

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

- A. General
- B. Work Zone Traffic Management Plan
- C. Project Contact for Contractor/Bidder Questions
- D. Emergency Provisions and Incident Management
- E. Utilities
- F. Liquidated Damages for Winter Months
- G. Supplemental Revisions
- H. Contractor Retained Guardrail
- I. Time for Completion of Work
- J. Quality Management
- K. Safety Plan
- L. Sequential Flashing Warning Lights
- M. Liquidated Damages for Work Zone Delay
- N. Rubbilizing Of Slope Protection

ADDITIONAL INFORMATION

Asbestos Survey Reports

<p>“THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT.”</p>	<p>MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636</p>
	<p>If a seal is present on this sheet, JSP's have been electronically sealed and dated.</p>
	<p>JOB NUMBER: J4I2381, J4I2384 CLAY COUNTY, MO DATE PREPARED: 01-16-2013</p>
	<p>ADDENDUM DATE:</p>
<p>Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: A - N</p>	

JOB
SPECIAL PROVISIONS

A. GENERAL - FEDERAL JSP-09-02

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.mo.gov under "Business With MoDOT". 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.mo.gov under "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 October 2009 Missouri Std. Plans
For Highway Construction

These supplemental bidding documents contain all current revisions to the bound printed 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. WORK ZONE TRAFFIC MANAGEMENT PLAN

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.

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, hours traffic control will be in place, and work hours.

2.2 The contractor shall notify the engineer prior to lane closures or shifting traffic onto detours.

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.

2.5.1 Traffic Delay. The contractor shall be responsible for maintaining the existing traffic flow through the job site during construction. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from occurring again.

2.5.2 Traffic Safety.

2.5.2.1 Where traffic queues routinely extend to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) 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.

2.5.2.2 When a traffic queue extends to within 1000 feet (300 m) of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet (150 m) of the ROAD WORK AHEAD, or similar, sign on an undivided highway due to non-recurring congestion, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet (300 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on divided highways and no less than 500 feet (150 m) and no more than 0.5 mile (0.8 km) in advance of the end of the traffic queue on undivided highways.

3.0 Work Hour Restrictions.

3.1 There are two major summer holiday periods: Memorial Day and Labor Day. All lanes shall be scheduled to be open to traffic during these holiday periods, from 12:00 noon on the last working day preceding the holiday until 9:00 a.m. on the first working day subsequent to the holiday.

3.2 The contractor shall not perform any construction operation on the roadway of I-435, I-35, and Route 69, 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 Bridges that require 11 calendar days closures shall start Friday at 7:00 p.m. and end a week from that following Monday at 5:00 a.m.

3.4 Bridges that require 4 calendar days closures shall start Friday at 7:00 p.m. and end the following Monday at 5:00 a.m.

3.5 The contractor shall be aware that traffic data indicates construction operations on the roadbed between the hours

Roadway	NB I-435	SB I-435	NB I-35	SB I-35	NB US 69	SB US 69
Hours	6:00 am- 7:00 pm	6:00 am- 8:00 am	6:00 am- 7:00 pm	5:00 am- 7:00 pm	3:00 pm 5:00 pm	6:00 am- 7:00 pm
		3:00 pm- 5:00 pm				

Monday through Friday will likely result in traffic queues greater than 15 minutes. Based on this data the contractors operations will be restricted accordingly unless it can be successfully demonstrated that their 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 hours for evenings, weekends and holidays will be determined by the engineer.

3.6 Any work requiring a reduction in the number of through lanes of traffic shall be completed during nighttime hours. Nighttime hours shall be considered to be 7:00 p.m. to 5:00 a.m. for this project.

4.0 Detours and Lane Closures.

4.1 The contractor shall provide changeable message signs 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 changeable message sign shall be installed at a location as approved or directed by the engineer.

4.2 At least one lane of traffic in each direction on I-435, I-35, and Route 69 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 halt 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.

C. PROJECT CONTACT FOR CONTRACTOR/BIDDER QUESTIONS

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

Mark Fisher, Project Contact
 District 4
 Missouri Department of Transportation
 600 NE Colbern Road

Lee's Summit, MO 64086
Telephone Number: 816-607-2271
e-mail: Mark.Fisher@modot.mo.gov

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

D. EMERGENCY PROVISIONS AND INCIDENT MANAGEMENT

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

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

Missouri Highway Patrol (800-525-5555)		
City of Claycomo	City of Gladstone	City of Liberty
(Fire: 816-407-3700	(Fire: 816-454-8310	(Fire: 816-439-4310
Police: 816-452-4614)	Police: 816-436-3550)	Police: 816-439-4716)

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

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

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

E. UTILITIES

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:

<u>Utility Company</u>	<u>Known Required Adjustment</u>
Mr. Reza Zonnooz KCMO Water Services Dept. 4800 E. 63rd Street Kansas City, MO 64130 (816) 513-0309	No
Mr. Joe Bullimore AT&T 215 N. Spring St. Independence, MO 64050-2822 (816) 325-5658	No
Mr. Brian Cornish CenturyLink 5454 West 110th Street Overland Park, KS 66211 (913) 345-7524	No
Mr. Jason Swan Kansas City Power & Light Co. 8325 N. Platte Purchase Drive Kansas City, MO 64118-1057 (816) 737-7777	No
Mr. Chris Collins Missouri Gas Energy 7500 E. 35th Street Kansas City, MO 64129 (816) 472-3413	No
Mr. David McCoy PWSD # 2 of Clay County 8600 Kaill Road Liberty, MO 64068 (816) 781-1454	No

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.

1.2 The contractor agrees that any effects of the presence of the utilities, their relocation, contractor's coordination of work with the utilities and any delay in utility relocation shall not be compensable as a suspension of work, extra work, a change in the work, as a differing site condition or otherwise including but, without limitation, delay, impact, incidental or consequential damages. The contractor's sole remedy for the effects of the presence of utilities, delay in their relocation or any other effects shall be an excusable delay as provided in Section 105.7.3. The contractor waives, for itself, its subcontractors and suppliers the compensability of the presence of utilities, delay in their relocation and any cost to the contractor, it's subcontractors and suppliers in any claim or action arising out of or in relation to the work under the contract.

1.3 The contractor shall be solely responsible and liable for incidental and consequential damage to any utility facilities or interruption of the service caused by it or its subcontractors operation. The contractor shall hold and save harmless the Commission from damages to any utility facilities interruption of service by it or it's subcontractor's operation.

2.0 It shall be noted by the contractor that MoDOT is a member of Missouri One Call (800 Dig Rite). Some work on this project may be in the vicinity of MoDOT utility facilities, which includes but is not limited to traffic signal cables, highway lighting circuits, ITS cables, cathodic protection cables, etc. Prior to beginning work, the contractor shall request locates from Missouri One Call. The contractor shall also complete the Notice of Intent to Perform Work form located at the Missouri Department of Transportation website:

<http://www.modot.mo.gov/asp/intentToWork.shtml>

The contractor shall submit the form over the web (preferred method) or by fax to the numbers on the printed form. The notice must be submitted a minimum of 2 and a maximum of 10 working days prior to excavation just as Missouri One Call requires.

F. LIQUIDATED DAMAGES FOR WINTER MONTHS JSP-04-17

1.0 Description. Revise Sec 108.8.1.2 (a) and (b) and substitute the following for the project:

- (a) Liquidated damages will be assessed from December 15 to March 15
- (b) Liquidated damages will be assessed for Saturdays, Sundays and Holidays.

G. SUPPLEMENTAL REVISIONS JSP-09-01J

Insert Sec 109.15, Sec 109.16 and Sec 109.17, subsequent section renumbered accordingly:

109.15 Seal Coat Price Index. Adjustments will be made to the payments due the contractor for Seal Coat placed in accordance with Section 409 of the Standard Specifications when the quantity exceeds 50,000 square yards for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.15.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (2.01/2000) \times (D - E)$$

Where: A = adjustment for Seal Coat placed during the index period
B = square yards of seal coat placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid

109.15.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Asphalt Cement Price Index. Acceptance of this provision will apply to both the Asphalt Cement Price Index and Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Asphalt Cement Price Index or Seal Coat Price Index.

109.16 Asphalt Underseal Price Index. Adjustments will be made to the payments due the contractor for Asphalt underseal placed in accordance with Section 625 of the Standard Specifications when the quantity exceeds 10,000 gallons for an individual project or any number of projects in the contract combination. Adjustments will be calculated in accordance with Asphalt Cement Price Index of the General Provisions, except as defined herein.

109.16.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A = B \times (8.66/2000) \times (D - E)$$

Where: A = adjustment for asphalt underseal placed during the index period
B = gallons of asphalt underseal placed during the index period
D = average index price at the beginning of the period
E = average index price at the time of bid
(use average specific gravity of 1.04 for underseal)

109.16.2 Optional. This provision is optional. If the bidder wishes to be bound by this provision, the bidder shall execute the acceptance form in the Bid for the Seal Coat Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election to not participate in the Seal Coat Price Index.

109.17 Polymer Modified Emulsion Membrane Price Index. Adjustments will be made to the payments due the contractor for Polymer Modified Emulsion Membrane placed in accordance with Sec 413.30 when the quantity exceeds 5,000 square yards. Adjustment will be calculated in accordance with the Supplemental Asphalt Price Adjustment except as defined herein.

109.17.1 Basis of Payment. To determine the adjustment for any material specified in this provision the following formula will be used.

$$A=B \times (1.20/2000) \times (D - E)$$

Where: A = adjustment for membrane placed during the index period
B = square yards of membrane placed during the index period
D = average index price at the beginning of the period
E = average index price at time of bid

109.17.2 Optional. This provision is optional. If the bidder wishes to be bound by the provision, the bidder shall execute the acceptance form in the Bid for Polymer Modified Emulsion Membrane Price Index. Failure by the bidder to execute the acceptance form will be interpreted to mean election not to participate in the Polymer Modified Emulsion Membrane Price Index.

H. CONTRACTOR RETAINED GUARDRAIL JSP-04-11

1.0 Description. All guardrail removed from this project shall become the property of the Contractor and shall be disposed of in accordance with Sec 202.

2.0 Basis of Payment. All costs incurred for complying with this provision shall be considered completely covered by the contract unit price for Item No. 202-20.10, Removal of Improvements.

I. TIME FOR COMPLETION OF THE WORK

1.0 Description. Completion of this project shall be in accordance with Sec 108.7 and will be administered on both a calendar date completion basis and by calendar days completion basis.

1.1 Regardless of when the work is begun on this project, all work shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Completion Date: November 1, 2013

1.2 In addition, closure calendar days for the completion of this project have been established. All closure work shall be completed within the calendar days specified below. Completion of the work by calendar days shall be in accordance with the requirements of Sec 108.7.

Project	Closure Calendar Days
J4I2384 – L0656	30
J4I2381 – A3387 Inside Lane	11
J4I2381 – A3387 Outside Lane	11
J4I2381 – A3378 Outside Lane, A3374 Outside Lane	4
J4I2381 – A3378 Inside Lane, A3374 Inside Lane	4
J4I2381 – A3377 Inside Lane, A3375 Inside Lane	4
J4I2381 – A3386, A3375 Outside Lane, A3377 Outside Lane	4
J4I2381 – A1580, A1581, A1583 Inside Lane	30
J4I2381 – A1583 Outside Lane	11
J4I2381 – A3390, A1582 Outside Lane	11
J4I2381 – A3388	11
J4I2381 – A1579, A1582 Inside Lane	11

The closures for Bridge A1583 outside lane (Ramp 6 to Northbound I-35) and Bridges A1579 and A1582 inside lane (Ramp 3 to Southbound I-435) shall be done from June 28 to July 15. This will be in coordination with the annual shut down of the local Ford plant. Please confirm dates with Anthony Reinhart at (816) 472-6500 before closures. Also, in an effort to reduce congestion, closure for Bridges A1580, A1581, A1583 inside lane (Ramps 4 and 5 to Southbound I-35) shall not begin until after July 1.

1.3 Should the contractor, or in case of default, the surety, fail to complete the work within the above specified closure calendar days or the completion date, whichever occurs first, a deduction of the amount shown below will be made for each day that the project remains uncompleted in accordance with the requirements of Sec 108.8. These damages are in addition to any other damages as specified elsewhere in this contract.

Project	Liquidated Damages per Day (\$)
J4I2384 – L0656	1500
J4I2381 – A3387 Inside Lane	3000
J4I2381 – A3387 Outside Lane	3000
J4I2381 – A3378 Outside Lane, A3374 Outside Lane	9000
J4I2381 – A3378 Inside Lane, A3374 Inside Lane	9000
J4I2381 – A3377 Inside Lane, A3375 Inside Lane	9000
J4I2381 – A3386, A3375 Outside Lane, A3377 Outside Lane	9000
J4I2381 – A1580, A1581, A1583 Inside Lane	1500
J4I2381 – A1583 Outside Lane	5000
J4I2381 – A3390, A1582 Outside Lane	1500
J4I2381 – A3388	1500
J4I2381 – A1579, A1582 Inside Lane	5000

1.4 If all Work is not complete prior to the specified overall contract completion date, the contractor will be charged with an overall liquidated damage specified in the amount of **\$2,025** per day for each full day that the Work is not fully completed. This damage will be assessed independently of the liquidated damages (per project) as specified above.

J. QUALITY MANAGEMENT

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

1.1 The contractor shall provide all Quality Control (QC) of the work and material. QC staff shall hold the primary responsibility for ensuring all work and material is in compliance with contract requirements. QC staff shall perform and document all inspection and testing. The QC inspectors may be contractor employees or the contractor may utilize a third party.

1.2 The engineer will provide Quality Assurance (QA) inspection. The role of QA is to verify the performance of the QC.

1.3 The contractor shall designate a person to serve as the project Quality Manager (QM). At a minimum the QM shall be responsible for the implementation of the Quality Management Plan and shall oversee all QC activities. The QM shall be the point of contact for all quality related issues and needs.

2.0 Quality Management Plan. The contractor shall develop, implement and maintain a Quality Management Plan (QMP) that will ensure the project quality meets or exceeds all contract requirements, and provides a record of acceptance of the work and material. The QMP shall address all QC inspection and test requirements of the on-site construction work. Revisions to the QMP will require approval from the engineer.

2.1 Physical work on the project shall not begin prior to the contractor obtaining approval from the engineer for the QMP. The approved QMP shall be considered a contract document.

2.2 The contractor shall establish a Document Control Procedure. This procedure will describe the project file structure for all documents required in the QMP, including a file naming system and folder structure. The document storage shall be an electronic format that allows quick access to all documents. A secure web based document sharing application such as SharePoint, or an approved project management software, may be used as a storage and retrieval system for the project files. The contractor shall provide the engineer with access to project records at all times.

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

- a) General organizational structure of the contractor's production and QC staff.
- b) Name, qualifications and job duties of the Quality Manager and all QC inspectors.
- c) A procedure describing QC Inspections as outlined in Section 3.0.
- d) A procedure describing QC Testing as outlined in Section 4.0.
- e) A procedure describing Material Receiving as outlined in Section 5.0.
- f) A Document Control Procedure as described in Section 2.2.
- g) A procedure for Non-Conforming and Deficient work, and Corrective Action Requests, as described in Section 8.0.
- h) A list of work items that will be sub-contracted and the QC personnel who will be responsible for inspection and testing of the sub-contracted work.
- i) A list of QA Hold Points and a procedure for addressing any issues found during the QA Hold Point inspections.
- j) A list of QC Hold Points and a procedure for addressing any issues found during the QC Hold Point inspections.
- k) A procedure for making revisions to the QMP.
- l) References to specific applicable QC Plans such as asphaltic concrete pavement or Portland cement concrete pavement.
- m) A proposed independent third party company name, address and phone number for dispute resolution as described in Section 4.3.

- n) Any approved changes to the standard forms provided by MoDOT.
- o) Format for the Weekly Schedule and Work Plans as described in Section 9.0.
- p) A procedure for project closeout, including a Quality Documentation Audit that verifies all project documentation is accurate and complete.

3.0 Quality Control Inspections. The QMP shall identify a procedure for performing QC inspections. QC inspections shall be performed for all on-site work per the project Inspection & Test Plan (ITP). The engineer will provide a standard ITP that may be modified to a project-specific ITP, as approved by the engineer.

3.1 Standard inspection checklists and reports will be provided by the engineer. The contractor may use alternate versions as approved by the engineer. Each day the contractor shall completely fill out an inspection checklist and any required test reports for each element of work. Completed inspection checklists and associated test reports shall be submitted electronically to the engineer within 12 hours of completion of a shift.

3.2 QC inspection and testing for sub-contract work may be performed by certified staff from the contractor, sub-contractor, or a third party.

3.3 External fabrication of materials does not require further QC inspection if the product is currently under MoDOT inspection or an approved QC/QA program.

3.4 All Surveying and Staking shall be completed by the contractor in accordance with Sec 627 except as specified herein. Payment for surveying and staking will only be made when a pay item is provided in the contract. If no pay item is provided, all costs associated with surveying and staking shall be considered included in the cost of other bid items.

4.0 Quality Control Testing. The QMP shall identify a procedure for QC testing. The procedure shall ensure that testing is performed at the frequencies shown in the Inspection and Test Plan. Results shall be recorded on the standard test reports provided by the engineer, or in a format approved by the engineer. Any test data required in the standard test reports shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report.

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

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

4.3 An independent third party shall be used to resolve any significant disputes over discrepancies between QC and QA test results. All testing shall be performed by an approved laboratory that is AASHTO Accreditation Program certified in the area of the test, if applicable. The contractor shall be responsible for the cost if the third party test verifies that the QA test was accurate. The Commission shall be responsible for the cost if the third party test verifies that the QC test was accurate.

5.0 Material Receiving. The QMP shall identify a procedure for performing material receiving. Standard material receiving forms will be provided by the engineer. The procedure shall address inspections for all material delivered to the site (excluding testable material such as concrete, asphalt, aggregate, etc.) for general condition of the material at the time it is delivered. The material receiving procedure shall record markings and accompanying documentation indicating the material is MoDOT accepted material (MoDOT-OK Stamp, PAL tags, material certifications, etc.).

5.1 All required material documentation must be present at the time of delivery. If the contractor is unable to determine whether the material is accepted, the engineer shall be notified prior to incorporation of the material into the work. Material receiving reports shall be submitted to the engineer electronically no later than the morning following the delivery.

6.0 Quality Assurance. The engineer will perform Quality Assurance inspections (QA) for contract compliance on the contractor's performance and QC process. The frequency of the QA Inspections will be as shown in the ITP, but may be more frequent at the discretion of the engineer. The engineer will record the results of the QA inspections in the SiteManager system.

6.1 The QM will be notified of any nonconforming work identified by QA.

6.2 QA inspection and test results may not be used as a substitute for QC inspection and testing.

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

7.0 Hold Points. Hold Points are events that require approval prior to continuation of work. Hold Points occur at definable stages of work or progress phases when the succeeding work depends on acceptance of the preceding work. QC staff shall provide completed Daily Inspection Reports, Inspection Checklists, and Material Test Reports to QA staff prior to all QA Hold Points.

7.1 QC Hold points are established by the QM for compliance verification prior to QA Hold Points. QC Hold points typically occur at more frequent stages than the QA Hold Points. At a minimum, a QC Hold Point inspection shall occur just prior to each QA Hold Point inspection.

7.2 A list of minimum QA Hold Points will be provided by the engineer. The engineer may make changes to the QA Hold Point list at any time. Following a QA Hold Point inspection, all issues identified by the engineer shall be corrected prior to continuing work and a new hold point shall be scheduled.

8.0 Non-Conforming and Deficient Work. Non-conforming work is defined as completed work that does not meet the contract requirements. Deficient work is defined as in-progress work that does not meet the contract requirements. The contractor shall establish a procedure for the identification, tracking, resolution, and time requirements for addressing non-conforming and deficient work. The engineer shall approve the resolution of all non-conforming work. Either the engineer or the contractor may identify non-conforming or deficient work.

8.1 Corrective Action Requests are issued by QA or QC for recurring non-conforming or deficient work. The contractor shall establish a procedure for tracking the corrective action from issuance of the request to implementation of the solution. The engineer shall approve the corrective action. The contractor shall notify the engineer after the approved corrective action has been implemented.

9.0 Work Planning and Scheduling. The contractor shall include Quality Management in all aspects of the work planning. Aspects of the Work Plan should include a safety plan, size of crew, equipment, material, work sequence, quality control, and hold points for inspection.

9.1 A Weekly Schedule shall be provided to the engineer each week. This schedule shall include all planned work activities and hold points for the following two-week period. Other routine items that should be included in this schedule are: planned quantity of materials, identification of new activities, planned delivery dates, traffic control events, and any other pertinent information.

9.2 A Work Plan and pre-activity meeting is required prior to the start of each new activity. The purpose of this meeting is to plan for all aspects of the new activity and incorporate quality control into the process. A Work Plan shall be submitted to the engineer for review prior to the pre-activity meeting. The QM will develop a QC inspection checklist for the new activity and include it in the Work Plan. QC, QA, and production staff should all be present at all pre-activity meetings.

10.0 Standard Forms, Checklists, and Reports. Documents referenced in this provision such as the standard Inspection and Test Plan, Inspection Checklists, inspection/test reports, and minimum QA Hold Points can be obtained online at the following link: <http://www.modot.org/quality> .

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

K. SAFETY PLAN

1.0 Description. This contractor shall submit to the engineer a project Safety Plan (SP) for all work performed by the contractor and all subcontractors. The purpose of the SP is to encourage and enable all work to be performed in the safest possible manner and that all parties involved are aware of their individual responsibility for safety on the jobsite.

1.1 The SP shall be completed by the contractor and provided to the engineer prior to the beginning of any construction activity or phase on the project.

1.2 The contractor shall designate a person to serve as Project Safety Manager (PSM). The PSM shall be responsible for implementing and overseeing the SP. The PSM is not required to be present on the project at all times, but must be available to address safety issues and needs.

1.3 The PSM shall make revisions to the SP as necessary. Any new project activities or phases shall be included in the SP prior to work beginning on that activity or phase.

1.4 An example Safety Plan is available at: www.modot.org/safetyplan

2.0 Emergency Preparedness. The SP shall outline and detail for all workers, the specific procedures and actions necessary to respond to a jobsite emergency and the measures taken to communicate these requirements to all workers.

2.1 The SP shall include a list of local emergency contacts including phone numbers. A copy of the emergency contact list shall be accessible to workers.

2.2 In the case where there is no cellular or land line phone service at the jobsite, the SP shall identify how to reach the nearest available phone service.

3.0 Project Safety Analysis. The SP should contain a basic Project Safety Analysis (PSA) that outlines the actions necessary to complete each activity or phase of the project. The SP shall include a general description of the primary activities or steps required to safely complete the project.

3.1 Each activity should also include a general description of the work involved along with the known risks associated with the activity. In addition the PSA should outline the controls for those risks, including any Personal Protection Equipment (PPE) requirements for that activity or phase, and whether or not the activity or phase requires a specific safety meeting prior to beginning the activity or phase.

3.2 Submittal of the PSA for all activities or phases is not required with the initial submittal of the SP; however, the PSA for each activity or phase shall be completed prior to the beginning of that activity or phase.

4.0 Safety Meetings. The SP shall include the types of safety meetings that will be required of and conducted by the contractor.

5.0 Safety Training. The SP shall identify the required safety training provided to the contractor's personnel. The contractor shall require that the appropriate safety training for the contractor's personnel is completed prior to the beginning of work on each activity or phase.

5.1 The SP shall identify the recommended safety training needs and PPE for MoDOT employees who will be exposed to the work activities. MoDOT will provide safety training and PPE to MoDOT employees based on MoDOT safety policies.

6.0 Payment. There will be no direct payment for compliance with this Safety Plan provision.

L. SEQUENTIAL FLASHING WARNING LIGHTS

1.0 Description. This specification covers the furnishing, installation and maintenance of Sequential Flashing Warning Lights for use on trim-line channelizer devices within the work zone taper.

2.0 Material.

2.1 Warning lights shall be in accordance with the MUTCD and ITE's 'Purchase Specification for Flashing and Steady-burn Warning Lights' and shall be considered a lightweight light per FHWA letter WZ-54. Warning lights shall consist of a single unit (head and housing), employ LED technology, and be equipped with tamper-proof mounting hardware.

2.2 Sequential Flashing Warning Lights (SFWL) shall have an On/Off switch. SFWL shall be capable of communicating through wireless technology. SFWL shall be able to be placed in any order and provide sequential lighting through the taper. If individual SFWL are not operating, the remaining SFWL shall be capable of providing sequential lighting through the taper.

2.3 Certification and Acceptance. The manufacturer shall provide written certification the SFWL provided comply with the requirements of this specification. Acceptance of SFWL will be by certification and any tests deemed necessary by the department for compliance with this specification.

3.0 Construction Requirements. This work shall be in accordance with Sec 616 and standard plan 616.10, and shall include all maintenance, including repair or replacement of non-functioning units.

4.0 Method of Measurement. Final measurement will not be made, except for authorized changes during construction or where appreciable errors are found in the contract quantity. Where required, measurement of SFWL will be made per each. The revision or correction will be computed and added to or deducted from the contract quantity. Replacement units shall not be counted in the final measurement.

5.0 Basis of Payment. The accepted quantity of SFWL will be paid for at the contract unit price for Sequential Flashing Warning Lights, Item No. 616-10.55, SEQUENTIAL FLASHING WARNING LIGHT, per each.

M. LIQUIDATED DAMAGES FOR WORK ZONE DELAY

1.0 The contractor shall not alter the start time, ending time, or a reduction in the number of through lanes of traffic or ramp closure without advance notification and approval by the engineer. The only work zone operation approved to begin 30 minutes prior to a reduction in through traffic lanes or ramp closures is the installation of traffic control signs. Should lane closures be placed or remain in place, prior to the approved starting time or after the approved ending time, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist 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 15 minute increments with **\$5,000** for the first 15 minutes, **\$10,000** for each 15 minutes increments thereafter for a maximum of **\$35,000** per hour, then **\$35,000** per hour thereafter that the temporary lane closures are in place and not open to traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of unapproved closure time.

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

N. RUBBILIZING OF SLOPE PROTECTION

1.0 Description. In lieu of hauling off the slope protection, the contractor shall rubbilize the slope protection and use in place under the bridge. Any steel in the slope protection cannot stick out from the pieces of the rubbilized slope protection.

2.0 Basis of Payment. Payment for rubbilizing and placing the existing slope protection shall be made at the unit bid price for Item No. 611-99.05, Rubbilizing of Slope Protection, SY.



MEMORANDUM

Missouri Department of Transportation Construction and Materials Central Laboratory

TO: Regina Shipley-KC/de
COPY: ProjectWise
FROM: Frank Reichart *FR*
Environmental Chemist
DATE: January 16, 2013
SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey

Route:	I-435
Job No.:	J4I2381
Bridges:	A-1579
	A-1580
	A-1581
	A-1582
	A-1583
	A-3375
	A-3374
	A-3386
	A-3387
	A-3388
	A-3389
	A-3390
	A-3416
	A-3378
	A-3377
County:	Clay

We are providing you with the results of the requested inspection on the above referenced properties. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint survey and their metal content.

TO: Shipley-KC/de
Page 2
January 16, 2013

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced properties. We are providing you with the results of this survey. This survey includes locating painted concrete, block and/or brick surfaces, sampling/testing the painted surface(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill materials, if properly handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structures. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.

Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/dr

[http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/kansas city \(kc\)/jxi's/j4i2381/fr1301162.docx](http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared/documents/asbestos/districts/kansas%20city%20(kc)/jxi's/j4i2381/fr1301162.docx)
Attachments

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM



ROUTE: I-435	SURVEYED BY: Frank Reichart
MODOT JOB NO.: J412381	CERTIFICATION #: 7118010412MOIR11239
DISTRICT: KC	SITE ADDRESS: Over I-35, I-35 Southbound Ramp to I-435 Southbound
COUNTY: Clay	TYPE(S) OF STRUCTURE(S): Bridge
DATE OF SURVEY: January 9, 2013	
PARCEL NO.: Bridge A-1579	

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	Over I-35, I-35 Southbound Ramp to I-435 Southbound
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-1579		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.


INF = Category I Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-1579

TESTED BY: Frank Reichart 
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: Over I-35, I-35 Southbound Ramp to I-435 Southbound
TYPE(S) OF STRUCTURE(S): Bridge

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	I-435	TESTED BY:	N/A
MODOT JOB NO.:	J4I2381	DATE OF TESTS:	N/A
DISTRICT:	KC	PARCEL NO.:	Bridge A-1579
COUNTY:	Clay	SITE ADDRESS:	Over I-35, I-35 Southbound Ramp to I-435 Southbound
SURVEYED BY:	Frank Reichart <i>FR</i>	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435 **SURVEYED BY:** Frank Reichart *FR*
MODOT JOB NO.: J412381 **CERTIFICATION #:** 7118010412MOIR11239
DISTRICT: KC **SITE ADDRESS:** Over I-35SB/I-435, I-435NB ramp to I-35SB
COUNTY: Clay **TYPE(S) OF STRUCTURE(S):** Bridge
DATE OF SURVEY: January 9, 2013
PARCEL NO.: Bridge A-1580

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

Nonfriable Asbestos-Containing Materials

(Abatement not required if not made friable during demolition.)

M

Frank Reichart

I-435

ROUTE:

J412381

MODOT JOB NO.:

KC

DISTRICT:

Clay

COUNTY:

N/A

DATE OF TESTS:

Bridge A-1580

PARCEL NO.:

TESTED BY: Frank Reichart

CERTIFICATION #: 7118010412MOIR11239

SITE ADDRESS: Over I-35SB/I-435, I-435NB ramp to I-35SB

TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-1580

TESTED BY: Frank Reichart *FR*
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: Over I-35SB/I-435, I-435NB ramp to I-35SB
TYPE(S) OF STRUCTURE(S): Bridge

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	I-435	TESTED BY:	N/A
MODOT JOB NO.:	J412381	DATE OF TESTS:	N/A
DISTRICT:	KC	PARCEL NO.:	Bridge A-1580
COUNTY:	Clay	SITE ADDRESS:	Over I-35SB/I-435, I-435NB ramp to I-35SB
SURVEYED BY:	Frank Reichart	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-1581


SURVEYED BY: Frank Reichart *FR*
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: Over I-435NB ramp to I-35NB, SB US 69 ramp to SB I-35
 TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	I-435	TESTED BY:	Frank Reichart 
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	Over I-435NB ramp to I-35NB, SB US 69 ramp to SB I-35
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-1581		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			


All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichardt 
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	Over I-435NB ramp to I-35NB, SB US 69 ramp to SB I-35
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-1581		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	I-435	TESTED BY:	N/A
MODOT JOB NO.:	J412381	DATE OF TESTS:	N/A
DISTRICT:	KC	PARCEL NO.:	Bridge A-1581
COUNTY:	Clay	SITE ADDRESS:	Over I-435NB ramp to I-35NB, SB US 69 ramp to SB I-35
SURVEYED BY:	Frank Reichart	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
 CONSTRUCTION AND MATERIALS
 Asbestos Survey Report
 All Suspect ACM**

ROUTE: I-435 **SURVEYED BY:** Frank Reichart
MODOT JOB NO.: J412381 **CERTIFICATION #:** 7118010412MOIR11239
DISTRICT: KC **SITE ADDRESS:** Over US 69, NB I-35 ramp to SB I-435
COUNTY: Clay **TYPE(S) OF STRUCTURE(S):** Bridge
DATE OF SURVEY: January 9, 2013
PARCEL NO.: Bridge A-1582

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-1582

TESTED BY: Frank Reichart
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: Over US 69, NB I-35 ramp to SB I-435
TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	Over US 69, NB I-35 ramp to SB I-435
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-1582		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes


ROUTE: I-435 MODOT JOB NO.: J412381 DISTRICT: KC COUNTY: Clay SURVEYED BY: Frank Reichart DATE OF SURVEY: January 9, 2013	TESTED BY: N/A DATE OF TESTS: N/A PARCEL NO.: Bridge A-1582 SITE ADDRESS: Over US 69, NB I-35 ramp to SB I-435 TYPE(S) OF STRUCTURE(S): Bridge
--	---

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
 b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-1583

SURVEYED BY: Frank Reichart 
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: Over US 69, NB I-435 ramp to NB I-35
 TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	Over US 69, NB I-435 ramp to NB I-35
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-1583		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	I NF			

All necessary work to handle this material is the contractor's responsibility.

I NF = Category I Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	<u>I-435</u>	TESTED BY:	<u>Frank Reichart</u>
MODOT JOB NO.:	<u>J412381</u>	CERTIFICATION #:	<u>7118010412MOIR11239</u>
DISTRICT:	<u>KC</u>	SITE ADDRESS:	<u>Over US 69, NB I-435 ramp to NB I-35</u>
COUNTY:	<u>Clay</u>	TYPE(S) OF STRUCTURE(S):	<u>Bridge</u>
DATE OF TESTS:	<u>N/A</u>		
PARCEL NO.:	<u>Bridge A-1583</u>		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

IN F = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes


ROUTE: I-435 **TESTED BY:** N/A
MODOT JOB NO.: J412381 **DATE OF TESTS:** N/A
DISTRICT: KC **PARCEL NO.:** Bridge A-1583
COUNTY: Clay **SITE ADDRESS:** Over US 69, NB I-435 ramp to NB I-35
SURVEYED BY: Frank Reichart **TYPE(S) OF STRUCTURE(S):** Bridge
DATE OF SURVEY: January 9, 2013

Sample ID	Color/Location of Material/Substrate	Metals (ppm)									
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag		
	No samples taken. No painted surfaces located.										

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-3375


 SURVEYED BY: Frank Reichart
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: NB I-435, Over I-35/NB I-35 ramp to NB I-435
 TYPE(S) OF STRUCTURE(S): Bridge


Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable F = Friable
 NAFC = No Asbestos Fiber Detected * = Tested By Point Count Procedure II NF = Category II Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report


All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichart 
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	SB I-435, Over I-35 & NB I-35 ramp to NB I-435
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-3374		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	I-435	TESTED BY:	N/A
MODOT JOB NO.:	J412381	DATE OF TESTS:	N/A
DISTRICT:	KC	PARCEL NO.:	Bridge A-3374
COUNTY:	Clay	SITE ADDRESS:	SB I-435, Over I-35 & NB I-35 ramp to NB I-435
SURVEYED BY:	Frank Reichart 	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)										
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag			
	No samples taken. No painted surfaces located.											

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435 SURVEYED BY: Frank Reichart
 MODOT JOB NO.: J412381 CERTIFICATION #: 7118010412MOIR11239
 DISTRICT: KC SITE ADDRESS: NB US69 ramp to NB I-435, Over NB I-435 ramp to I-35
 COUNTY: Clay TYPE(S) OF STRUCTURE(S): Bridge
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-3386

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			


N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-3386

TESTED BY: Frank Reichart 
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: NB US69 ramp to NB I-435, Over NB I-435 ramp to I-35
TYPE(S) OF STRUCTURE(S): Bridge

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	I-435	TESTED BY:	N/A
MODOT JOB NO.:	J412381	DATE OF TESTS:	N/A
DISTRICT:	KC	PARCEL NO.:	Bridge A-3386
COUNTY:	Clay	SITE ADDRESS:	NB US69 ramp to NB I-435, Over NB I-435 ramp to I-35
SURVEYED BY:	Frank Reichart	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)									
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag		
	No samples taken. No painted surfaces located.										

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-3387

SURVEYED BY: Frank Reichart *FR*
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: SB I-435 ramp to SB I-35, Over Big Shoal Creek
 TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

II NF = Category II Nonfriable F = Friable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	SB I-435 ramp to SB I-35, Over Big Shoal Creek
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-3387		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes**

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
SURVEYED BY: Frank Reichart
DATE OF SURVEY: January 9, 2013

TESTED BY: N/A
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-3387
SITE ADDRESS: SB I-435 ramp to SB I-35, Over Big Shoal Creek
TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Color/Location of Material/Substrate	Metals (ppm)							
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag
	No samples taken. No painted surfaces located.								

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	NB I-35 ramp to NB I-435, Over I-35 & SB I-35 ramp to SB I-435
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-3388		

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes


ROUTE: I-435 **TESTED BY:** N/A
MODOT JOB NO.: J412381 **DATE OF TESTS:** N/A
DISTRICT: KC **PARCEL NO.:** Bridge A-3388
COUNTY: Clay **SITE ADDRESS:** NB I-35 ramp to NB I-435, Over I-35 & SB I-35 ramp to SB I-435
SURVEYED BY: Frank Reichart **TYPE(S) OF STRUCTURE(S):** Bridge
DATE OF SURVEY: January 9, 2013

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-3389

SURVEYED BY: Frank Reichart 
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: SB I-435 ramp to US69, Over I-35
 TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			


N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF TESTS: N/A
PARCEL NO.: Bridge A-3389

TESTED BY:  Frank Reichart
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: SB I-435 ramp to US69, Over I-35
TYPE(S) OF STRUCTURE(S): Bridge

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE: I-435	TESTED BY: N/A	DATE OF TESTS: N/A	PARCEL NO.: Bridge A-3389
MODOT JOB NO.: J412381	DATE OF TESTS: N/A	PARCEL NO.: Bridge A-3389	SITE ADDRESS: SB I-435 ramp to US69, Over I-35
DISTRICT: KC	PARCEL NO.: Bridge A-3389	SITE ADDRESS: SB I-435 ramp to US69, Over I-35	TYPE(S) OF STRUCTURE(S): Bridge
COUNTY: Clay	SITE ADDRESS: SB I-435 ramp to US69, Over I-35	TYPE(S) OF STRUCTURE(S): Bridge	
SURVEYED BY: Frank Reichart <i>FR</i>			
DATE OF SURVEY: January 9, 2013			

Sample ID	Color/Location of Material/Substrate	Metals (ppm)							
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag
	No samples taken. No painted surfaces located.								

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM

ROUTE: I-435
MODOT JOB NO.: J412381
DISTRICT: KC
COUNTY: Clay
DATE OF SURVEY: January 9, 2013
PARCEL NO.: Bridge A-3390

SURVEYED BY: Frank Reichart
CERTIFICATION #: 7118010412MOIR11239
SITE ADDRESS: NB I-35 ramp to SB I-435, Over SB I-435 ramp to US 69
TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE:	<u>I-435</u>	TESTED BY:	<u>Frank Reichart</u>
MODOT JOB NO.:	<u>J412381</u>	CERTIFICATION #:	<u>7118010412MOIR11239</u>
DISTRICT:	<u>KC</u>	SITE ADDRESS:	<u>NB I-35 ramp to SB I-435, Over SB I-435 ramp to US 69</u>
COUNTY:	<u>Clay</u>	TYPE(S) OF STRUCTURE(S):	<u>Bridge</u>
DATE OF TESTS:	<u>N/A</u>		
PARCEL NO.:	<u>Bridge A-3390</u>		

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE:	I-435	TESTED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	NB I-35 ramp to SB I-435, Over SB I-435 ramp to US 69
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF TESTS:	N/A		
PARCEL NO.:	Bridge A-3390		



Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**

Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE:	<u>I-435</u>	TESTED BY:	<u>N/A</u>
MODOT JOB NO.:	<u>J412381</u>	DATE OF TESTS:	<u>N/A</u>
DISTRICT:	<u>KC</u>	PARCEL NO.:	<u>Bridge A-3390</u>
COUNTY:	<u>Clay</u>	SITE ADDRESS:	<u>NB I-35 ramp to SB I-435, Over SB I-435 ramp to US 69</u>
SURVEYED BY:	<u>Frank Reichart</u>	TYPE(S) OF STRUCTURE(S):	<u>Bridge</u>
DATE OF SURVEY:	<u>January 9, 2013</u>		

Sample ID	Color/Location of Material/Substrate	Metals (ppm)									
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag		
	No samples taken. No painted surfaces located.										

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Asbestos Survey Report
All Suspect ACM

ROUTE:	I-435	SURVEYED BY:	Frank Reichart
MODOT JOB NO.:	J412381	CERTIFICATION #:	7118010412MOIR11239
DISTRICT:	KC	SITE ADDRESS:	SB I-435, Over US 69
COUNTY:	Clay	TYPE(S) OF STRUCTURE(S):	Bridge
DATE OF SURVEY:	January 9, 2013		
PARCEL NO.:	Bridge A-3416		

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable
NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)



ROUTE: I-435 TESTED BY: Frank Reichart
 MODOT JOB NO.: J412381 CERTIFICATION #: 7118010412MOIR11239
 DISTRICT: KC SITE ADDRESS: SB I-435, Over US 69
 COUNTY: Clay TYPE(S) OF STRUCTURE(S): Bridge
 DATE OF TESTS: N/A
 PARCEL NO.: Bridge A-3416

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report

All materials requiring removal or special handling.

ROUTE: I-435
 MODOT JOB NO.: J412381
 DISTRICT: KC
 COUNTY: Clay
 DATE OF TESTS: N/A
 PARCEL NO.: Bridge A-3416

TESTED BY: Frank Reichart
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: SB I-435, Over US 69
 TYPE(S) OF STRUCTURE(S): Bridge

Bid Item No.	Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
			None Located	F			
			None Located	II NF			

I NF = Category I Nonfriable II NF = Category II Nonfriable F = Friable * = Tested By Point Count Procedure

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

FR

ROUTE: I-435 SURVEYED BY: Frank Reichart
 MODOT JOB NO.: J412381 CERTIFICATION #: 7118010412MOIR11239
 DISTRICT: KC SITE ADDRESS: SB I-435, Over SB I-35 ramp to SB I-435
 COUNTY: Clay TYPE(S) OF STRUCTURE(S): Bridge
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge A-3378

Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
13MFJR 010	Asphalt Felt Material	Over 2 Abutments	N-ACM	
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable F = Friable
 NAFC = No Asbestos Fiber Detected * = Tested By Point Count Procedure II NF = Category II Nonfriable



MEMORANDUM

Missouri Department of Transportation
Construction and Materials
Central Laboratory

TO: Regina Shipley-KC/de

COPY: ProjectWise

FROM: Frank Reichart *FR*
Environmental Chemist

DATE: January 11, 2013

SUBJECT: Materials
Asbestos Inspection & Heavy Metal Paint Survey
Route I-35
Job No. J4I2384
Bridge L-0656
Clay County

We are providing you with the results of the requested inspection on the above referenced property. The inspection report contains an asbestos and a heavy metals survey, unless otherwise requested. The asbestos inspection included sample collection of suspect asbestos-containing material and National Voluntary Laboratory Accreditation Program (NVLAP) accredited testing to confirm the presence of asbestos. This asbestos and heavy metal paint report includes four different report forms. Form T746 lists all of the samples taken during the asbestos inspection. Form T747 shows only those samples that tested positive for Category I nonfriable asbestos-containing materials that may remain in the structure during demolition, if kept adequately wet to avoid visible air emissions. Form T748 shows only those samples that tested positive for asbestos and require removal prior to demolition. Form C760 lists all paint samples taken during the heavy metal paint survey and their metal content.

In accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP), as well as city and county asbestos abatement regulations - Registration, Notification, and Performance Requirements, regulated asbestos-containing material (RACM) namely, Friable and Category II nonfriable, have a high probability of becoming friable under normal demolition forces. Practices and procedures for removal prior to demolition, disposal, and clearances should be in accordance with referenced regulations. Missouri Department of Transportation policy is to perform asbestos abatements in accordance with NESHAP.

In accordance with Missouri Department of Natural Resources' Technical Bulletin "Managing Construction and Demolition Waste" dated January 31, 2003, a heavy metal paint survey has been performed on the above referenced property. We are providing you with the results of this survey. This survey includes locating painted concrete, block and/or brick surfaces, sampling/testing the painted surface(s) to determine if hazardous heavy metals are present. Non-hazardous painted concrete, blocks, or bricks may be used as clean fill materials, if properly

TO: Shipley-KC/de
Page 2
January 11, 2013

handled. You must contact the Central Office Design Division for proper handling of the reported painted surfaces.

Although our survey included observing and sampling behind walls, above ceilings, beneath floors, etc., it is possible that potentially hidden asbestos-containing materials may exist within the structure. To our knowledge, we have located all suspect asbestos-containing and all painted concrete, block and brick surfaces. If suspect asbestos-containing materials or if painted concrete, block and/or brick surfaces are observed in addition to those reflected in this inspection report, then please advise us immediately so that we may schedule a follow-up inspection.

Should you have any questions regarding these reports, please contact me at (573) 526-4359.

db/dr

[http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared documents/asbestos/districts/kansas city \(kc\)/jxi's/j4i2384/fr1301114.docx](http://sharepoint/systemdelivery/cm/chemicallab/environmental/shared/documents/asbestos/districts/kansas%20city%20(kc)/jxi's/j4i2384/fr1301114.docx)
Attachments

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS
Asbestos Survey Report
All Suspect ACM

ROUTE: I-35
 MODOT JOB NO.: J412384
 DISTRICT: KC
 COUNTY: Clay
 DATE OF SURVEY: January 9, 2013
 PARCEL NO.: Bridge L-0656

SURVEYED BY: Frank Reichart
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: Southbound Spur 69, Over I-35
 TYPE(S) OF STRUCTURE(S): Bridge


Sample ID	Type of Materials	Location of Material	Friability Category	Field Measure
	No samples taken. No suspect ACM located.			
	Bridge Paint is not a suspect ACM per MSDS's on file.			

N-ACM = Non-Asbestos Containing Material I NF = Category I Nonfriable F = Friable
 NAFD = No Asbestos Fiber Detected * = Tested By Point Count Procedure II NF = Category II Nonfriable

MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS

Asbestos Survey Report
Nonfriable Asbestos-Containing Materials
(Abatement not required if not made friable during demolition.)

ROUTE: I-35
 MODOT JOB NO.: J412384
 DISTRICT: KC
 COUNTY: Clay
 DATE OF TESTS: N/A
 PARCEL NO.: Bridge L-0656

TESTED BY: Frank Reichart 
 CERTIFICATION #: 7118010412MOIR11239
 SITE ADDRESS: Southbound Spur 69, Over I-35
 TYPE(S) OF STRUCTURE(S): Bridge

Sample ID	Type of Material	Location of Material	Friability Category	Field Measure	Asbestos Type	Percent
		None Located	INF			

All necessary work to handle this material is the contractor's responsibility.

INF = Category I Nonfriable

**MISSOURI DEPARTMENT OF TRANSPORTATION
CONSTRUCTION AND MATERIALS**
Metals Survey Report of Painted Concrete, Block, Brick Surfaces for Clean Fill Purposes

ROUTE: I-35 **TESTED BY:** N/A
MODOT JOB NO.: J412384 **DATE OF TESTS:** N/A
DISTRICT: KC **PARCEL NO.:** Bridge L-0656
COUNTY: Clay **SITE ADDRESS:** Southbound Spur 69, Over I-35
SURVEYED BY: Frank Reichart *FR* **TYPE(S) OF STRUCTURE(S):** Bridge
DATE OF SURVEY: January 9, 2013

Sample ID	Color/Location of Material/Substrate	Metals (ppm)								
		As	Cr	Pb	Cd	Se	Ba	Hg	Ag	
	No samples taken. No painted surfaces located.									

All results are by XRF unless otherwise indicated: a = USEPA SW-846 Method 3050
b = USEPA SW-846 Method 7471