMA Spec.

HORN, ELECTRIC Disc Style

HORN, AIR Black, Single Trumpet, Air Solenoid Operated

SPECIAL WIRING HARNESS, BODY for Chassis, With 6' Additional Length to Accommodate Drop Frame Beverage Body Application

HEADLIGHTS Halogen; Composite Aero Design for Two Light System; Includes Daytime Running Lights

CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade

HEADLIGHTS ON W/WIPERS Headlights Will Automatically Turn on if Windshield Wipers are turned on

STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt; Less Thermal Over-Crank Protection

INDICATOR, LOW COOLANT LEVEL With Audible Alarm

CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III With Trip Indicators, Replaces All Fuses Except For 5-Amp Fuses

TURN SIGNALS, FRONT LED, Includes LED Side Marker Lights, Mounted on Fender

GRILLE Chrome

FRONT END Tilting, Fiberglass, With Three Piece Construction

PAINT SCHEMATIC, PT-1 Single Color, Design 100

Includes:

: PAINT SCHEMATIC ID LETTERS "GA"

PAINT TYPE Base Coat/Clear Coat, 1-2 Tone

SPECIAL RATING, GVWR Limited to 25,999-lb GVWR

CLUTCH Omit Item (Clutch & Control)

ENGINE, DIESEL, 245 HP @ 2200 RPM, 660 lb-ft Torque @ 1300 RPM, 2400 RPM Governed Speed, 245 Peak HP (Max)

Includes:

: AIR COMPRESSOR AIR SUPPLY LINE Naturally-Aspirated (Air Brake Chassis Only)

: ANTI-FREEZE Red Shell Rotella Extended Life Coolant; -40 Degrees F/-40 Degrees C; for MaxxForce and Navistar Engines

2016 Truck & Mounted TMA Spec.

- : COLD STARTING EQUIPMENT Intake Manifold Electric Grid Heater with Engine ECM Control
- : CRUISE CONTROL Electronic; Controls Integral to Steering Wheel
- : ENGINE OIL DRAIN PLUG Magnetic
- : ENGINE SHUTDOWN Electric; Key Operated
- : FUEL FILTER Included with Fuel/Water Separator
- : FUEL/WATER SEPARATOR Fuel/Water Separator and Fuel Filter in a Single Assembly; With Water-in Fuel Sensor; Engine Mounted
- : GOVERNOR Electronic
- : OIL FILTER, ENGINE Spin-On Type
- : WET TYPE CYLINDER SLEEVES

Notes:

- : Recommended Code 12THT when using front mount obstructions (winches, cones, reels, etc.) that restrict air flow through the radiator.

FAN DRIVE {Borg-Warner SA85} Viscous Type, Screw On

Includes:

- : FAN Nylon

RADIATOR Aluminum; 2-Row, Cross Flow, Over Under System, 1045 Sqn Louvered, With 302 Sqn CAC, With 369 Sqn LTR, Includes In-Tank Transmission Oil Cooler

Includes:

- : DEAIRATION SYSTEM with Surge Tank
- : HOSE CLAMS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps
- : RADIATOR HOSES Premium, Rubber

FEDERAL EMISSIONS EPA, OBD and GHG Certified for Calendar Year 2016

AIR CLEANER With Service Protection Element

Includes:

- : GAUGE, AIR CLEANER RESTRICTION Air Cleaner Mounted

THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel

ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls; With Ignition Switch Control for MaxxFORCE and Navistar post 2007 Emissions Electronic Engines

2016 Truck & Mounted TMA Spec.

FAN DRIVE SPECIAL EFFECTS Fan Cooling Ring with Fan Shroud Effects, Engine Mounted

EMISSION COMPLIANCE Federal, Does Not Comply with California Clean Air Idle Regulations

TRANSMISSION, AUTOMATIC {Allison 2500_RDS_P} 5th Generation Controls; Wide Ratio, 6 Speed, with Double Overdrive; with PTO Provision, Less Retarder, with 33,000-lb GVW & GCW Max

Includes:

- : OIL FILTER, TRANSMISSION Mounted on Transmission
- : TRANSMISSION OIL PAN Magnet in Oil Pan

TRANSMISSION OIL Synthetic; 20 thru 28 Pints

SHIFT CONTROL PARAMETERS Allison 1000 or 2000 Series Transmissions, 5th Generation Controls, Performance Programming

AXLE, REAR, SINGLE {Dana Spicer 17060S} Single Reduction, 17,500-lb Capacity, 190 Wheel Ends. Gear Ratio: 5.29

Includes:

- : REAR AXLE DRAIN PLUG (1) Magnetic, For Single Rear Axle

Notes:

The following feature should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam, Brake Shoes, Rear; Special Rating, GAWR; Wheels; Tires.

- : When Specifying Axle Ratio, Check Performance Guidelines and TCAPE for Startability and Performance

SUSPENSION, RR, SPRING, SINGLE Vari-Rate; 20,000-lb Capacity, With 4500 Auxiliary Rubber Spring

Notes:

- : The following features should be considered when calculating Rear GAWR: Rear Axles; Rear Suspension; Brake System; Brakes, Rear Air Cam, Brake Shoes, Rear; Special Rating; Wheels; Tires.

FUEL TANK Top Draw; D Style, Non Polished Aluminum, 16" Tank Depth, 50 U.S. Gal., 189 L Capacity, with Quick Connect Outlet, Mounted Right Side, Under Cab

CAB Conventional 6-Man Crew Cab

Includes:

- : ARM REST (2) Molded Plastic; One Each Door
- : CLEARANCE/MARKER LIGHTS (5) Flush Mounted

2016 Truck & Mounted TMA Spec.

- : COAT HOOK, CAB Located on Rear Wall, Centered Above Rear Window
- : CUP HOLDERS Two Cup Holders, Located in Lower Center of Instrument Panel
- : DOME LIGHT, CAB Rectangular, Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Console, Center Mounted
- : GLASS, ALL WINDOWS Tinted
- : GRAB HANDLE, CAB INTERIOR (1) "A" Pillar Mounted, Passenger Side
- : POWER WINDOWS AND DOOR LOCKS
- : GRAB HANDLE, CAB INTERIOR (2) Front of "B" Pillar Mounted, One Each Side
- : GRAB HANDLE, CAB INTERIOR (4) Two Each Side, Rear Door Mounted at Hinge Side and "C" Pillar Mounted
- : INTERIOR SHEET METAL Upper Door (Above Window Ledge) Painted Exterior Color
- : STEP (8) TWO Steps Per Door

Notes:

43.9" CA Loss

GAUGE CLUSTER English With English Electronic Speedometer

Includes:

- : GAUGE CLUSTER (5) Engine Oil Pressure (Electronic), Water Temperature (Electronic), Fuel (Electronic), Tachometer (Electronic), Voltmeter
- : ODOMETER DISPLAY, Miles, Trip Miles, Engine Hours, Trip Hours, Fault Code Readout
- : WARNING SYSTEM Low Fuel, Low Oil Pressure, High Engine Coolant Temp, and Low Battery Voltage (Visual and Audible)

GAUGE, OIL TEMP, ALLISON TRAN

IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster

SEAT, DRIVER : Air Suspension, High Back With Integral Headrest, Cloth, Isolator, 1 Chamber Lumbar, 2 Position Front Cushion Adjust, -3 to +14 Degree Back Angle Adjust

Includes:

- : SEAT BELT 3-Point, Lap and Shoulder Belt Type

MIRRORS (2) {Lang Mekra} Styled; Rectangular, 7.09" x 15.75" & Integral Convex Both Sides, 102" Inside Spacing, Breakaway Type, Thermostatically Controlled Heated Heads, Clearance Lights LED, Bright Heads and Brackets

SEAT, TWO-MAIN PASSANGER {National} Fixed Back, Integrated Headrest in Both Occupant Positions, Cloth, Less Under Seat Storage Compartment

SEAT, REAR{National} BENCH; Full Width; Cloth, With Fixed Back and Two Integral Outboard Headrests

2016 Truck & Mounted TMA Spec.

AIR CONDITIONER {Blend-Air} With Integral Heater & Defroster

Includes:

- : HEATER HOSES Premium
- : HOSE CLAMPS, HEATER HOSE Mubea Constant Tension Clamps
- : REFRIGERANT Hydrofluorocarbon HFC-134A

INSTRUMENT PANEL Center Section, Flat Panel

CAB INTERIOR TRIM Deluxe; for Crew Cab

Includes:

- : "A" Pillar Cover Molded Plastic
- : CAB INTERIOR TRIM PANELS Cloth Covered Molded Plastic, Full Height; All Exposed Interior Sheet Metal is Covered Except for the Following: with a Two-Man Passenger Seat or with a Full Bench Seat the Back Panel is Completely Void of Covering
- : CONSOLE, OVERHEAD Molded Plastic; With Dual Storage Pockets with Retainer Nets and CB Radio Pocket (**INSTALL TWO WAY RADIO STATE SUPPLIED**)
- : DOOR TRIM PANELS Molded Plastic; Driver and Passenger Doors
- : FLOOR COVERING Rubber, Black
- : HEADLINER Soft Padded Cloth
- : INSTRUMENT PANEL TRIM Molded Plastic with Black Center Section
- : STORAGE POCKET, DOOR (1) Molded Plastic. Full-Length; Driver Door
- : SUN VISOR (2) Padded Vinyl with Driver Side Toll Ticket Strap, Integral to Console

CAB REAR SUSPENSION Air Bag Type

WHEELS, FRONT {Accuride} DISC; 22.5" Painted Steel, 10-Stud (285.75MM BC) Hub Piloted, 5 Hand Hole, Flanged Nut, Metric Mount, 7.50 DC Rims; with Steel Hubs.

Includes:

PAINT IDENTITY, FRONT WHEELS White

Notes:

Compatible Tire Sizes: 11R22.5

WHEELS, REAR {Accuride} DUAL DISC; 22.5" Painted Steel, 10-Stud (285.75MM BC) Hub Piloted, 5 Hand Hole, Flanged Nut, Metric Mount, 7.50 DC Rims; With Steel Hubs

Includes:

- : PAINT IDENTITY, REAR WHEELS White

2016 Truck & Mounted TMA Spec.

Notes:

: Compatible Tire Sizes: 11R22.5

WHEELS SEALS, FRONT : Oil-Lubricated Wheel Bearings

WHEEL BEARING, FRONT, LUBE {EmGard 50W} Synthetic Oil

(4) TIRE, REAR 11R22.5 G622 RSD (GOODYEAR) 497 rev/mile, load range G, 14 ply

(2) TIRE, FRONT 11R22.5 G661 HSA (GOODYEAR) 497 rev/mile load range G, 14 ply

Services Section:

Warranty Standard

GPS/AVL with telematics to be installed and operational with each vehicle. All required equipment and wiring shall be fully furnished and installed prior to delivery. Mapping, and data services must be able to work in conjunction with the Department's current system (Web Tech Wireless). GPS/AVL data functioning shall include advanced reporting, telematics and real time mapping with a minimum of 10 second update intervals for a one year period.

INSTALL TWO WAY RADIO SUPPLIED BY RIDOT

CERTIFICATE OF ORIGIN : The Contractor shall furnish a Certificate of Origin to RIDOT
The Certificate shall be completed as follows:

Name of Purchaser: State of RI/Fleet Operations
Address of Purchaser: One Capitol Hill Providence, RI 02908

2016 Truck & Mounted TMA Spec.

SPECIFICATION FOR TRUCK MOUNTED ATTENUATOR WITH TWO 90° TILT FOR TRANSPORT MODES OR EQUAL

SCOPE

1. Product

The specifications describe a truck mounted attenuator (TMA) which is mounted to a shadow vehicle for purposes of protecting the work crew in front of the shadow vehicle and protecting the motorist that might drive into the lane closed off by the shadow vehicle. Shadow vehicles should be trucks in a weight range of 12,000-lbs to 25,200-lbs. And preferably 20,000 lbs., which is the weight of the truck tested for certification.

The TraFix Scorpion TMA 10,000 Model C Uses a 90° hydraulic tilt attached to the strut. This allows the system to raise the strut to the vertical position with the cartridge in a horizontal position over the top of the truck for normal transport mode.

The Scorpion TMA 10,000 is mounted to a truck at a road clearance height of 12" +/-1". In the deployed mode shown in fig. 7, the system extends 13' to the rear of the truck.

2. The Product Specification

Construction – The Scorpion TMA 10,000 consists of three basic components. A steel backup is attached to the rear of the truck with an all-steel support structure. An all aluminum tube frame extends out 13' from the backup. Inside the tube frame is a series of four aluminum boxes filled with energy absorbing boxes filled with energy absorbing aluminum honeycombing.

Materials – The backup support structure uses all steel, angles, plates, and C-channels welded using wire feed mix welding. The tube frame construction uses all aluminum tube and plate construction welded using wire feed mix welding on both sides of the tube/plate interface. The aluminum boxes use closed end-sealing rivets for joining the sheet metal. The aluminum honeycomb is joined to the aluminum face sheets using oven cured epoxy resin.

Aluminum tubing – 6063 Aluminum T4

Aluminum plate – 5052 Aluminum 0.250 "

Aluminum sheet – 5052 Aluminum 0.062"

Aluminum honeycomb – Commercial Grade 1" and ½" cell size

Aluminum rivets – 3/16" sealed

Backup bolts – 1" and 7/8" bolts grade #5

2016 Truck & Mounted TMA Spec.

3. Dimensions and Weights

The outside dimensions of the crushable attenuator portion are to be 152" long plus or minus one inch, 95" plus or minus one inch wide, and 25" plus or minus one inch deep. The cantilevered crushable attenuator portion shall weigh a maximum of 1,375 lbs.

Note: In the "up" or travel position, the top of the TMA shall be a maximum of 10'8" from the ground (as installed on the truck). The lowest portion of the unit in the travel position shall not be less than 12" plus or minus one inch from the ground.

4. Performance Requirement

The attenuator is to have been tested and certified to NCHRP 350 for test level 3 tests: 3-50, 3-51, 3-52, and 3-53. It is required that in order to be considered responsive for this bid requirement, that all angular impact testing be successfully completed and federally certified to meet ALL NCHRP 350 test level 3 requirements.

The cartridge and strut sections of the attenuator shall be constructed with two structurally redirective side members. The side members are to be made of two 4 1/2" diameter rolled and curved aluminum tubes having a 0.30" wall thickness. The redirective structural aluminum tube members shall protect the full truck width and have a side-to-side width of 95" plus or minus one inch.

5. Replacement Cartridge and Strut

The cartridge and strut attenuator sections shall be constructed with progressively collapsing modular components, which can be replaced, in successive stages depending on the accident severity; the first cartridge attenuator module shall provide a 5 mph bumper, the second cartridge attenuator module shall provide 45 mph or 70 kph cushion for light 1800 lb. vehicle, the third cartridge attenuator module shall provide a 62.5 mph or 100 kph cushion for the light 1800 lb. vehicle, the fourth strut attenuator module working in concert with the cartridge module shall provide a 62.5 mph or 100 kph cushion for heavy 4400 lb. vehicles.

6. Hydraulic 90° and 180 ° Tilt: Power Up and Down Feature

Hydraulic system shall have hydraulic fluid on both sides on the cylinders to prevent corrosion and enhance user safety. By hydraulically powering the TMA down and hydraulically linking it in the down or use position, it will eliminate the possibility of an impacting vehicle under riding the TMA in the use of deployed position.

Truck Mounted Full Matrix Modular PVMS Display

Truck Mounted Full Matrix PVMS Displays, including Installation of the PVMS.

Construction and Configuration

Mounting	Truck Bed Mount
Material	Aluminum Display Panel Frame
Lift Mechanism	Power actuator to initiate lifting of Display panel
Display Panel Support	The Display Panel shall be lifted to provide clearance for cab roof Mounted light bar visibility
Coating	Tubular steel frame
Display Panel	Black power coat finish or primer with black urethane finish

Type	Full Matrix sign composed of interchangeable display modules
Size	Pixel arrangement of no less than 24 pixels x 48 pixels and no greater than 30 pixels x 56 pixels.
Pixel LED's	Each pixel shall be composed of 1, 2 or 4 LED's in a closely spaced arrangement so to as to appear as a single round image at normal viewing distances.
LED Color	590mm (+/-2mm) amber-colored LED
LED Viewing Angle	24° to 30° cone of vision
Standard Font	5 pixels wide by 7 pixels high
LED Output Level	Automatically adjusts to ambient conditions and also manually adjustable from 0 to 100%

Sign Controller

Type	Handheld control unit shall be able to be operated from inside the truck cab
Menu Display	Control panel shall provide sign status and current message display or display or display sequence name.
Actuator Control	Shall provide control of Display Panel lift mechanism
Battery Monitoring	Shall display battery output parameters or provide a low battery warning
Security	Shall be password protected

Sign Display Features

Typical Message	Three (3) Line display with Eight (8) 12" Characters on each Line
Messages	99 user-programmable messages, minimum
Fonts	Shall include multiple sizes and widths or fonts
Graphics	Arrow Board function, at a minimum
Programming	User shall be able to create, edit, save and display messages of single and multiple pages

Network and Remote Control Functions

The truck Mounted Full Matrix Modular PVMS Display shall be able to be controlled remotely over a public cellular data network from a manufacturer supplied central controller or NTCIP compatible VMS control system.

Electrical and Environmental Requirements

Display Panel Power 12 VDC from the vehicle’s electrical system
Operating Temperature -22°F to 164°F, Minimum

Installation Requirement

Installation should be done according to the industry and RIDOT Standards

Maintenance, Repair and Extended Warranty

Prior to award, vendor must furnish a maintenance schedule that includes what will be covered under the scheduled maintenance based on manufactures recommendations.

Prior to award, Vendor must identify and list local repair representative(s) who shall respond within a 72 hour period during normal business hours. Monday through Friday between 7AM and 3PM of a service call during life of the maintenance, and extended warranty. Repair representative will repair the PVMS at its field location or at RIDOT facilities.

All associated maintenance of the PVMS equipment including solar panel system support and battery charging / maintenance is the responsibility of the contractor during the (2) two year maintenance, repair and extended warranty period. The vendor shall assume responsibility for all damaged PVMS equipment deployed, including but not limited to, due to rodent damage and adverse weather that may occur during this two year period.

The maintenance repair and extended warranty will apply to all equipment furnished under this procurement including the PVMS, and CTTV.

Training

All training and manuals shall be performed or supplied by factory trained personnel. Classes shall be for up to 6 people and for minimum of 4 hours, covering operation and troubleshooting. A complete set or Operations and Maintenance Manual shall be provided by the vendor for each PVMS purchased.

OPTIONS (TO BE QUOTED SEPARATELY)

Optional Software to Further Enhance the Truck Mounted PVMS Operations is as Follows

A. Message Download

This option shall allow for the sign operator to create custom message and/or sequences on a remote PC computer. These messages can be downloaded directly into the PVMS computer instantly for use on the message board.

A panel mounted computer download plug shall be provided for those operators with multiple PVMS or operators who prefer to create their own messages and sequences at their office instead of at the sign controller. This option allows the operator to completely program the sign messages, sequences and calendar of display times on an IBM compatible desktop or laptop computer. Once the user creates the display messages and sequences this information can be downloaded in the PVMS instantly by simply plugging in the compatible computer into the download port located on the PVMS control panel.

B. Time Clock Operations

This option allows the PVMS to be controlled by sophisticated software that can be re-programmed for automatic operation for any period from minutes to up to 10 years in advance. In addition sequences can be programmed for display on different days of the week at different hours of the day. All messages and sequences be independently programmable and shall have no limitations on nesting one within the other.

C. Computer Base Station Operation

This option allows the sign operator to have complete remote control of the on-board controller. The operator can monitor and remotely control one or multiple PVMS as if they were being controlled locally. A Standard Base Station includes Dual Core compatible computer that runs on Microsoft Windows 7 Professional 64 bit operating systems. A 12" monochrome monitor, modem, and communication software and shall support TCP/IP Protocols.

Contract Terms and Conditions

Table of Contents

Terms and Conditions.....VII
 BID STANDARD TERMS AND CONDITIONSVII
 TERMS AND CONDITIONS FOR THIS BIDVII
 RIVIP INFO - BID SUBMISSION REQUIREMENTSVII

Terms and Conditions

BID STANDARD TERMS AND CONDITIONS

TERMS AND CONDITIONS FOR THIS BID

RIVIP INFO - BID SUBMISSION REQUIREMENTS

It is the Vendor's responsibility to check and download any and all addenda from the RIVIP. This offer may not be considered unless a signed RIVIP generated Bidder Certification Cover Form is attached and the Unit Price column is completed. The signed Certification Cover Form must be attached to the front of the offer. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints.

**MAILING ADDRESS FOR BID PROPOSALS ISSUED BY THE STATE OF RHODE ISLAND,
DIVISION OF PURCHASES**

All Bid Proposals must be submitted by mail or hand delivered to:

- State of Rhode Island
- Department of Administration
- Division of Purchases, Second floor
- One Capitol Hill
- Providence, RI 02908-5855

DIVESTITURE OF INVESTMENTS IN IRAN REQUIREMENT:

No vendor engaged in investment activities in Iran as described in R.I. Gen. Laws §37-2.5-2(b) may submit a bid proposal to, or renew a contract with, the Division of Purchases. Each vendor submitting a bid proposal or entering into a renewal of a contract is required to certify that the vendor does not appear on the list maintained by the General Treasurer pursuant to R.I. Gen. Laws §37-2.5-3.