STATE OF MISSOURI
HIGHWAYS and TRANSPORTATION COMMISSION

JEFFERSON CITY, MISSOURI

CONSTRUCTING OR IMPROVING
Contract I.D. 181019-G05

THIS JOB SHALL BE CONSTRUCTED UNDER
FEDERAL PROJECT NUMBER(S): FAF-14-1(30),FAF-65-1(72)

Job J8P3088C Route BUS65 CHRISTIAN County.
Job J8P3101 Route BUS 65 CHRISTIAN County.

BIDDER CHECKLIST
FINAL CHECKLIST BEFORE SUBMITTING BID

1. Submit completed Contractor Questionnaire and/or Contractor Prequalification Questionnaire with attachments not later than seven (7) days prior to the date and hour of the bid opening. See Secs 101-103 of the Missouri Standard Specifications for Highway Construction, and Rule 7 CSR 10-15.010, "Prequalifications to Bid of Certain Contractors". Questionnaire and Contact information are provided on MoDOT's website.

2. All bids shall be submitted electronically using "Bid Express Secure Internet Bidding" at www.bidx.com. Any paper bid submitted will be considered irregular per section 102.8 of the Missouri Standard Specifications for Highway Construction.

3. Please read all items in the bidding document carefully. The EBSX files from MoDOT's website may be used for the itemized bid.

4. If submitted in the name of a firm or corporation, the legal name of the firm or corporation should appear in the space designated, and be signed for by one or more persons legally qualified to execute papers in the name of said firm or corporation.

5. The bidder shall submit a Bid Guaranty meeting the requirements of Sec 102 of the Missouri Standard Specifications for Highway Construction. If submitting a project specific or annual bid bond, bidders must use the MoDOT provided bid bond forms. The project specific bond form is included in the request for bid. The project specific and annual bid bond forms are also available on MoDOT's website. Annual bid bonds shall be executed by June 15th of each year.

6. Submit the Subcontractor Disclosure Form in accordance with the bidding documents. For bids of more than $2,000,000, each bidder shall submit with each bid a disclosure of the subcontracts that have a subcontract value that is equal or greater than twenty percent of the total project bid or subcontracts that are greater than or equal to $2,000,000. If that information is not available at the time of bid the bidder shall submit the "Subcontractor Disclosure Form" pages with MoDOT on or before 4:00 p.m. of the third business day after the bid opening date.

7. Submit the DBE Identification Submittal in accordance with the bidding documents for Federal Projects Only.

8. Alternate Pavements; to exercise this option, separate pay items, descriptions and quantities are included in the itemized proposal for each of the two alternates. The bidder shall bid only one of the two alternates and leave the contract unit price column blank for any pay item listed for the other alternate.

9. When submitting a bid, your bid will still come through with "red" folders. You should make sure that it is not the Schedule of Items folder or the Signature and Identity of Bidder folder. Click on the yellow checkmark (Check

Bid)at the top and it will list any errors in the bid. To view itemized folders, click the Tree View. This will show the status of the individual folders.

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Below is a list of common mistakes made by bidders leading to non-responsive bids. Please refer to the Standard Specifications for the appropriate procedures for completing and submitting a bid.

a) Submitting a paper bid for a project
b) Using a different bid bond form than the one provided
c) Improper use of the Maximum Monetary Value Award Provision
   -only used if bidding more than one project and should be in only one bid proposal
d) Not obtaining a digital ID in advance of the letting
   (obtaining a digital ID may take 5 business days)

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All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876. Project specific questions shall be directed to the project contact listed in the Job Special Provisions.

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*These forms are also available on MoDOT's Website, www.modot.org under Information on the Bid Opening Info page of the Contractor Resources site.

NOTICE TO CONTRACTORS

Electronic bids submitted through the Bid Express website for the proposed work will be received by the Missouri Highways and Transportation Commission until 11:00 o'clock a.m. (prevailing local time) on 10/19/2018.

Bid bonds will be received at the office of the Secretary to the Commission in the Missouri Department of Transportation Central Office Building, 105 West Capitol Avenue, Jefferson City, Missouri; delivered by US Mail should be mailed to: Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, P.O. Box 270, Jefferson City, MO 65102 or delivered by parcel delivery services, (such as UPS, Fed Ex, DHL, etc.) should be shipped to Missouri Highways and Transportation Commission, Attention: State Design Engineer/Bid Bond, 105 West Capitol Avenue, Jefferson City, MO 65102.

(1) PROPOSED WORK: The proposed work, hereinafter called the work, includes:

****(1): Job J8P3088C Route BUS65 CHRISTIAN County. Intersection improvements South St.,3rd St., & Selmore Rd., the total length of improvement being 0.569 miles.****(2): Job J8P3101 Route BUS 65 CHRISTIAN County. Grading and pavement from Route 65 to just west of Selmore/Route 14 intersection, the total length of improvement being 1.18 miles.

If more than one Job Number is listed for this call, then combination bids will be required on the Jobs listed above.

(2) COMPLIANCE WITH CONTRACT PROVISIONS: The bidder, having examined and being familiar with the local conditions affecting the work, and with the contract, contract documents, including the Missouri Highways and Transportation Commission's "Missouri Standard Specifications for Highway Construction, 2018," and "Missouri Standard Plans for Highway Construction, 2018", their revisions, and the request for bid, including appendices, the special provisions and plans, hereby proposes to furnish all labor, materials, equipment, services, etc., required for the performance and completion of the work. All references are to the Missouri Standard Specifications for Highway Construction, as revised, unless otherwise noted. All questions concerning the bid document preparation shall be directed to the Central Office - Design Division at (573) 751-2876.

(3) PERIOD OF PERFORMANCE: If the bid is accepted, the bidder shall continuously and diligently prosecute the work in such order and manner as will ensure the completion of the work within the time specified in the Job Special Provisions in accordance with Sec 108.

(4) LIQUIDATED DAMAGES: The bidder agrees that, should the bidder fail to complete the work in the time specified or such additional time as may be allowed by the engineer under the contract, the amount of liquidated damages as specified in the Job Special Provisions to be recovered in accordance with Sec 108.

(5) ITEMIZED BID: The bidder should complete the following section in

accordance with Sec 102.7. The bidder proposes to furnish all labor, materials, equipment, services, etc. required for the performance and completion of the work, as follows:

Line Number	Item Number	Quantity	Unit	Unit Price	Extension Price
Section 0001 Roadway Items - J8P3088C					
0010	2022010	1	LS		
REMOVAL OF IMPROVEMENTS					
0020	2035000	7793.000	CUYD		
UNCLASSIFIED EXCAVATION					
0030	2036000	2786.000	CUYD		
COMPACTING EMBANKMENT					
0040	2063000	2671.000	CUYD		
1 REVISED CLASS 3 EXCAVATION					
0050	3040504	2205.000	SQYD		
1 REVISED TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)					
0060	3040506	13900.000	SQYD		
1 REVISED TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)					
0070	4011209	235.100	TONS		
BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)					
0080	4013000	837.700	TONS		
BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)					
0090	4030103	830.800	TONS		
1 REVISED ASPHALTIC CONCRETE MIXTURE PG 70-22 (SP125C MIX)					
0100	4079912	1126.000	GAL		
1 REVISED MISC. TACK COAT LOW-TRACKING OR NON-TRACKING					
0110	5021108	1237.400	SQYD		
CONCRETE PAVEMENT (8 IN. NON-REINF)					
0120	6044011	1.000	EA		
PIPE COLLAR, TYPE A					
0130	6049903	74.000	LF		
MISC. TRENCH DRAIN					
0140	6081000	744.000	SQYD		
CONCRETE MEDIAN					
0150	6081010	682.700	SQYD		
CONCRETE CURB RAMP					
0160	6081012	226.000	SQFT		
TRUNCATED DOMES					
0170	6086004	1489.800	SQYD		
CONCRETE SIDEWALK, 4 IN.					
0180	6091011	954.000	LF		
CONCRETE CURB (OVER 6 IN. HEIGHT) TYPE S					
0190	6091052	4474.000	LF		
CURB AND GUTTER TYPE B					
0200	6097000	11.000	CUYD		
ROCK LINING					
0210	6123000A	2.000	EA		
TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)					
0220	6131010	127.000	SQYD		
FURNISHING AND PLACING CONCRETE MATERIAL FOR FULL DEPTH PAVEMENT REPAIR					
0230	6131012	127.000	SQYD		
SUBGRADE COMPACTION (6 IN. DEPTH) (PAVEMENT REPAIR)					
0240	6131013	127.000	SQYD		

TYPE 1 OR 5 AGGREGATE FOR BASE (4 IN. THICK) (PAVEMENT REPAIR)

0250	6131015	360.000	EA		
	DOWEL BAR (DRILLING, FURNISHING AND INSTALLATION) FOR FULL DEPTH PAVEMENT REPAIR				
0260	6141021	4.000	EA		
	GRATE AND BEARING PLATE (3 FT. X 2 FT. OR 914 MM X 610 MM)				
0270	6141120	4.000	EA		
	CURVED VANE GRATE AND FRAME (2 FT. X 2 FT. OR 600MM X 600MM)				
0280	6143013	33.000	EA		
	MANHOLE FRAME AND COVER, TYPE 3				
0290	6161005	1118.000	SQFT		
	CONSTRUCTION SIGNS				
0300	6161008	3.000	EA		
	ADVANCED WARNING RAIL SYSTEM				
0310	6161009	3.000	EA		
	FLAG ASSEMBLY				
0320	6161025	175.000	EA		
	CHANNELIZER (TRIM LINE)				
0330	6161030	18.000	EA		
	TYPE III MOVEABLE BARRICADE				
0340	6161031	10.000	EA		
	TYPE III MOVEABLE BARRICADE WITH LIGHT				
0350	6161040	2.000	EA		
	FLASHING ARROW PANEL				
0360	6161099	4.000	EA		
	CHANGEABLE MESSAGE SIGN WITH COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED				
0370	6169902	10.000	EA		
	MISC. ADA COMPLIANT BARRICADES				
0380	6181000	1	LS		
	MOBILIZATION				
0390	6189902	4.000	EA	$600.00000	$2,400.00
	MISC. ADDITIONAL MOBILIZATION FOR SEEDING				
0400	6191000	5173.000	LF		
	PAVEMENT EDGE TREATMENT				
0410	6200009	682.000	LF		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6 IN. WHITE				
0420	6200012	43.000	LF		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE				
0430	6200015	227.000	LF		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE				
0440	6200018	248.000	LF		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. YELLOW				
0450	6200021	22.000	EA		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW				
0460	6200030	3.000	EA		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, WORD (ONLY)				
0470	6200042	41.000	EA		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES				
0480	6205301B	1400.000	LF		
	TEMPORARY REMOVABLE MARKING TAPE 4 IN., WHITE				
0490	6205303B	2000.000	LF		
	TEMPORARY REMOVABLE MARKING TAPE 4 IN., YELLOW				

0500	6205903A	3666.000	LF
	6 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS		
0510	6206000C	4408.000	LF
	4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
0520	6206001C	5682.000	LF
	4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
0530	6206108A	327.000	LF
	8 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
0540	6207001	2664.000	LF
	PAVEMENT MARKING REMOVAL		
0550	6207002	6.000	EA
	PAVEMENT MARKING REMOVAL (SYMBOLS)		
0560	6221001	8656.000	SQYD
	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)		
0570	6274000	1	LS
	CONTRACTOR FURNISHED SURVEYING AND STAKING		
0580	7250312A	100.000	LF
	12 IN. PIPE GROUP B		
0590	7250315A	1033.000	LF
1 REVISED	15 IN. PIPE GROUP B		
0600	7250318A	83.000	LF
	18 IN. PIPE GROUP B		
0610	7261015	2203.000	LF
1 REVISED	15 IN. PIPE GROUP A		
0620	7261018	568.000	LF
	18 IN. PIPE GROUP A		
0630	7261024	135.000	LF
	24 IN. PIPE GROUP A		
0640	7311022	18.000	FT
	PRECAST CONCRETE DROP INLET 2 FT X 2 FT		
0650	7311030	48.000	FT
	PRECAST CONCRETE DROP INLET 3 FT X 2 FT-6 IN.		
0660	7311032	14.000	FT
	PRECAST CONCRETE DROP INLET 3 FT X 2 FT		
0670	7311053	117.000	FT
	PRECAST CONCRETE DROP INLET 5 FT X 3 FT		
0680	7320015A	1.000	EA
	15 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
0690	7320018A	1.000	EA
	18 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
0700	7320615A	5.000	EA
	15 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION		
0710	7320624A	1.000	EA
	24 IN. OR ALLOWED SUBSTITUTE GROUP A FLARED END SECTION		
0720	8031000A	3785.000	SQYD
	TURF TYPE TALL FESCUE SODDING		
0730	8051000A	0.100	ACRE
	SEEDING - COOL SEASON MIXTURES		
0740	8061003	25.000	CUYD
	SEDIMENT TRAP EXCAVATION		
0750	8061004	25.000	CUYD

	SEDIMENT TRAP ROCK		
0760	8061005	56.000	LF
	ROCK DITCH CHECK		
0770	8061006	392.000	LF
	ALTERNATE DITCH CHECK		
0780	8061007A	38.000	EA
	CURB INLET CHECK		
0790	8061016	112.000	CUYD
	SEDIMENT REMOVAL		
0800	8061017	0.800	ACRE
	TEMPORARY SEEDING AND MULCHING		
0810	8061019	952.000	LF
	SILT FENCE		
0830	9029400	1	LS
	TEMPORARY TRAFFIC SIGNALS		
Section 0001 Total			$2,400.00

Section 0002
Alternate Pavement A - Route 14 - ASPHALT - J8P3088C

0840	4039905	7806.600	SQYD
	MISC. Alt A Asphalt Pavement		
Section 0002 Total			

Section 0003
Alternate Pavement B - Route 14 - Concrete - J8P3088C

0850	5021309	7806.600	SQYD
	CONCRETE PAVEMENT (9 IN. NON-REINFORCED 15 FT. JOINTS) Alt B Concrete Pavment		
Section 0003 Total			

Section 0004
Lighting Items - J8P3088C

0860	9011030	1.000	EA
	LIGHTING POLE, 30 FT. OR 9.0 M, TYPE AT		
0870	9011062	9.000	EA
	LIGHTING POLE, 45 FT. OR 13.5 M, TYPE AT DESIGN 2		
0880	9011115	10.000	EA
	BRACKET ARM, 15 FT. OR 4.6 M		
0890	9011312	1.000	EA
	LUMINAIRE, LED-B		
0900	9011313	9.000	EA
	LUMINAIRE, LED-C		
0910	9012230	1.000	EA
	BASE MOUNTED CONTROL STATION 240 VOLT - 4 CIRCUIT		
0920	9013002	20.000	LF
	CONDUIT, 2 IN. RIGID, IN TRENCH		
0930	9014004	650.000	LF
	CONDUIT, 4 IN. RIGID, PUSHED		

0940	9015010	1154.000	LF
	TRENCHING TYPE I		
0950	9016110	5.000	EA
	PULL BOX, PREFORMED CLASS 1		
0960	9017002	80.000	LF
	CABLE, 2 AWG 1 CONDUCTOR		
0970	9017110	1170.000	LF
	CABLE, 10 AWG 1 CONDUCTOR, POLE AND BRACKET		
0980	9017407	2210.000	LF
	CABLE-CONDUIT, 1 IN., 2 CONDUCTORS AND 1 BARE NEUTRAL, 8 AWG		
0990	9018230	1.000	EA
	POLE FOUNDATION (30 FT. OR 9.0 M MOUNTING HEIGHT)		
1000	9018245	9.000	EA
	POLE FOUNDATION (45 FT. OR 13.5 M MOUNTING HEIGHT)		

Section 0004 Total

Section 0005
Signal Items - J8P3088C

1010	9020513	12.000	EA
	SIGNAL HEAD, TYPE 3B		
1020	9020514	2.000	EA
	SIGNAL HEAD, TYPE 4B		
1030	9020811	8.000	EA
	SIGNAL HEAD, TYPE 1S, PEDESTRIAN		
1040	9020833	51.000	SQFT
	SH-FLAT SHEET - SIGNAL SIGN		
1050	9020834	14.000	EA
	SIGNAL SIGN, MOUNTING HARDWARE		
1060	9022708	4.000	EA
	POST, SIGNAL 8 FT. OR 2.4 M		
1070	9023240	1.000	EA
1 REVISED	POST, TYPE C, 40 FT. ARM OR 12.2 M ARM		
1080	9023245	1.000	EA
1 REVISED	POST, TYPE C, 45 FT. ARM OR 13.7 M ARM		
1090	9023250	1.000	EA
1 REVISED	POST, TYPE C, 50 FT. ARM OR 15.2 M ARM		
1100	9023155	1.000	EA
	POST, TYPE CL, 55 FT. ARM		
1110	9024920	8.000	EA
	DETECTOR, PUSHBUTTON		
1120	9025020	152.000	LF
	CONDUIT, 1 IN., LOOP DETECTOR WITH TRACER WIRE		
1130	9025200	39.000	LF
	CONDUIT, 2 IN., TRENCH WITH TRACER WIRE		
1140	9025300	161.000	LF
	CONDUIT, 3 IN., TRENCH WITH TRACER WIRE		
1150	9027300	395.000	LF
	CONDUIT, 3 IN., PUSHED WITH TRACER WIRE		
1160	9028206	530.000	LF
	CABLE, 6 AWG 1 CONDUCTOR, POWER		

1170	9028208	30.000	LF
	CABLE, 8 AWG 1 CONDUCTOR, POWER		
1180	9028308	1670.000	LF
	CABLE, 16 AWG 2 CONDUCTOR		
1190	9028310	1700.000	LF
	CABLE, 16 AWG 5 CONDUCTOR		
1200	9028311	2210.000	LF
	CABLE, 16 AWG 7 CONDUCTOR		
1210	9028620	1.000	EA
	POWER SUPPLY ASSEMBLY, TYPE 2		
1220	9028811	3.000	EA
	PULL BOX, PREFORMED CLASS 2		
1230	9028812	2.000	EA
	PULL BOX, PREFORMED CLASS 3		
1240	9029100	17.000	CUYD
	BASE, CONCRETE		
1250	9029902	1.000	EA
	MISC. CONTROLLER ASSEMBLY HOUSING, TYPE 2070 CONTROLLER		
1260	9029902	4.000	EA
	MISC. OPTIONAL TRAFFIC SIGNAL DETECTORS		
1270	9029902	1.000	EA
	MISC. UNINTERRUPTABLE POWER SUPPLY		
1280	9103700	1.000	EA
	CCTV CAMERA ASSEMBLY, INSTALLED		

Section 0005 Total

Section 0006
Signing Items - J8P3088C

1290	9031010	1.000	CUYD
	CONCRETE FOOTINGS, EMBEDDED		
1300	9031210	80.000	LB
	STRUCTURAL STEEL POSTS		
1310	9031241	3.000	EA
	BREAKAWAY ASSEMBLY (PERFORATED SQUARE STEEL TUBE)		
1320	9031272	12.000	LF
	2.25 IN. PSST POST - 12 GA.		
1330	9031280	279.000	LF
	2.5 IN. PSST POST - 12 GA.		
1340	9031281	84.000	LF
	POST ANCHOR FOR 2.5 IN. PSST - 7 GA.		
1350	9035004A	315.000	SQFT
	SH-FLAT SHEET		
1360	9035069A	26.000	SQFT
	SHF-FLAT SHEET FLUORESCENT		

Section 0006 Total

Section 0007
Lighting and Signal Color Coating - J8P3088C

1370	9019901	1	LS

	MISC. COLOR COAT LIGHTING EQUIPMENT		
1380	9029901	1	LS
	MISC. COLOR COAT SIGNAL EQUIPMENT		
Section 0007 Total			

Section 0008
Median Tinting, Texturing and Sealing - J8P3088C

1390	6089905	744.000	SQYD
	MISC. CONCRETE MEDIAN TINTING, TEXTURING, AND SEALING		
Section 0008 Total			

Section 0009
Roadway Items - J8P3101

1400	2013000	1.000	ACRE
	CLEARING AND GRUBBING		
1410	2022010	1	LS
	REMOVAL OF IMPROVEMENTS		
1420	2035000	8532.000	CUYD
	UNCLASSIFIED EXCAVATION		
1430	2035500	4059.000	CUYD
	EMBANKMENT IN PLACE		
1440	2036000	6806.000	CUYD
	COMPACTING EMBANKMENT		
1450	2063000	6245.000	CUYD
1 REVISED	CLASS 3 EXCAVATION		
1460	2081000	4.000	100F
	INTERCEPTION DITCH		
1470	2153000	9.000	100F
	SHAPING SLOPES, CLASS III		
1480	3040504	3159.000	SQYD
	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)		
1490	3040506	16180.000	SQYD
	TYPE 5 AGGREGATE FOR BASE (6 IN. THICK)		
1500	4011209	106.700	TONS
	BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)		
1510	4013000	698.300	TONS
	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)		
1520	4030103	3324.700	TONS
	ASPHALTIC CONCRETE MIXTURE PG 70-22 (SP125C MIX)		
1530	4079912	3589.000	GAL
1 REVISED	MISC. TACK COAT LOW-TRACKING OR NON-TRACKING		
1540	4134000	95.000	GAL
	BITUMINOUS FOG SEAL		
1550	5021108	1282.200	SQYD
	CONCRETE PAVEMENT (8 IN. NON-REINF)		
1560	5024008	484.400	SQYD
	CONCRETE BASE (8 IN. NON-REINF)		
1570	6044011	1.000	EA
	PIPE COLLAR, TYPE A		

1580	6049903	44.000	LF		
	MISC. TRENCH DRAIN				
1590	6081010	592.200	SQYD		
	CONCRETE CURB RAMP				
1600	6081012	515.000	SQFT		
	TRUNCATED DOMES				
1610	6084024	16.000	LF		
	SIDEWALK HAND-RAILING WITH BALUSTERS				
1620	6086004	2561.400	SQYD		
	CONCRETE SIDEWALK, 4 IN.				
1630	6091011	376.000	LF		
	CONCRETE CURB (OVER 6 IN. HEIGHT) TYPE S				
1640	6091052	9566.000	LF		
	CURB AND GUTTER TYPE B				
1650	6097000	43.000	CUYD		
	ROCK LINING				
1660	6123000A	2.000	EA		
	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)				
1670	6141021	21.000	EA		
	GRATE AND BEARING PLATE (3 FT. X 2 FT. OR 914 MM X 610 MM)				
1680	6141120	1.000	EA		
	CURVED VANE GRATE AND FRAME (2 FT. X 2 FT. OR 600MM X 600MM)				
1690	6143011	7.000	EA		
	MANHOLE FRAME AND COVER, TYPE 1-B				
1700	6143013	58.000	EA		
	MANHOLE FRAME AND COVER, TYPE 3				
1710	6161005	1380.000	SQFT		
	CONSTRUCTION SIGNS				
1720	6161008	1.000	EA		
	ADVANCED WARNING RAIL SYSTEM				
1730	6161009	1.000	EA		
	FLAG ASSEMBLY				
1740	6161025	285.000	EA		
	CHANNELIZER (TRIM LINE)				
1750	6161030	20.000	EA		
	TYPE III MOVEABLE BARRICADE				
1760	6161040	1.000	EA		
	FLASHING ARROW PANEL				
1770	6161099	4.000	EA		
	CHANGEABLE MESSAGE SIGN WITH COMMUNICATION INTERFACE, CONTRACTOR FURNISHED, CONTRACTOR RETAINED				
1780	6169902	6.000	EA		
	MISC. ADA COMPLIANT BARRICADES				
1790	6181000	1	LS		
	MOBILIZATION				
1800	6189902	4.000	EA	$600.00000	$2,400.00
	MISC. ADDITIONAL MOBILIZATION FOR SEEDING				
1810	6191000	8709.000	LF		
	PAVEMENT EDGE TREATMENT				
1820	6200009	1542.000	LF		
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6 IN. WHITE				
1830	6200015	912.000	LF		

	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE		
1840	6200018	107.000	LF
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. YELLOW		
1850	6200021	31.000	EA
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT/RIGHT ARROW		
1860	6200030	3.000	EA
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, WORD (ONLY)		
1870	6200042	26.000	EA
	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN WHITE, YIELD LINE TRIANGLES		
1880	6205301B	200.000	LF
	TEMPORARY REMOVABLE MARKING TAPE 4 IN., WHITE		
1890	6205303B	8540.000	LF
	TEMPORARY REMOVABLE MARKING TAPE 4 IN., YELLOW		
1900	6205903A	3848.000	LF
	6 IN. YELLOW HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT, TYPE L BEADS		
1910	6206000C	6690.000	LF
	4 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
1920	6206001C	12358.000	LF
	4 IN. YELLOW STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
1930	6206108A	397.000	LF
	8 IN. WHITE STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS		
1940	6207001	1000.000	LF
	PAVEMENT MARKING REMOVAL		
1950	6221001	34627.000	SQYD
	COLDMILLING BITUMINOUS PAVEMENT FOR REMOVAL OF SURFACING (3 IN. THICK OR LESS)		
1960	6274000	1	LS
	CONTRACTOR FURNISHED SURVEYING AND STAKING		
1970	7039903	400.000	LF
	MISC. UNDERGROUND DETENTION (6 FT.X 6 FT. RCB)		
1980	7250312A	61.000	LF
	12 IN. PIPE GROUP B		
1990	7250315A	991.000	LF
	15 IN. PIPE GROUP B		
2000	7250318A	515.000	LF
	18 IN. PIPE GROUP B		
2010	7250324A	1059.000	LF
1 REVISED	24 IN. PIPE GROUP B		
2020	7250330A	108.000	LF
	30 IN. PIPE GROUP B		
2030	7250336A	904.000	LF
	36 IN. PIPE GROUP B		
2040	7250342A	145.000	LF
	42 IN. PIPE GROUP B		
2050	7250348A	136.000	LF
	48 IN. PIPE GROUP B		
2060	7250354A	17.000	LF
	54 IN. PIPE GROUP B		
2070	7261015	964.000	LF
	15 IN. PIPE GROUP A		
2080	7261018	458.000	LF
1 REVISED	18 IN. PIPE GROUP A		

2090	7261024	712.000	LF
	24 IN. PIPE GROUP A		
2100	7261030	178.000	LF
	30 IN. PIPE GROUP A		
2110	7261036	307.000	LF
	36 IN. PIPE GROUP A		
2120	7261042	62.000	LF
	42 IN. PIPE GROUP A		
2130	7261048	173.000	LF
	48 IN. PIPE GROUP A		
2140	7269903	157.000	LF
	MISC. 34 IN. X 53 IN. CLASS III REINFORCED CONCRETE ELLIPTICAL PIPE		
2150	7310048	17.000	FT
	PRECAST CONCRETE MANHOLE - 48 IN.		
2160	7310060	6.000	FT
	PRECAST CONCRETE MANHOLE - 60 IN.		
2170	7310072	5.000	FT
	PRECAST CONCRETE MANHOLE - 72 IN.		
2180	7311022	4.000	FT
	PRECAST CONCRETE DROP INLET 2 FT X 2 FT		
2190	7311030	35.000	FT
	PRECAST CONCRETE DROP INLET 3 FT X 2 FT-6 IN.		
2200	7311032	73.000	FT
	PRECAST CONCRETE DROP INLET 3 FT X 2 FT		
2210	7311053	168.000	FT
	PRECAST CONCRETE DROP INLET 5 FT X 3 FT		
2220	7319903	78.000	LF
	MISC. SPECIAL CURB INLET (4 FT. X 5 FT.)		
2230	7319903	19.000	LF
	MISC. SPECIAL CURB INLET (5 FT.X 5 FT.)		
2240	7319903	25.000	LF
	MISC. SPECIAL CURB INLET (5 FT.X 6 FT.)		
2250	7319903	8.000	LF
	MISC. SPECIAL CURB INLET (6 FT.X 10 FT.)		
2260	7319903	12.000	LF
	MISC. SPECIAL CURB INLET (7.5 FT.X 4 FT.)		
2270	7319903	7.000	LF
	MISC. SPECIAL CURB INLET (7.5 FT.X 6 FT.)		
2280	7320015A	3.000	EA
	15 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
2290	7320018A	2.000	EA
	18 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
2300	7320024A	3.000	EA
	24 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
2310	7320042A	1.000	EA
	42 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
2320	7320054A	1.000	EA
	54 IN. OR ALLOWED SUBSTITUTE GROUP B FLARED END SECTION		
2330	8031000A	6244.000	SQYD
	TURF TYPE TALL FESCUE SODDING		
2340	8051000A	0.800	ACRE

	SEEDING - COOL SEASON MIXTURES			
2350	8061003	10.000	CUYD	
	SEDIMENT TRAP EXCAVATION			
2360	8061004	10.000	CUYD	
	SEDIMENT TRAP ROCK			
2370	8061005	416.000	LF	
	ROCK DITCH CHECK			
2380	8061006	1080.000	LF	
	ALTERNATE DITCH CHECK			
2390	8061007A	66.000	EA	
	CURB INLET CHECK			
2400	8061016	227.000	CUYD	
	SEDIMENT REMOVAL			
2410	8061017	0.800	ACRE	
	TEMPORARY SEEDING AND MULCHING			
2420	8061019	2123.000	LF	
	SILT FENCE			
2430	8064140	2821.000	SQYD	
	TYPE 3B EROSION CONTROL BLANKET			
Section 0009 Total				$2,400.00

Section 0010
Alternate Pavement C - Mainline - Asphalt - J8P3101

2450	4039905	8620.700	SQYD	
	MISC. 11.5 IN, ASPHALTIC CONCRETE PAVEMENT SP125C			
Section 0010 Total				

Section 0011
Alternate Pavement D - Mainline - Concrete - J8P3101

2460	5021309	8620.700	SQYD	
	CONCRETE PAVEMENT (9 IN. NON-REINFORCED 15 FT. JOINTS)			
Section 0011 Total				

Section 0012
Alternate Pavement E - Side roads - Asphalt - J8P3101

2470	4010101	1113.800	SQYD	
1 REVISED	8 INCHES, BITUMINOUS PAVEMENT			
Section 0012 Total				

Section 0013
Alternate Pavement F - Side roads - Concrete - J8P3101

2480	5021308	1113.800	SQYD	
	CONCRETE PAVEMENT (8 IN. NON-REINFORCED, 15 FT. JOINTS)			
Section 0013 Total				

Section 0014
Guardrail/Guard Cable Items - J8P3101

2490	6061061	488.000	LF
	MGS GUARDRAIL, 8 FT. POSTS, 6 FT. - 3 IN. SPACING		
2500	6061069	2.000	EA
	MGS BRIDGE APPROACH TRANSITION SECTION (REGULAR/NO CURB)		
2510	6063014	4.000	EA
	TYPE A CRASHWORTHY END TERMINAL (MASH)		

Section 0014 Total

Section 0015
Signal Items - J8P3101

2520	9020113	1.000	EA
	SIGNAL HEAD, TYPE 3T		
2530	9020213	1.000	EA
	SIGNAL HEAD, TYPE 3S		
2540	9020514	4.000	EA
	SIGNAL HEAD, TYPE 4B		
2550	9020811	8.000	EA
	SIGNAL HEAD, TYPE 1S, PEDESTRIAN		
2560	9020833	38.000	SQFT
	SH-FLAT SHEET - SIGNAL SIGN		
2570	9020834	12.000	EA
	SIGNAL SIGN, MOUNTING HARDWARE		
2580	9022708	3.000	EA
	POST, SIGNAL 8 FT. OR 2.4 M		
2590	9022715	1.000	EA
	POST, SIGNAL 15 FT. OR 4.6 M		
2600	9024920	8.000	EA
	DETECTOR, PUSHBUTTON		
2610	9024944	8.000	EA
	DETECTOR, VEHICLE INDUCTION LOOP (2 CHANNEL - RACK MOUNTED)		
2620	9025020	132.000	LF
	CONDUIT, 1 IN., LOOP DETECTOR WITH TRACER WIRE		
2630	9025200	144.000	LF
	CONDUIT, 2 IN., TRENCH WITH TRACER WIRE		
2640	9025300	340.000	LF
	CONDUIT, 3 IN., TRENCH WITH TRACER WIRE		
2650	9027400	95.000	LF
	CONDUIT, 4 IN., PUSHED WITH TRACER WIRE		
2660	9028206	450.000	LF
	CABLE, 6 AWG 1 CONDUCTOR, POWER		
2670	9028208	340.000	LF
	CABLE, 8 AWG 1 CONDUCTOR, POWER		
2680	9028308	1290.000	LF
	CABLE, 16 AWG 2 CONDUCTOR		
2690	9028310	1280.000	LF
	CABLE, 16 AWG 5 CONDUCTOR		
2700	9028311	1230.000	LF
	CABLE, 16 AWG 7 CONDUCTOR		

2710	9028500	2110.000	LF
	CABLE, LOOP DETECTOR, IN DUCT		
2720	9028510	620.000	LF
	CABLE, LOOP DETECTOR, LEAD-IN		
2730	9028810	2.000	EA
	PULL BOX, PREFORMED CLASS 1		
2740	9029100	3.200	CUYD
	BASE, CONCRETE		
2750	9029902	1.000	EA
	MISC. REMOVE AND RESET EXISTING POWER SUPPLY		

Section 0015 Total

Section 0016
Signing Items - J8P3101

2760	9031010	1.500	CUYD
	CONCRETE FOOTINGS, EMBEDDED		
2770	9031210	50.000	LB
	STRUCTURAL STEEL POSTS		
2780	9031241	1.000	EA
	BREAKAWAY ASSEMBLY (PERFORATED SQUARE STEEL TUBE)		
2790	9031272	8.000	LF
	2.25 IN. PSST POST - 12 GA.		
2800	9031280	238.000	LF
	2.5 IN. PSST POST - 12 GA.		
2810	9031281	51.000	LF
	POST ANCHOR FOR 2.5 IN. PSST - 7 GA.		
2820	9035004A	73.000	SQFT
	SH-FLAT SHEET		
2830	9035069A	24.000	SQFT
	SHF-FLAT SHEET FLUORESCENT		

Section 0016 Total

Item Total $4,800.00

DBE CERTIFICATION

(6) Trainees: (Applies to Federal Projects only) The number of trainee hours provided under this contract will be 0 slots at 1000 hours per slot or 0 hours.

(7) Bidder's Certificaton for DBE Program and Contract Goal

(Applies to Federal Projects only.)

(A) DBE Contract Goal: By submitting this bid, the bidder certifies that the bidder is familiar with the DBE Program Requirements in the General Provisions. The contract goal for the amount of work to be awarded is 8.00 % of the total federal project price. The bidder shall also complete the DBE Identification Submittal form in accordance with the General Provisions. This form is available on MoDOT's Website, www.modot.org on the Bid Opening Info page of the Contractor Resources site.

(B) DBE Participation: The bidder certifies that it will utilize DBE's as follows:

% OF TOTAL FEDERAL CONTRACT

NOTE: Bidder must fill in the above blank. If no percentage is specified, the bidder certifies that it agrees to and will comply with the contract goal. If a percentage below the contract goal is specified, then the bidder must submit complete documentation of good faith efforts to meet the DBE contract goal, immediately below.

The DBE Identification Submittal form will be submitted via

(C) Certification of Good Faith Efforts to Obtain DBE Participation: By submitting its signed bid, the bidder certifies under penalty of perjury and other provisions of law, that the bidder took each of the following steps to try to obtain sufficient DBE participation to achieve the Commission's proposed DBE Contract Goal:

CONTRACT PROVISIONS

(8a) ACCEPTANCE OF PROVISION FOR PRICE ADJUSTMENT FOR FUEL: Bidders have the option to accept the provision for Price Adjustment for Fuel in accordance with Sec. 109.14. The bidder must select "Yes" for those items of work in which they choose to accept the provision. No price adjustments will be made, due to fuel price changes, for bidders who do not accept this provision. This provision does not apply to Seal Coat.

EXCAVATION PRODUCTION

ASPHALT PAVING PRODUCTION AND HAULING

CONCRETE PAVING PRODUCTION AND HAULING

AGGREGATE BASE HAULING

(8b) ACCEPTANCE FOR PROVISION FOR ASPHALT CEMENT PRICE INDEX, SEAL COAT PRICE INDEX, ASPHALT UNDERSEAL PRICE INDEX, OR POLYMER MODIFIED EMULSION MEMBRANE PRICE INDEX: Bidders have the option to accept the provision for Asphalt Cement Price Index, Seal Coat Price Index, Asphalt Underseal Price Index, and/or Polymer Modified Emulsion Membrane Price Index (when used in conjunction with an Ultrathin Bonded Asphalt Wearing Surface treatment) in accordance with the General Provisions. The bidder must mark each box below if they choose to accept the provision. No price adjustments will be made, due to asphalt price changes, for bidders who do not accept this provision.

ASPHALT CEMENT

SEAL COAT

ASPHALT UNDERSEAL

POLYMER MODIFIED EMULSION MEMBRANE (UBAWS)

(9) MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING: Bidders have the option to specify the maximum monetary value of awards that they will accept for the total of all bids they have submitted in the bid opening, Sec 102.7.2. If the bidder is submitting only one bid, or if the bidder does not want to specify a maximum monetary value for submitted bids, this section should not be completed. If a submitted bid upon correction exceeds the indicated maximum monetary amount, the bid may be declared non-responsive. If a bidder's submitted bids show different values for the maximum monetary value, the lowest value will govern.

MAXIMUM MONETARY VALUE OF AWARDS ACCEPTED THIS BID OPENING

$

(Note: this amount should be entered in only one of the bids for this bid opening)

(10) COMBINATION BIDS: (Applies only if combination bids are specified. See cover and/or notice to contractor(s).) Combination bids will be in accordance with Sec 102.12. By selecting "All or None" the bidder desires to combine all projects in accordance with Sec 102.12.2.1.

(11a) CERTIFICATIONS FOR FEDERAL JOBS: (Applies to Federal Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.1(regarding affirmative action and equal opportunity), Sec. 102.18.2 (regarding disbarment, eligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.4 (regarding lobbying activities). Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty and material misrepresentation or omission of fact within the bid submission.

(11b) CERTIFICATIONS FOR STATE JOBS: (Applies to State Projects only.) By signing and submitting this bid, the bidder makes the certifications appearing in Sec. 102.18.2 (regarding diseligibility, indictments, convictions, or civil judgments), Sec. 102.18.3 (regarding anti-collusion), and Sec. 102.18.5 (regarding Missouri Domestic Products Procurement Act).

Any necessary documentation is to accompany the bid submission, as required by these sections. As provided in Sec. 108.13, the Commission may terminate the contract for acts of misconduct, which includes but is not limited to fraud, dishonesty, and material misrepresentation or omission of fact within the bid submission.

Does the bidder make certification for the above items listed in 11(a) or 11 (b)? **Yes** ◯ **No** ◯

By selecting "No" the bidder REFUSES to make one or more certifications for the above items 11a or 11b. The bidder shall provide a statement of explanation for the refusal in the space below or by fax to the Design Division @ Fax no. 573-522-2281.

(12) ANTIDISCRIMINATION: The Commission hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, businesses owned and controlled by socially and economically disadvantaged individuals will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religion, creed, sex, age, ancestry, or national

origin in consideration for an award.

(13) PREFERENCE TO MISSOURI FIRMS IN AWARDING OF CONTRACTS: (Applies to State Projects only.) The bidder's attention is directed to Section 34.355 RSMo Supp 2000, et seq, which requires that preference be given in awarding contracts to firms, corporations, or individuals doing business as Missouri firms, corporations, or individuals, or which maintain Missouri offices or places of business, when the quality of performance promised is equal, or better, and the price quoted is the same, or less.

The law also requires that a contractor or bidder domiciled outside the State of Missouri shall be required, in order to be the successful bidder, to submit a bid which is the same percent less than the lowest bid submitted by a responsible contractor or bidder domiciled in Missouri as would be required for the Missouri domiciled contractor or bidder to succeed over the bidding contractor or bidder domiciled outside Missouri in a like contract or bid being let in his domiciliary state. A contractor or bidder domiciled outside Missouri shall also be required to submit an audited financial statement as would be required of a Missouri domiciled contractor or bidder on a like contract or bid being let in the domiciliary state of that contractor or bidder.

For firms, corporations or individuals domiciled outside the State of Missouri, it is requested they submit the following information:

List the state of domicile

List address of all Missouri offices or places of business

I acknowledge that I have read, understand and completed the above Contract Provisions.

SUBCONTRACTOR DISCLOSURE

(14) SUBCONTRACTOR DISCLOSURE The bidder shall submit with this bid any subcontracts that meet the requirements of Sec 102. List below the name of each subcontractor that will be furnishing labor, labor and materials, the category of work that the subcontractor will be performing (e.g. asphalt, concrete, earthwork, bridges...), and the dollar value of the subcontract. Select "NONE" if there are no subcontractors that need to be disclosed.

If the information is not available at the time of bid, the bidder shall submit the "Subcontractor Disclosure Form", located on MoDOT's website, on or before 4:00 p.m. of the third business day after the bid opening date, directly to the Design Division, Missouri Department of Transportation, 105 W. Capitol Avenue, P.O. Box 270, Jefferson City, Missouri 65102-0270. Telefax transmittal to MoDOT will be permitted at fax no. 573-522-2281 or emailed to subcontractor.disclosure@modot.mo.gov. The complete signed original documents do not need to be mailed to MoDOT, but the bidder shall have it available if requested by the Design Division or the engineer.

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

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CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

SUBCONTRACTOR NAME:

DOLLAR VALUE: $

CATEGORY OF WORK:

Submitted:

SIGNATURE AND IDENTITY OF BIDDER

(15) SIGNATURE AND IDENTITY OF BIDDER

BY SUBMITTING THIS BID ELECTRONICALLY, I HEREBY ACKNOWLEDGE THAT ALL REQUIREMENTS INCLUDED IN THE HARD COPY REQUEST FOR BID, AND AMENDMENTS ARE A PART OF THIS BID AND CONTRACT.

*** AN ELECTRONIC PROPOSAL SUBMITTED AND SIGNED WITH A DIGITAL ID, UNDER THE PROVISION OF THE MISSOURI DEPARTMENT OF TRANSPORTATION, WILL BE CONSIDERED VALID AND BINDING. ***

THE BIDDER CERTIFIES THAT THE BIDDER AND ITS OFFICIALS, AGENTS, AND EMPLOYEES HAVE NEITHER DIRECTLY NOR INDIRECTLY ENTERED INTO ANY AGREEMENT, PARTICIPATED IN ANY COLLUSION, OR OTHERWISE TAKEN ANY ACTION IN RESTRAINT OF FREE COMPETITIVE BIDDING IN CONNECTION WITH THIS BID, AND THAT THE BIDDER INTENDS TO PERFORM THE WORK WITH ITS OWN BONAFIDE EMPLOYEES AND SUBCONTRACTORS, AND DID NOT BID FOR THE BENEFIT OF ANOTHER CONTRACTOR.

THE BIDDER CERTIFIES THAT THE BIDDER'S COMPANY KNOWINGLY EMPLOYS ONLY INDIVIDUALS WHO ARE AUTHORIZED TO WORK IN THE UNITED STATES IN ACCORDANCE WITH APPLICABLE FEDERAL AND STATE LAWS AND ALL PROVISIONS OF MISSOURI EXECUTIVE ORDER NO. 07-13 FOR CONTRACTS WITH THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION, ACTING THROUGH THE MISSOURI DEPARTMENT OF TRANSPORTATION.

THE BIDDER ACKNOWLEDGES THAT THIS IS AN UNSWORN DECLARATION, EXECUTED UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE UNITED STATES AND/OR FALSE DECLARATION UNDER THE LAWS OF MISSOURI, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS. THE FAILURE TO PROVIDE THIS CERTIFICATION IN THIS BID MAY MAKE THIS BID NON-RESPONSIVE, AND CAUSE IT TO BE REJECTED.

◯ **Yes** ◯ **No**

Select "No" ONLY if the bidder REFUSES to make this certification. The bidder may provide an explanation for the refusal with this submittal in the space below or by fax to the Design Division @ fax no. 573-522-2281.

USE OF ANOTHER PERSON'S DIGITAL ID IN THIS BIDDING PROCESS VIOLATES THE LAWS OF MISSOURI.

I acknowledge that I have read, understood and completed the above Electronic Bid Submission Certification.

BID BOND

(16) BID GUARANTY: The bidder shall submit a Bid Guaranty meeting the requirements of Section 102 of the Missouri Standard Specifications for Highway Construction. MoDOT's bid bond forms are available on MoDOT's website.

Annual bid bonds shall be submitted to MoDOT by June 15th of each year. If utilizing a paper annual or project specific bid bond as a Bid Guaranty

for this project the bidder shall mark the box below.

**Pay by: ☐ Paper Annual or Project Specific Bid Bond.

If submitting a cashier's/certified check, the Bid Bond folder will not turn green.

ELECTRONIC BID BOND

The bidder shall complete the following bond verification process if utilizing an electronic project bid bond or electronic annual bid bond as a Bid Guaranty for this project.

**Bond ID: Verify Clear

**Surety Registry Agency:

**Bond Pct:

Surety State:

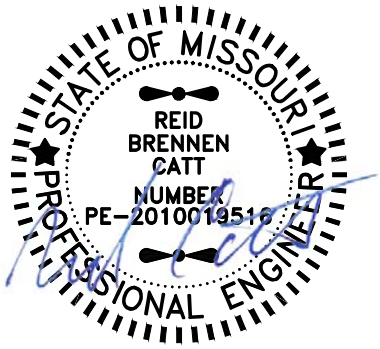
FIELDS WITH THE ** INDICATOR ARE REQUIRED FIELDS IF SUBMITTING YOUR BID VIA BID EXPRESS

Job No. J8P3101 & J8P3088C
Route Bus. 65 & Rte. 14
County Christian

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

(Job Special Provisions shall prevail over General Special Provisions whenever in conflict therewith.)

Job No. J8P3101 & J8P3088C
Route Bus. 65 & Rte. 14
County Christian

Digitally signed by Reid Catt Date: 2018.10.16 08:09:39-05'00'  	**MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION** 105 W. CAPITOL AVE.
	OLSSON ASSOCIATES *550 St. Louis Street* *Springfield, MO 65806* Certificate of Authority: 001592
	If a seal is present on this sheet, JSP's have been electronically sealed and dated.
	JOB NUMBER: J8P3101/J8P3088C CHRISTIAN COUNTY, MO DATE PREPARED: 08-09-2018
	ADDENDUM DATE: ***R001- 10-15-18***
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL	

Job No. J8P3101 & J8P3088C
Route Bus. 65 & Rte. 14
County Christian

JOB
SPECIAL PROVISION

A. GENERAL - FEDERAL JSP-09-02D

1.0 Description. The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations, and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at www.modot.org under "Bidding". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

1.2 The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Business"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2018 Missouri Standard Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the published versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

B. CONTRACT LIQUIDATED DAMAGES JSP-13-01B

1.0 Description. Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.

2.0 Period of Performance. Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed: December 3, 2018

Job Number	Completion Date
J8P3101	November 8, 2019
J8P3088C	November 8, 2019

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days	Daily Road User Cost
J8P3101	NA	$5,400
J8P3088C	NA	$5,400

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **$1,500** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed on each respective project. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified completion date or calendar days.

4.0 Liquidated Damages for Road User Costs. Should the contractor fail to complete the work on or before the completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. WORK ZONE TRAFFIC MANAGEMENT JSP-02-06F

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows. For further information see the Transportation Management Plan.

1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.

1.2 Work Zone Conflict Resolution. Any conflict resolution shall be in accordance with Sec 616.4. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

2.2 The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.

2.3 The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.

2.4 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

2.5.1 Traffic Safety.

2.5.1.1 Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

2.5.1.2 When a traffic queue extends to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway due to non-recurring congestion, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

3.0 Work Hour Restrictions.

3.1 There are six major holiday periods shown below. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day proceeding the holiday until 9:00 a.m. on the first working day subsequent to the holiday unless approved by the Engineer.

Memorial Day
Independence Day (including July 5, 2019)
Labor Day
Thanksgiving
Christmas
New Year's Day

3.1.1 The contractor's working hours will be restricted for the Special Events as shown below. All lanes shall be scheduled to be open to traffic during these Special Events. The dates for these events are not yet set, but will generally be the same time of year as was held in 2018. The contractor can use the below website to determine the exact dates of these events once they have been scheduled. http://www.ozarkmissouri.com/333/Finley-River-Park

River Jam – June 2019
Sertoma Duck Race – June/July 2019
Craft Fair – October 2019

3.2 The contractor shall not perform any construction operation on the roadbed or active lanes, (including the hauling of material within the project limits), during restricted periods, holiday periods or other special events specified in the contract documents.

3.3 Any work requiring a reduction in the number of through lanes of traffic shall be completed during nighttime hours. Nighttime hours shall be considered to be 10:00 p.m. to 5:00 a.m. for this project.

3.4 The contractor shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closures without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs. Should lane closures be placed or remain in place, prior to the approved starting time or after the approved ending time, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delays, with a resulting cost to the traveling public. These damages are not easily computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of **$250 per 15 minute increment** for each 15 minutes that the temporary lane closures are in place and not open to traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of unapproved closure time.

3.4.1 The said liquidated damages specified will be assessed regardless if it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract

4.0 Detours and Lane Closures.

4.1 When a changeable message sign (CMS) is provided, the contractor shall use the CMS to notify motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. The CMS shall be capable of communication with the Transportation Management Center (TMC), if applicable, prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.

4.2 At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

5.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. PROJECT CONTACT FOR CONTRACT/BIDDER QUESTIONS JSP-96-05

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below.

John Sanders, PE – MoDOT Project Manager
3025 E. Kearney Street, Springfield, MO 65801
417-829-8039
e-mail: John.Sanders@modot.mo.gov

All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

E. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT JSP-90-11

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from the police or other emergency agencies for incident management. In case of traffic accidents or the need for police to direct or restore traffic flow through the job site, the contractor shall notify police or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

2.0 In addition to the 911 emergency telephone number for ambulance, fire or police services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol:	417-895-6868
Christian County Sheriff Department:	417-581-2332
City of Ozark Fire:	417-581-4436
City of Ozark Police:	417-581-6600

EMERGENCY ONLY NUMBER
*55 CELL PHONE – Missouri Highway Patrol
MoDOT Incident Management Coordinator – 417-766-3265 Cell

2.1 This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate police agency.

2.2 The contractor shall notify enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.

3.0 No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

F. SUPPLEMENTAL REVISIONS JSP-18-01D

Delete Sec 106.9 and substitute the following:

106.9 Buy America Requirement On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 Buy America Requirements. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured in the USA except for "minor usage" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. The use of pig iron and processed, pelletized and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

Delete Sec 106.9.3 and substitute the following:

106.9.3 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000.

106.9.3.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed

domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.3.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The Engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the Engineer and retained for a period of 3 years after the last reimbursement of the material.

106.9.3.3 Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read “I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage”. The certification shall be signed by an authorized representative of the prime contractor.

Delete Sec 106.9.4 and Renumber subsequent sections accordingly:

Delete Sec 616.5.1 and substitute the following:

616.5.1 Amber or Amber and White Warning Lights. All on-road construction-related vehicles and equipment shall operate with amber or amber and white warning lights having 360 degrees of total coverage and as follows:

(1) For daytime operations, SAE Class 1 or 2 lights shall be used.

(2) For dusk to dawn operations, SAE Class 2 lights shall be used, or SAE Class 1 lights with dimming capabilities to minimize glare experienced by travelers.

616.5.1.1 Red or Red and Blue Warning Lights. The contractor may elect to use red or red and blue warning lights in accordance with Missouri law and the following requirements:

(1) Use of red or red and blue lights shall be limited to use on a total of two vehicles per work zone and/or project.

(2) Use of red or red and blue warning lights shall be limited to areas in advance of tapers or lane shifts and at the active work location.

(3) Lights shall be SAE Class 2 or SAE Class 1 with dimming capabilities to minimize glare experienced by travelers.

The awarded contract will serve as a permit by the Commission, granting the prime contractor and approved sub-contractors to utilize red or red and blue lights as required by Missouri law.

G. ALTERNATES FOR PAVEMENTS JSP-96-04G

1.0 Description. This work shall consist of a pavement composed of either portland cement concrete or asphaltic concrete, constructed on a prepared subgrade in accordance with the standard specifications and in conformity with the lines, grades, thickness and typical cross sections shown on the plans or established by the engineer.

1.1 Separate pay items, descriptions and quantities are included in the itemized proposal for each of the alternates. The bidder shall only bid one of the alternates and leave the contract unit price column blank for any pay item listed for any other alternate. If the bidder leaves any value in the unit price column for another alternate other the one he is bidding, the bid will be rejected.

2.0 Mainline Pavements

2.0.1 For Job J8P3088C, a sum of $71,600 will be added by the Commission to the total bid using an asphalt alternate for the *Alternate A* pavement for bid comparison purposes to factor in life cycle cost analysis of the roadway. The additional amount added will not represent any additional payment to be made to the successful bidder and is used only for determining the low bid.

2.0.3 For Job J8P3101, a sum of $87,200 will be added by the Commission to the total bid using an asphalt alternate for the *Alternate C* pavement for bid comparison purposes to factor in life cycle cost analysis of the roadway. The additional amount added will not represent any additional payment to be made to the successful bidder and is used only for determining the low bid.

2.1 Side Road Pavements

2.1.1 For Job J8P3101, a sum of $7,000 will be added by the Commission to the total bid using an asphalt alternate for the *Alternate E* pavement for bid comparison purposes to factor in life cycle cost analysis of the roadway. The additional amount added will not represent any additional payment to be made to the successful bidder and is used only for determining the low bid.

2.2 The quantities shown for each alternate reflect the total square yards of pavement surface designated for alternate pavement types as computed and shown on the plans. No additional payment will be made for asphaltic concrete mix quantities to construct the required 1:1 slope along the edge of the pavement, or for tack applied between lifts of asphalt.

2.3 The grading shown on the plans was designed for the asphalt pavement alternate, unless a specific pavement type was designed.

2.4 Pavement alternates composed of Portland cement concrete shall have contrast pavements for intermittent markings (skips), dotted lines, and solid intersection lane lines. The pavement markings shall comply with Sec 620. No additional payment will be for the contrast pavement markings.

3.0 Method of Measurement. The quantities of concrete pavement will be measured in accordance with Sec 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Sec 403.22.

4.0 Basis of Payment. The accepted quantity of the chosen alternate and other associated items will be paid for at the unit price for each of the appropriate pay items included in the contract.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for alternate pavements.

H. TEMPORARY CONSTRUCTION EASEMENTS

1.0 Description. MODOT has obtained temporary construction easements from property owners in order to construction improvements for the project. The businesses will continue utilizing those construction easements to conduct their day to day business. The contractor shall coordinate with the business owners to minimize the amount of time and space needed to construct the improvements located inside each temporary construction easement.

2.0 Construction Requirements. The contractor shall not disturb any business improvements, besides the entrance itself, located inside each temporary construction easement. Business improvements includes such things as, but not limited to, business signs and their electrical connections, landscaping, sprinkler systems. The contractor will be solely responsible to repair or replace any improvements they disturb that are not specifically marked on the plans for removal.

2.0 Basis of Payment. No direct payment will be made for compliance with this provision.

I. ACCESS TO COMMERCIAL PROPERTIES

1.0 Description. This improvement is in a highly commercial area. While working on and around commercial entrances, the contractor shall make every reasonable effort to minimize any interference to business and to pursue the work diligently. Under no circumstances shall the contractor block ingress/egress to and from businesses during the normal business hours of each business unless approved in writing by the property owner and the engineer. The contractor shall replace entrances one half at a time if the property/business only has one entrance. The contractor may replace an entire entrance at one time if the property/business owner has more than one entrance, and each entrance is not designated as a one way entrance. Once work has commenced on a particular entrance, work shall be diligently pursued until the entire entrance is complete and open to use.

1.1 The contractor shall contact each business to advise them of any work that will take place before working around each business entrance. The contractor is not to disturb any existing trees, landscaping, small block walls or irrigation lines, unless specifically called out on the

plans for removal. The contractor will solely be responsible for repairing any damage to the property caused by contractor operations.

2.0 Basis of Payment. No direct payment will be made to the contractor for all costs incurred with compliance of this provision.

J. ADA COMPLIANCE AND FINAL ACCEPTANCE OF CONSTRUCTED FACILITIES JSP-10-01A

1.0 Description. The contractor shall comply with all laws pertaining to the Americans with Disabilities Act (ADA) during construction of pedestrian facilities on public rights of way for this project. An ADA Checklist is provided herein to be utilized by the contractor for verifying compliance with the ADA law. The contractor is expected to familiarize himself with the plans involving pedestrian facilities and the ADA Post Construction Checklist prior to performing the work.

2.0 ADA Checklist. The contractor can locate the ADA Checklist form on the Missouri Department of Transportation website:

http://www.modot.mo.gov/business/contractor_resources/forms.htm

2.1 The ADA Checklist is intended to be a helpful tool for the contractor to use during the construction of the pedestrian facilities and a basis for the commission's acceptance of work. Prior to work being performed, the contractor shall bring to the engineer's attention any planned work that is in conflict with the design or with the requirement shown in the checklist. Situations may arise where the checklist may not fully address all requirements needed to construct a facility to the full requirements of current ADA law. In those situations, the contractor shall propose a solution to the engineer that is compliant with current ADA law using the following hierarchy of resources: 2010 ADA Standards for Accessible Design, Draft Public Rights of Way Accessibility Guidelines (PROWAG) dated November 23, 2005, MoDOT's Engineering Policy Guidelines (EPG), or a solution approved by the U.S. Access Board.

2.2 It is encouraged that the contractor monitor the completed sections of the newly constructed pedestrian facilities in attempts to minimize negative impacts that his equipment, subcontractors or general public may have on the work. Completed facilities must comply with the requirements of ADA and the ADA Checklist or have documented reasons for the non-complaint items to remain.

3.0 Coordination of Construction.

3.1 Prior to construction and/or closure on an existing pedestrian path of travel, the contractor shall submit a schedule of work to be constructed, which includes location of work performed, the duration of time the contractor expects to impact the facility and an accessible signed pedestrian detour compliant with MUTCD Section 6D that will be used during each stage of construction. This plan shall be submitted to the engineer for review and approval at or prior to the pre-construction conference. Accessible signed detours shall be in place prior to any work being performed that has the effect of closing an existing pedestrian travel way.

3.2 When consultant survey is included in the contract, the contractor shall use their survey crews to verify that the intended design can be constructed to the full requirements as

established in the 2010 ADA Standards. When 2010 ADA Standards do not give sufficient information to construct the contract work, the contractor shall refer to the PROWAG.

3.3 When consultant survey is not included in the contract, the contractor shall coordinate with the engineer, prior to construction, to determine if additional survey will be required to confirm the designs constructability.

4.0 Final Acceptance of Work. The contractor shall provide the completed ADA Checklist to the engineer at the semi-final inspection. ADA improvements require final inspection and compliance with the ADA requirements and the ADA Checklist. Each item listed in the checklist must receive either a "YES" or an "N/A" score. Any item receiving a "NO" will be deemed non-compliant and shall be corrected at the contractor's expense unless deemed otherwise by the engineer. Documentation must be provided about the location of any non-complaint items that are allowed to remain at the end of the construction project. Specific details of the non-complaint items, the ADA requirement that the work was not able to comply with, and the specific reasons that justify the exception are to be included with the completed ADA Checklist provided to the engineer.

4.1 Slope and grade measurements shall be made using a properly calibrated, 2 foot long, electronic digital level approved by the engineer.

5.0 Basis of Payment. The contractor will receive full pay of the contract unit cost for all sidewalk, ramp, curb ramp, median, island, approach work, cross walk striping, APS buttons, pedestrian heads, detectible warning systems and temporary traffic control measures that are completed during the current estimate period as approved by the engineer. Based upon completion of the ADA Checklist, the contractor shall complete any necessary adjustments to items deemed non-compliant as directed by the engineer.

5.1 No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract documents.

K. ADA COMPLIANT MOVEABLE BARRICADE

1.0 Description. This work shall consist of providing moveable barricades to satisfy the requirements of the pedestrian traffic control plans as shown in the bidding documents. The contractor will be responsible for moving the pedestrian barricades to coincide with their planned order of work.

2.0 Construction Requirements. The contractor shall use a movable barricade that meets the requirements as established by the ADA. The pedestrian barricades shall be of self-supporting type having a minimum length of 6 feet per unit. The face of the barricade shall not extend into adjacent sidewalk considered open for pedestrian use. The contractor will be responsible for setting and maintaining the pedestrian barricades until all of the proposed improvements have been constructed.

3.0 Method of Measurement. Measurement for ADA Compliant Moveable Barricade will be made per each for each 6 feet (min.) unit provided.

4.0 Basis of Payment. Payment for all work necessary to fulfill the requirements noted above shall be considered completely covered in the contract unit price for Pay Item No. 616-99.02, ADA Compliant Moveable Barricade, per each. No direct payment will be made for any necessary relocation of the ADA compliant barricade.

L. UTILITIES – J8P3101 JSP-93-26F

1.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

Utility Name	Known Required Adjustment	Type
Centurylink Bill Towler OSP Engineer II 211 S. Third St. Branson, MO 65616 Phone: 417-334-9327 bill.towler@centurylink.com	No (See Section 1.1)	Communications
MoDOT – Signals, Lighting, ITS Joe Dotson 2455 N. Mayfair Ave. Springfield, MO 65803 Phone: 417-766-3824 Email: joseph.dotson@modot.mo.gov	None	Signals, Lighting, ITS
Liberty Utilities (Missouri) Theresa Botzow Admin Asst - Engineering - Assoc 3400 S Kodiak Road, Joplin, MO 64804 Phone: 417-625-6197 Email: Theresa.Botzow@libertyutilities.com	Yes (See Section 1.2)	Power
Spire Energy (Missouri Gas Energy) Ken Stegall Construction Engineer 520 E 5th St Joplin, MO 64801 417.626.4831 Email: Ken.Stegall@spireenergy.com	Yes (See Section 1.3)	Gas
Jeremy Parsons Community Development Director City of Ozark 205 N. 1st St. Ozark, MO 65721 Phone: 417-581-2407	Yes (See Section 1.4)	Municipality

jparsons@ozarkmissouri.org

Altice Technical Services (formerly Suddenlink) Ernest Garza 769 N. 20th Street Ozark, MO 65721 Phone: 417-231-2444 Email: ernest.garza@suddenlink.com	Yes (See Section 1.5)	Communications
White River Valley Electric Cooperative Joe Donavant PO Box 969 2449 State Highway 76 E Branson, MO 65615 O: 417-335-9219 Cell: 417-294-0521 Fax: 417-335-9249 jdonavant@whiteriver.org	None	Communications

1.1 CenturyLink - CenturyLink has existing fiber and copper communication lines that are in the project limits. CenturyLink will have all utilities adjusted to avoid conflict with the roadway construction by October 19, 2018. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.2 Liberty Utilities Electric - Liberty Utilities Electric (Liberty Electric) has existing transmission and distribution lines that are in the project limits. The contractor shall use caution when working in these areas. A power supply will be added at the 17th Street signal, in the southeast quadrant, as shown in the plan sheets. The added meter pedestal will be installed near the existing pedestal by Liberty Electric. The contractor will coordinate its work with Liberty Electric throughout the project. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.3 Spire Energy – Spire Energy (Spire) has existing gas lines in the project limits. Adjustments will be done in mid May 2018 and will last four weeks. The contractor shall notify Spire a minimum of 30 working days before beginning any roadway work to identify any Spire utility conflicts. Spire is responsible for providing all details about the location and number of utilities in the project. In order to prepare for the roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any work. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.4 City of Ozark – City of Ozark (Ozark) has existing waterlines and sanitary lines that are in the project limits. The contractor must notify Ozark two weeks before building the temporary road over the top of the propsed fire hydrant at southeast quadrant of 15th Street. Ozark will remove the existing fire hydrant. The contractor will have one week to complete the work on the east side of 15th street. After the east side of 15th is completed, the contractor will move to constructing the other side of 15th street, and remove the temporary surfacing. Then Ozark will be able to reinstall the fire hydrant after the contractor has compelted their work on the east

side of 15th Street. Ozark will have all of the city's water and sanitary adjustments completed by December 31, 2018. The contractor will coordinate its work with Ozark throughout the project for improvements. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.5 Altice Technical Services (formerly Suddenlink) - Altice Technical Services (Altice) has existing communication lines that are in the project limits. Altice plans are dependent on Liberty Utility design and installation. In order to prepare for the roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any work. The contractor will coordinate its work with Altice throughout the project for improvements. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.6 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

M. UTILITIES – J8P3088C JSP-93-26F

2.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the known utility companies in the area of the construction work for this improvement:

Utility Name	**Known Required Adjustment**	**Type**
Centurylink Bill Towler OSP Engineer II 211 S. Third St. Branson, MO 65616 Phone: 417-334-9327 bill.towler@centurylink.com	No (See Section 1.1)	Communications
MoDOT – Signals, Lighting, ITS Joe Dotson 2455 N. Mayfair Ave. Springfield, MO 65803 Phone: 417-766-3824	None	Signals, Lighting, ITS

Email: joseph.dotson@modot.mo.gov

Liberty Utilities (Missouri) Theresa Botzow Admin Asst - Engineering - Assoc 3400 S Kodiak Road, Joplin, MO 64804 Phone: 417-625-6197 Email: Theresa.Botzow@libertyutilities.com	Yes (See Section 1.2)	Power
Spire Energy (Missouri Gas Energy) Ken Stegall Construction Engineer 520 E 5th St Joplin, MO 64801 417.626.4831 Email: Ken.Stegall@spireenergy.com	Yes (See Section 1.3)	Gas
LightCore, A CenturyLink Company Bobby Kennedy 110 E. Hadley Republic, MO 65738 Phone: 636-887-6273 Email: bobby.kennedy@centurylink.com	Yes (See Section 1.4)	Communications
Jeremy Parsons Community Development Director City of Ozark 205 N. 1st St. Ozark, MO 65721 Phone: 417-581-2407 jparsons@ozarkmissouri.org	Yes (See Section 1.5)	Municipality
Altice Technical Services (formerly Suddenlink) Ernest Garza 769 N. 20th Street Ozark, MO 65721 Phone: 417-231-2444 Email: ernest.garza@suddenlink.com	Yes (See Section 1.6)	Communications
White River Valley Electric Cooperative Joe Donavant PO Box 969 2449 State Highway 76 E Branson, MO 65615 O: 417-335-9219 Cell: 417-294-0521 Fax: 417-335-9249 jdonavant@whiteriver.org	None	Communications

2.1 CenturyLink - CenturyLink has existing fiber and copper communication lines that are in the project limits. CenturyLink will have all utilities adjusted to avoid conflict with the roadway construction by October 19, 2018. Any cost associated with these

notifications shall be considered completely covered in the unit cost for the other bid items.

2.2 Liberty Utilities Electric - Liberty Utilities Electric (Liberty Electric) has existing transmission and distribution lines that are in the project limits. The contractor shall use caution when working in these areas. The contractor will coordinate its work with Liberty Electric throughout the project for improvements.

2.2.1 The proposed aerial span crossing the 3rd Street intersection, near MO 14, Sta. 715+45, will leave 38 feet of clearance to the lowest powerline (neutral on the arm), but does not include clearance for any communications below. The proposed span will carry transmission voltages at the top, there is a potential for over 44 KV phase to ground, the contractor must ensure safety at this location. There are laminated wood poles, up to 92 feet in length on this project. The propose base of the laminated poles are rectangular, and will be about 3 feet wide.

2.2.2 The contractor will be excavating adjacent to Liberty Electric's existing pole, near MO 14 Sta. 230+71, Lt.,the closest spot at the SE corner of the Carlock property. The excavation may cause an issue with the pole since it will be within 5 feet of the base. The concractor shall contact Liberty Electric and arrange to have a line crew there to support it during the excavation. This pole supports the distribution line feeding the circuit from the substation as well as having transmission, so it will be very crucial to make sure this pole remains stable during construction and excavation. The contrarators will need to contact David Carlin, Libery Utility, directly to coordinate their work and make arrangements to have the pole supported. This will affect pole number 701382 for reference (which is the DE for the circuit from 434).

2.2.3 Approximately Sta. 229+30 Rt., Liberty Electric will be providing power for the Type 2 power supply. The contractor will contact Liberty Electric's call center for a service order and Liberty Electric will connect the power to the meter. The contractor shall dig the hole for Liberty Electric at this proposed Type 2 power supply installation.

Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

2.3 Spire Energy – Spire Energy (Spire) has existing gas lines in the project limits and is making these adjustments:

MO 14 Sta. 222+80 to 224+45, (44 ft. Lt.) existing gas line; move to 49 ft. Lt. offset.

MO 14 Sta. 224+45 (50 ft. Lt.) to 224+45 (50 ft. Rt.) exting gas line; lower 2 ft.

MO 14 Sta. 224+48 (35 ft. Lt.) to 226+22 (35 ft. Lt.) existing gas line; move gas line to 59 ft. Lt. offset.

MO 14 Sta. 227+85 (90 ft. Lt.) to 230+30 (40 ft. Lt.)existing gas line; move to north right of way line.

MO 14 Sta. 229+10 (50 ft. Lt.) to 229+10 (49 ft. Rt.)existing gas line; lower gas line due to stormwater construction.

MO 14 Sta. 708+00 (29 ft. Lt.) to 714+94 (74 ft. Lt.) existing gas line; lower or move to east right of way line.

MO 14 Sta. 710+43 (27 ft. Rt.) to 715+45 (51ft. Rt.) existing gas line; lower or move to west right of way line.

MO 14 Sta. 716+50 (50 ft. Lt.) to 720+25 (74 ft. Lt.) existing gas line; lower or move to east right of way line.

Spire adjustments will last four weeks and be completed by October 1, 2018. The contractor shall notify Spire a minimum of 30 working days before beginning any roadway work to identify any Spire utility conflicts. Spire is responsible for providing all details about the location and number of utilities in the project. In order to prepare for the roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any work. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

2.4 LightCore, A CenturyLink Company - LightCore, A CenturyLink Company (LightCore) has existing faclities in the project limits and has selected a contractor to do the adjustments. LightCore has no fiber cable west of Selmore.

2.4.1 LightCore will relocate a section of underground fiber in the southeast corner of MO 14 and Selmore Road. The underground segment begins near Sta. 724+00 Lt. on Selmore Road. The relocated segment includes existing fiber that extends to the north and turns east in the southeast quadrant of MO 14 and Selmore Road. The relocated underground segment ends near Sta. 227+91 Rt. on MO 14. From the end of the relocated foc, LightCore has existing underground foc from Sta. 227+91 Rt. to Sta. 229+25 Rt. on MO 14 and connects to existing LightCore aerial fiber. The existing aerial fiber continues to the the east, south of MO 14 to the end of the project.

2.4.2 LightCore is responsible for providing all details about the location and number of utilities in the project. In order to prepare for the roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any roadway work.

Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

2.5 City of Ozark – City of Ozark (Ozark) has existing waterlines and sanitary lines that are in the project limits. Ozark will have all of the city's water and sanitary adjustments completed by December 31, 2018. The contractor will coordinate its work with Ozark throughout the project for improvements. In order to prepare for the

roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any work. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

2.6 Altice Technical Services (formerly Suddenlink) - Altice Technical Services (Altice) has existing communication lines that are in the project limits. Altice plans are dependent on Liberty Electric Utility design. The contractor will coordinate its work with Altice throughout the project for improvements. In order to prepare for the roadway work, the roadway contractor shall notify the utility a minimum of 10 working days in advance of any work. Any cost associated with these notifications shall be considered completely covered in the unit cost for the other bid items.

1.7 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location and status of any facility. Such verification includes direct contact with the listed utilities.

1 REVISED N. STORMWATER COMPLIANCE REQUIREMENTS ~~JSP-15-04A~~

~~**1.0 Description.** The Contractor shall comply with the terms of the United States of America v. Missouri Highways and Transportation Commission Consent Decree (Consent Decree) that are identified as the responsibility of the Contractor or subcontractor, and with the terms of this provision. Viewing of the Consent Decree is available on the MoDOT Land Disturbance webpage under Contractor Resources, or by going to the web address www.modot.org/LD.~~

~~**1.1 Applicability.** The Consent Decree and this provision apply to any project that includes land disturbance of areas totaling greater than one (1) acre on the project site. The project site consists of all areas designated on the plans, including temporary and permanent easements. The Consent Decree and this provision do not apply to Contractor staging, plant, or borrow areas that are not located on MoDOT right of way (Off-site). The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.~~

~~**2.0 Stormwater Training for Contractor Employees.** The Contractor's on-site project manager, designated Water Pollution Control Manager (WPCM), as defined in Section 3.0, and WPCM delegate, shall complete MoDOT Stormwater Training prior to serving in those roles. If someone other than the Contractor's project manager is given the authority to manage the grading or erosion control operations, the project manager(s) for those operations shall also complete MoDOT Stormwater Training. MoDOT Stormwater Training is also required for any other person who the Contractor gives authority to take measures to prevent or minimize the consequences of non-compliance with the Stormwater requirements, as defined in Section 3.1(a) of this provision.~~

2.1 The Commission will provide MoDOT Stormwater Training to the Contractor employees specified in Section 2.0 at a location and time determined by MoDOT. There will be no fee for attending the training; however, the Contractor shall be responsible for all other cost related to the training, such as travel expenses, if necessary, and wages for its employees. The time to complete the training is anticipated to be no more than 6 hours. As long as the Consent Decree is in effect, MoDOT will provide periodic trainings at various locations around the state, as needed, to ensure contractors and bidders have the opportunity to maintain the number of WPCMs they need to comply with this provision.

2.2 Those who require MoDOT Stormwater Training per Section 2.0 shall complete the training prior to beginning any land disturbance work. Thereafter, training shall occur at least once every two (2) years. The training is not project-specific. Any Contractor employee who receives the training will be qualified to perform the WPCM duties on any MoDOT project for a period of two (2) years.

2.3 MoDOT will document the names and dates that contractor employees attend MoDOT Stormwater Training and will retain those records for the period of time specified in the Consent Decree. Duplicate record keeping by the contractor is not required.

3.0 Water Pollution Control Manager (WPCM). Prior to the Pre-Activity meeting for Grading/ Land Disturbance, the Contractor shall designate a Water Pollution Control Manager (WPCM) to fulfill the duties and responsibilities listed in Section 3.1 until final stabilization occurs. The Contractor's on-site project manager may also serve as the WPCM or that role may be assigned to another manager employed by the contractor or a subcontractor. The Contractor shall also maintain a WPCM delegate to temporarily fulfill the WPCM duties in the absence of the primary WPCM (e.g. illness, vacation, other leave).

3.1 Duties of the WPCM:

(a) Be familiar with Stormwater Requirements including the National Pollutant Discharge Elimination System (NPDES), the current MoDOT State Operating Permit for construction stormwater discharges/ land disturbance activities, the Project-specific Stormwater Pollution Prevention Plan (Project SWPPP), the Corps of Engineers Section 404 Permit, when applicable, the Consent Decree, and this provision. The Project SWPPP includes: a title page with project-specific information, the general SWPPP posted on the MoDOT land disturbance website, the Project Erosion & Sediment Control Plan, all applicable special provisions, and all applicable specifications and standard drawings;

(b) Complete the stormwater training set forth in Section 2.0;

(c) Attend the Pre-Activity for Grading/ Land Disturbance Meeting or, if hired after the meeting has occurred, be familiar with the conference decisions;

(d) Review and sign the Project-specific SWPPP and all updates thereto within time periods set out in the Consent Decree;

(e) Visit and review the project site for compliance with Stormwater Requirements at least once per week from the start of any grading operations until final stabilization is achieved and permit is closed;

(f) Be authorized by the Contractor to supervise all work performed by the Contractor and subcontractors that involves compliance with Stormwater Requirements, including the authority to order work be stopped on a Project, implement MoDOT-directed changes in work related to Stormwater Requirements, and order the taking of, measures to cease, correct, prevent, or minimize the consequences of non-compliance with Stormwater Requirements;

(g) Review and certify electronically each MoDOT inspection report for the Project within three (3) days of receiving each report to ensure it conforms with report requirements in the National Pollution Discharge Elimination System Stormwater (NPDES SW) Permit, Project SWPPP and the Consent Decree and ensure that all Stormwater Deficiencies noted on the report are corrected within the time required;

(h) Recommend in writing within three (3) days of discovering any changes in site conditions and Best Management Practices (BMPs) that require an update to the Project-specific SWPPP; and

(i) Be the point of contact relating to Stormwater Requirements and the Consent Decree between the Contractor, Subcontractors and MoDOT.

4.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. At each Project, a Pre-Activity Meeting for Grading/Land Disturbance shall be held prior to the start of any land disturbance and shall include a physical visit and review of the project site. Discussion items at the pre-activity meeting shall include a review of the project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

4.1 Contractor employees who shall attend the Pre-Activity Meeting for Grading/Land Disturbance include the WPCM for the Project and the person(s) designated the authority to manage the grading and erosion control operations.

4.2 Following the pre-activity meeting for Grading/land disturbance, and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

5.0 Compliance with the NPDES SW Permit and Project SWPPP. On all projects, the Contractor shall comply with all applicable Stormwater Requirements which are defined as, but are not limited to:

(a) Consulting with the engineer on recommended design revisions to the Project SWPPP to accommodate the Contractor's staging plan, implementation, managing, and maintaining BMPs or other control measures to prevent or minimize sediment and other pollutants in stormwater runoff in accordance with contract specifications or any relevant manufacturer specifications and good engineering practices, including but not limited to the manuals (*Note: two manuals cited in the MoDOT permit are "Developing your stormwater pollution prevention plan: A guide for construction activities" and "Protecting Water Quality: A Field Guide to erosion, sediment and stormwater best management*

practices for development sites in Missouri") and any other applicable standards for sedimentation basins, stabilization, rock dams, brush checks, construction entrances, and other BMPs;

(b) Installing all BMPs at the locations and relative times specified in the Project SWPPP; and

(c) Complying with the Missouri Water Quality Standards and with effluent limitations in Section E.1 of the NPDES SW Permit. Measurement of effluent is not required except as specified in E.2.

5.1 Stormwater Deficiency Corrections. Per terms of the Consent Decree, Stormwater Deficiencies identified on the MoDOT Land Disturbance Inspection Report shall be corrected within 7 days of the inspection date to avoid stipulated penalties, except that more time might be granted by the engineer when weather or field conditions prohibit the corrective work. If the Contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

6.0 Inspection Protocol. The Contractor and all subcontractors shall review and adhere to MoDOT's written Stormwater Inspection Protocol, found on the MoDOT Land Disturbance webpage (www.modot.org/LD). The Inspection Protocol is applicable to all Projects under the consent decree. The MoDOT Resident Engineer will serve the role of Stormwater Resident Engineer, or a delegate will be named in their absence.

6.1 Inspection Reports. MoDOT will provide one or more Environmental Construction Inspectors (ECI) to perform the weekly and post run-off inspections and other duties described in paragraph 17 of the Consent Decree. The ECI will enter the inspection reports into a web-based Stormwater Compliance database. The WPCM will have access to this database to view all report information, including any noted deficiencies, and to certify the report as required in Section 3.1 (g.). Automated email reminders of pending reports that need to be certified and for deficiencies that need to be corrected will be sent to the WPCM. The Contractor may designate other employees or subcontractor employees to have viewing access to this database and to receive the email reminders. Completion of MoDOT Stormwater Training is necessary in order to receive the email reminders. The WPCM and other users shall be equipped with an electronic device (desktop computer, laptop, tablet, smartphone, etc.) with a browser and internet access to connect to the database. The contractor shall be responsible for providing the electronic devices.

7.0 Stipulated Penalties. If the Contractor fails to comply fully and timely with the requirements of the Consent Decree, stipulated penalties will be assessed to the Commission. For matters under the Contractor's responsibility and control the following stipulated penalties will be assessed to the Contractor and MoDOT, the City of Republic will withhold payment pursuant to the following:

Violation	**Stipulated Penalty Amount**
Failure to Designate or Maintain WPCM at each Project in Accordance with Section 3.0.	$750 for the initial violation (each person not designated) and then $750 for each fourteen (14) day period that person is not designated.

Failure to complete MoDOT Stormwater Training by an Individual Required to be Trained in Accordance with Section 2.0, such as the WPCM or Project Manager.	$750 per person for each missed training. This $750.00 per person violation shall continue to accrue for each fourteen (14) day period that the person fails to timely receive the applicable training
Failure of WPCM to Review and Certify an Inspection Report in Accordance with Inspection Protocol as set forth in Section 6.	$250 per inspection report not reviewed or signed.
Failure to Comply with Any NPDES SW Permit or SWPPP Requirement.	$1000 per violation for the first ten (10) days of the violation; $2500 per violation for days 11-20; $3500 per violation for days 21 and beyond.
Failure to Correct a Stormwater Deficiency Identified in a MoDOT Inspection Report, or Otherwise Discovered by the WPCM, within the Time Required by the NPDES SW Permit or SWPPP.	$1000 per deficiency for the first ten (10) days after correction was required; $2500 per deficiency for days 11-20 after correction was required; $3500 per deficiency for days 21 and beyond after correction was required.

8.0 Information Collection and Retention. The EPA, its representatives and its agents shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credential, to:

(a) monitor the progress of activities required under the Consent Decree;

(b) verify any data or information submitted to the United States in accordance with the terms of the Consent Decree;

(c) obtain samples and, upon request, splits of any samples taken by MoDOT or its representatives, contractors, or consultants;

(d) obtain documentary evidence, including photographs and similar data; and

(e) assess MoDOT's compliance with the Consent Decree.

8.1 Until three (3) years after the termination of the Consent Decree, Contractors and the agents of the Contractors shall preserve all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its Contractors' or agents' possession or control, or that come into the Contractor's or agent's possession or control, and that relate to MoDOT's performance of its obligations under the Consent Decree or to the Contractor's performance of its obligations under the Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures.

9.0 Basis of Payment. Payment for compliance with this provision will be made per week. All cost associated with the weekly on-site project reviews by the WPCM, compliance with this provision and the Consent Decree, including all other duties of the WPCM and delegate, and all expenses to attend training, will be considered fully covered under 806-99.28, Water Pollution Control Manager. Separate payment will be made for erosion and sediment control devices, and for permanent and temporary seeding and mulching, when payment for those items are provided elsewhere in the contract.

~~**9.1 Method of Measurement.** Measurement of the number of full weeks (7 days) will begin on the date of the first MoDOT Inspection Report following initial land disturbance and will continue until the engineer declares final stabilization has been achieved, except that no measurement will be made for any period of time past the contract completion date, or adjusted completion date, when liquidated damages are being assessed for failure of the Contractor to complete the work on time.~~

Stormwater Compliance Requirements JSP-15-04B

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes areas of land disturbance that will total one (1) acre or greater on the project site at any point in time. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein.

1.1 Applicability. The project site consists of all areas designated on the plans, including temporary and permanent easements. This provision does not apply to Contractor staging, plant, or borrow areas that are not located on MoDOT right of way (Off-site). The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

2.0 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

(j) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;

(k) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;

(l) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;

(m) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the Engineer;

(n) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;

(o)Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected within 7 days of the stormwater inspection or any extended period of time granted by the Engineer.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity Meeting for Grading/Land Disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity Meeting except work necessary to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

3.1 Hold Point. Following the pre-activity meeting for Grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of $2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

6.0 Basis of Payment. No direct payment will be made for compliance with this provision.

O. PINNACLED ROCK

The State of Missouri and, in particular, the area that encompasses this project is known to have, at least in part, bedrock that exhibits karst conditions. One karst condition is sometimes referred to as pinnacle or pinnacled rock. The nature of this condition makes graphical representations of this pinnacled zone difficult to classify and excavate. It is incumbent upon the bidder to investigate above surface warnings of this rock formation (road cuts, quarry sites and any other exposed faces) and be aware that the same is a regularly occurring phenomenon and is not to be regarded as a differing site condition or result in changes in the work, regardless of what any actual boring or lines on the plans may or may not tend to indicate.

P Quality Management NJSP-15-22

1.0 Quality Management. The contractor shall provide Quality Management as specified herein to ensure the project work and materials meets or exceeds all contract requirements.

1.1 The contractor shall provide Quality Control (QC) of the work and material, as specified herein, to ensure all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors and testers may be employed by the contractor, sub-contractor, or a qualified professional service provided by the contractor.

1.2 The engineer will provide Quality Assurance (QA) inspection. The role of QA is to verify the performance of QC and provide confidence that the product will satisfy given requirements for quality.

1.3 The contractor shall designate a person to serve as the project Quality Manager (QM). The QM shall be knowledgeable of standard testing and inspection procedures for highway and bridge construction, including a thorough understanding of the Missouri Standard Specifications. The QM shall be responsible for the implementation and execution of the Quality Management Plan and shall oversee all QC responsibilities, including all sub-contract work. The QM shall be the primary point of contact for all quality related issues and responsibilities, and shall ensure qualified QC technicians and inspectors are assigned to all work activities. The QM should be separate from the manager of the work activities to effectively manage a QC program.

1.4 Any QC personnel determined in sole discretion of the engineer to be incompetent, derelict in their duties, or dishonest, shall at a minimum be removed from the project. Further investigation will follow with a stop work notification to be issued until the contractor submits a corrective action report that meets the approval of the engineer.

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record for acceptance of the work and material. A sample QMP, which shows minimum requirements, is provided on the MoDOT website at: www.modot.org/quality.

2.1 The QMP shall address all QC inspection and testing requirements of the work as described herein. A draft QMP shall be submitted to the Resident Engineer for review at least two weeks prior to the pre-construction conference. An approved QMP is required at least two weeks prior to the start of work, unless otherwise allowed by the engineer. Physical work on the project shall not begin prior to approval of the QMP by the engineer.

2.2 The approved QMP shall be considered a contract document and any revisions to the QMP will require approval from the engineer.

2.3 The following items shall be included in the Quality Management Plan:

a) Organizational structure of the contractor's project management, production staff, and QC staff, specific to this project.

b) Name, qualifications and job duties of the Quality Manager.

c) A list of all certified QC testers who will perform QC duties on the project, including sub-contract work, and the tests in which they are certified.

d) A list of all QC inspectors who will perform QC inspection duties on the project, including sub-contract work, and the areas of inspection that they will be assigned.

e) A procedure for verifying documentation is accurate and complete as outlined in Section 3.

f) A procedure describing QC Inspections as outlined in Section 4.

g) A procedure describing QC Testing, as outlined in Section 5, including a job specific Inspection and Test Plan (ITP).

h) A procedure describing Material Receiving as outlined in Section 6.

i) A list of Hold Points that are not included in the checklist forms, as outlined in Section 8.

j) A procedure for documenting and resolving Non-Conforming work as outlined in Section 9.

k) A procedure for tracking and documenting revisions to the QMP.

l) A list of any approved changes to the Standard Specifications or ITP, including a reference to the corresponding change order.

m) Format for the Weekly Schedule and Work Plans as outlined in Section 10, including a list of activities that will require pre-activity meetings.

3.0 Project Documentation. The contractor shall establish a Document Control Procedure for producing and uploading the required Quality Management documents to a MoDOT-provided server. The document management software used by MoDOT is Microsoft SharePoint®. Contractors do not need to purchase Microsoft SharePoint®, however, it is recommended that new users acquire some basic training to better understand how to use this software. MoDOT

does not provide the software training, but there are several online vendors who do. Contractors are required to use Microsoft Excel® and Microsoft Word® with some documents.

3.1 The contractor shall utilize the file structure and file naming convention provided by MoDOT. A sample file structure is available on the MoDOT website.

3.2 Documents (standard forms, reports, and checklists) referenced throughout this provision are considered the minimum documentation required. They shall be obtained from MoDOT at the following web address: www.modot.org/quality. The documents provided by MoDOT are required to be used in the original format, unless otherwise approved by the engineer. Any alteration to these forms shall be approved by the engineer.

3.3 Timely submittal of the required documents to the MoDOT document storage location is essential to ensure payment can be processed for the completed work. Submittal of the documents is required within 12 hours of the work shift that the work was performed, or on a document-specific schedule approved by the engineer and included in the QMP.

3.4 The contractor shall establish a verification procedure that ensures all required documents are submitted to the engineer within the specified time, and prior to the end of each pay period for the work that was completed during that period. Payment will not be made for work that does not include all required documents. Minimum documents that might be required prior to payment include: Test Reports, Inspection Checklists, Materials Receiving Reports, and Daily Inspection Reports.

3.5 The contractor shall perform an audit at project closeout to ensure the final collection of documents is accurate and complete.

4.0 Quality Control Inspections. The QMP shall identify a procedure for performing QC inspections. QC inspections shall be performed for all project activities to ensure the work is in compliance with the contract, plans and specifications.

4.1 The QM shall identify the QC inspectors assigned to each work activity. The QC inspectors shall inspect the work to ensure the work is completed in accordance with the plans and specifications, and shall document the inspection by completing the required inspection checklists, forms, and reports provided by MoDOT. Depending on the type of work, the checklists may be necessary daily, or they may follow a progressive work process. The frequency of each checklist shall be stated in the QMP. The contractor may propose alternate versions of checklists that are more specific to the work.

4.2 A Daily Inspection Report (DIR) is required to document pertinent activity on the project each day. This report shall include a detailed diary that describes the work performed as well as observations made by the inspection staff regarding quality control. The report shall include other items such as weather conditions, location of work, installed quantities, tests performed, and a list of all subcontractors that performed work on that date. The report shall include the full name of the responsible person who filled out the report and shall be digitally signed by an authorized contractor representative.

4.3 External fabrication of materials does not require further QC inspection if the product is currently under MoDOT inspection or an approved QC/QA program. QC inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor.

4.4 The contractor shall measure, and document on the DIR, the quantity for all items of work that require measurement. Any calculations necessary to support the measurement shall be included with the documentation. The engineer will verify the measurements prior to final payment.

5.0 Quality Control Testing. The QMP shall identify a procedure for QC testing. The contractor shall perform testing of the work at the frequency specified in the Inspection and Test Plan (ITP).

5.1 MoDOT will provide a standard ITP and the contractor shall modify it to include only the items of work in the contract, including adding any Job Special Provision items. The standard ITP is available on the MoDOT website at www.modot.org/quality. The contractor shall not change the specifications, testing procedures, or the testing frequencies, from the standard ITP without approval by the engineer and issuance of a change order.

5.2 Test results shall be recorded on the standard test reports provided by the engineer, or in a format approved by the engineer. Any test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report.

5.3 The contractor shall ensure that all personnel who perform sampling and/or testing are certified by the MoDOT Technician Certification Program or a certification program that has been approved by MoDOT for the sampling and testing they perform.

5.4 If necessary, an independent third party will be used to resolve any significant discrepancies between QC and QA test results. All dispute resolution testing shall be performed by a laboratory that is accredited in the AASHTO Accreditation Program in the area of the test performed. The contractor shall be responsible for the cost to employ the third party laboratory if the third party test verifies that the QA test was accurate. The Commission shall be responsible for the cost if the third party test verifies that the QC test was accurate.

6.0 Material Receiving. The QMP shall identify a procedure for performing material receiving. Standard material receiving forms will be provided by the engineer.

6.1 The procedure shall address inspections for all material delivered to the site (excluding testable material such as concrete, asphalt, aggregate, etc.) for general condition of the material at the time it is delivered. The material receiving procedure shall record markings and accompanying documentation indicating the material is MoDOT accepted material (MoDOT-OK Stamp, PAL tags, material certifications, etc.).

6.2 All required material documentation must be present at the time of delivery. If the material is not MoDOT accepted, the contractor shall notify the engineer immediately and shall not incorporate the material into the work.

7.0 Quality Assurance. The engineer will perform Quality Assurance inspection and testing (QA) to verify the performance of QC inspection and testing. The frequency of the QA testing will be as shown in the ITP, but may be more frequent at the discretion of the engineer. The engineer will record the results of the QA testing and inspection and will inform the contractor of any known discrepancies.

7.1 QA is responsible for verifying the accuracy of the final quantity of all pay items in the contract. This includes taking measurements on items that require measurement and other items that are found to have appreciable errors.

7.2 QA inspection and test results shall not be used as a substitute for QC inspection and testing.

7.3 QA will be available for Hold Point inspections at the times planned in the Weekly Schedule. The inspections may be re-scheduled as needed, but a minimum 24-hour advance notification from the contractor is required unless otherwise approved by the engineer.

8.0 Hold Points. Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when the succeeding work depends on a QA review of the preceding work before work can continue.

8.1 A list of minimum Hold Points will be provided by the engineer and shall be included in the QMP. The engineer may make changes to the Hold Point list at any time.

8.2 Prior to all Hold Point inspections, QC shall provide the engineer with the Daily Inspection Reports, Inspection Checklists, Test Reports, and Material Receiving Reports for the work performed leading up to the Hold Point. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection.

9.0 Non-Conformance Reporting. Non-conformance reports shall be issued by the contractor for work that does not meet the contract requirements. Non-conforming work includes work, testing, materials and processes that do not meet contract requirements. The contractor shall establish a procedure for identifying and resolving non-conforming work as well as tracking the status of the reports.

9.1 Contractor QC staff or production staff should identify non-conforming work and document the details on the Non-Conformance Report form provided by MoDOT. QA staff may also initiate a non-conformance report.

9.2 In-progress work that does not meet the contract requirements may not require a non-conformance report if production staff is aware of the issue and corrects the problem during production. QC or QA may issue a non-conformance report for in-progress work when documentation of the deficiency is considered beneficial to the project record.

9.3 The contractor shall propose a resolution to the non-conforming work. Acceptance of a resolution by the engineer is required before closure of the non-conformance report.

9.4 For recurring non-conformance work of the same or similar nature, a written Corrective Action Request will be issued by QC or QA. The contractor shall then establish a procedure for tracking the corrective action from issuance of the request to implementation of the solution. Approval from the engineer is required prior to implementation of the proposed corrective action. The contractor shall notify the engineer after the approved corrective action has been implemented.

10.0 Work Planning and Scheduling. The contractor shall include Quality Management in all aspects of the work planning and scheduling. This shall include providing a Weekly Schedule, a Work Plan for each work activity, and holding pre-activity meetings for each new activity.

10.1 A Weekly Schedule shall be provided to the engineer each week that outlines the planned project activities for the following two-week period. This schedule shall include all planned work, identification of all new activities, traffic control events, and requested Hold Point inspections for the period. Planned quantity of materials, along with delivery dates should also be included in the schedule.

10.2 A Work Plan shall be submitted to the engineer at least one week prior to the pre-activity meeting. The Work Plan shall include the following: a safety plan, list of materials to be used, work sequence, defined responsibilities for QC testing and inspection personnel, and stages of work that will require Hold Point inspections.

10.3 A pre-activity meeting is required prior to the start of each new activity. The purpose of this meeting is to discuss details of the Work Plan and schedule, including all safety precautions. Those present at the meeting shall include: the production supervisor for the activity, the Quality Manager, QC inspection and testing staff, and QA. The Quality Manager will review the defined responsibilities for QC testing and inspection personnel and will address any quality issues with the production staff. Attendees may join the meeting in person or by phone or video conference.

11.0 Basis of Payment. Payment for all costs associated with developing, implementing and maintaining the Quality Management Plan, providing Quality Control inspection and testing, and all other costs associated with this provision, will be considered included in the unit price of each contract item. No direct pay will be made for this provision.

Q. CONTRACTOR SURVEYING AND STAKING

In addition to the requirements of Section 627 of the Missouri Standard Specifications for Highway Construction, the following shall apply:

1.0 Description. The Contractor will be responsible for all layout required on the project. This responsibility will include, but not be limited to the following: Construction signing, transition milling, pavement marking, loop detectors, signing and signal bases, pull boxes, field verify existing pipe flow lines, etc.

1.1 The above list is not all inclusive. The contractor will have the primary responsibility for these operations. The contractor shall provide the Resident Engineer (RE) with a staking plan layout for approval prior to the installation of signs. The RE will also provide assistance during this layout provided a request is submitted to the RE or Construction Project Manager 48 hours in advance. This will ensure that all permanently mounted traffic control devices remain consistent with District policy and avoid re-staking. If the contractor installs any signs without the engineer's approval, all costs associated with re-staking and/or relocation will be at the contractor's expense.

1.2 The intent of this provision is to increase the quality of our work zones and minimize negative impacts to the contractor's schedule that can result from delays in staking.

1.3 Any adjustments to the plans quantities or line numbers established in the contract shall be approved by the Engineer.

2.0 Basis of Payment. No direct payment will be made to cover the costs associated with these additional requirements. All costs will be considered as included in and completely covered by the unit bid price submitted for item 627-40.00, Contractor Furnished Surveying and Staking, per lump sum.

R. DAMAGE TO EXISTING PAVEMENT, SIDE ROADS AND ENTRANCES

1.0 Damage Description. This work shall consist of repairing any damage to existing pavement, curb ramps, side roads, and entrances caused by contractor operations. This shall include but is not limited to, damage caused by the traffic during contractor operations within the project limits including the work zone signing.

2.0 Damage Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, shoulders, side roads, or entrances from general construction shall be repaired within twenty-four (24) hours of the time of damage at the contractor's expense.

3.0 Method of Measurement. No measurement of damaged pavement, or damaged side roads or entrances as described above shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, side roads, or entrances damaged by the contractor operations.

S. ADDITIONAL MOBILIZATION FOR SEEDING NJSP-16-03

1.0 Description. This provision provides compensation for additional mobilization for seeding, as specified herein.

2.0 Additional Mobilization for Seeding. Additional mobilization to perform temporary or permanent seeding, beyond the initial occurrence, may be necessary as specified in Sec 806.50.2 and as required per terms of the SWPPP. Mobilization of all equipment, workers and materials necessary to perform seeding and mulching shall be considered included in this work.

2.1 Measurement of the number of occurrences authorized by the engineer to mobilize equipment onto the project to perform temporary or permanent seeding will be made per each occurrence, except for the initial occurrence and as specified herein. No measurement will be made for mobilization necessary to perform repair work to previously seeded areas or for mobilization necessary due to removal of equipment prior to completion of seeding all areas available for seeding, as determined by the engineer.

3.0 Basis of Payment. The accepted occurrences of Additional Mobilization for Seeding will be paid for under 618-99.02, ADDITIONAL MOBILIZATION FOR SEEDING, at a fixed unit price of $600 per each occurrence. Payment for the initial occurrence to mobilize for seeding, and any additional mobilization costs in excess of the fixed price, shall be considered completely covered under other items.

T. CLASS 3 EXCAVATION

1.0 Description. No determination or geotechnical data is available to precisely determine if the Class 3 excavation work on this project will include significant quantities of rock excavation. Field observations would suggest that rock excavation is likely along this project in various locations.

2.0 Basis of Payment. All excavation quantities regardless of encountering rock shall be paid for as Class 3 Excavation as noted on the plans.

U. EXCESS MATERIAL – J8P3088C

1.0 Description. There will be excess material excavated on this project that will not be needed for completion of the J8P3088C. The contractor shall be responsible for disposing of this excess material off of the right-of-way.

2.0 Basis of Payment. No direct payment will be made for overhaul, compaction, seeding or any other items needed for the disposal of this material.

V. FERTILIZING, SEEDING, AND MULCH

1.0 Construction Requirements. In accordance with Sections 801 and 805, the following shall be applied at the rate specified in the locations specified. Dry seeding application methods will be required for slopes flatter than 3:1. Bulk Seed may be used provided live seed rates are met. Vegetative mulch will be stabilized with recycled paper overspray in accordance with Section 802.

Seed Mixture	
Within the first 30 feet (mow area – Cool Season)	
Seeding Mixture	Pounds Pure Live Seed (PLS)/Acre
Tall Fescue	80
Teff Grass	3
Annual Ryegrass	5
Perennial Ryegrass	6
White Clover	6
Oats	5
Total Seed	**105 PLS/acre**
Fertilizer	Pounds/Acre
Nitrogen (N)	80
Phosphoric Acid (P_2O_5)	240
Soluble Potash (K_2O)	80
Effective Neutralizing Material	0
Total Fertilizer	**400 lbs/acre**
Outside the first 30 feet and steeper than 3:1 slopes (Warm Season)	
Seeding Mixture	Pounds Pure Live Seed (PLS)/Acre
Indiangrass	6 lbs.
Big bluestem	4 lbs.

Little bluestem	5 lbs.
Sideoats grama	4 lbs.
Switchgrass	2 lbs.
Virginia or Canada rye	2 lbs.
Tall dropseed	.5 lbs.
Purple prairie clover	.5 lbs.
Teff grass	3 lbs.
Perennial ryegrass	5 lbs.
Tall fescue	5 lbs.
Red fescue	5 lbs.
Redtop	1.5 lbs.
Partridge pea	3 lbs.
White clover	5 lbs.
Gray headed coneflower OR Lance-leaf coreopsis	.25 lbs.
Black-eyed Susan	.25 lbs.
Oats	5 lbs.
Indiangrass	6 lbs.
Fertilizer	**57 PLS/Acre**
Nitrogen (N)	40
Phosphoric Acid (P_2O_5)	120
Soluble Potash (K_2O)	40
Effective Neutralizing Material	0
Total Fertilizer	**200 lbs/acre**

2.0 Basis of Payment. All expenses incurred by the contractor of furnishing and applying seed fertilizer and mulch shall be considered as included in and completely covered by the contract unit price for 805-10.00A Seeding - Cool Season Mixtures or 805-20.00A Seeding – Warm Season Mixtures per 0.1 acre. Fertilizing and Mulching will be considered incidental to seeding and therefore the contractor will not receive any direct pay for these two items.

W. SIGNAL COORDINATION CONTACT

1.0 Description. All signal work shall be coordinated with MoDOT forces, specifically to the contact listed below.

Joe Dotson, Signal Contact
Southwest District - Springfield
Telephone Number: 417-895-7599
Cell Number: 417-599-3043
Email Joseph.Dotson@modot.mo.gov

X. DISPOSITION OF EXISTING SIGNAL/LIGHTING AND NETWORK EQUIPMENT

1.0 Description. All controllers, cabinets, cabinet equipment, network equipment, antennas, radios, modems, signal heads and hardware, and signal post and mast arms and other equipment noted in the plans shall be removed by the contractor.

2.0 Signal Equipment. All signal posts, mast arms, luminaire arms and signal cabinets with all contents are to be transported to the Commission's maintenance lot located at 2455 North Mayfair, Springfeld MO. The contractor shall notify the Commission's representative 24 hours prior to each delivery by contacting the individual listed in the contract as the Signal contact. The posts and mast arms shall be stripped of all signal and sign hardware and be delivered complete with all existing caps, covers, and structural bolts.

2.1 All other equipment not listed above shall become the property of the Contractor and shall be disposed of in accordance with Sec 202.

3.0 The contractor shall exercise reasonable care in the handling of the equipment during removal and transportation. Should any of the equipment be damaged by the contractor's negligence, it shall be replaced at the contractor's expense. The contractor shall dispose of any other equipment. Delivery shall be within 2 working days of removal. All items returned shall be tagged with the date removed, project number and location/intersection.

4.0 Basis of Payment. Payment for removal, handling and transportation of all equipment specified shall be considered completely covered by the contract unit price for "Removal of Improvements" per lump sum.

Y. FLASHING YELLOW ARROW IMPLEMENTATION DETAILS – J8P3101

1.0 Description. This work shall consist of implementing flashing yellow arrows at various intersections on this project.

2.0 Construction Requirements. The contractor shall follow this guidance below when implementing the Flashing Yellow Arrow at the intersections in this project.

2.1 The following output file assignments shall be used to wire up the new Flashing Yellow Arrow.

	Type 170 Output File Assignments for Flashing Yellow Left Turn Applications						
	SW 1/PH 1	SW 2/PH 2	SW 3/2 PED	SW 4/PH 3	SW 5/PH 4	SW 6/4 PED	Monitor
FTR1	RL	R	2 DW	RL	R	4 DW	
	YL	Y	PH 1 L	YL	Y	PH 3 L	
FTR2	FYL	G	2 W	FYL	G	4 W	
	SW 7/PH 5	SW 8/PH 6	SW 9/6 PED	SW 10/PH7	SW 11/PH 8	SW 12/8 PED	
FTR3	RL	R	6 DW	RL	R	8 DW	
	YL	Y	PH 5 L	YL	Y	PH 7 L	
FTR4	FYL	G	6 W	FYL	G	8 W	

2.2 Any and all required cabinet modules or components to make the Flashing Yellow Arrow function properly will be supplied and installed by the Contractor. This includes, but is not limited to, such things as load switches, detector cards, load resistors.

2.3 The following person shall be contacted to obtain the required controller timing and data changes at least one week in advance of the desired implementation:

Grady Porter
Intermediate Traffic Studies Specialist
Phone 417-829-8056
Cell Phone 417-599-5230
Email: Grady.Porter@modot.mo.gov

2.4 Unused load switch outputs may need to be wired to a loading resistor to satisfy conflict monitor voltage requirements. A 1500 ohm, 25W resistor shall be used.

2.5 Red “flash color” cabinet programming plugs shall be installed for all new or modified left turn phases.

2.6 The contractor shall follow the appropriate conflict monitor unit manual to properly configure and implement the flashing yellow arrow and ensure the traffic signals/phases are safely monitored.

3.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of fulfilling these requirements, except for the items included in the contract as a pay item.

Z. RELOCATING AND MOUNTING EXISTING SIGNS TO NEW POSTS

1.0 Description. This item provides for relocation and mounting existing signs on various sizes to new posts at locations shown on the signing sheets.

2.0 Construction Requirements. The contractor shall install new posts at the locations shown and the mount existing signs to the appropriate post type and summarized on sheet D-29 and D-30 of the signing sheets. All work shall be in accordance with the construction requirements of Section 903.

3.0 Basis of Payment. All cost incurred for relocating and mounting existing signs to new posts at the locations shown, complete in place, will be paid for at the contract unit price for the following:

Pay Item 903-10.10, Concrete Footings, Embedded, per Cubic Yard
Pay Item 903-12.80, 2.5 in. PSST Post- 12 GA., per Linear Foot
Pay Item 903-12.81, Post Anchor for 2.5 in. PSST-7 GA., per Linear Foot

AA. REMOVAL OF EXISTING HIGHWAY SIGNS, POSTS, AND FOOTINGS

1.0 Description. Contractor shall temporarily maintain all existing signing per Section 104.10.2. When no longer required for traffic control as approved by the engineer, remove existing highway signs and posts (I-beam and pipe posts) of various sizes and deliver to the MoDOT Sign Shop located at 2455 N. Mayfair in Springfield, MO. Contact Ryan West, Regional Maintenance Supervisor at (417) 529-1505 at least forty-eight (48) hours prior to delivery of material.

2.0 Construction Requirements. Remove any sign footings to 6-inches below the adjacent ground if not covered by embankment.

2.1 Contractor shall exercise reasonable care during removal and handling of signs and posts. All signs designated to be reused and relocated that are damaged due to contractor negligence shall be replaced at the contractor's expense.

3.0 Basis of Payment. All costs incurred for complying with this provision including all cost for delivering the signs shall be considered completely covered by the contract unit price for Pay Item No. 202-20.10, Removal of Improvements, per Lump Sum.

BB. REMOVAL OF PAVEMENT MARKING ON EXISTING PAVEMENT

1.0 Description. This work shall consist of removing existing pavement marking from existing pavement that will be the final driving surface as specified during construction and as approved by the engineer.

2.0 Construction Requirements. The contractor shall use water blasting or other method approved by the engineer to remove all existing pavement marking material on existing pavement as to minimize damage and scarring. Pavement marking shall be completely removed to the satisfaction of the engineer with minimal damage to the pavement. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense.

3.0 Method of Measurement. Measurement will be made in accordance with Section 620.

4.0 Basis of Payment. All costs incurred for complying with this provision shall be considered completely covered by the contract unit price for Pay Item No. 620-70.01, Pavement Marking Removal, per Linear Foot.

CC. TEMPORARY TRAFFIC SIGNALS – J8P3088C

1.0 Description. This work involves the furnishing, installation, maintenance and removal of temporary traffic signal through all phases of construction.

2.0 Materials. Temporary signals conform to Sec 902.

2.1 At a minimum, installation of these temporary signals and lighting shall require connection to a power source and the following items:

Vehicle Detection System
Signal Heads, Type 3C (3-section head with Type I bracket)
Wood Span Wire Poles
Span Wire Assembly, Double Messenger
Controller Assembly Housing (see requirements below)
Cable, 1 Conductor, Power (8 AWG minimum)
Cable, 12 AWG 5 or 7 conductor (for signal heads)
Power Supply Assembly

This list is not intended to be all-inclusive and other items may be necessary for the proper operation of these signals.

3.0 Construction Requirements. Temporary signals shall be furnished, installed, relocated and maintained to properly handle traffic, as required, at Business 65s intersection with Selmore Road/3rd Street. Signals shall be installed as shown on the plans and as described in this special provision or as directed by the engineer.

3.1 The temporary signal installation and relocation during different phases of construction shall be maintained in operational condition until the new permanent signals and street lights are installed and operational.

3.1.1 If the temporary signal installations becomes inoperable due to alterations, malfunctions or periods of shutdown for required maintenance or when one-way traffic control is required, the contractor shall provide adequate traffic control, including flaggers. In addition, adequate traffic control, including flaggers, shall be provided during the startup and shut down of this installation. Sign WO20-7b, Flagger (Symbol), shall be displayed in advance of the flaggers. The contractor shall submit traffic control plans to the engineer for approval.

3.2 The temporary signals shall be removed after the new signals are up and operational. All equipment shall remain the property of the contactor.

3.4 The contractor shall be responsible for arranging the electrical power needs required by this installation with Empire Electric.

4.0 Basis of Payment. Payment for furnishing, installation, operation, relocation, maintenance and removal of this temporary traffic signal installation, including all items required for proper operation of this installation, will be completely covered by the contract unit price for Pay Item No. 902-94.00 Temporary Traffic Signals, per lump sum.

DD. TEMPORARY SIGNAL TIMING – J8P3088C

1.0 Description. The contractor is responsible for developing and inputting the timing for the temporary signals. MoDOT will provide the existing cycle lengths, splits, offsets and time of day information for the signals along Business 65 from 19th Street to 6th Street. Signal timings shall be monitored and adjusted as required throughout construction. Assistance and coordination for timing with MoDOT and Olsson staff as required or requested.

2.0 Basis of Payment. All expenses incurred by the contractor by reason of their compliance with this provision shall be considered as completely covered by the unit prices bid for Pay Item No. 902-94.00 Temporary Traffic Signals, per lump sum.

EE. VARIABLE WIDTH PERMANENT PAVEMENT MARKING

1.0 Description. This work shall consist of furnishing and installing variable width permanent pavement markings on the Islands and Medians as shown on the plans or as directed by the engineer. This work shall be in accordance with Sec 620 and accompanying provisions except as modified herein.

2.0 Construction Requirements.

2.1 The location of the pavement marking shall be as shown on the plans.

2.2 High Build Acrylic Waterborne Marking Paint will be required.

3.0 Method of Measurement.

3.1 Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.

3.2 Where required, measurement of 12 inch or 14 inch, pavement marking for islands and medians will be made to nearest linear foot.

4.0 Basis of Payment. All costs associated with furnishing and installing the variable width pavement markings shall be considered completely covered by the unit price bid for Pay Item No. 620-59.03A 6 in. Yellow High Build Waterborne Pavement Marking Paint, Type L Beads, per Linear Foot.

FF. COLOR COATING FOR SIGNAL AND PEDESTRIAN POLES, MAST ARMS, LIGHTING POLES ARMS AND BASES - J8P3088C

1.0 Description. All galvanized exterior surfaces visually exposed for all signal poles, mast arms, pedestrian poles and bases, lighting poles arms and bases and nut covers are coated with the color Black as specified in the plans, J8P3088C.

2.0 Construction Requirements.

2.1 Resilient Coat, Intermediate Coat. All galvanized exterior surfaces visually exposed are coated with technology advanced chip resistive epoxy resin primer to a minimum dry film thickness (DFT) of 3.0 with the minimum (DFT) of 6.0 MILS applied to the lower 8 feet of the pole. Prior to application the surfaces to be coated are mechanically etched by brush blasting and degassed via preheating for a minimum of one (1) hour in a gas-fired convection oven. The technology advanced epoxy resin is applied via electrostatic spray equipment. Intermediate coat must be energy absorptive, chip resistant and capable of achieving a rating of 10A under testing per ASTM procedure D1370 which is based on the SAEJ400 test.

2.2 Level I Top Coat, Super Durable Polyester Top Coat. The intermediate coated surfaces are coated with TGIC super durable polyester topcoat to a minimum dry film thickness of 3.0 MILS via electrostatic spray equipment.

3.0 Basis of Payment. All costs for complying with this special provision shall be considered completely covered by the Pay Items:

901-99.01, Color Coat Lighting Equipment, L.S.
902-99.01, Color Coat Signal Equipment, L.S.

GG. SIGNS ON SIGNAL POLES AND MAST ARMS

1.0 Description. This item provides for the furnishing and installing of new signs on signal poles and mast arms.

2.0 Construction Requirements. Contractor shall furnish and install the appropriate signs on signal poles and mast arms as summarized on sheet D-30 and D-37A.

3.0 Method of Measurement. Measurement will be made in accordance with Section 903. Any revision or correction from plan quantities will be computed and added or deducted from the contract quantities.

4.0 Basis of Payment. All costs for complying with this special provision shall be considered completely covered by the contract unit price for Pay Items 902-08.33 SH-FLAT SHEET – SIGNAL SIGN, 0.1 SQ. FT. and 902-08.34 SIGNAL SIGN, MOUNTING HARDWARE, EACH.

HH. UNINTERRUPTABLE POWER SUPPLY – J8P3088C

1.0 Description. This work shall consist of providing and installing an “Uninterruptible Power Supply” (UPS) system at the BU65 and Selmore Road/3rd Street intersection. The system shall be specifically constructed and approved for the use with the 2070 signal controller.

1.1 In order to match other systems used in the area, the UPS shall be an Alpha FXM 1100 system. The system shall be comprised of the following items:

- 1 each Alpha outdoor enclosure S6, w/Generator option ATS/MBS & Auto GTS, battery

- cable kit (ALPHA-026-53-26)
- 1 each Novus FXM 1100 Battery backup unit without Ethernet (ALPHA-017-230-21)
- 1 each 48V Alpha guard battery monitor (ALPHA-012-306-21)
- 4 each Alpha Gel battery 195GXL (ALPHA-181-230-10)

2.0 Installation. The UPS system shall be installed as per the manufacture's recommendations. The system shall be mounted to the new Power Disconnect (paid as a Type 2 power supply) as designated in the project plans. The UPS cabinet shall contain circuitry to separate auxiliary equipment (lighting) from primary equipment (signal controller cabinet) during battery backup operation. In addition, the cabinet shall have circuitry to switch the signal from normal operation to flash operation during battery backup operation.

3.0 Communications.

3.1 The UPS cabinet shall have Ethernet connection capability.

3.1.1 Ethernet Cable. Any Ethernet cable run outside of the signal cabinet shall be environmentally hardened, shielded, and outdoor rated 350 MHz Category 5e cable. The cable shall be riser rated, 24 AWG solid copper, have Polyolefin insulation, UV and oil resistant PVC jacket. Pair 1 shall be Blue, White/Blue, Pair 2 shall be Orange, White/Orange, Pair 3 shall be Green, White/Green and Pair 4 shall be Brown, White/Brown. The operating temperature shall be from -40°C to +70°C. The cable shall conform to the following standards: ISO/IEC 11801 Category 5e, NEMA WC 63, and ANSI/TIA/EIA 568-B.2 Category 5e. The cable shall be without splicing or
joints for any single run. The contractor shall obtain instructions from the manufacturer about alternate architecture when length of a single run of CAT 5e cable exceeds 320 feet.

3.1.2 RJ-45. The RJ-45 plug connectors shall be used at the UPS and signal cabinet. The supplier of the UPS shall approve the Category 5e cable, RJ-45 connector and crimping tool, and the manufacturer's instructions must be followed to insure proper connection.

4.0 Construction Requirements. Construction requirements shall conform to Sec 902.

5.0 Method of Measurement. Method of measurement shall conform to Sec 902.

6.0 Basis of Payment. All costs incurred by the contractor for furnishing, installing, configuring and placing the UPS into operation, furnishing, installing and connecting the Ethernet cable, including all incidentals shall be considered as included in and completely covered by the contract unit price for item 902-99.02, Uninterruptible Power Supply, per each.

6.1 No direct payment will be made for programming the UPS.

II. SIGNAL CONTROLLERS – J8P3088C

1.0 Description. This work shall consist of providing and installing a new 2070 controller with cabinet at the intersection of BU65 and Selmore Road/3rd Street.

2.0 Material Requirements. The new controllers installed with this project shall consist of ATC eX 2070 controllers with OMNI-eX software as manufactured by McCain, Inc. placed inside a

332 cabinet. Multi-mode network switches by Antaira Technologies (LNX-0602-ST-M-T) will be required in each new cabinet.

3.0 Communications. The contractor shall be responsible for providing and installing all necessary items to make the new signal controllers operational. This includes but is not limited to the 2070 controller, the OMNI-eX software, Antaira Technologies network switch, and the 332 cabinet. The engineer will provide the existing cycle lengths, but the contractor shall ultimately be responsible for programming the timings into the new controllers.

4.0 Method of Measurement. Method of measurement will be made per each controller installed by the contractor and acceptable by the engineer.

5.0 Basis of Payment. Accepted signal controllers will be paid for at the contract unit price for item 902-99.02 Controller Assembly Housing, Type 2070 Controller, per each.

JJ. OPTIONAL TRAFFIC SIGNAL DETECTORS – J8P3088C

1.0 Description. This work shall consist of providing detectors for signal installations. Detectors shall be in accordance with the standard specifications and installed to provide detection at locations as shown on the plans or as directed by the engineer in accordance with Section 902.

2.0 Options. The contractor can choose from the following list of detector types according to the exceptions noted below:

Inductive loop
Microwave
Microloop, Probe
Radar
Ultrasonic
Video image

2.1 Exceptions. Loop detection at Business 65 with 17th Street intersection part of J8P3101.

2.2 Unless otherwise specified on the plans, the contractor may supply more than one type of detector and customize the installation based on field conditions.

3.0 Method of Measurement. Method of measurement will be per approach, complete in place including all necessary incidental items to complete the work. An approach is defined as all lanes of traffic moving toward an intersection or a midblock location from one direction.

4.0 Basis of Payment. Accepted Traffic Signal Detectors will be paid for at the contract unit price for item 902-99.02 Optional Traffic Signal Detectors, per each.

KK. ELLIPTICAL CLASS III 34x53 IN. RCP – J8P3101

1.0 Description. This work shall consist of installing an elliptical pipe of the size specified on the plans. Elliptical pipes shall be in accordance to Sections 724 and 726 or as directed by the Engineer.

2.0 Material and Construction Requirements. Elliptical pipes shall be constructed in accordance with Sections 724.2 and 726.3.

3.0 Method of Measurement. Elliptical pipe shall be measured to the nearest 1.0 linear foot

4.0 Basis of Payment. All costs incurred by the contractor by reason of their compliance with this provision shall be considered as included in and completely covered by the unit price for Item No. 726-99.03 "34 x 53" Class III Reinforced Concrete Elliptical Pipe", per linear foot.

LL. SPECIAL CURB INLET – J8P3101

1.0 Description. This work shall consist of constructing special curb inlets as shown on the plans and shall meet all requirements of Section 604 for cast-in-place construction and Section 731 for precast construction.

2.0 Method of Measurement. The quantities will be paid for in accordance with Section 731.4.

3.0 Basis of Payment. Section 731.5 is supplemented by the following:

3.1 All expenses incurred by the contractor by reason of their compliance with this provision shall be considered as completely covered by the contract unit price per foot for the following:

Item No. 731-99.03, "Special Curb Inlet (4 ft x 5 ft)"
Item No. 731-99.03, "Special Curb Inlet (5 ft x 5 ft)"
Item No. 731-99.03, "Special Curb Inlet (5 ft x 6 ft)"
Item No. 731-99.03, "Special Curb Inlet (7.5 ft x 4 ft)"
Item No. 731-99.03, "Special Curb Inlet (6 ft x 10 ft)"
Item No. 731-99.03, "Special Curb Inlet (7.5 ft x 6 ft)"

MM. UNDERGROUND DETENTION 6-FT X 6-FT RCB – J8P3101

1.0 Description. This work shall consist of installing a 6-ft x 6-ft RCB structure for the purpose of underground detention. This includes the RCB structure, pipe tie-ins, and all other items associated with the underground detention structure excluding the attached manhole structures. The underground detention structure shall be in accordance to Sections 703, 731, and 733 or as directed by the Engineer.

2.0 Material and Construction Requirements. The concrete detention RCB shall be constructed in accordance to Section 703.2 and 703.3 if cast-in-place. The concrete detention RCB shall be constructed in accordance with Section 733.2 and 733.3 if detention RCB structure is precast. All materials and construction methods including, but not limited to, concrete, reinforcing, shoring, grading, backfill, compaction, sealing, and closure walls shall be considered as part of this pay item.

3.0 Method of Measurement. Underground Detention 6-ft x 6-ft RCB shall be measured to the nearest 1.0 linear foot. All aspects of the underground detention structure are included in this measurement excluding the attached manhole structures.

4.0 Basis of Payment. All costs incurred by the contractor by reason of their compliance with this provision shall be considered as included in and completely covered by the unit price for Item No. 703-99.03 "Underground Detention 6-ft x 6-ft RCB", per linear foot. All materials and construction methods including, but not limited to, concrete, reinforcing, shoring, grading, backfill, compaction, sealing, and closure walls shall be considered as part of this pay item.

NN. TRENCH DRAIN

1.0 Description. This work shall consist of installing a trench drain as specified on the plans, including construction material and methods used to construct the trench drain. Alternative trench drain may be used if considered equal or better hydraulically and approved by the engineer.

2.0 Material and Construction Requirements. Trench drains shall be constructed in accordance with manufacturer's installation recommendations. All materials and construction methods including, but not limited to, grading, backfill, compaction, base used to construct the trench drain shall be considered as part of this pay item.

3.0 Method of Measurement. Trench drain shall be measured to the nearest 1.0 linear foot

4.0 Basis of Payment. All costs incurred by the contractor by reason of their compliance with this provision shall be considered as included in and completely covered by the unit price for Item No. 604-99.03 "Trench Drain", per linear foot. All materials and construction methods including, but not limited to, grading, backfill, compaction, base used to construct the trench drain shall be considered as part of this pay item.

OO. CONCRETE MEDIAN TINTING, TEXTURING, AND SEALING – J8P3088C

1.0 Description. This work shall consist of "running bond used brick" style texturing, tinting deep charcoal, and sealing concrete islands and median strips near Business 65/Route14 and Selmore Road intersection as shown in the plans or as approved by the engineer.

2.0 Construction Requirements. The textured, tinted and sealed concrete islands and median strips shall be constructed in accordance with Sec 608 and specifically as follows. The designated concrete median strips and islands shall have a Charcoal textured brick pattern as noted in the plans as approved by the engineer. The material used for tinting shall be mixed into the concrete prior to being placed for the concrete median strips and islands. The contractor shall not be allowed to just place the tinting material on the surface of the concrete median strips and islands. All median strips and islands shall have a 6-inch smooth edge on the top surface outlining the island or median strip for pavement marking. Tar paper shall be required around the border of the form so that the surrounding pavement will not be marred or stained.

3.0 Material. Tinting of the concrete shall be as described in Sec 1056.10 and shall be mixed into the concrete used for the median strip and islands.

4.0 Method of Measurement. Measurement for the tinting, texturing, and sealing shall be made to the nearest 1/10 square yard.

5.0 Basis of Payment. All costs for complying with this special provision shall be considered completely covered by the Pay Item No. 608-99.05, Concrete Median Tinting, Texturing, and Sealing, per 0.1 SY.

PP. TEMPORARY CONSTRUCTION EASEMENT USE INSTRUCTIONS FOR PARCEL 7-J8P3088C

1.0 Description. MODOT has obtained a temporary construction easement for Parcel 7 in order to construction improvements on this parcel. The business will continue utilizing the construction easement to conduct day to day business. The contractor shall coordinate with the business owner to minimize the amount of time and space needed to construct the improvements located inside the temporary construction easement. The contractor shall coordinate with the property owner to allow the parking of a loaded dump truck on the easement in front of the building. While this truck may need to be relocated from time to time for the contractor to perform the work, the property owner shall always be provided a location in front of the building to park the truck.

2.0 Construction Requirements. The contractor shall not disturb any business improvements, besides the entrance itself, located inside the temporary construction easement. Business improvements include such things as, but not limited to, business signs and their electrical connections, landscaping, sprinkler systems. The contractor will be solely responsible to repair or replace any improvements they disturb that are not specifically marked on the plans for removal. The contractor shall not degrade or destroy the current entrance and connection to Waverly Street which runs parallel to Route 14. If the contractor degrades or destroys the entrance or connection, the contractor will bring the entrance and connection back to its original condition (or better), including original size. The contractor shall not cone off or block in any manner more than half of any entrance at any time. The contractor shall always allow at least one lane of each entrance open at all times for vehicular traffic, unless the contractor and property owner make other arrangements.

3.0 Basis of Payment. No direct payment will be made for compliance with this provision.

QQ. REMOVE AND RESET EXISTING POWER SUPPLY – J8P3101

1.0 Description. This work shall consist of removing and reinstalling the existing type 2 power supply per MoDOT standard detail 902.15K and reconnecting to existing equipment fed from existing location including, but not limited to, signal controller, fiber splice cabinet, lighting control cabinet.

2.0 Material Requirements. The power supply reset with this project shall consist of new base, conduit, and cabling as shown in 902.15K for Type 2 power supplies.

3.0 Method of Measurement. Method of measurement will be made per each Type 2 Power Supply relocated by the contractor and acceptable by the engineer.

5.0 Basis of Payment. Accepted relocated Type 2 Power Supply will be paid for at the contract unit price for item 902-99.02 Remove and Reset Existing Power Supply, per each.

RR. CONTRACTOR FURNISHED EMBANKMENT IN PLACE – J8P3101

Design of this project was based on soils residual from cherty limestones which are lean to fat clays of generally low to high plasticity (CL to CH) with considerable admixed rock fragment content, which is a requirement to conform with design criteria of this project. Contractor furnished borrow shall be equal to or better than the material assumed for the design and will be subject to approval of the engineer as provided in Missouri Standard Specification Section I 06, and in accordance with Specification Section 203.3. Approval will be based on upon consideration of (I) various soil characteristics and dispersion of test values, (2) comparison with those used for design, (3) compliance with slope selection criteria outlined in Table 321.1 of the MoDOT Engineering Policy Guide.

1 ADDED SS. LOW-TRACKING OR NON-TRACKING TACK COAT

1.0 Description. All Tack used on this project shall conform to this special provision, including tact provided between lifts of full depth asphalt concrete pavement as well as any existing or milled bituminous or concrete surface. This work shall consist of preparing and treating such surfaces with a low-tracking or non-tracking tack coat material prior to an asphalt overlay in accordance with Section 407, except as revised by this specification.

2.0 Low-Tracking or Non-Tracking Requirements. Products accepted for use as low-tracking or non-tracking tack shall not stick to the tires, tracks or other parts of paving equipment or vehicles such that the surface to be overlaid becomes visible or void of tack prior to the placement of the asphaltic concrete pavement mixture. The tack material shall exhibit a low-tracking or non-tracking characteristic within 30 minutes of being applied to the roadway. Products accepted for use shall exhibit a laboratory “no-pick-up" time of 60 minutes or less per TM-87. The product shall bond the two pavements.

2.1 Optional Application. In lieu of applying a Low-Tracking or Non-Tracking Tack, a Polymer Modified Emulsion Membrane may be placed immediately ahead of the asphalt pavement as defined below in section 4.0 Optional Polymer Modified Emulsion Membrane.

3.0 Equipment and Construction Requirements. All equipment and construction requirements shall be in accordance with Section 407; except as revised as follows:

3.1 Weather Limitations. The low-tracking or non-tracking tack coat shall not be placed when the ambient temperature or the temperature of the pavement on which it is to be placed is below 50^0 F. Temperatures shall be obtained in accordance with MoDOT Test Method TM 20.

3.4 Storage and Handling. All guidelines and instructions about storage and handling of the non-tracking tack product shall be followed in accordance with the product manufacturer. A copy of this in formation shall be provided to the engineer. The information shall include the application and maximum allowable temperatures for the product.

3.5 Distributor. The distributor shall have the full circulating and heating capabilities in the tank. If the particle charge of the low-tracking or non-tracking tack is different from the particle charge of the emulsion that was previously used then the tank shall be thoroughly cleaned prior to use, since some products are not compatible.

3.6 Curing. The low-tracking or non-tracking tack shall be allowed to cure prior to any construction traffic driving on the surface. A minimum of 15 minutes of cure time shall be allowed prior to driving on the tacked surface, unless less cure time is successfully demonstrated and approved by the engineer.

3.7 Supplier Information. The low-tracking or non-tracking tack materials are a different type of product compared to the conventional tack used in Missouri. *There may be multiple products that can meet the low-tracking or non-tracking tack requirements. All products that achieve equivalent field performance will be allowed.*

3.8 Material Requirements. All material shall be in accordance with Section 1015 of the Standard Specifications and specifically as follows:

Emulsion Properties for Low-Tracking or Non-Tracking Tack Coat			
Tests	Method	Min	Max
Viscosity, Saybolt Furol @ 25°C (77°F), s	AASHTO T 59	10	100
Rotational Viscosity (cps)			
Particle Charge Test		Positive	
Storage Stability Test[a], 24 hr, percent	AASHTO T 59	--	1.0
Sieve Test, percent	AASHTO T 59	--	0.30
Residue by Distillation, percent	AASHTO T 59	57	
Oil Distillate by Distillation, percent	AASHTO T 59	--	1
Test on Residue from Distillation			
Softening Point, °F	AASHTO T 53	149	200
Penetration 25°C, 100 g, 5 s	AASHTO T 49	--	90
G* / sin delta @ 76^0 C – 10 rad/sec, kPa	AASHTO T 315	1.0	--
Solubility in Trichloroethylene[b], %	AASHTO T 44	97.5	--

PG Graded Products for Low-Tracking or Non-Tracking Tack Coat			
Tests	Method	Min	Max
Rotational Viscosity (cps)	AASHTO T 316 302°F	100	300
Penetration 25°C, 100 g, 5 s	AASHTO T 49	--	90

In addition to the table above, when using Modified PG Graded Binders as tack, a certification shall be supplied to the engineer which includes test results demonstrating that the PG binder component meets the minimum requirements of a PG 58 or greater on the high end and a -22 or lower on the low end in accordance with AASHTO M320. The PG binder component shall account for at least 97% of the total product composition by volume.

All products that meet a laboratory "no-pick-up" time of 60 min or less and a field "no-pick-up" time of 30 min or less shall be accepted per TM-87.

4.0 Optional Polymer Modified Emulsion Membrane.

4.1 Description. In lieu of using a low-tracking or non-tracking tack coat material, a Polymer Modified Emulsion Membrane may be placed prior to a bituminous overlay of hot asphaltic

concrete pavement. The Polymer Modified Emulsion Membrane shall be spray applied immediately prior to the application of the hot asphaltic concrete pavement so as to produce a homogeneous surface in accordance with Secs 401, 402, or 403.

4.2 Materials. The Polymer Modified Emulsion Membrane shall be in accordance with Sec 1015.20.5.1.1 or Sec 1015.20.6.2.

4.3 Construction Requirements. The asphaltic concrete pavement shall be placed in accordance with Secs 401, 402, or 403, except as modified herein.

4.4 Equipment. No wheel, track or other part of the paving machine or any hauling equipment shall come in contact with the Polymer Modified Emulsion Membrane before the asphaltic concrete pavement mixture is applied.

4.5 Application of Polymer Modified Emulsion Membrane.

4.5.1 The Polymer Modified Emulsion Membrane shall be sprayed at a temperature of 120 - 180° F. The sprayer shall accurately and continuously monitor the application rate and provide a uniform coverage across the entire width to be overlaid. The target application rate of the asphalt emulsion membrane shall be within ± 0.02 gallon per square yard of the target application rate indicated on the project plans. The Engineer may make adjustments to the application rate based upon the existing pavement surface conditions and the recommendations of the Polymer Modified Emulsion Membrane supplier.

4.5.2 Water may be added to SS-1hp and CSS-1hp by the emulsion manufacturer and shipped to the jobsite. No dilution shall be allowed in the field. When water is added to SS-1HP or CSS-1HP, the resulting mixture shall contain no more than 20 percent of added water. The contractor shall notify the engineer of the use of a diluted emulsion. The exact quantity of added water shall be indicated on the manufacturer's bill of lading, manifest or truck ticket. The application rate of the resulting mixture shall be adjusted such that the original emulsion will be spread at the specified rate. No water shall be added to the CPEM-1 or PEM-1.

5.0 Method of Measurement. Measurement of asphalt emulsion to the nearest gallon shall be made as specified in Sec 1015. The measurement of asphalt emulsion shall be based upon undiluted material.

6.0 Basis of Payment. The accepted quantity of low-tracking or non-tracking tack coat or polymer modified emulsion membrane will be paid for at the contract unit price 407-99.12, Misc. Tack Coat – Low-tracking or Non-tracking.

1 ADDED CC. CCTV CAMERA ASSEMBLY

1.0 Description. This Technical Special Provision establishes the requirements for the Closed Circuit Television (CCTV) Camera Assembly. This equipment consists of cameras with remotely controlled pan-tilt-zoom capability, and the ability to acquire video images of the various roadways within the corridor. Communications to the cameras are provided using the fiber optic and Ethernet cables designated in the contract.

1.1 Camera. The contractor shall provide and install the CCTV camera at the location designated in the plans. The camera shall be an Axis Q6042-E. All cabling necessary for

camera operation shall be installed from the camera to the fiber optic splice cabinet and shall have lightning protection installed. These cameras are Power over Ethernet (POE) requiring just one cable installation to the camera no more than 100 meters (328 feet) from the cabinet. The CCTV camera has been placed such that the cable shall be no longer than 328 feet. The contractor shall notify the engineer if placement of the CCTV pole or signal cabinet is such that the cabling will exceed this distance. Camera installation shall be in accordance with all manufacturer specifications and recommendations. The contractor shall be responsible for installation of the camera and any subsidiary items necessary for the camera system to be complete and fully operational. The compression format shall be H.264, and shall be compatible with the camera software. The camera shall operate with a zoom of 35x and shall be IP addressable. Contact the engineer for the preferred communications parameters including IP address.

1.2 Camera Pole Mounts. The pole-mount camera assembly shall be mounted in a manner similar to that shown in the plans on new poles. It shall be possible to remove the camera for maintenance without disturbing the mounting assembly, and shall require the removal of only a single multi-conductor connector. The support strut shown in the drawing is required to reduce undesirable movement of the camera assembly. All materials that make up the mounting assembly shall be galvanized or of stainless steel construction. Camera line-of-sight and location shall be verified with the engineer prior to installation.

1.3 Video Surge Suppression. The contractor shall provide surge suppression on all conductors entering the camera enclosures and equipment cabinets. The video suppressors shall meet the camera manufacturer's recommendations, which may include the following or approved equal:

1. EDCO for POE installations meeting camera manufacturer requirements

The contractor shall provide surge suppression on all conductors entering the signal cabinet. Video and data surge suppression shall utilize hybrid technology, employing a silicon avalanche diode. Power conductor surge suppressors shall be metal oxide varistors. Individual surge suppressor elements shall be isolated from each other with inductors. Resettable fuses shall be installed in series with all low voltage surge suppressors.

1.4 Electrical Service. Electrical service shall be provided by the electrical service present in the fiber optic splice cabinet.

1.5 Qualified Personnel. The contractor shall not perform any work until the manufacturer has certified that the contractor is qualified to install camera assemblies. Only personnel who have been trained by the manufacturer shall participate in the camera assembly installation, setup, and testing.

1.6 Camera System Tests. Each camera assembly furnished and installed by the contractor shall be tested per manufacturer and MoDOT specifications. These tests shall be conducted on each camera at the cabinet where the camera's local control capability is installed. The following shall be tested at these locations:

- Local operation of the camera via Ethernet to a laptop computer web browser application.
- Demonstration that the pan and tilt speed, presets, and extent of movement meet requirements.

- Observing the camera output on a laptop while exercising the pan, tilt, zoom, focus, iris and power on/off functions.
- Final acceptance camera testing shall be observed by the Commission's representative from the Traffic and Signal Departments. The contractor shall be responsible for coordinating the camera testing with the Engineer.

1.7 Camera System Configuration. The contractor shall configure the cameras with the appropriate IP address, subnet, and gateway settings. These settings shall be provided by the engineer.

2.0 Materials.

2.1 The camera and pole mount shall be contractor furnished.

2.2 The contractor shall provide cables for power, grounding, video, and camera control in accordance with the camera manufacturer's recommendations.

2.3 Wiring. All required power, grounding and Ethernet cable shall be furnished and installed by the contractor. The camera vendor must concur that the cable is compatible with the camera model used.

2.3.1 Ethernet Cable. Any Ethernet cable run outside of the signal cabinet shall be environmentally hardened, shielded, and outdoor rated 350 MHz Category 5e cable. The cable shall be riser rated, 24 AWG solid copper, have Polyolefin insulation, UV and oil resistant PVC jacket. Pair 1 shall be Blue, White/Blue, Pair 2 shall be Orange, White/Orange, Pair 3 shall be Green, White/Green and Pair 4 shall be Brown, White/Brown. The operating temperature shall be from -40° C to +70° C. The cable shall conform to the following standards: ISO/IEC 11801 Category 5e, NEMA WC 63, and ANSI/TIA/EIA 568-B.2 Category 5e. The cable shall be without splicing or joints for any single run. The contractor shall obtain instructions from the manufacturer about alternate architecture when length of a single run of CAT 5e cable exceeds 320 feet.

2.3.2 RJ-45. The RJ-45 plug connectors shall be used at both the CCTV camera and signal cabinet ends. The supplier of the CCTV camera shall approve the Category 5e cable, RJ-45 connector and crimping tool, and the manufacturer's instructions must be followed to insure proper connection. The camera manufacture's specialty connectors and seals must be used to ensure a trouble-free and watertight installation.

2.3.3 Network Switches. The contractor shall supply and install network switches in the existing splice cabinet at the dynamic Message Sign (DMS) north of the interchange and in the new splice cabinet at the US65/Route CC interchange. The purpose of these network switches is to transfer the camera controls/image from ethernet cable to fiber optic line and vice versa. The contractor shall provide and install Antaira Technologies single-mode switch (LNX-0602-ST-S3-T) at both locations.

3.0 Construction Requirements.

3.1 The contractor shall install the camera in the orientation shown on the plans to maximize the camera's view of traffic.

3.2 The contractor shall connect the bottom of the pole to two or more ground rods using a bare, solid AWG # 6 copper wire. The contractor shall use exothermic welding for all ground wire connections, except for the connection to the pole which shall use the pole's grounding lug. The contractor shall use a device that measures resistance to ground using the three-point fall-of-potential method to ensure that the resistance to ground does not exceed 8 ohms. More ground rods shall be added if necessary to achieve this requirement.

3.3 All cables shall be terminated on surge protectors.

3.4 The contractor shall restrict the camera's field of view, if necessary, so that a user cannot use the cameras to look in the windows of dwellings. To the extent that it does not interfere with the use of the camera for traffic management purposes, the contractor shall ensure that a camera cannot be used to view residential property. Prior to creating these restrictions, the contractor shall submit to the engineer a written description of the proposed restrictions to be installed at each camera, and the proposed method of achieving them. It shall not be possible for an operator to override these restrictions without intervention by his or her supervisor. Affixing a mask to the inside of the clear dome shall be an acceptable method to achieve this restriction. The contractor shall highlight situations in which there is a conflict between the need to protect privacy and the need to know about traffic situations. The contractor shall revise the field of view restrictions as directed by the engineer. The contractor shall coordinate all proposed camera restrictions with the Commission assigned representative from the Springfield Traffic Management Center.

4.0 Acceptance Testing.

4.1 Upon delivery of a shipment of camera assemblies, the manufacturer's representative shall conduct a visual inspection and test of the camera assemblies to check for manufacturing defects and shipping damage. The camera assembly shall be powered during this testing, and tests shall follow procedures developed by the manufacturer and approved by the engineer. The engineer shall witness this testing and the contractor may witness this testing if he or she chooses. The manufacturer shall be responsible for replacing all defective units discovered by this testing.

4.2 After installing the camera assembly, the contractor shall test it using the same procedures as the manufacturer's representative used when the camera assemblies were delivered. In addition, the contractor shall demonstrate that the agreed upon viewing restrictions have been implemented. If the installed camera assembly fails to operate properly, and the problem cannot be fixed by changing the wiring or setup parameters, the camera assembly will be deemed defective and the contractor shall return it to the manufacturer for replacement. Except for costs borne by the manufacturer under the warranty agreement, the cost of replacement shall be borne entirely by the contractor.

5.0 Method of Measurement. Final measurement shall be based on per each for item 910-37.00, CCTV Camera Assembly, Installed. No measurement will be made for the CCTV Ethernet Cable.

6.0 Basis of Payment.

6.1 All costs incurred by the contractor for furnishing and installing the CCTV camera assembly, including all costs for cameras, mounting brackets and hardware, air terminal, surge suppression, conduit, grounding, network switches, network configuration, testing, training, and

all other incidentals required for a fully functional CCTV camera system shall be considered as included in and completely covered by the contract unit price for item 910-37.00, CCTV Camera Assembly, Installed, per each.

6.2 All costs incurred by the contractor for furnishing, installing and connecting the Ethernet cable, including all incidentals, shall be considered covered by the contract unit price for item 910-37.00, CCTV Camera Assembly, Installed, per each.