Job No.: J4P3268D
Route: A, 58, O, 2, 7, 71
County: Cass

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)
(Job Special Provisions shall prevail over General Special Provisions whenever in conflict therewith.)

Job No.: J4P3268D
Route: A, 58, O, 2, 7, 71
County: Cass

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 W. CAPITOL AVE.
JEFFERSON CITY, MO 65102
Phone 1-888-275-6636

Bartlett & West, Inc.
601 Monroe Street
Jefferson City, MO 65101
Certificate of Authority: 000167-Eng.
Consultant Phone**:** (573) 634-3181

If a seal is present on this sheet, JSP's have been electronically sealed and dated.

JOB NUMBER: J4P3268D
CASS COUNTY, MO
DATE PREPARED: 04/11/2024

ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: All

Job No.: J4P3268D
Route: A, 58, O, 2, 7, 71
County: Cass

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02J

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 "Doing Business with MoDOT", "Contractor Resources". 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 "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2023 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. Modified Contract Liquidated Damages

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.

1.1 Subproject Identification. Portions of the Contract are hereby identified as subprojects with the following assignment of Bridge Number, Route, or other location of work. This identification is done for the purpose of setting time limits for completion of each subproject and to allow partial acceptance of the work for maintenance as subprojects are completed.

Subproject	Description
A	Archie
B	Belton
C	Freeman
D	Harrisonville Rt. 2
E	Harrisonville Rt. 7
F	Peculiar

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 on all projects 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 Date: July 8, 2024
Contract Completion Date: December 31, 2025

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
J4P3268D, A	11	$1,800
J4P3268D, B	78	$7,600
J4P3268D, C	8	$1,800
J4P3268D, D	209	$2,300
J4P3268D, E	79	$2,300
J4P3268D, F	16	$1,800

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the contract 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 **$750** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the above specified contract 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 contract 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-02-06N

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.

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 Deficiencies. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless of 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 Recurring Congestion. 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 Non-Recurring Congestion. When traffic queues 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 infrequently, 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 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

3.1.1 Independence Day. The lane restrictions specified in Section 3.1 shall also apply to Independence Day, except that the restricted periods shall be as follows:

When Independence Day falls on:	The Holiday is Observed on:	Halt Lane Closures beginning at:	Allow Lane Closures to resume at:
Sunday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Monday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Tuesday	Tuesday	Noon on Monday	6:00 a.m. on Wednesday
Wednesday	Wednesday	Noon on Tuesday	6:00 a.m. on Thursday
Thursday	Thursday	Noon on Wednesday	6:00 a.m. on Friday
Friday	Friday	Noon on Thursday	6:00 a.m. on Monday
Saturday	Friday	Noon on Thursday	6:00 a.m. on Monday

3.2 Any work in Belton along Route 58 requiring a reduction in the number of through lanes of traffic shall be completed during nighttime hours. Nighttime hours shall be considered to be 7:30 p.m. to 7:30 a.m. for this project. There are no other lane restrictions along Routes A, O, 2, 7, or 71.

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. If a CMS with Communication Interface is required, then the CMS shall be capable of communication 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. Emergency Provisions and Incident Management JSP-90-11A

1.0 The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from law enforcement or other emergency agencies for incident management. In case of traffic accidents or the need for law enforcement to direct or restore traffic flow through the job site, the contractor shall notify law enforcement 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 law enforcement services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol 1 (800) 525-5555		
City of Archie	City of Belton	City of Freeman
Fire: (816) 380-6744	Fire: (816) 331-7969	Fire: (816) 899-2550
Police: (816) 430-5242	Police: (816) 331-5522	Police: (816) 899-2902
City of Harrisonville	City of Peculiar	
Fire: (816) 380-8925	Fire: (816) 779-5766	
Police: (816) 380-8929	Police: (816) 799-5102	

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 law enforcement agency.

2.2 The contractor shall notify law 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 law 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.

E. Project Contact for Contractor/Bidder Questions JSP-96-05

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

Christopher West, PE, Project Contact
MoDOT – Kansas City District
600 NE Colbern Road
Lee's Summit, MO 64086
Telephone Number: 816-607-2211
Email: Christopher.West@modot.mo.gov

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

F. Supplemental Revisions JSP-18-01AB

Compliance with 2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment.

The Missouri Highways and Transportation Commission shall not enter into a contract (or extend or renew a contract) using federal funds to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as substantial or as critical technology as part of any system where the video surveillance and telecommunications equipment was produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. 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. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

1.1 Definitions. The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.

1.2 Reporting of Off-Site Land Disturbance. If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.

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:

(a) 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;

(b) 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;

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

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

(e) 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;

(f) 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 as soon as possible, but no later than stated in Section 5.0.

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.

Anti-Discrimination Against Israel Certification

By signing this contract, the Company certifies it is not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel, companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel, or persons or entities doing business in the State of Israel as defined by Section 34.600 RSMo. This certification shall not apply to contracts with a total potential value

of less than One Hundred Thousand Dollars ($100,000) or to contractors with fewer than ten (10) employees.

Ground Tire Rubber (GTR) Dry Process Modification of Bituminous Pavement Material

1.0 Description. This work shall consist of the dry process of adding ground tire rubber (GTR) to modify bituminous material to be used in highway construction. Existing GTR requirements in Section 1015 pertain to the wet process method of GTR modification that blends GTR with the asphalt binder (terminal blending or blending at HMA plant). The following requirements shall govern for dry process GTR modification. The dry process method adds GTR as a fine aggregate or mineral filler during mix production. All GTR modified asphalt mixtures shall be in accordance with Secs 401, 402, or 403 as specified in the contract; except as revised by this specification.

2.0 Materials. The contractor shall furnish a manufacturer's certification to the engineer for each shipment of GTR furnished stating the name of the manufacturer, the chemical composition, workability additives, and certifying that the GTR supplied is in accordance with this specification.

2.1 Product Approval. The GTR product shall contain a Trans-Polyoctenamer (TOR) added at 4.5 % of the weight of the crumb rubber or an engineered crumb rubber (ECR) workability additive that has proven performance in Missouri. Other GTR additives shall be demonstrated and proven prior to use such as a five-year field performance history in other states or performance on a federal or state-sanctioned accelerated loading facility.

2.2 General. GTR shall be produced from processing automobile or truck tires by ambient or cryogenic grinding methods. Heavy equipment tires, uncured or de-vulcanized rubber will not be permitted. GTR shall also meet the following material requirements:

Table 1 – GTR Material Properties

Property	Test Method	Criteria
Specific Gravity	ASTM D1817	1.02 to 1.20
Metal Contaminates	ASTM D5603	$\leq$ 0.01%
Fiber Content	ASTM D5603	$\leq$ 0.5%
Moisture Content	ASTM D1509	$\leq$ 1.0%*
Mineral Filler	AASHTO M17	$\leq$ 4.0%

*Moisture content of the GTR shall not cause foaming when combined with asphalt binder and aggregate during mix production

2.3 Gradation. The GTR material prior to TOR or ECR workability additives shall meet the following gradation and shall be tested in accordance with ASTM D5603 and ASTM D5644.

Table 2 – GTR Gradation	
Sieve	**Percent Passing by Weight**
No. 20	100
No. 30	98-100
No. 40	50-70
No. 100	5-15

3.0 Delivery, Storage, and Handling. The GTR shall be supplied in moisture-proof packaging or other appropriate bulk containers. GTR shall be stored in a dry location protected from rain before use. Each bag or container shall be properly labeled with the manufacturer's designation for the GTR and specific type, mesh size, weight and manufacturer's batch or Lot designation.

4.0 Feeder System. Dry Process GTR shall be controlled with a feeder system using a proportioning device that is accurate to within ± 3 percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

Flow indicators or sensing devices for the system shall be interlocked with the plant controls to interrupt mixture production if GTR introduction rate is not within ± 3 percent. This interlock will immediately notify the operator if GTR introduction rate exceeds introduction tolerances. All plant production will cease if the introduction rate is not brought back within tolerance after 30 seconds. When the interlock system interrupts production and the plant has to be restarted, upon restarting operations; the modifier system shall run until a uniform feed can be observed on the output display. All mix produced prior to obtaining a uniform feed shall be rejected.

4.1 Batch Plants. GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations.

4.2 Drum Plants. The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

5.0 Testing During Mixture Production. Testing of asphalt mixes containing GTR shall not begin until at least 30 minutes after production or per additive supplier's recommendation.

6.0 Construction Requirements. Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.

7.0 Mix Design Test Method Modification. A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be prepared and

fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.

8.0 Mix design Volumetrics. Mix design volumetric equations shall be modified as follows:

8.1 Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder

8.2 GTR shall be included as part of the aggregate when calculating VMA of the mix.

8.2.1 GTR SPG shall be 1.15

8.3 Mix G_{sb} used to determine VMA shall be calculated as follows:

$$G_{sb\,(JMF)} = \frac{(100 - P_{b\,mv})}{\left(\frac{P_s}{G_{sb}} + \frac{P_{GTR}}{G_{GTR}}\right)}$$

where:

$G_{sb\,(JMF)} = bulk\ specific\ gravity\ of\ the\ combined\ aggregate\ including\ GTR$
$P_{bmv} = percent\ virgin\ binder\ by\ total\ mixture\ weight$
$P_s = percent\ aggregate\ by\ total\ mixture\ weight\ (not\ including\ GTR)$
$P_{GTR} = percent\ GTR\ by\ total\ mixture\ weight$
$G_{sb} = bulk\ specific\ gravity\ of\ the\ combined\ aggregate\ (not\ including\ GTR)$
$G_{GTR} = GTR\ specific\ gravity$

8.4 G_{se} shall be calculated as follows:

$$G_{se} = \frac{(100 - P_b - P_{GTR})}{\left(\frac{100}{G_{mm}} - \frac{P_b}{G_b} - \frac{P_{GTR}}{G_{GTR}}\right)}$$

8.5 P_{be} shall be calculated as follows:

$$P_{be} = P_b - \frac{P_{ba}}{100} * (P_s + P_{GTR})$$

9.0 Minimum GTR Amount. The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

Contract Binder Grade	Percent Effective Virgin Binder Replacement Limits	Required Virgin Binder Grade	Minimum GTR Dosage Rate
PG 76-22	0 - 20	PG 70-22	5 %
		PG 64-22	10 %

PG 70-22	0 - 30	PG 64-22	5 %
		PG 58-28	10 %
PG 64-22	0 – 40*	PG 58-28	5 %
		PG 52-34	10 %
PG 58-28	0 – 40*	PG 52-34	5 %
		PG 46-34	10 %

* Reclaimed Asphalt Shingles (RAS) may be used when the contract grade is PG 64-22 or PG 58-28. RAS replacement shall follow the 2 x RAS criteria when calculating percent effective binder replacement in accordance Sec 401.

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum sublot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in accordance with Sec 403.23.7.4.1. A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with Sec 403.11.

Delete Sec 106.9 in its entirety and substitute the following:

106.9 Buy America Requirements.
Buy America Requirements are waived if the total amount of Federal financial assistance applied to the project, through awards or subawards, is below $500,000.

106.9.1 Buy America Requirements for Iron and Steel.
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, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. Under a general waiver from FHWA 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.

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.
A manufactured item will be considered iron and steel if it is "predominantly" iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

106.9.2 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.3 "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or $2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices

to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.4 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

106.9.4.1 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.

106.9.4.2 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.

106.9.4.3 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.

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron

products are awarded in the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.9.6 Buy America Requirements for Construction Materials other than iron and steel materials. Construction materials means articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

(a) Non-ferrous metals
(b) Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables)
(c) Glass (including optic glass)
(d) Fiber optic cable (including drop cable)
(e) Optical fiber
(f) Lumber
(g) Engineered wood
(h) Drywall

106.9.6.1 Minimal Use allowance for Construction Materials other than iron or steel.
"The total value of the non-compliant products is no more than the lesser of $1,000,000 or 5% of total applicable costs for the project." The contractor shall submit to the engineer any non-domestic materials and their total material cost to the engineer. The contractor and the engineer will both track these totals to assure that the minimal usage allowance is not exceeded.

106.9.7 Buy America Requirements for Manufactured Products.
Manufactured products means:

(a) Articles, materials, or supplies that have been:
    (i) Processed into a specific form and shape; or
    (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.
(b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

106.9.7.1 Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

106.9.7.2 Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

Delete Sec 109.14.1 thru Sec 109.14.8 and substitute the following:

109.14.1 Monthly Fuel Index. Each month, the Monthly Fuel Index will be established as the average retail price per gallon for Ultra Low Sulfur Diesel for the Midwest (PADD 2) area as posted on the first Monday of the month by the U.S. Energy Information Administration (EIA). Should the posted price not be available for any reason, the MoDOT State Construction and Materials Engineer will use reasonable methods, at their sole discretion, to establish the Monthly Fuel Index on an interim basis until the EIA resumes its publication.

109.14.2 Fuel Adjustment Calculation.

B = Base Fuel Index = Monthly Fuel Index in the month in which the project was let
C = Current Index = Monthly Fuel Index in the month in which the work was performed
U = Units of work performed within the current pay estimate period (applicable pay units)
F = Total Fuel Usage Factor (gal./applicable pay units)

Fuel Adjustment (Dollars) = (C – B) x U x F

109.14.3 Each pay estimate period, a fuel adjustment payment or deduction will be applied for the quantity of work performed that period on each qualifying pay item. For calculation of the fuel adjustment, work performed on the first day of a month will generally be included with the second estimate in the previous month to keep fuel adjustments in sync with MoDOT's normal payment estimate period schedule. The Commission reserves the right to include work performed on the first day of the month with the current month to accommodate financial accounting termini, such as the beginning of the state and federal fiscal years (July 1 and October 1).

109.14.4 If the bidder wishes to be bound by these specifications, the bidder shall execute the acceptance form in the proposal. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the price adjustment for fuel.

Disposal of Blast Media and Paint Residue

1.0 Description. Whereas Sec 1081.10 requires delivery of Blast Media and Paint Residue (BMPR) produced from bridge coating activities to The Doe Run Company for recycling, and considering the amount of BMPR produced on all active MoDOT projects statewide at any given point in time may exceed the recycling capacity of Doe Run, this provision allows for an alternate method of disposal of BMPR. The contractor, at its discretion, can choose this disposal option or the Doe Run recycle option, when both are available. When Doe Run is not currently capable or agreeable to accept the BMPR, this alternate disposal option shall be considered mandatory, and at no additional cost to the Commission.

2.0 Disposal in Landfill. In lieu of delivery to Doe Run for recycling, BMPR material shall be disposed in the appropriate type of approved landfill, as determined by Toxicity Characteristic Leaching Procedure (TCLP) testing. The material must be TCLP tested to determine if it contains a level of hazardous waste such that requires disposal in a hazardous waste landfill. A sampling plan for testing shall be submitted to MoDOT for review and concurrence. Sampling shall be performed by the contractor. MoDOT will witness the sampling to ensure it is conducted per the plan submitted.

2.1 The contractor shall submit the collected samples to a qualified third-party testing facility to perform TCLP testing. If the sample indicates that the BMPR material qualifies as hazardous waste, then the materials represented by that sample shall be delivered to a licensed hazardous waste landfill for disposal. The contractor shall be responsible for hiring a licensed hazardous waste transporter to transport the hazardous waste to the landfill. The contractor shall comply with all applicable laws and regulations for storage and shipping of the hazardous waste material. If the testing indicates that the BMPR material qualifies as a special waste, it shall be taken to a certified landfill for disposal. The contractor shall be responsible for the transportation of the special waste material to the certified landfill. The requirement to ship the BMPR material by barrels will be waived. Any alternate containers utilized shall comply with all applicable laws and regulations for shipping this type of special waste material. Copies of all shipping manifests, landfill disposal agreements, and any other legally required documentation shall be provided to the engineer.

3.0 Basis of Payment. No payment will be made for any costs associated with this landfill disposal option, including, but not limited to, sampling, testing, delivery, temporary storage, or disposal fees.

G. Utilities 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**
City of Archie Rick Blundell (816) 808-3673 Rblundell@cityofarchie.org	None	Water
AT&T Distribution Shane Jarman 2121 East 63rd Street Kansas City, MO 64160 (816) 944-9428 SJ3085@att.com	None	Communications
Liberty Utilities Leslie Smith 708 E Sedalia Ave Clinton, MO 64735 (618) 267-1675 Leslie.smith@libertyutilities.com	None	Gas

City of Belton Hayden Mattke 700 Seabee Road Belton, MO 64012 (816) 892-1258 (816) 331-4331 (ext. 2163) HMattke@belton.org	Yes Section 2.1	Water
BP Pipeline Charles Switzer (816) 899-5603 (816) 808-6111 Charles.Switzer@bp.com	Yes Section 2.2	Pipeline
Evergy Distribution Jason Taylor (660) 351-5049 jason.taylor@evergy.com	None	Power
Google Fiber Lauren Marcucci 908 Broadway Blvd. 6th Floor Kansas City, MO 64105 (888) 289-9994 lmarcucci@google.com	Yes Section 2.3	Communications
Spire Richi Garcia 3025 SE Clover Drive Lees Summit, MO 64082 (816) 507-0713 Richi.Garcia@spireenergy.com	Yes Section 2.4	Gas
Verizon Joseph W (Joe) Bullimore Jr 10740 Nall Ave Overland Park, Kansas 66211 (913) 609-1024 joseph.bullimore@one.verizon.com	None	Communications
City of Raymore Phil Becker 100 Municipal Circle Raymore, MO 64083 (816) 331-0488 (816) 868-6785 jbecker@raymore.com	Yes Section 2.5	Water
Charter Communications Bill Mortsolf 8221 W 119th St Overland Park, KS 66213 Bill.Mortsolf@charter.com	None	Communications
Cass County PWSD #7 8906 East 267th Street Freeman, MO 64746 (816) 779-6625 pwsd7cassmo@fairpoint.net	None	Water

City of Freeman Theresa Greer 106 E Main Street, P.O. Box 98 Freeman, MO 64746 (816) 250-2902 TheresaGreer@freemanmo.org	None	Water
MoKan Dial, Inc. MoKan Dial (913) 837-2219 mail@mokancomm.net	None	Communications
BrightSpeed Tonjia Baldwin (573) 634-1725 (573) 415-6308 Tonjia.Baldwin@BrightSpeed.com	Yes Section 2.6	Communications
LUMEN Rick Redel 711 E. 19th Street Kansas City, MO 64108 (816) 518-2804 Richard.Redel@LUMEN.com	None	Communications
Consolidated Communications Steve Collins (816) 779-4915 (816) 679-5510 Steve.Collins@consolidated.com	None	Communications
Comcast Communications Jesse Plunkett Jesse_Plunkett@comcast.com	None	Communications
City of Harrisonville M. Carver 201 W Chestnut Harrisonville, MO 64701 (816) 380- 8964 Mcarver@harrisonville.com	Yes Section 2.7	Water
City of Harrisonville City of Harrisonville Electric 300 E Pearl Street Harrisonville, MO 64701 (816) 380- 8900 Utilities@harrisonville.com	None	Power
City of Peculiar Monte Johnson 250 S. Main Street Peculiar, MO 64078 (816) 779- 2227 Mjohnson@cityofpeculiar.com	None	Water

1.1 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.

2.0 Project Specific Provisions.

2.1 The City of Belton has valves within the proposed sidewalk footprint that require adjustment during construction at the NE quadrant of MO-58 and Bel-Ray Boulevard. The contractor shall coordinate with the City representative in the field for proper adjustment details.

2.2 BP pipeline has a BP Pipeline marker within the proposed sidewalk footprint in the NW quadrant of MO-58 and Bel-Ray Boulevard in Belton that will require adjustment during construction. The contractor shall coordinate with the BP representative in the field for proper adjustment details.

2.3 Google Fiber has a small vault within the proposed sidewalk footprint in Belton, south of Route 58 underneath Dean Avenue that will require adjustment prior to construction. The relocation will be completed prior to the Notice to Proceed.

2.4 Spire has valves and/or meters within the proposed sidewalk footprint that require adjustment during construction at various locations in Belton and in Harrisonville along Routes 2 and 7. The contractor shall coordinate with the Spire representative in the field for proper adjustment details.

2.5 The City of Raymore may have valves within the proposed sidewalk footprint that require adjustment during construction. The contractor shall coordinate with the City representative in the field for proper adjustment details, if needed.

2.6 BrightSpeed has two guy anchors within the proposed sidewalk footprint that require adjustment during construction. One is located on the North side of Route 2 in Harrisonville just west of the NW quadrant of S. Highland Street and Route 2. The second guy anchor is located on the South side of Route 2 in Harrisonville, just west of Chapel Drive. The contractor shall coordinate with the BrightSpeed representative in the field for proper adjustment details.

2.7 The City of Harrisonville has valves within the proposed sidewalk footprint that require adjustment during construction at various locations along Route 2 and Route 7. The contractor shall coordinate with the City representative in the field for proper adjustment details.

H. Temporary Construction Easements

1.0 Description. MODOT has obtained temporary construction easements from property owners to construct improvements for the project. Businesses within the project limits 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 or parking lot, located inside each temporary construction easement, unless shown as such on the plans. Business improvements include such things as, but not limited to,

business signs and their electrical connections, landscaping, or sprinkler systems. The Contractor will be solely responsible to repair or replace any improvements disturbed that are not specifically marked on the plans for removal or adjustment, at the Contractor's cost.

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

I. ADA Compliance and Final Acceptance of Constructed Facilities JSP-10-01C

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:

https://www.modot.org/forms-contractor-use

2.1 The ADA Checklist is not to be considered all-inclusive, nor does it supersede any other contract requirements. The ADA checklist is a required guide 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. This notification shall be made in writing. 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-compliant 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-compliant items that are allowed to remain at the end of the construction project. Specific details of the non-compliant 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.

J. Access to Commercial and Private Properties

1.0 Description. This improvement is located within a commercial and residential area. While working on entrances or adjacent properties, the contractor shall make every reasonable effort to minimize any interference to the properties and to pursue the work diligently. Under no circumstances shall the contractor completely block ingress/egress to and from businesses during the normal business hours of each business unless as approved in advance by the property owner and the engineer.

1.1 The contractor shall notify the engineer seven (7) calendar days prior to any area of sidewalk or entrance construction. After notification from the contractor, the engineer will contact each property owner at least one week prior to any sidewalk or entrance construction within their property limits to advise them of the work that will take place and the timeframe of the work.

2.0 Construction Requirements. If there exists more than one entrance to the property, the contractor shall keep a minimum of one entrance to that property completely open at all times unless approved in advance by the property owner and the engineer. If there is only one entrance, the contractor shall only construct one half of the entrance at a time. The minimum compressive strength of the concrete shall be 2500 psi for light traffic (residential) and 3000 psi for commercial traffic before allowing access.

3.0 Liquidated Damages Specified. If the entire entrance is not complete and open to traffic within **seven (7) calendar days**, 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 delay, with its resulting cost to the traveling public. 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 **$250.00 per day** for each full day than an entrance is not complete and open to traffic in excess of the limitation as specified elsewhere in the special provision.

4.0 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 documents.

K. Damage to Existing Pavement, Side Roads and Entrances

1.0 Description. This work shall consist of repairing any damage to existing pavement, curb, ramps and/or shoulders caused by contractor operations. This shall include damage caused either directly or indirectly by contractor operations, including but not limited to, damage caused by the traffic during contractor operations.

2.0 Construction Requirements. Any cracking, gouging, or other damage to the existing pavement, curb, ramps and/or 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. Repair of the damaged pavement, shoulders, side roads, or entrances shall be as determined by the engineer.

3.0 Method of Measurement. No measurement of damaged pavement, curb, ramps or shoulder areas as described above shall be made.

4.0 Basis of Payment. No payment will be made for repairs to existing pavement, curb, ramps and/or shoulders damaged by contractor operations.

L. Pavement Edge Treatment for Drop Off Conditions

1.0 Description. The contractor shall conduct construction operations so that there will be no drop off exceeding 2 inches adjacent to traffic. Treatment of any drop off greater than 2 inches shall be considered incidental to and completely covered by the other items in the contract. There will be no direct payment for Pavement Edge Treatment for Drop Off Conditions on this project.

M. Contractor Quality Control NJSP-15-42

1.0 The contractor shall perform Quality Control (QC) testing in accordance with the specifications and as specified herein. The contractor shall submit a Quality Control Plan (QC Plan) to the engineer for approval that includes all items listed in Section 2.0, prior to beginning work.

2.0 Quality Control Plan.

(a) The name and contact information of the person in responsible charge of the QC testing.
(b) A list of the QC technicians who will perform testing on the project, including the fields in which they are certified to perform testing.
(c) A proposed independent third party testing firm for dispute resolution, including all contact information.
(d) A list of Hold Points, when specified by the engineer.
(e) The MoDOT Standard Inspection and Testing Plan (ITP). This shall be the version that is posted at the time of bid on the MoDOT website (www.modot.org/quality).

3.0 Quality Control Testing and Reporting. Testing shall be performed per the test method and frequency specified in the ITP. All personnel who perform sampling or testing shall be certified in the MoDOT Technician Certification Program for each test that they perform.

3.1 Reporting of Test Results. All QC test reports shall be submitted as soon as practical, but no later than the day following the test. Test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report. No payment will be made for the work performed until acceptable QC test results have been received by the engineer and confirmed by QA test results.

3.1.1 Test results shall be reported on electronic forms provided by MoDOT. Forms and Contractor Reporting Excel2Oracle Reports (CRE2O) can be found on the MoDOT website. All required forms, reports and material certifications shall be uploaded to a Microsoft SharePoint® site provided by MoDOT, and organized in the file structure established by MoDOT.

3.2 Non-Conformance Reporting. A Non-Conformance Report (NCR) shall be submitted by the contractor when the contractor proposes to incorporate material into the work that does not meet the testing requirements or for any work that does not comply with the contract terms or specifications.

3.2.1 Non-Conformance Reporting shall be submitted electronically on the Non-Conformance Report form provided on the MoDOT Website. The NCR shall be uploaded to the MoDOT SharePoint® site and an email notification sent to the engineer.

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

3.3 Contractor Daily Work Reporting. The contractor shall submit to the engineer a Contractor Daily Work Report (CDWR) for each calendar day that work is performed. The CDWR shall include all information listed in 3.3.2.

3.3.1 The CDWR information may be provided on the MoDOT-provided form or an approved contractor form. Each CDWR shall be digitally signed by the contractor and uploaded to the MoDOT SharePoint® site no later than two (2) business days following the end of each week.

3.3.2 CDWR information:
(a) Date and Contract Identification Number
(b) Weather conditions, rainfall amounts, high/low ambient temperatures
(c) List of subcontractors who performed work

(d) Description of all work performed, including general location (ex. Sta, offset, log mile, etc.), and any testing performed.
(e) Date range of days when no work was performed since the previous CDWR
(f) Pertinent traffic control information (changes, delays, accidents, etc.)
(g) Statement: "All items installed meet or exceed contract requirements."

4.0 Work Planning and Scheduling.

4.1 Two-week Schedule. Each week, the contractor shall submit to the engineer a schedule that outlines the planned project activities for the following two-week period. The two-week schedule shall detail all work and traffic control events planned for that period and any Hold Points specified by the engineer.

4.2 Weekly Meeting. When work is active, the contractor shall hold a weekly project meeting with the engineer to review the planned activities for the following week and to resolve any outstanding issues. Attendees shall include the engineer, the contractor superintendent or project manager and any foreman leading major activities. This meeting may be waived when, in the opinion of the engineer, a meeting is not necessary. Attendees may join the meeting in person, by phone or video conference.

4.3 Pre-Activity Meeting. A pre-activity meeting is required in advance of the start of each new activity, except when waived by the engineer. The purpose of this meeting is to review construction details of the new activity. At a minimum, the discussion topics shall include: safety precautions, QC testing, traffic impacts, and any required Hold Points. Attendees shall include the engineer, the contractor superintendent and the foreman who will be leading the new activity. Pre-activity meetings may be held in conjunction with the weekly project meeting.

4.4 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, in the opinion of the engineer, a review of the preceding work is necessary before continuation to the next stage.

4.4.1 A list of typical Hold Point events is available on the MoDOT website. Use of the Hold Point process will only be required for the project-specific list of Hold Points, if any, that the engineer submits to the contractor in advance of the work. The engineer may make changes to the Hold Point list at any time.

4.4.2 Prior to all Hold Point inspections, the contractor shall verify the work has been completed in accordance with the contract and specifications. 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. Re-scheduling of Hold Points require a minimum 24-hour advance notification from the contractor unless otherwise allowed by the engineer.

5.0 Quality Assurance Testing and Inspection. MoDOT will perform quality assurance testing and inspection of the work, except as specified herein. The contractor shall utilize the inspection checklists provided in the ITP as a guide to minimize findings by MoDOT inspection staff. Submittal of completed checklists is not required, except as specified in 5.1.

5.1 Inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor. Submittal of the 501 Concrete Plant Checklist is required.

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

N. Miscellaneous Construction Requirements

The Contractor shall be required to provide the following project coordination efforts and miscellaneous project requirements for the successful completion of this project:

1. Saw cuts for pavement and sidewalks shall be full depth or a minimum of 6 inches, whichever is less.
2. A set number of ADA compliant barricades is included in the pay items. No direct pay will be made for additional ADA compliant barricades due to the contractor's preferred method of construction or acceleration of work.
3. Some signs will be removed from their existing sign supports and relocated to new sign supports. STOP signs shall remain visible at all times. Therefore, they will need to be temporarily mounted on supports, similar to temporary traffic control sign supports, until they can be moved to their ultimate location. No direct pay will be made to remove signs from their existing sign support, temporarily mount the signs, and move them to the ultimate location. Any signs damaged due to the contractor's construction activities will be replaced in kind at the contractor's expense.
4. A one (1) inch joint filler shall be placed between all new sidewalk and existing immovable improvements to remain in place such as power poles, fire hydrants, building foundations, pull boxes, manholes, etc.

O. Modified Concrete Curb (Over 6 IN. Height) - Type S

1.0 Description. This work includes furnishing and constructing a modified "Type S" concrete curb, as shown in the plans.

2.0 Construction Requirements. The dimensions of the modified curb shall be in accordance with the plans and as approved by the engineer.

2.1 Modified Type S Curb shall be constructed per Section 609 of the standard specifications for concrete curb. Reinforcing steel bars shall be in accordance with Section 703.

3.0 Method of Measurement: No field measurement of the modified curb will be made, except in the instance of significant revisions to the design as approved by the Engineer. The contract quantity will be used for payment and will be measured along the top of the curb at the curb face.

4.0 Basis of Payment: All costs associated with this work shall be considered completely covered by pay item "609-99.03 Modified Type S Curb", per linear foot. No direct payment shall be made for reinforcing steel.

P. Modified Type A Mountable Curb and Gutter

1.0 Description. This work includes furnishing and constructing a modified "Type A" concrete curb and gutter, as shown in the plans.

2.0 Construction Requirements. The dimensions of the modified curb shall be in accordance with the plans and as approved by the engineer.

2.1 Modified Type A Mountable Curb and Gutter shall be constructed per Section 609 of the standard specifications for concrete curb. Reinforcing steel bars shall be in accordance with Section 703.

3.0 Method of Measurement: No field measurement of the modified curb will be made, except in the instance of significant revisions to the design as approved by the Engineer. The contract quantity will be used for payment and will be measured along the top of the curb at the curb face.

4.0 Basis of Payment: All costs associated with this work shall be considered completely covered by bid item "609-99.03 Modified Type A Mountable Curb and Gutter", per linear foot. No direct payment shall be made for reinforcing steel.

Q. Modified Type A Gutter with Steel Plate

1.0 Description. This work shall consist of constructing Modified Type A Gutter with Steel Plates as shown on the plans and in accordance with Section 609 of the Standard Specifications, and specifically as follows.

2.0 Construction Requirements. The contractor shall refer to the construction plans detailing the locations with Modified Type A Gutter with Steel Plates. The contractor shall also pay special attention during construction to ensure proper drainage is achieved upon completion of construction.

2.1 The ½" steel slip-resistant plate shall be installed flush with the top of the Modified Type A Gutter and secured to the top of the angle iron. The steel slip-resistant plate shall have a minimum static coefficient of friction of 0.6 and be ADA compliant since it is installed in the pedestrian access route.

3.0 Method of Measurement: No field measurement of the modified gutter will be made. The contract quantity will be used and is measured along the top of the steel plate.

4.0 Basis of Payment: All labor, equipment and materials required to construct the Modified Type A Gutter with Steel Plate as designated on the plans and by this specification shall be considered completely covered by bid item "609-99.03 {1} Modified Type A Gutter with Steel Plate". No direct payment shall be made for reinforcing steel or brass screws and the steel plate shall be included in the linear foot cost.

R. Positive Drainage

1.0 Description. The contractor shall be made aware that this project alters the drainage collection and routing through Harrisonville. Care shall be taken during construction to provide proper drainage.

2.0 Construction Requirements. The contractor shall maintain positive drainage for all properties and shall not create locations of ponding or other drainage concerns to property

owners. The contractor shall alert the engineer of any potential concerns during construction that may affect the ability to maintain positive drainage.

3.0 Basis of Payment. No direct payment will be made for compliance with this provision. All equipment and labor necessary for the work described shall be considered incidental to and completely covered by other items in the contract.

S. Property Owner Notification

1.0 Description. It shall be the Contractor's responsibility to inform and notify the adjacent property owner 48-hours prior to starting any construction activities that may impact driveway and parking lot access or occur along the frontage of the property owner's parcel, unless specified more specifically in a property owner agreement, or here. The notification shall be in written form and include the contractor's contact information, the Engineer's contact information, and an estimated schedule of work and the associated impacts.

Parcel 16: REKJ, LLC - An agreement has been made with the property owners for the contractor to notify them 2 weeks prior to beginning work on this property so that they can let renters know. There is also an agreement to only do one side of the approach at a time so that residents can still access the property during construction. They can be reached at the phone number above.

Parcel 18: Windy Stoner - An agreement was made that the contractor would pour concrete to connect the approach to the existing driveway. This has been added to the plans.

Parcel 19: Lon & Ginger Holden - An agreement has been made with the property owners for the contractor to notify them 2 weeks prior to beginning work on this property so that they can let renters know.

Parcel 20: Carmen Carter, Attorney **-** Easement states this job must be completed by January 1, 2026. An agreement has been made with the property owners for the contractor to notify them 2 weeks prior to beginning work on this property so that they can let renters know.

Parcel 21: An agreement has been made with the school for the contractor to notify them 3 weeks prior to beginning work on this property so that they can work with the contractor to devise a plan to divert kids walking to school around the construction area.

Parcel 23: Copeland - An agreement has been made with the property owners for the contractor to notify them 2 weeks prior to beginning work on this property. This is a commercial restaurant that opens at 11:00 am. The owner is worried about having access to his restaurant blocked during business hours. Please talk with and work out an agreeable plan.

2.0 Basis of Payment. No direct payment will be made to the contractor for labor, equipment, material, or time required to comply with this provision.

T. Site Restoration

1.0 Description. Contractor shall protect and avoid damage to all private property. Contractor shall restore to its original condition any disturbed areas at sites including but not limited to pull box, conduit, sidewalk, pole base installations, damages to buildings, foundations, retaining walls, fencing, pavements, landscaping, trees, shrubs, plants, and damages to landscaping, or irrigation systems inside the easement areas shall be restored. Restoration shall be accomplished by placing material equivalent to that of the adjacent undisturbed area. Disturbed unpaved areas shall be fertilized and either seeded and mulched or sodded as directed by the engineer. The engineer will have the final authority in determining the acceptability of the restoration work.

2.0 Unless quantities and pay items for removal and subsequent replacement of improvements are contained in the plans for a specific location of removal work, no direct payment will be made for the removal and subsequent replacement of sidewalk, pavement, shoulders, islands or medians. This work will be considered as included in the various unit bid prices in the contract and no additional payment will be made.

2.1 Sidewalks and sidewalk ramps that are disturbed as described in this provision shall be replaced to meet current ADA standards.

3.0 Basis of Payment. The cost of restoration of disturbed areas will be incidental to the unit price of pole base, conduit, sidewalk, curb ramp and/or pull box. No direct payment will be made for any materials or labor, which is performed under this provision.

U. Detector Push Button (New Installation) APS

1.0 Description. Audible pedestrian push buttons and signing will be required for all pedestrian indications at all the intersections.

2.0 Installation. Audible signals should be installed as part of a push button assembly**.**

3.0 Equipment.

- 2009 MUTCD, Section 4E.09 – 4E.13
- NEMA 250 – 4X
- NEMA TS1, TS2, TS4,Type 170, Type 2070

3.1 Walk Indications. Accessible pedestrian signals shall have both audible and vibrotactile walk indications.

3.2 Vibrotactile. Vibrotactile walk indications shall be provided by a tactile arrow on the push button that vibrates during the walk interval. Tactile arrow shall be located on the push button that vibrates during the walk interval. Tactile arrow shall be located on the push button, have high visual contrast (light on dark or dark on light), and shall be aligned parallel to the direction of travel on the associated crosswalk.

3.3 Audible. Accessible pedestrian signals shall have an audible walk indication during the walk interval only. The audible walk indication shall be audible from the beginning of the associated crosswalk.

3.4 Push Button Signage. In addition to standard pedestrian sign requirements, all push buttons for the locations mentioned in 1.0 shall have additional signage to indicate crosswalk direction by use of a tactile arrow and the name of the street containing the crosswalk served by the audible pedestrian signal. The sign shall be located immediately above the push button mechanism and parallel to the crosswalk controlled by the button. The street name shall be the name of the street or reasonable abbreviation whose crosswalk is controlled by the push button. Signage shall comply with ADA Accessibility Guidelines (ADAAG) 703.2 specifications for Braille and raised print.

3.4.1 Arrow. Signs shall include a tactile arrow aligned parallel to the crosswalk direction. The arrow shall be raised 0.8 mm (.03 inch) minimum and shall be 4 mm (1.5 in) minimum in length. The arrowhead shall be open at 45 degrees to the shaft and shall be 33 percent of the length of the shaft. Stroke width shall be 10 percent minimum and 15 percent maximum of arrow length. The arrow shall contrast with the background.

3.4.2 Street Name. Accessible pedestrian signals (APS) shall include street name information aligned parallel to the crosswalk direction and shall comply with Revised Draft Guidelines for Accessible Public Rights-of-Way R409.3 or shall provide street name information in audible format.

4.0 Performance

4.1 Audible Locator Tone. Locator tone that tells the pedestrian that the intersection is equipped with APS and where it is. Push button locator tones shall have duration of 0.15 seconds or less, and shall repeat at 1-second intervals. Push button locator tones shall be intensity responsive to ambient sound, and be audible 6 to 12 feet from the push button, or to the building line. The locator tone shall operate during the DON'T WALK and flashing DON'T WALK intervals only and shall be deactivated when the pedestrian signal is not operative.

4.2 Verbal Wait Message. Acknowledge tone that tells the pedestrian that they have placed a call and informational message that tells the pedestrian to “Wait to cross” street name at intersecting street name.

4.3 Verbal Walk Message. The verbal messages shall provide a clear message that the walk interval is in effect, as well as to which crossing it applies. If available, the audio tone feature will not be used. The verbal message that is provided at regular intervals throughout the timing of the walk interval shall be the term “walk sign,” which will be followed by the name of the street to be crossed.

4.4 Volume. Automatic volume adjustment in response to ambient traffic sound level will be provided up to a maximum volume of 100 dB. The units shall be responsive to ambient noise level changes up to no more than 5 dB louder than ambient sound. Tone or voice volume measured at 36 inches from the unit shall be 2dB minimum and 5dB maximum above ambient. noise level. At installation, signal system is to be adjusted to be audible at no more than 5 to 12 feet from the system.

5.0 Documentation and Support. Two copies of the operation and maintenance manuals for

each station shall be included.

6.0 Construction Requirements. Construction requirements shall conform to Sec 902, 1061, and 1092.

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

8.0 Payment. Payment for the audible signals will be for each unit per bid item "902-99.02. Detector, Push Button (New Installation) APS". This will include all wiring, power adaptors, programming devices, communication devices, and installation hardware needed. Payment for signing will be included in the pay item for this audible pedestrian push button.

V. Adjust Push Button, Raise/Lower

1.0 Description. This work shall consist of adjusting existing pedestrian push button detectors (raising or lowering) as indicated on the plans, so they meet height requirements per ADA specifications.

2.0 Method of Measurement: Measurement of the adjustment of existing pedestrian push button detector shall be made per each.

2.1 Pedestrian push button detectors damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment. All costs associated with adjusting existing pedestrian push button detectors (raising or lowering) shall be considered completely covered by bid Item "902-99.02 {1} Misc. Adjust Push Button, Raise/Lower", per each.

W. Relocate Push Button to New Post

1.0 Description. This work includes removing and relocating the pedestrian detector (push button) as indicated in the plans to meet offset and height requirements per ADA specifications.

2.0 Method of Measurement: Measurement of the relocation of existing pedestrian detector shall be made per each.

2.1 Detectors damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment: All costs associated with relocating existing pedestrian detectors shall be considered completely covered by bid item "902-99.02{2} Relocate Push Button to New Post", per each.

X. Adjust Signal Pull Box

1.0 Description. This work shall consist of adjusting existing electrical pull boxes that are located within new sidewalk, ramps, approaches, pavements or grading limits that are to be constructed or existing sidewalks, ramps or approaches that are to be repaired or replaced.

2.0 Construction Requirements. Adjustments, extensions, and/or lowering of utility and any related excavation and backfill shall be constructed as approved by the Engineer. Adjustments shall conform to current Missouri Standard Specifications for Highway Construction. Adjustments shall be completed to ensure the finished sidewalk, ramp, approach, or pavement will meet current ADA standards.

2.1 Pull boxes damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment. Payment for adjusting the height of existing signal pull boxes to be flush with the surface of the sidewalk or ramp shall be considered completely covered by the contract unit price for bid item "902-99.02 {3}, Adjust Singal Pull Box", per each.

Y. Relocate Countdown Pedestrian Signal Head

1.0 This work includes removing and relocating the existing countdown pedestrian signal heads noted on the plans.

1.1 Relocation of the existing countdown pedestrian signal heads may require new mounting hardware if damaged during removal. The relocation shall conform to current Missouri Standard Specifications for Highway Construction.

2.0 Method of Measurement: Measurement of the relocation of existing pedestrian signal heads shall be made per each.

2.1 Signal heads damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment: All costs associated with this work shall be considered completely covered by bid item "902-99.02 {4} Relocate Countdown Pedestrian Signal Head", per each.

Z. Removal and Replacement of Traffic Signs

1.0 Description. Existing traffic signs that must be removed prior to proposed traffic signs being installed and that are determined essential to the safe and orderly flow of traffic by the Engineer shall be temporarily re-installed immediately by the Contractor at temporary locations in a manner approved by the Engineer. The existing signs shall remain temporarily installed until the final permanent signing has been installed. The Contractor shall maintain the existing signs in a straight and neat condition for the duration of the temporary mounting.

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

AA. Sidewalk Manicuring

1.0 Description. This work shall consist of removing any vegetation, soil buildup, and/or debris from all existing sidewalks and adjacent areas next to the sidewalks to eliminate any obstacles or obstructions within the project limits. A landscaping vertical blade is required to get a clean deep cut through existing sod and soil buildup at the edge of the existing sidewalk.

2.0 Construction Requirements. Any vegetation, soil buildup, and/or debris covering and/or encroaching on the existing sidewalks shall be completely removed within the width of the existing sidewalk with use of a vertical blade, as directed by engineer. All tree limbs or other vegetation encroaching onto or over the sidewalk shall be removed to provide a minimum overhead clearance of at least 80 inches from the elevation of the existing sidewalk and shall provide a horizontal clearance to at least the edge of the existing sidewalk.

2.1 All soil material removed from the sidewalks may be evenly spread out on the right of way as approved by engineer. Any tree limbs or vegetative clippings removed by the contractor shall be disposed of off the right of way at the contractor's expense.

3.0 Basis of Payment. Payment for sidewalk manicuring will be paid for at the contract unit price for bid Item "202-99.03, Sidewalk Manicuring", per linear foot.

BB. Install Rectangular Rapid Flashing Beacon

1.0 Description. This work includes the installation of Rectangular Rapid Flashing Beacons (RRFB) as noted in the plans. These units shall be a MoDOT approved solar powered RRFB. All materials necessary for the installation and function of the product including but not limited to the mount, controller, enclosure, energy management system, on-board user interface and controllers shall be included with this work. This system shall conform to all provisions of the MUTCD.

2.0 Materials. Conform the RRFB to all applicable FHWA and MUTCD standards and guidelines and meet or exceed the requirements specified in FHWA Memorandum IA-11.

2.1 Furnish a crosswalk assembly with one light bar. See plans for locations of these units. Provide three LED light arrays with each light bar: two rapidly and alternately flashing rectangular amber (vehicle) indications and one amber side-mounted (pedestrian) indication. The lightbar housing shall be constructed from aluminum and shall have the approximate dimensions: 22" L x 1.5" D x 4" H.

2.2 Operate the system with one controller with remote hardwired light bars and push buttons such that both RRFB at the crosswalk location are activated when either pedestrian push button is activated.

2.3 The controller enclosure shall be constructed of aluminum with a lockable or tamper-proof hinged door. All electronics shall be mounted in the controller enclosure.

3.0 Requirements.

3.1 System

- Operate the system on solar power located on the top of the pole.
- When activated, all indications associated with a given crosswalk shall simultaneously commence operation within 120 msec and shall cease operation at a predetermined time (programmable timeout). The time shall reset after any pedestrian actuation.
- The duration of the flash cycle timeout) shall be programmable from a minimum of 5 seconds to 60 minutes, in increments of seconds.

- Individual components shall be independently replaceable, equipped with approved terminal strips or wire-end molded connectors.

3.2 RRFB Controller

- Solid-state, digital controller capable of operating the RRFB as specified.
- Completely programmable, including but not limited to, flash pattern and duration.
- An on-board user interface that provides system diagnostics and allows system setting changes.

3.3 Enclosure

- An enclosure intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water and damage from ice formation.
- Of sufficient size to house all equipment furnished under this special provision and for future equipment for wireless operation.
- Constructed from type 5052-H32 aluminum with a minimum thickness of 0.080".
- Vented to promote airflow for internal components. All vents and drains shall include screening to deter insects and foreign matter.
- Utilize tamper-resistant stainless continuous steel hinges.
- Include a removable control panel to which all control circuit components mount.
- Utilize stainless steel mounting studs to accommodate bracket options.

3.4 Power supply

- 20-watt solar panel with 44Ah of battery power.

3.5 Light Housing and Indications

- A black colored light bar housing constructed of durable, corrosion-resistant powder-coated aluminum with stainless steel fasteners.
- Enclosed components shall be modular in design whereby any component can be easily replaced using common hand tools, without having to remove the housing from the pole.
- All mounting hardware required for mounting the light bar housing shall be provided and universal to multiple poles.
- Yellow indications of a minimum size of approximately 7” wide x 3” high.
- The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the assembly.
- The light intensity of the yellow indications shall meet the minimum specifications of the Society of Automotive engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005 for Class 1 peak luminous intensity (candelas).

3.6 Hardware

- Furnish all hardware, connections, and other miscellaneous items to make the RRFB system fully operational.

4.0 Construction. The RRFB system consists of multiple assemblies to be constructed by the contractor as shown on the plans. Assemble RRFB with pedestrian activation per the manufacturer’s recommendations. Mount the controller cabinet, signage, light bar, and push buttons to the traffic signal standards as shown on the plans and per the manufacturer’s requirements.

5.0 Method of Measurement. Measurement of the RRFB will not be made.

6.0 Basis of Payment. All costs associated with this work shall be considered completely covered by bid item “903-99.02 {1} Install Rectangular Rapid Flash Beacon”, per each.

CC. Relocate Rectangular Rapid Flashing Beacon Assembly

1.0 Description. This work includes removing and relocating Rectangular Rapid Flashing Beacons, signs, buttons, and posts, as indicated on the plans, so they meet offset and height requirements per ADA specifications.

2.0 Method of Measurement: Measurement of the relocation of existing Rectangular Rapid Flashing Beacons shall be made per each.

2.1 Detectors damaged by construction activity shall be replaced by the contractor at the contractor’s expense.

3.0 Basis of Payment: All costs associated with this work shall be considered completely covered by bid item “903-99.02 Relocate Rectangular Rapid Flashing Beacon Assembly”, per each.

DD. Install Button for RRFB on Sign Post

1.0 Description This work includes installing Rectangular Rapid Flashing Beacon button on a sign post as indicated on the plans so they meet offset and height requirements per ADA specifications.

2.0 Method of Measurement: Measurement of the Install Button for RRFB on Sign Post shall be made per each.

3.0 Basis of Payment: All costs associated with this work shall be considered completely covered by bid item “903-99.02 {2} Install Button for RRFB on Sign Post”, per each.

EE. Linear Grading for Sidewalk

1.0 Description. This work shall consist of grading work necessary to bring the sidewalk to the required grade and cross section within reasonable tolerances. It shall also include the following:

(a) Grading to construct green space, sidewalks, and ramps.

2.0 Construction Requirements. The sidewalk shall be brought to the required grade and cross sections within tolerances by backsloping, ditching, removing stone and boulders from the subgrade surface, or any other work necessary, including hauling and or disposal of any excavated material.

2.1 Bituminous material, stumps, roots, rubbish or any other deleterious material shall not be placed in embankments. Where an embankment less than 2 feet high is to be constructed, all vegetative matter shall be cut and removed from the surface upon which the embankment is to

be placed. The cut-over surface shall be thoroughly broken. All ditches including inlet and outlet ditches shall be cut to grades that will properly drain.

2.2 Shape existing slopes to construct new sidewalks as directed by the engineer.

3.0 Method of Measurement. Measurement of Linear Grading for Sidewalks will be made to the nearest 1/10 station for each side of the roadway.

4.0 Basis of Payment. The accepted quantity of linear grading for sidewalks will be paid for at the contract unit price for Item 207-99.09, Linear Grading for Sidewalks, per station.

FF. Adjust Vehicle Detection Zone

1.0 Description. This work shall consist of adjusting existing vehicle detection zones as indicated on the plans so they detect vehicles behind the stop bar.

1.1 The contractor shall contact the MoDOT representative listed below to obtain approval for the adjusted vehicle detection zone.

Alex Martinez, Traffic Operations Engineer
MoDOT – Kansas City District
600 NE Colbern Road
Lee's Summit, MO 64086

Telephone Number: 816-607-2038
Email: Alejandro.Martinez@modot.mo.gov

2.0 Method of Measurement. Measurement of the adjustment of existing pedestrian push button detector shall be made per each.

2.1 Vehicle detection equipment damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment. All costs associated with this work shall be considered completely covered by Item NO. 902-99.02 {5} "Misc. {Adjust Vehicle Detection Zone}", per each.

GG. Preformed Thermoplastic Pavement Marking, Word (STOP)

1.0 Description. This item shall provide the necessary information for a "Preformed Thermoplastic Pavement Marking, Word (STOP)" as shown in the plans.

2.0 Construction Requirements. The pavement marking shall be uniform in appearance with crisp, well-defined edges and shall be uniform in width and thickness. Surface distribution of the beads shall be uniform.

3.0 Method of Measurement. The measurement of the pavement marking shall be in accordance with the similar measurements of "Preformed Thermoplastic Pavement Marking, Word (ONLY), 8 ft height by 5.9 ft width. The contract quantity will be used.

4.0 Basis of Payment. All costs associated with this work shall be considered completely covered by the pay item "620-99.02 Preformed Thermoplastic Pavement Marking, Word (STOP)", each.

HH. Relocate Pedestrian Signal Post

1.0 Description. This work shall consist of relocating existing pedestrian posts as indicated on the plans.

2.0 Method of Measurement. Measurement of the relocation of existing pedestrian posts shall be made per each.

2.1 Pedestrian posts damaged by construction activity shall be replaced by the contractor at the contractor's expense.

3.0 Basis of Payment. All costs associated with this work shall be considered completely covered by Item NO. 902-99.02 {6} "Misc. {Relocate Pedestrian Signal Post}", per each, except the base concrete, which will be paid with the standard bid item, as indicated in the plans.

II. Truck Mounted Attenuator (TMA) for Stationary Activities JSP-23-04

1.0 Description. Provide and maintain Truck Mounted Attenuators (TMA) in accordance with Sec 612 and as specified herein.

2.0 Construction Requirements. Truck Mounted Attenuators (TMA) shall be used for the work activities indicated in the plans or specified herein.

2.1 Signal Improvements.

(a) All work at the intersection at station 20+80.00 (Route 58, Belton)
(b) All work at the intersection at station 31+60.00 (Route 58, Belton)
(c) All work at the intersection at station 565+35.00 (Route 7, Harrisonville)

2.2 Box Culvert Extension.

(a) Box culvert extension at station 571+20.00 (Route 7, Harrisonville)

3.0 Method of Measurement. No measurement will be made for Truck Mounted Attenuators (TMA).

4.0 Basis of Payment. Delete Sec 612.5.1 and substitute with the following:

612.5.1 No payment will be made for truck mounted attenuators (TMAs) used in mobile operations or for any TMAs designated as optional.

612.5.1.1 Payment for TMAs required for stationary work activities will be paid for at the contract unit bid price for Item 612-30.01, Truck Mounted Attenuator (TMA), per lump sum. The lump sum payment includes all work activities that require a TMA, regardless of the number of deployments, relocations, or length of time utilized. No payment will be made for repair or replacement of damaged TMAs.

JJ. MoDOT's Construction Workforce Program NJSP-15-17A

1.0 Description.

1.1 Projects utilizing federal funds include contract provisions for minority and female workforce utilization in the various trade crafts used to complete construction contracts. These federal contract workforce goals are described in the section labeled "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity". These goals are included in all MoDOT federal aid contracts and are under the authorization and enforcement of the U.S. Department of Labor (US DOL).

1.2 The Federal workforce requirement (Goals – TABLE 1) is authorized in 41 CFR Part 60-4 and Executive Order 11246 which set Equal Employment Opportunity goals with Affirmative Action requirements.

1.3 The required federal aid workforce provisions noted above, coupled with the following additional contract provisions, constitute MoDOT's Construction Workforce Program herein called Program.

1.4 This provision does not require pre-qualification nor is it a condition of award.

1.5 The Program does not eliminate or limit any actions the US DOL may take in relation to this contract's federal provisions.

1.6 The Program goals included in the contract are separate from any Disadvantaged Business Enterprise (DBE) or On-The-Job (OJT) training provision that may be included as contract provisions. DBE and OJT goals may or may not be included in a contract based on the individual size of contracts, type of contract work, anticipated length of contract, available and willing resources or other reasons.

1.7 Contractor, for the purpose of this provision, means the prime contractor and any and all subcontractors.

1.8 It is expected that the contractor recognizes the construction workforce goals for both minority and female workers in the project's county and make efforts to attain those goals, if possible, through the existing workforce makeup of the prime (including subcontractors) that will be on the project and/or through hiring opportunities that may arise for the project. However, it is not the intent of this provision to compel any contractor to displace existing workforce or move workers around to just meet the workforce goals.

1.9 If the contractor's existing Missouri construction workforce meets or exceeds the federal workforce goals established in Table 1, then the OJT goal (Training Provision) if included in the contract, does not be apply.

1.10 Contractor's Workforce Plan. The Contractor shall submit its Workforce Plan a minimum of 1 week before construction starts. One plan shall be submitted for the project that shall include the cumulative planned workforce of the prime and subcontractor(s). The contractor shall prepare the plan, for total minority and female utilization, regardless of the craft. The Engineer will provide the Contractor with comments regarding their Workforce Plan prior to the start of construction. Once work starts, all monthly reporting shall include the craft of each worker reported. If the contractor's plan includes project manager, direct project support roles, project testers or other

project professionals, these designations should also be included in addition to the workers designated by craft such as laborer, operator, carpenter, ironworker and others.

1.11 The plan accepted by the engineer before the start of construction will be the effort expected of the prime contractor to maintain during the life of the project.

1.12 If the contractors planned project workforce plan (including OJT hours if included in the contract) is short of the goals included in Table 1, there is opportunity for the contractor to receive a reimbursement of $10.00 / hour for any new project minority and female hires needed through the remainder of the project. The reimbursement is applicable to work that qualifies for prevailing wage under the federal Davis-Bacon Act, 40 U.S.C. §§ 3141–3148, in accordance with an approved workforce plan. Any reimbursement must be pre-approved by the Engineer. The reimbursement is provided as a remedy to the contractor and as an aid in the long-term growth of experienced persons in the building of roads and bridges in Missouri. The contractor shall manage the plan through the life of the project as described in the plan or as modified, in coordination with the Engineer. The total amount available per project is not capped.

1.13 The Contractor's workforce plan may include existing construction support and professional services staff.

2.0 Forms and Documentation. The bidder must submit the following documents if awarded the contract:

Cumulative Workforce Utilization Reports. This report is contract specific. One report shall be submitted to the Engineer by the 15th of each month. The report will be used to report the total workforce compliance data for the prime contractor and all subcontractors retained by the contractor on the Commission's construction contract. The reporting shall include the workforce hours per each craft broken down by gender and ethnicity. Construction Support, testing and other professional services hours shall be included as these hours are part of the overall plan. The report will include the previous month's hours worked for the project. For projects less than 60 days in length, only one report with total hours worked by classification is required at substantial completion of construction.

3.0 Methods for Securing Workforce Participation and Good Faith Efforts.

3.1 By submitting a bid, the Bidder agrees, as a material term of the contract, to carry out MoDOT's Construction Workforce Program by making good-faith efforts to utilize minority and female workers on the contractor's job sites to the fullest extent consistent with submitting the lowest bid to MoDOT. The Bidder shall agree that the Program is incorporated into this document and agree to follow the Program. If a bidder is unable to meet the workforce goals at the time of bid, it shall be required to objectively demonstrate to MoDOT that the goals have been met or demonstrate a good faith effort has been made with the level of effort submitted prior to the start of construction.

3.2 The Engineer, through consultation with MoDOT's External Civil Rights (ECR's) Division, may determine that the contractor has demonstrated that good-faith efforts to secure minority and female participation have been made.

3.3 In evaluating good-faith efforts, the ECR's Division will take into consideration the affirmative actions listed in the Federal Provisions (including provisions of Executive Order 11246).

3.4 MoDOT's Program allows the contractor flexibility to implement a project specific workforce and improve the diversity of their existing workforce that can be utilized across various areas of the state to meet future MoDOT Program goals and Federal Provisions.

3.5 If the contractor's approved plan changes during the project and/or the available workforce changes from what is approved at any time, it is the contractor's responsibility to remedy, in coordination with MoDOT's ECR Division, the conditions as outlined and made available through this provision.

4.0 Compliance Determination. (Required with project closeout) All documentation and on-site information will be reviewed by MoDOT's ECR Division in making a determination of whether the contractor made sufficient good faith efforts to meet the compliance with MoDOT's Construction Workforce Program.

5.0 Liquidated Damages. If the contractor elects to not submit a workforce plan prior to work starting or fails to fulfill their workforce plan committed to prior to the start of construction, the contractor will be required to establish a good-faith effort determination, as to why either of these events occurred. MoDOT may sustain damages, the exact extent of which would be difficult or impossible to ascertain, as this impacts the cost of future road and bridge construction. Therefore, in order to liquidate those damages, MoDOT shall be entitled, at its sole discretion, to deduct and withhold the following amounts: **The sum of one thousand five hundred ($1,500)**

6.0 Administrative Reconsideration. The contractor shall be offered the opportunity for administrative reconsideration upon written request related to findings and/or actions determined by MoDOT's ECR's Division. The Administrative Reconsideration Committee shall be composed of individuals not involved in the original MoDOT determination(s).

7.0 Available Pre-Apprentice Training Programs. The Commission has established a labor force recruiting program intended to assist contractors in identifying, interviewing and hiring qualified job applicants. MoDOT strongly encourages the hiring of individuals from the MoDOT funded pre-apprentice training programs.

8.0 Independent Third-Party Compliance Monitor (Monitor). MoDOT may utilize a monitor that will be responsible for tracking the project's workforce utilization for the information the contractor submits. The contractor and its subcontractors shall allow the monitor access to their reports, be available to answer the monitor's questions and allow the monitor to access to the site and to contractor and subcontractor employees. The monitor shall abide by the contractor's project site protocols.

9.0 Regional Diversity Council (Council). (Applicable to the Kansas City and St. Louis District regions only) The Council shall consist of local community leaders, leadership of local construction trades, MoDOT staff, Industry representation, and a representative(s) from the Federal Highway Administration. The Council will meet quarterly and evaluate the workforce activity per each project according to the following criteria:

a. Review monthly workforce reports.
b. Review progress toward the stated project workforce program.
c. Review findings of Administrative Reconsideration hearings.
d. Recommend *other* workforce actions to MoDOT.

10.0 Federal Workforce Goals.

Female Participation for Each Trade is 6.9% Statewide for Missouri.

Minority Participation for Each Trade is shown below in Table 1.

TABLE 1:

County	Goal (Percent)	County	Goal (Percent)
Adair	4	Linn	4
Andrew	3.2	Livingston	10
Atchison	10	McDonald	2.3
Audrain	4	Macon	4
Barry	2.3	Madison	11.4
Barton	2.3	Maries	11.4
Bates	10	Marion	3.1
Benton	10	Mercer	10
Bollinger	11.4	Miller	4
Boone	6.3	Mississippi	11.4
Buchanan	3.2	Moniteau	4
Butler	11.4	Monroe	4
Caldwell	10	Montgomery	11.4
Callaway	4	Morgan	4
Camden	4	New Madrid	26.5
Cape Girardeau	11.4	Newton	2.3
Carroll	10	Nodaway	10
Carter	11.4	Oregon	2.3
Cass	12.7	Osage	4
Cedar	2.3	Ozark	2.3
Chariton	4	Pemiscot	26.5
Christian	2	Perry	11.4
Clark	3.4	Pettis	10
Clay	12.7	Phelps	11.4
Clinton	10	Pike	3.1
Cole	4	Platte	12.7
Cooper	4	Polk	2.3
Crawford	11.4	Pulaski	2.3
Dade	2.3	Putnam	4
Dallas	2.3	Ralls	3.1
Daviess	10	Randolph	4
DeKalb	10	Ray	12.7
Dent	11.4	Reynolds	11.4
Douglas	2.3	Ripley	11.4
Dunklin	26.5	St. Charles	14.7
Franklin	14.7	St. Clair	2.3
Gasconade	11.4	St. Francois	11.4
Gentry	10	Ste. Genevieve	11.4
Greene	2	St. Louis City	14.7
Grundy	10	St. Louis County	14.7
Harrison	10	Saline	10
Henry	10	Schuyler	4
Hickory	2.3	Scotland	4
Holt	10	Scott	11.4
Howard	4	Shannon	2.3

Howell	2.3	Shelby	4
Iron	11.4	Stoddard	11.4
Jackson	12.7	Stone	2.3
Jasper	2.3	Sullivan	4
Jefferson	14.7	Taney	2.3
Johnson	10	Texas	2.3
Knox	4	Vernon	2.3
Laclede	2.3	Warren	11.4
Lafayette	10	Washington	11.4
Lawrence	2.3	Wayne	11.4
Lewis	3.1	Webster	2.3
Lincoln	11.4	Worth	10
		Wright	2.3

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

This contractor and subcontractor shall abide by the requirements of 41 CFR 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability or veteran status.

As used in these specifications:

"Minority" includes;

(i) Black (all person having origins in any of the Black African racial groups not of Hispanic origin);
(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
(iii) Asian and pacific islander (all persons having origins in any of the original peoples of the Far East, southeast Asia, the Indian Subcontinent, or the Pacific Islands; and
(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North American and maintaining identifiable tribal affiliations through membership and participation or community identification).