

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by execution of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO. 1 DATED 10/20/2015 ADDENDUM NO. 3 DATED 10/23/2015
 ADDENDUM NO. 2 DATED 10/22/2015 ADDENDUM NO. DATED

Number	Description
1	Revised TOC; Delete NTB No. 4740; Bid Items; Plan Sheet Nos. 2, 4, 5, 8, & 9A-16A; Amendment EBS Download Required.
2	Revised NTB No.5831; Amendment EBS Download Required.
3	Revised Table of Contents; Add NTB No. 5833; SP 907-660-7, replaces SP 907-660-1; BidItems; Amendment EBS Download Required.

TOTAL ADDENDA: 3
 (Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

 Contractor

BY _____
 Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

 President Address

 Secretary Address

 Treasurer Address

The following is my (our) itemized proposal.

Revised 07/2015

CM-0017-00(041) / 106852301

Desoto County(ies)

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION
TABLE OF CONTENTS**

PROJECT: CM-0017-00(041) / 106852301 - Desoto

Section 901 - Advertisement

Section 904 - Notice to Bidders

#1	Governing Specifications
#3	Final Cleanup
#342	Open Burning - Restriction On Ozone Action Days
#640	Fiber Reinforced Concrete
#1405	Errata & Modifications to 2004 Standard Specifications
#1727	Railway-Highway Provision, w/ Supplement
#1928	Federal Bridge Formula
#2382	Status of ROW, w/ Attachments
#2418	Clearing and/or Grubbing
#2818	Non-Quality Control / Quality Assurance Concrete
#3067	Storm Water Discharge Associated with Construction Activities (≥ 1 and < 5 Acres)
#3612	Additional Erosion Control Requirements
#3893	Petroleum Products Base Price
#4214	Safety Apparel
#4473	Alternate Crushed Stone Base Bid Items
#4526	Electronic Addendum Process
#4565	Manual on Uniform Traffic Control Devices (MUTCD)
#4661	Payroll Requirements
#5044	Questions Regarding Bidding
#5053	Contractor Correspondence
#5252	Terminal End Sections
#5266	Disadvantaged Business Enterprise, w/ Supplement
#5405	Traffic Control Devices
#5412	Weight Limits
#5545	Burn-in Period
#5556	DUNS Requirement for Federal Funded Projects
#5679	Bidding Methods
#5685	DBE Forms, Participation and Payment
#5824	Adjustments for Bituminous Materials
#5825	Contract Time
#5826	Specialty Items
#5827	Traffic Management Center (TMC) Modifications
#5828	Cooperation Between Contractors
#5829	ITS Equipment Cabinet Modifications
#5830	Camera Pole with Foundation
#5831	Location & Configuration of Communication Nodes
#5832	Add Option Bidding
#5833	Contract Modifications
906	Required Federal Contract Provisions -- FHWA 1273, w/Supplements

PROJECT: CM-0017-00(041) / 106852301 - Desoto

Section 907 - Special Provisions

907-101-4	Definitions
907-102-10	Bidding Requirements and Conditions, w/ Supplement
907-103-11	Award and Execution
907-104-5	Scope of Work
907-104-6	Partnering Process
907-105-8	Control of Work
907-107-13	Legal Relations and Responsibility to Public
907-107-14	Contractor's Protection Plan, w/ Supplement
907-108-37	Prosecution and Progress, w/ Supplement
907-109-7	Measurement and Payment
907-110-2	Wage Rates
907-216-1	Solid Sodding
907-225-4	Grassing
907-237-4	Wattles
907-246-3	Sandbags & Rockbags
907-304-13	Granular Courses
907-401-7	Asphalt Pavements
907-403-14	Asphalt Pavements
907-407-2	Tack Coat
907-601-1	Structural Concrete
907-618-13	Temporary Construction Signs
907-630-7	Remove and Reset Signs
907-630-14	Contractor Designed Sign Supports
907-637-5	ITS Equipment Cabinets
907-639-8	Traffic Signal and ITS Equipment Poles
907-642-2	Solid State Traffic Actuated Controllers
907-648-6	Radio Interconnect System
907-650-9	On-Street Video Equipment
907-656-11	Dynamic Message Sign
907-657-11	Fiber Optic Cable (OSP)
907-658-8	Networking Equipment
907-659-4	Traffic Management Center (TMC) Modifications
907-660-7	Communications Node
907-661-2	Rest Area Video Kiosk
907-662-6	Video Communication Equipment
907-663-2	Traffic Signal Software
907-666-1	Electric Cable
907-668-1	Traffic Signal Conduit
907-670-2	ITS Radar Detection System
907-674-1	Travel Time Sign
907-697-3	Bluetooth Detection System (BDS)
907-699-5	Construction Stakes
907-701-5	Hydraulic Cement, w/ Supplement
907-702-5	Specifications for Bituminous Materials
907-703-12	Aggregates, w/ Supplement
907-711-4	Synthetic Structural Fiber Reinforcement

PROJECT: CM-0017-00(041) / 106852301 - Desoto

907-713-5	Admixtures for Concrete
907-714-8	Miscellaneous Materials
907-715-4	Roadside Development Materials
907-804-16	Concrete Bridges and Structures
907-899-2	Railway-Highway Provisions
906-7	Training Special Provisions

Section 905 - Proposal, Proposal Bid Items, Combination Bid Proposal
Certification of Performance - Prior Federal-Aid Contracts
Certification Regarding Non-Collusion, Debarment and Suspension (2)
SAM.GOV Registration and DUNS Number
Section 902 - Contract Form
Section 903 - Contract Bond Forms
Form -- OCR-485

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET
OF SECTION 905 AS ADDENDA)

10/23/2015 08:49 AM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5833

CODE: (SP)

DATE: 10/23/2015

SUBJECT: Contract Modifications

PROJECT: CM-0017-00(041)/ 106852301 – Desoto County

Bidders are advised of the following changes regarding pay items:

- The Summary of Quantities sheets in the Plans indicate the following pay items which are to be deleted:
 - 907-660-A001-OTN Node- per EA
 - 907-660-B001-OTN Node Communication Hut- per EA
 - 907-660-C001-OTN Node Training Lump Sum
- The above referenced pay items are to be replaced with the following pay items:
 - 907-660-B002-Communications Hut – per each (replaces 907-660-B001)
 - 907-660-C002-Communications Node Equipment Installation and Configuration- per each (replaces 907-660-A001)
 - 907-660-D001- Training- Lump Sum (replaces 907-660-C001)
- The bid sheets have been corrected with these changes.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-660-7

CODE: (SP)

DATE: 10/22/2015

SUBJECT: Communications Node

PROJECT: CM-0017-00(041) / 106852301 – Desoto County

Section 907-660, Communications Node, is hereby added to and becomes part of the 2004 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-660--Communications Node

907-660.01--Description. A communication node is a collection of communication and network equipment including LAN and WAN interfaces to the MDOT ITS. It includes an environmental controlled prefabricated communications hut building used to house the equipment, and the interfaces to ITS devices in the field and to Traffic Management Center systems and computers over fiber, wireless, and leased line communication systems. Work also includes making modifications to existing Communication Nodes in accordance with the plans, special provisions, Notice to Bidders, and contract documents.

907-660.02--Materials.

907-660.02.1--Communications Node. The Communications Node supports communication transmission systems and monitoring equipment based on the latest network technology. It is characterized by network switching equipment and interfaces for localized networks, devices, and interfaces to backbone networks and interfaces. These include but are not limited to the following: fiber, copper ports, wireless, and leased communication interfaces. The Communications node supports almost all standard and/or customized transmission requirements for voice, data, LAN and video.

Communication nodes can be configured with a range of interface cards which allows them to be used for diverse applications. Communication nodes will be installed in Traffic Management Centers (TMC) and climate controlled Communication Huts. The Communication node equipment shall be modular 19-inch rack mountable.

A list of Communication node installation locations and specific interface card configurations shall be shown in the Notice To Bidders.

907-660.02.2--Communication Hut. The equipment building shall be of a modular, prefabricated type construction. The walls, roof, and floor shall be concrete with reinforcing steel, polypropylene fiber reinforced, 4,000 PSI minimum at 28 days compressive strength. The minimum design loads shall be:

- Seismic load performance category “C”, Exposure Group III
- Standard Live Roof Load – 60 PSF
- Standard Floor Load – 250 PSF
- Standard Wind Loading – 130 MPH

The roof panel shall slope one inch (1") from center to sides. The roof shall extend a minimum of 1½" beyond the wall panel on each side.

Roof, floor, and wall panels must each be produced as single component monolithic panels. No roof, floor, or vertical wall joints will be allowed except at corners. Wall panels shall set on top of floor panel.

The following shall be included in the building:

- 3'0" x 7'0" x 1¾" galvanized steel door and frame with dead bolt lock, door knob and three (3) keys
- Distribution panel board, 120/240 VAC interior, single phase, three wire, 200 amp main including breakers, (with 40-circuit minimum load panel)
- 2- 4-foot fluorescent ceiling mount fixture with two 40-watt cool white lamps each
- Exterior light with photocell, 120 VAC
- 1½ ton, 17,000 BTU, 5-kw unit, 30 AMP, 120 VAC AC unit
- Minimum of five 120 VAC grounded duplex receptacles and all conduit and wiring with a minimum of one on each wall
- Minimum of four 120 VAC grounded overhead locking receptacles and all conduit and wiring
- ¾ inch thick 4 ft by 8ft plywood board mounted on one wall
- Overhead cable trays as outlined in the project related Communications Node NTB
- Equipment Racks as outlined in the project related Communications Node NTB
- WEB based rack mounted remote environmental monitoring system with components as outlined in the project related Communications Node NTB
- H.264 IP based PTZ camera with built in WEB server for browser viewing and control
- Finished walls and ceiling with insulation and vinyl floor tiles
- Halo ground system
- Exposed aggregate finish or comparable finish as directed by Engineer
- 10" x 20" opening in the floor for four 4-inch conduits to provide access to the Communication Node Vault. Contractor shall seal the opening around the conduits after conduits are installed.
- A wall mounted CO2 fire extinguisher rated for electrical fires, to be located inside the hub building adjacent to the hub door opening.
- An uninterruptible power supply, and grounding system detailed in the construction requirements section of this special provision

The building's outer dimensions and any required layout for locations of doors, conduits, racks, cable trays, etc shall be covered in the Notice to Bidders.

907-660.02.3--Communication Hut Vault. A communications conduit vault shall be installed at Hut locations where the communications conduit, fiber and required fiber slack coils will be stored. The vault will be formed from concrete in accordance with specifications in the MDOT Redbook. The vault walls, floors and roof shall be minimum 6 inches thicknesses. The vault shall be sized and installed as detailed in these specifications and NTBs with the inside dimensions to be the same as the inside dimensions of a Type 5 pull box, at a minimum. The vault will be accessed through a minimum 30 inch diameter manhole assembly and cover. The iron manhole cover shall be imprinted with "MDOT COMMUNICATIONS". The concrete roof of the vault shall be installed below ground level with the vault cover ring installed so that the manhole is approximately 2 to 3 inches above ground level. The communications vault will be located approximately five (5) feet from the rear side of the Hut building and in no case more than 10 feet from the building so that the conduit connecting the vault and the Hut can be minimized.

Conduit carrying fiber to and from field locations may enter the vault on any of the three sides of the vault not adjacent to the Hut. Conduit will connect the vault and provide a path for the fiber from the vault to the Hut. This connecting conduit will conform to MDOT standard Type IV (PVC). Four lines of 4-inch conduit will be provided to connect the vault and the Hut. The conduit leaving the vault shall be aligned horizontally, spaced apart from adjacent conduit sufficiently to allow proper grouting and sealing. The conduits shall be aligned and enter the vault level, straight and perpendicular to the vault wall. Minimum cover over the conduit between the vault and the Hut shall be 36 inches. The conduit shall be placed horizontally until it connects with a 90 degree long sweep as it enters the Hut vertically in the floor near the inside of the rear wall of the Hut. The conduit will be trenched and buried in accordance with the trenching detail provided in the plans.

907-660.03--Construction and Operation Requirements.

907-660.03.1--Blank.

907-660.03.2--Communication Hut. The installation of the modular, prefabricated building shall consist of installing the leveling crushed gravel pad, providing 120/240 power to the building and connecting the distribution panel to the power supply, and testing the equipment for proper working/running condition. The building shall be placed no closer than 2' 0" to an existing structure.

The building shall be set on a 4-inch minimum depth, level, crushed gravel base, with that base being at least one foot longer than the length and width of the building. Conduit for the fiber interconnect system is to be in place before the building is set on the gravel base.

As part of site preparation, the area surrounding the communications building shall be leveled and prepared with a layer of Geotextile (Type III Erosion Control) and then a 5-inch thick layer of Mineral Aggregate (size 57), in addition to a 5' x 3' x 5" concrete pad shall be installed in front of the door. The cost of the items shall be included in the lump sum price bid for the Communications Hut.

The Contractor shall anchor the site as appropriate and approved by the Project Engineer to withstand wind loading requirements of the site locations.

907-660.03.2.1--Uninterruptible Power Supply.

- Mount the UPS at the bottom of the equipment rack containing the communication node and network switch.
- Connect the communication node and network switch input and any ancillary equipment power supplies to the UPS.
- Connect the UPS network interface to the network switch.

907-660.03.2.2--Grounding System.

- Install all grounding and bonding materials according to the manufacturer's recommended procedures and specifications.
- All metallic materials interior or exterior to the hub building shall be bonded to the grounding system directly.
- All electrical and electronic equipment shall be bonded to the grounding system through the electrical service feed to the equipment, or shall be bonded directly if the electrical service feed is not grounded unless otherwise recommended by the equipment manufacturer.
- Grounding and bonding wire shall be bare solid copper (BSC) unless otherwise specified.
- Grounding strap shall be BSC unless otherwise specified.
- Do not splice any grounding or bonding wire or strap.
- All below ground or exterior connections between wire, ground rod, and metallic structures and posts shall be made only by exothermic welding. All exothermic welding shall be performed in the presence of the Engineer or his designee.
- All connections to ground strap shall be made by silver soldering/brazing, except when impractical due to size and/or quantity of straps, where approved mechanical strap connectors shall be used with the Engineer's approval.
- Interior connections for bonding jumpers shall be by mechanical fasteners with silver soldered lugs. Copper conductive paste shall be used with mechanical fasteners.
- Minimum bending radius of any exterior grounding wire or strap shall be 24 inches.
- Minimum bending radius of any interior grounding wire #6 or smaller shall be 8 inches.
- Minimum bending radius of any interior grounding wire #2 or larger or any grounding strap shall be 12 inches.
- All metallic communications facilities entering the hub building shall be isolated from remote facility ground through isolation or neutralizing transformer technology per IEEE Std. 487-2000.

907-660.03.2.2.1--Interior Grounding System.

- The MGB shall be minimum 0.25" x 4" x 12" buss bar fabricated from solid copper alloy and shall include insulated mounting standoffs.

- The MGB down conductor shall be #2 BSC that is exothermically welded to the bottom of the bar.
- Install the MGB with standoffs in the lower center of the hub wall. Connect the MGB down conductor through the PVC ground wire sleeve directly to the chemically-enhanced ground rod in the grounding ring immediately outside of the building.
- Seal around the ground wire in the sleeve entry hole with waterproof outdoor-rated silicone caulk. Do not use expanding foam or caulk products.
- Bond the electrical panel load center and the generator supply transfer switch to the MGB with #2 AWG BSC.
- Bond each individual equipment rack directly to the cable runway with a #2 AWG BSC.
- Inside the hub building, bond the hub door to the door frame six inches (6") from the top of the door frame with a #2 AWG flexible copper wire or braid jumper of sufficient length to not hinder door movement. Bond the door frame directly to the MGB with a #6 AWG BSC.
- Unless otherwise specified, bond all any other metallic materials in the hub interior to the MGB with minimum #10 AWG stranded copper wire. Do not daisy-chain or splice bonding wires.

907-660.03.2.2.2--Exterior Grounding System.

- Ground rods shall be copper-clad 5/8-inch diameter 8-foot long steel electrical ground rods.
- Ground ring shall be formed with 3-inch wide #20 AWG BSC strap.
- Ground rod inspection handholes shall be plastic or polymer round enclosures minimum 12 inches in diameter and 18 inches deep.
- Chemically-enhanced ground rods shall be 10-foot long hollow copper tubes chemically-charged grounding electrode with an access handhole, and shall include ground enhancement backfill material.
- Sacrificial anodes for corrosion protection of the exterior grounding system shall be a minimum of 32 lb. magnesium material.
- Install the hub ring ground rods and ground strap at a depth of 18 inches. Install the ground strap in one continuous length; do not splice.
- Install ground ring inspection handholes at the four ground rods outside the corners of the building. Ensure the top of the ground rod is exposed for inspection.
- Install chemically-enhanced ground rods at the Hub Single Point Ground (HSPG) immediately outside of the hub building below the MGB position.
- Install a ground ring with a minimum of seven ground rods and one chemically-enhanced ground rod at the HSPG.
- Provide ground enhancement material as required to comply with the maximum ground impedance requirements. As a minimum, provide ground enhancement material for the complete length of the hub grounding ring strap.
- Install corrosion protection sacrificial anodes in accordance with the manufacturer's recommendations. Install a minimum of one for each ground ring.

907-660.03.3--Communication Node Installation, Configuration, & Training. Installation of all equipment, racks, cabling, monitoring systems, and software shall be included. The Contractor must provide the MDOT ITS Engineer with an Installation Schedule. The Installation Schedule must be approved by the State Traffic Engineer. All equipment and software must be fully functional and pass a Final Inspection by the Project Engineer and ITS Engineer before being accepted by MDOT.

Network switches are not provided or paid under this special provision. Network switches shall be provided by the contractor per the plans under the appropriate pay item number in Special Provision 907-658. Installation, configuration, and cabling of the Communication Node is inclusive of all devices, and network switches that are located in the Communications Hut. This work shall include modifications to existing equipment, and network switches to provide system communications to the TMC and Integration to the TMC systems.

The Contractor shall provide the MDOT with a written inventory of items received and the condition in which they were received. Inventory shall be inclusive of make, model, and serial numbers, MAC address, and installation GPS coordinates of the communications hut. All equipment shall be installed according to the manufacturer's recommendations or as directed by the MDOT.

Any new, additional or updated drivers required for the existing ATMS software to communicate and control new equipment installed by Contractor shall be the responsibility of the Contractor.

Training shall be provided covering the system architecture, operations, and maintenance of the Communication Nodes and MSTRaffic network. If training requirements include travel on the part of training participants then the cost of travel shall be included.

907-660.04--Method of Measurement. Communication Hut, complete in place, will be measured per each installation. Such measurement shall be inclusive of the communications hut, building, vault, all wiring, hardware, and incidentals, necessary to complete the work.

Communication Node Equipment Installation and Configuration, inclusive of the configuration of the communication and interface equipment, complete in place, tested, and accepted, will be measured per each installation for a complete and operable unit in accordance with the contract provisions.

907-660.05--Basis of Payment. Communication Hut, and Communications Node Equipment Installation and Configuration, measured as prescribed above, will be paid for at the contract unit price bid per each, which price shall be full compensation for furnishing all materials, construction installation, connecting, testing, for all equipment, tools, labor, and incidentals required to complete the work.

Payment will be made under:

907-660-B: Communications Hut

- per each

907-660-C: Communications Node Equipment Installation and Configuration - per each

907-660-D: Training - lump sum

Installation of Fiber Optic Cable, Signal Controller, and Software, known as Federal Aid Project No. CM-0017-00(041) / 106852301 in Desoto County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
Base Bid Items					
0010	201-A001		1	Lump Sum	Clearing and Grubbing
0020	202-B090		2	Each	Removal of Terminal End Section
0030	202-B247		22	Each	Removal of Pull Box
0040	203-EX018	(E)	447	Cubic Yard	Borrow Excavation, AH, LVM, Class B9
0050	219-A001		21	Thousand Gallon	Watering [\$20.00]
0060	234-A001		4,290	Linear Feet	Temporary Silt Fence
0070	602-A001	(S)	93	Pounds	Reinforcing Steel
0080	606-B001		1,441	Linear Feet	Guard Rail, Class A, Type 1
0090	606-C003		3	Each	Guard Rail, Cable Anchor, Type 1
0100	606-E003		5	Each	Guard Rail, Terminal End Section, Non-Flared
0110	619-D1001		352	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0120	619-D2001		1,150	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0130	619-G4001		1,044	Linear Feet	Barricades, Type III, Single Faced
0140	619-G7001		44	Each	Warning Lights, Type "B"
0150	620-A001		1	Lump Sum	Mobilization
0160	630-B001		228	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Group Mounted
0170	630-D005		140	Linear Feet	Structural Steel Beams, W6 x 15
0180	630-E002		135	Pounds	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles
0190	630-F001		43	Each	Delineators, Guard Rail, White
0200	647-A003		159	Each	Pullbox, Type 4
0210	647-A004		187	Each	Pullbox, Type 5
0220	647-A005		157	Each	Pullbox, Type 2
0230	666-B028		7,620	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #6, 3 Conductors
0240	666-B038		9,205	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #4, 3 Conductors
0250	666-B042		4,970	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #1, 4 Conductors
0260	666-B046		1,915	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #4, 4 Conductors
0270	666-B052		2,160	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #6, 4 Conductors
0280	666-B058		2,800	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #1, 3 Conductors
0290	907-216-A001		1,065	Square Yard	Solid Sodding
0300	907-225-A001		3	Acre	Grassing
0310	907-225-B001		11	Ton	Agricultural Limestone
0320	907-225-C001		7	Ton	Mulch, Vegetative Mulch

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0330	907-237-A002		3,432	Linear Feet	Wattles, 12"
0340	907-246-A002		858	Each	Sandbags
0350	907-403-A017	(BA1)	54	Ton	9.5-mm, ST, Asphalt Pavement
0360	907-403-A018	(BA1)	143	Ton	12.5-mm, ST, Asphalt Pavement
0370	907-407-A001	(A2)	134	Gallon	Asphalt for Tack Coat
0380	907-601-A001	(S)	3	Cubic Yard	Class "B" Structural Concrete
0390	907-618-A001		1	Lump Sum	Maintenance of Traffic
0400	907-630-I001		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designe
0410	907-630-I002		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designe
0420	907-630-I003		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designe
0430	907-630-I004		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 4, Contractor Designe
0440	907-630-M003		1	Lump Sum	Pedestal Sign Support, Assembly No 5, Contractor Designed
0450	907-630-O003		1	Each	Remove and Reset Sign, All Sizes
0460	907-630-Q004		1	Lump Sum	Post Sign Support, Assembly No. 8, Contractor Designed
0470	907-630-Q005		1	Lump Sum	Post Sign Support, Assembly No. 6, Contractor Designed
0480	907-630-Q006		1	Lump Sum	Post Sign Support, Assembly No. 7, Contractor Designed
0490	907-630-Q007		1	Lump Sum	Post Sign Support, Assembly No. 9, Contractor Designed
0500	907-637-A001		52	Each	Equipment Cabinet, Type B
0510	907-637-A002		3	Each	Equipment Cabinet, Type C
0520	907-637-B001		64	Each	ITS Equipment Cabinet Modifications
0530	907-639-B001		18	Each	Traffic Signal Equipment Pole Shaft Extension, 10-foot, Video Camera Mount
0540	907-639-B002		1	Each	Traffic Signal Equipment Lateral Ext., video camera mount
0550	907-639-E001		26	Each	Camera Pole with Foundation, 50' Pole
0560	907-639-E006		1	Each	Camera Pole with Foundation, 80' Pole
0570	907-639-F001		24	Each	Detector Pole with Foundation, 35' Pole
0580	907-642-B002		52	Each	Solid State Traffic Actuated Controller Modification, Per Plans
0590	907-648-D002		18	Each	Radio Interconnect, Broadband, Short Range
0600	907-650-A002		104	Each	On Street Video Equipment, Fixed Type
0610	907-650-A003		44	Each	On Street Video Equipment, PTZ Type
0620	907-656-A001		4	Each	Dynamic Message Sign, Type 1
0630	907-656-A002		1	Each	Dynamic Message Sign, Type 2
0640	907-656-A004		4	Each	Dynamic Message Sign, Type 3
0650	907-657-A001		273,930	Linear Feet	Fiber Optic Cable, 72 SM

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0660	907-657-B001		31,640	Linear Feet	Fiber Optic Drop Cable, 12 SM
0670	907-658-A005		116	Each	Network Switch, Type A
0680	907-658-A006		16	Each	Network Switch, Type B
0690	907-658-A007		1	Each	Network Switch, Type C
0700	907-658-A009		2	Each	Network Switch, Type E
0710	907-658-B001		37	Each	Terminal Server
0720	907-658-C001		6,765	Linear Feet	Category 6 Cable, Installed in Conduit
0730	907-658-D001		3	Each	Cellular Modem
0740	907-659-A001		1	Lump Sum	Traffic Management Center Modifications
0750	907-659-C001		1	Lump Sum	Traffic Management Center Modifications - Training
0760	907-660-C002		2	Each	Communications Node Equipment Installation and Configuration
0770	907-660-B002		1	Each	Communications Hut
0780	907-660-D001		1	Lump Sum	Training
0790	907-661-D001		2	Each	Rest Area Video Kiosk
0800	907-662-A002		16	Each	Video Encoder
0810	907-663-A001		1	Lump Sum	Central Management Signal Control Software
0820	907-666-F001		3	Each	Ground Mounted Transformer Enclosure
0830	907-666-F002		16	Each	Ground Mounted Meter Enclosure
0840	907-668-E001		7,685	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2"
0850	907-668-E002		101,250	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
0860	907-668-E003		12,615	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 3 @ 2"
0870	907-668-E004		520	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 4 @ 2"
0880	907-668-F001		10,275	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled F 2"
0890	907-668-F002		58,045	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled F @ 2"
0900	907-668-F003		4,200	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled F @ 2"
0910	907-668-G002		310	Linear Feet	Traffic Signal Conduit Bank, Aerial Supported, Type I, 2 @ 2"
0920	907-670-A001		41	Each	ITS Radar Detection System
0930	907-674-A001		3	Each	Travel Time Sign
0940	907-674-B001		1	Lump Sum	Travel Time Sign Training
0950	907-697-A001		44	Each	Bluetooth Detection System, Type A
0960	907-697-C001		44	Each	Bluetooth Detection System Server Licensing
0970	907-699-A002		1	Lump Sum	Roadway Construction Stakes
0980	907-899-A001		1	Lump Sum	Railway-Highway Provisions

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0990	907-906001		520	Hours	Trainees [\$5.00]
ALTERNATE GROUP AA NUMBER 1-Base Bid					
1000	907-304-F003	(GT)	304	Ton	3/4" and Down Crushed Stone Base
ALTERNATE GROUP AA NUMBER 2-Base Bid					
1010	907-304-F004	(GT)	304	Ton	Size 825B Crushed Stone Base
ALTERNATE GROUP AA NUMBER 3-Base Bid					
1020	907-304-F002	(GT)	304	Ton	Size 610 Crushed Stone Base
Add Option 1 Items					
1030	203-EX018	(E)	78	Cubic Yard	Borrow Excavation, AH, LVM, Class B9
1040	234-A001		150	Linear Feet	Temporary Silt Fence
1050	606-B001		235	Linear Feet	Guard Rail, Class A, Type 1
1060	606-C003		1	Each	Guard Rail, Cable Anchor, Type 1
1070	606-E003		1	Each	Guard Rail, Terminal End Section, Non-Flared
1080	619-D1001		24	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
1090	619-D2001		36	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
1100	619-G4001		60	Linear Feet	Barricades, Type III, Single Faced
1110	619-G7001		3	Each	Warning Lights, Type "B"
1120	620-A001		1	Lump Sum	Mobilization
1130	630-F001		7	Each	Delineators, Guard Rail, White
1140	647-A003		9	Each	Pullbox, Type 4
1150	647-A004		10	Each	Pullbox, Type 5
1160	647-A005		5	Each	Pullbox, Type 2
1170	666-B046		665	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #4, 4 Conduct
1180	666-B058		1,225	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #1, 3 Conduct
1190	907-225-A001		1	Acre	Grassing
1200	907-225-B001		1	Ton	Agricultural Limestone
1210	907-225-C001		1	Ton	Mulch, Vegetative Mulch
1220	907-237-A002		120	Linear Feet	Wattles, 12"
1230	907-246-A002		30	Each	Sandbags
1240	907-403-A017	(BA1)	10	Ton	9.5-mm, ST, Asphalt Pavement
1250	907-403-A018	(BA1)	25	Ton	12.5-mm, ST, Asphalt Pavement
1260	907-407-A001	(A2)	24	Gallon	Asphalt for Tack Coat
1270	907-618-A001		1	Lump Sum	Maintenance of Traffic
1280	907-630-M015		1	Lump Sum	Pedestal Sign Support, Assembly No 10, Contractor Designed

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1290	907-637-A001		1	Each	Equipment Cabinet, Type B
1300	907-639-E001		1	Each	Camera Pole with Foundation, 50' Pole
1310	907-650-A002		2	Each	On Street Video Equipment, Fixed Type
1320	907-650-A003		1	Each	On Street Video Equipment, PTZ Type
1330	907-656-A002		1	Each	Dynamic Message Sign, Type 2
1340	907-657-A001		13,250	Linear Feet	Fiber Optic Cable, 72 SM
1350	907-657-B001		30	Linear Feet	Fiber Optic Drop Cable, 12 SM
1360	907-658-A005		1	Each	Network Switch, Type A
1370	907-658-A006		1	Each	Network Switch, Type B
1380	907-658-B001		1	Each	Terminal Server
1390	907-659-A001		1	Lump Sum	Traffic Management Center Modifications
1400	907-659-C001		1	Lump Sum	Traffic Management Center Modifications - Training
1410	907-666-F002		1	Each	Ground Mounted Meter Enclosure
1420	907-668-E002		11,145	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
1430	907-668-E003		1,120	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 3 @ 2"
1440	907-668-F001		200	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled F 2"
1450	907-668-F002		765	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled F @ 2"
1460	907-670-A001		1	Each	ITS Radar Detection System
1470	907-697-A001		1	Each	Bluetooth Detection System, Type A
1480	907-697-C001		1	Each	Bluetooth Detection System Server Licensing
1485	907-699-A002		1	Lump Sum	Roadway Construction Stakes
ALTERNATE GROUP BB NUMBER 1-Add Option 1					
1490	907-304-F003	(GT)	43	Ton	3/4" and Down Crushed Stone Base
ALTERNATE GROUP BB NUMBER 2-Add Option 1					
1500	907-304-F004	(GT)	43	Ton	Size 825B Crushed Stone Base
ALTERNATE GROUP BB NUMBER 3-Add Option 1					
1510	907-304-F002	(GT)	43	Ton	Size 610 Crushed Stone Base
Add Option 2 Items					
1520	234-A001		60	Linear Feet	Temporary Silt Fence
1530	620-A001		1	Lump Sum	Mobilization
1540	647-A003		1	Each	Pullbox, Type 4
1550	647-A005		2	Each	Pullbox, Type 2
1560	666-B052		15	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #6, 4 Conduct
1570	907-237-A002		48	Linear Feet	Wattles, 12"

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1580	907-246-A002		12	Each	Sandbags
1590	907-618-A001		1	Lump Sum	Maintenance of Traffic
1600	907-630-Q008		1	Lump Sum	Post Sign Support, Assembly No. 11, Contractor Designed
1610	907-656-A004		1	Each	Dynamic Message Sign, Type 3
1620	907-657-B001		15	Linear Feet	Fiber Optic Drop Cable, 12 SM
1630	907-658-A005		1	Each	Network Switch, Type A
1640	907-659-A001		1	Lump Sum	Traffic Management Center Modifications
1650	907-659-C001		1	Lump Sum	Traffic Management Center Modifications - Training
1660	907-666-F002		1	Each	Ground Mounted Meter Enclosure
1670	907-668-E002		-100	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
1680	907-668-E003		100	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 3 @ 2"
1685	907-699-A002		1	Lump Sum	Roadway Construction Stakes