I. GENERAL DESCRIPTION OF WORK

A: Services:

MoDOT is requesting services for inspections of all components of structural signs within the I-55, I-64 and I-170 corridors in Jefferson County, St. Charles County, St. Louis County and St. Louis City. The overall objective of this project is to perform basic inspections on these structures and provide MoDOT with a report of findings and recommendations based on the findings by April 3, 2023 (for I-55) and January 16, 2024 (for I-64 and I-170). An approximate list of structures needing inspection can be found in Appendix D. This list of signs was developed from MoDOT's Sign Management Database. MoDOT has made an effort to make the list as accurate as possible but makes no guarantee the list is free of errors, omissions or recent changes to signs due to construction or maintenance activities. The consultant is encouraged to inspect the corridor prior to submitting a proposal on this project.

Inspection shall include identifying, marking, and documenting any deficiencies of any component of structural signs. Any deficiencies shall be physically marked on the structure in a permanent manner and photographed. The deficiencies shall also be documented in an inspection report. The inspection reports of the overhead sign structures shall contain, at a minimum, the information shown in Appendix A. The inspection reports of the ground-mounted structural signs shall contain, at a minimum, the information shown in Appendix B. As part of the inspection, the Consultant shall also identify and document any minor maintenance tasks such as tightening or replacing bolts and fasteners, replacing pole caps, hand hole covers, anchor rod caps, cleaning out clogged post drainage holes, clearing debris and excessive vegetation from base plates or other issues. The Consultant shall perform any minor maintenance requiring immediate attention such as replacing or tightening bolts and fasteners etc, if specific items cannot be addressed by the Consultant, then a MoDOT Contact shall be notified.

MoDOT currently owns many overhead sign structures and ground-mounted structural signs on the I-55, I-64 and I-170 corridors within the limits of these projects. An overhead sign structure is defined as any cantilever, butterfly, simple truss, or tube structure, which holds a highway sign over a lane of a highway, including bridge mounted signs. Ground- mounted dynamic message signs are also included in the list of structures to be inspected. Ground-mounted structural signs are defined as any sign composed of one or more extruded aluminum panels, regardless of the type or number of posts supporting the sign. Signs on ramps and collector distributer roads that are on MoDOT Right-of-Way are included in the scope of work. For the purposes of this project, signs that are on MoDOT Right-of-Way but not the maintenance responsibility of MoDOT are also INCLUDED; for example, Missouri Logos, St. Louis CVC way-finding signs or Municipality Maintained Signs will be inspected & given to the controlling agency to address any deficient items.

B: Inspection Requirements:

1. The Consultant shall furnish all labor, equipment, and resources to perform the inspections unless noted otherwise. Appropriate traffic control according to MoDOT Traffic Control for Field Operations Typical Applications and the Manual on Uniform Traffic Control Devices (current editions) for each structure inspected shall be provided. The Consultant shall not inspect the overhead structures without closing the lane(s) above which they are working, unless following the requirements in Section 2 below. This work may be done as a Short-Term operation if the required time of the lane closure(s) for a given structure will not exceed that specified by MoDOT EPG Sec. 616.7. The consultant will be required to provide all materials, equipment and labor necessary to provide temporary traffic control in accordance with these requirements and all requirements of Appendix C. Typical applications of the MoDOT work zones can be found in the MoDOT Engineering Policy Guide, Sec. 616.7. Some structures are located within the limits of active work zones. The Consultant shall coordinate with the MoDOT Project Manager before performing inspections within the limits of active work zones. In the event of a conflict between an active work zone and sign structure inspection activities, the active work zone shall have priority. The Consultant shall also obtain a list of allowable work zone hours from the MoDOT Project Manager prior to performing any inspections along the roadway.

2. Climbing over live traffic is permissible with proper traffic control devices and shall be performed in accordance with applicable OSHA and fall protection standards. All equipment shall be securely attached to the climber and fall distances are minimized to assure worker and traffic safety. All climbers shall meet one of two categories of experience/certification. Working over live traffic will require the consultant to submit their safety plan and all certifications in advance of this work.

    - Society of Professional Rope Access Technicians (SPRAT) Certification
    - Past experience climbing these types of structures over traffic and internal SPRAT training

3. Locations: A list of overhead and ground-mounted sign structures with locations is provided in Appendix D. This list includes details of structure type, county, route, travel direction, log point and basic information about the sign. If the Consultant locates an overhead or ground mount sign structure that was not listed, it should be inspected if it is within the project limits.

4. Critical findings shall be reported immediately to the MoDOT Project Manager and Area Engineer. A written summary of the critical finding shall follow within 48 hours.

5. The Consultant shall complete an inspection report for each overhead sign structure inspected. Element Level data will be collected for all overhead structures based on FHWA recognized elements and associated condition states. The report shall include an element level rating of all components of the overhead sign structure, including sign attachments and evaluate the overall condition of the structure in accordance with FHWA NHI Publication 05-036, *Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaires and Traffic Signals.* This inspection report for sign structures shall meet or exceed all of the requirements of Appendix A. Any deficiencies shall be physically marked in a permanent fashion, photographed, and documented on the report. If the Consultant suspects a failure, they should notify the MoDOT Project Manager immediately and have a structural engineer on staff to provide a risk assessment and recommended course of action Pending the course of action, design hours for a fix may be required of the Consultant.

6. The Consultant shall complete an inspection report for each ground-mounted structural sign inspected. Each ground-mounted structural sign inspection report shall include a rating of the base and the connection of the post at the base. The report for ground-mounted signs shall meet or exceed all of the requirements of Appendix B. Any deficiencies shall be physically marked in a permanent fashion, photographed, and documented on the report. It shall not be the responsibility of the Consultant to decide if a structure has failed, this will be the duty of MoDOT. If the Consultant suspects a failure, they should notify the MoDOT Project Manager immediately.

7. Visual indications of cracks at welded connections shall be verified by non-destructive testing, to determine the severity of any deficiencies, unless the visual indication is adequate to conclusively verify the presence and limits of the crack. Non-destructive testing includes one or more of the following: Liquid Penetrant Examination, Magnetic-Particle Testing, Ultrasonic Examination and/or Radiographic Examination. All testing shall be performed by an experienced technician and in accordance with current ASTM, AASHTO and AWS methods, as applicable.

8. The foundations, base plates, and anchor and/or breakaway hardware shall receive a hands-on visual inspection. When these elements are buried in fill, debris, asphalt, etc., an initial effort shall be made to expose these hardware types. If not successful, a note shall be added to the report indicating the inspection was not possible and why. All anchor nuts shall be checked for tightness and snug tightened as needed with a pipe wrench. Any loose or missing hardware that cannot be addressed at the time of inspection shall be documented and permanently marked. Existing barrier protection or lack thereof shall be noted in the inspection of overhead structures.

9. The following photographic documentation shall be provided at a minimum:

    - Both sides of each sign structure (looking in the direction of traffic and in opposite direction of traffic)
    - Foundation element showing full foundation, baseplate, anchor/breakaway hardware
    - Critical conditions
    - All conditions requiring corrective action
    - Inspections performed at night shall have adequate lighting in the pictures.

10. The Consultant shall collect the location of each overhead sign structure and each ground mount structural sign using global positioning satellite (GPS) technology within an accuracy of +/- 4 meters. The right-most pole of the structure in the direction of travel shall be used as the locate point. The data preferably should be delivered in a Geo-database or Shape file format and collected as follows:

    - Coordinate System = UTM Datum = NAD83
    - Elevations and vertical control = NAVD 88
    - Zone = 15

11. Preliminary Planning: The Consultant shall attend an initial coordination meeting with MoDOT prior to start of work.

C: Conceptual Study Report and Database Requirements:

1. Final Conceptual Study Report: The Consultant shall present a final report to MoDOT including a recommendation of repairs or replacement of structures inspected. The inspection report for each structure shall be submitted with the final report. All data collected and used in the analysis of the structures will be given to MoDOT.
    - A separate inspection sign report submittal shall be provided for all non MoDOT maintained signs.

2. Searchable Database: The Consultant shall furnish an electronic database in Microsoft Excel format or another format acceptable to MoDOT. The database shall be searchable and shall allow for filtering. The database shall include, at a minimum, the location of the structure by log mile, all element level inspection ratings, the date the inspection was performed and a link to the inspection report. The final deliverable of the database will include all the sign and structure improvements and data collected during inspection, which represent what was included in the final PS&E and As-Built Plans for this project. This work will be completed after final PS&E documents are awarded for construction and modified after construction is complete to represent the final As-Built Plans.

3. The Consultant shall provide MoDOT a Conceptual Study Report for each project based on the findings of the Final Report. This shall be in the standard MoDOT Conceptual Study Report format in the Engineering Policy Guide Sec.128. A tabulation of all signs and structures recommended for replacement/modifications shall be included with a Conceptual Estimate of Costs prepared in MoDOT's current version of estimating software, Bid Tabs Pro. The estimate shall also include approximate quantity of new guardrail to be provided at overhead sign locations that are determined to warrant barrier protection, though where no protection currently exists.

4. The Consultant shall provide MoDOT Preliminary and Final Plans, Specifications, and Estimates for each project based on the scope in the approved Conceptual Study Report. The projects, at the time of solicitation, are on independent schedules with I-55 intended to be designed, bid, and constructed first.

II. PROPOSAL EVALUATION CRITERIA

MoDOT will evaluate Consultants interested in performing the work based on information contained in proposals received by the specified due date and any previous work experiences with MoDOT (if applicable). Interested Consultants will be evaluated according to the following considerations:

A. (25 points) Project Understanding & Innovation:
   1. Understanding the scope of work required.
   2. General organization and clarity of the proposal.
   3. Ability to implement new ideas from which MoDOT could learn.

B. (25 points) Qualifications, experience and technical competence of the consultant and assigned staff relative to the task requirements and scope of work outlined, specifically as related to the following:
   1. Project Manager
   2. Other assigned key staff

C. (20 points) Past Performance:
   1. Previous work experience with MoDOT (if applicable).
   2. Quality of final work products.
   3. Ability to meet work schedules.

D. (10 points) General Experience of Firm:
   1. Prior experience with similar types of work.

E. (10 points) Familiarity & Capability:
   1. Familiarity with MoDOT procedures.
   2. Ability to comply with contract requirements & proposed timeline.

F. (10 points) Accessibility of Firm & Staff:
   1. Familiarity & proximity with area in which project is located.
   2. Responsiveness to needs of clients.

III. SELECTION PROCESS

The evaluation of proposals based on the criteria listed above will be used by the selection committee to select one Consultant based on the evaluation criteria above with which to begin negotiating a contract. Negotiations will include selection of any sub-consultants and/or Consultants required based on the final scope of services.

MoDOT reserves the right to negotiate a contract with any respondent. If a contract cannot be successfully negotiated with the selected Consultant within the time specified below, MoDOT may select another Consultant with which to begin negotiations.

PROPOSED SCHEDULE

- Proposals Due — June 1, 2022
- Notification of Selection — June 8, 2022
- Contract Negotiations — June/July 2022
- Notice To Proceed — July 29, 2022

- Inspection Reports for I-55 — December 1, 2022
  (from 1.5 miles North of Rte Z to 2.5 miles South of Rte 67)
- Conceptual Level Cost Estimate for I-55, I-64 & I-170 — December 15, 2022 *(Tentative)*
  (Inspections should be completed for this Cost Estimate)
- Conceptual Report for I-55 — April 3, 2023 *(Tentative)*
- Conceptual Report for I-64 & I-170 — January 16, 2024 *(Tentative)*

APPENDIX A

OVERHEAD SIGN TRUSS INSPECTION REPORT

The consultant shall submit to the Project Contact a report for each structure inspected, in a format acceptable to MoDOT. The report shall contain, at a minimum:

1. Name of Company and Team individuals (typically Team Leader and assistant) performing the inspection.
2. Date of inspection.
3. Structure number, if applicable.
4. Route, county, and log mile of structure.
5. Latitude, longitude.
6. Structure type (1-tube, 2-tube, span, cantilever, etc.)
7. Position (“Left”, “Overhead”, “Right”)
8. Orientation (“Traffic Facing” (most common), “Anti Traffic Facing”, “Lane Facing”, “Anti Lane Facing”)
9. Column material and coating type, if any.
10. Truss material and coatings, if any.
11. Truss type (“Box Butterfly”, “Box Cantilever”, “Box Truss”, “Double Tube”, “Double Tube Butterfly”, “Double Tube Cantilever”, “Single Tube”, “Single Tube Cantilever”, or “Unspecified” if it is not a truss structure)
12. Footing type (“Concrete”, “Direct Bury”, “Driven Anchor”, “Foam”, “Screw In”, “Other”, or “Unspecified” (if there are no footings))
13. Status (“Sufficient”, “Insufficient”)
14. Quantity and size of sign(s) on structure.
15. Sign legend
16. Indicate if catwalk and/or lighting systems are present.
17. Condition of footings, columns, truss members.
18. Condition of all connections (column to footing, truss to column, splices (if any), sign attachments, etc.
19. Inspection of column to base plate weld both externally and internally through handhole.
20. Condition of coatings, if any.
21. GPS coordinates.
22. Distance from footing pedestal to edge of shoulder and, if protected, minimum distance between pedestal and guardrail posts.
23. Sign retro reflectivity results and overall condition.
24. Photograph of overall structure and detail photos of deficiencies found.
25. Barrier protection (“Yes” or “No”)
26. Type of barrier protection at each footing (concrete barrier, concrete curb, median concrete barrier, guardrail etc…)
27. Vertical clearance of bottom edge of sign above the roadway.
28. Vertical height of lowest point of remaining structure (i.e. not catwalk or lighting fixtures) over the roadway.
29. Column type
30. Span length
31. Truss depth if applicable

APPENDIX B

GROUND-MOUNTED SIGN INSPECTION REPORT

The consultant shall submit to the Project Contact a report for each structure inspected, in a format acceptable to MoDOT. The report shall contain, at a minimum:

1. Name of Company and Team individuals (typically Team Leader & assistant) performing the inspection.
2. Date of inspection.
3. Structure number, if applicable.
4. Route, county, and log mile of structure.
5. Latitude, longitude.
6. Support type (“Box”, “Post”, “Structure”, or “Unspecified”)
7. Position (“Left”, “Overhead”, “Right”)
8. Orientation (“Traffic Facing” (most common), “Anti Traffic Facing”, “Lane Facing”, “Anti Lane Facing”)
9. Post, count, size, material, plumbness, and coating type, if any.
10. Post Spacing measurement from inside of post to inside of post.
11. Post type (“PSST”, “Pipe”, “Structural Steel”, “U-Channel”, “Wood”, “Other”, or “Unspecified” (if there are no posts))
12. Footing type (“Concrete”, “Direct Bury”, “Driven Anchor”, “Foam”, “Screw In”, “Other”, or “Unspecified” (if there are no footings))
13. Breakaway (“Yes” or “No”)
14. Status (“Sufficient”, “Insufficient”)
15. Quantity and size of sign(s) on structure.
16. Sign legend
17. Distance of edge of sign from edge of shoulder and conformance to current Standard Plans.
18. Height from edge of shoulder to bottom of sign and conformance to current Standard Plans.
19. Condition of footings and post(s).
20. Condition of breakaway assembly and conformance to current Standard Plans.
21. Height of breakaway stub above ground level and conformance to current Standard Plans.
22. Condition of fuse plate(s) and conformance to current Standard Plans.
23. Condition of sign attachments.
24. Condition of coatings, if any.
25. GPS coordinates.
26. Sign retro reflectivity results and overall condition.
27. Photograph of overall structure and detail photos of deficiencies found.

APPENDIX C

WORK ZONE TRAFFIC MANAGEMENT PLAN (WZTMP)

1.0 Description. Work zone traffic management shall be in accordance with applicable portions of Section 616 of MoDOT's Engineering Policy Guide and Sections 100 and 600 of the Missouri Standard Specifications for Highway Construction, and specifically as follows.

1.1 Work Zone Specialist (WZS). The Traffic Management Plan shall name an individual, either employed by the Consultant or hired by the Consultant, to act as the Work Zone Specialist (WZS) throughout the entirety of the project. The (WZS) will have no job duties other than traffic control. The WZS shall be in direct charge of the temporary traffic control pre-activity meeting and traffic control items such as: setup, communications, reviews, and reporting of all daily work zones on theproject. Any change in personnel for the WZS shall be submitted in written form to the engineer. The WZS shall be trained and certified as a Traffic Control Supervisor from an organization such as ATSSA or equivalent and will be directly involved with daily traffic management and traffic management planning. It will be the responsibility of the WZS to coordinate daily traffic managementwith the Consultant's traffic control crews, inspector or engineer and the St. Louis Traffic Management Center (TMC). The WZS shall be required to be on the project daily and remain on the project until all work zones have been removed for the day. The WZS shall be on site before thefirst work zone sign is placed for the day and until the last traffic control device is taken down for theday. The WZS shall remain on site the entire time daily/nightly lane drops are in use. The WZS shall maintain daily contact with the engineer or inspector on the project.

1.2 Work Zone Set Up. The WZS shall direct the configuration and placement of each work zone daily and ensures work zones are set up and maintained in accordance with the EPG. The WZS shall conduct a daily meeting with the set up crew to determine which traffic control devices are required, their locations and set up and take down times.

1.3 Work Zone Communication. The WZS shall notify the TMC before the first work zone sign is set up and after the last traffic control item is taken down at the end of each work day or night. The WZS shall also to notify the inspector of any work zone cancellation for the day. Notification of cancellations shall be made prior to 3:00 pm for nighttime work zones, as well as for daytime work zones the following day. The WZS shall also notify the inspector or engineer 2 weeks before any new lane closures or detours are put into place.

1.4 Work Zone Reviews. Once the traffic control has been placed for the day, the WZS shall review the work zone to ensure all devices are legible and clean, installed in the correct location with the correct spacing and convey the correct message. The WZS shall approve the work zone before anywork can begin. The WZS shall also review the job site hourly to determine if any traffic control devices need to be added, reconfigured, or cleaned. If the engineer or inspector notifies the WZS ofany safety or traffic related concerns in the work zone, the engineer or inspector will communicate the type of deficiency as per 616.4.2.5.2. This communication will be verbal and documented in writing via the DWR for that day. The DWR entry will include the time of verbal communication. The WZS will also document the deficiency in their daily report. For Category 1 deficiencies, the written documentation will include the time of notification and the time of correction. Any liquidated damages assessed shall be placed on the next Engineer's estimate as per 1.7 of this section.

1.5 Work Zone Reporting. After the WZS has conducted the daily initial review of the work zone, the WZS shall record the findings. Thereafter, the WZS shall conduct reviews on an hourly bases and subsequently record findings, required corrections and times the corrections were completed.Copies of the WZS review documentation shall be furnished to the Engineer within 24 hours.

1.6 Maintaining Work Zones and Work Zone Reviews. The WZS shall maintain work zones on a daily basis to ensure safety to the traveling public and the workers; this includes long term work zones that have devices and/or roadway conditions that need to be maintained. If the engineer or inspector notifies the WZS of any safety or traffic delay concerns in the work zone, the WZS shall promptly inspect and work to provide a solution to correct the situation in accordance with Sec. 616.4.2.5. Missing, damaged or over-turned traffic control devices shall typically be corrected without the need for direction by the engineer. The WZS is responsible to assure all traffic control devices are maintained in accordance with EPG standards. The WZS is responsible to ensure 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 project special provisions. The WZS and engineer shall submit one joint weekly technical review of work zone operations identifying any concerns present and the corrective actions taken. Reviews may be subjected to unannounced inspections by the engineer to corroborate the validity of the ratings. The engineer and WZS will be notified of the results.

1.6.1 Work zone signs and bases shall be removed from both inside and outside shoulders of the roadway when not in use and the end of each work shift. This includes signs and bases used for daily or nightly lane closures.

1.7 Work Zone Conflict Resolution. Any conflict resolution shall be in accordance with Standard Specification 616.4. Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless of 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 Consultant shall request permission at least two working days prior to lane closures or shifting traffic onto detours, and 14 calendar days prior to the imposition of height, width, or weight restrictions. This is to ensure closures do not conflict with other work within the zone of influence and the work zone information on the MoDOT's website can remain real-time. In accordance with Management of Traffic (MOT) procedures, the Consultant shall submit lane closures for the following week to the engineer by 3:00pm on Monday.

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 Consultant 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 Consultant is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5 Traffic Congestion. The Consultant shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The Consultant shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of **15 minutes** to prevent congestion from escalating beyond this delay threshold. If disruption of the traffic flow occurs and traffic is backed up in queues equal to or greater than the delay time threshold listed above then the Consultant 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 Consultant of delays that require prompt mitigation. The Consultant may work with the engineer to determine what other alternative solutions or time periods would be acceptable. The Consultant may refer to the Work Zone Analysis Spreadsheet found in the electronic deliverables under the MoDOT Online Plans Room for detailed information on traffic delays.

2.5.1 Traffic Safety.

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

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

3.0 Work Hour Restrictions.

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

Memorial Day
Independence Day
Labor Day
Thanksgiving
Christmas
New Year’s Day

3.2 The Consultant shall not perform any operation on the roadway, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

3.3 The Consultant shall be aware that traffic volume data indicates construction operations on the roadbed between the following hours will likely result in traffic queues greater than 15 minutes:

5:00am – 9:00am, 3:00pm – 8:00pm Monday through Friday

Based on this, the Consultants operations will be restricted accordingly unless it can be successfully demonstrated that the operations can be performed without a 15 minute queue in traffic. It shall be the responsibility of the engineer to determine if the above work hours may be modified. Working hoursfor evenings, weekends and holidays will be determined by the engineer. Any work requiring a temporary reduction in the number of I-55 or I-64 / I-170 through lanes of traffic shall be completed during the following hours:

9:00am – 3:00pm Monday through Friday

Additional specific work zone inspection hours, based on location, will be provided to the Consultant prior to scheduling work.

3.4 The Consultant shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closures without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs.

4.0 Detours and Lane Closures.

4.1 The Consultant shall provide changeable message signs (CMS) notifying motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. The CMS shall be capable of communication with the Transportation Management Center (TMC), if applicable, prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. Permanent dynamic message signs (DMS) owned and operated by MoDOT 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 Consultant's equipment will seriously hinder the safe movement of traffic. Periods during which the Consultant will be allowed to interrupt traffic willbe designated by the engineer.

APPENDIX D

LIST OF STRUCTURES NEEDING INSPECTED

See the Attached Excel Files for Signing Structures Needing Inspection:

- J6I3484--J6I3650 PSC Appendix D (1 of 7) --- I-55---Structural Sign Project List
- J6I3484--J6I3650 PSC Appendix D (2 of 7) --- I-55---DMS Board List
- J6I3484--J6I3650 PSC Appendix D (3 of 7) --- I-55---Overhead Sign Truss Lighted Catwalk Inventory
- J6I3484--J6I3650 PSC Appendix D (4 of 7) --- I-64---Structural Sign Project List
- J6I3484--J6I3650 PSC Appendix D (5 of 7) --- I-170---Structural Sign Project List
- J6I3484--J6I3650 PSC Appendix D (6 of 7) --- I-64-170---DMS Board List
- J6I3484--J6I3650 PSC Appendix D (7 of 7) --- I-64-170---Overhead Sign Truss Lighted Catwalk Inventory