



PROJECT MANUAL

Franklin Reclamation Project *Bates County, Missouri*

Designed By: Missouri Dept. of Natural Resources
Land Reclamation Program
1101 Riverside Drive
Jefferson City, MO 65102

Date Issued: October 15, 2021

Project No.: Y2202-01

STATE *of* MISSOURI

OFFICE *of* ADMINISTRATION
Facilities Management, Design & Construction

SECTION 000107 - PROFESSIONAL SEALS AND CERTIFICATIONS

PROJECT NUMBER: Y2202-01

THE FOLLOWING DESIGN PROFESSIONALS HAVE SIGNED AND SEALED THE ORIGINAL PLANS AND SPECIFICATIONS FOR THIS PROJECT, WHICH ARE ON FILE WITH THE DIVISION OF DESIGN AND CONSTRUCTION:

1. Divisions 1, 31, 32, 33 & 35



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PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section provides a comprehensive list of the drawings that comprise the bid documents for this project:

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 LIST OF DRAWINGS

- A. The following list of drawings, is a part of the Bid Documents:

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SECTION 001116 - INVITATION FOR BID

1.0 OWNER:

- A. The State of Missouri
Office of Administration,
Division of Facilities Management, Design and Construction
Jefferson City, Missouri

2.0 PROJECT TITLE AND NUMBER:

- A. Franklin Reclamation Project
Bates County, Missouri
Project No.: Y2202-01

3.0 BIDS WILL BE RECEIVED:

- A. Until: 1:30 PM, Thursday, June 23, 2022
- B. **Only electronic bids on MissouriBUYS shall be accepted: <https://missouribuy.mo.gov>. Bidder must be registered to bid.**

4.0 DESCRIPTION:

- A. Scope: The Land Reclamation Program, Department of Natural Resources, State of Missouri, intends to complete coal mine reclamation activities, including: installation of 2-inch (2") rock, MoDOT Type 3 Ditch Liner, excavating mine spoil piles; backfilling mine pits; reinforcing earthen dams; replacing corrugated metal pipe culvert and grade all work areas and other related work, all in accordance with the enclosed plans and specifications. The work also includes Alternate No. 1 which includes water treatment, fertilizer, seed and mulch. Please refer to plans and specifications and Section 012300 Alternates for further details.
- B. MBE/WBE/SDVE Goals: MBE 10%, WBE 10%, and SDVE 3%. **NOTE: Only MBE/WBE firms certified by the State of Missouri Office of Equal Opportunity as of the date of bid opening, or SDVE(s) meeting the requirements of Section 34.074, RSMo and 1 CSR 30-5.010, can be used to satisfy the MBE/WBE/SDVE participation goals for this project.**
- C. ****NOTE:** Bidders are provided new Good Faith Effort (GFE) forms on MissouriBUYS.
- D. In addition to the State of Missouri MBE/WBE/SDVE participation goals set forth herein and in the bid documents for this project, the contractor on a federally funded/assisted construction project is subject to the federal Executive Order 11246. The Bidder's attention is drawn to the Notice of Requirement for Affirmative Action To Ensure Equal Opportunity (Executive Order 11246, 41 C.F.R. 60-4.2) in Section 00733, SUPPLEMENTARY GENERAL CONDITIONS FOR FEDERALLY FUNDED/ASSISTED CONSTRUCTION PROJECTS, which is incorporated by reference.

5.0 PRE-BID MEETING:

- A. Place/Time: 11:00 AM, Wednesday, June 8, 2022. Directions: From Butler, Missouri, take I-49 south 11 miles to Exit 120, turn right onto Missouri Hwy B (turns to A after a short distance). Go 12 miles west and continue straight onto the gravel road SW 8508, then continue 2 miles until you reach the site. Lat/Long is 38° 6' 12" N, 94° 36' 3" W.
- B. Access to State of Missouri property requires presentation of a photo ID by all persons

6.0 HOW TO GET PLANS & SPECIFICATIONS:

- A. View Only Electronic bid sets are available at no cost or paper bid sets for a deposit of \$100.00 from American Document Solutions (ADS). MAKE CHECKS PAYABLE TO: American Document Solutions. Mail to: American Document Solutions, 1400 Forum Blvd., Suite 7A, Columbia, Missouri 65203. Phone 573-446-7768, Fax 573-355-5433, <https://www.adsplanroom.net>. NOTE: Prime contractors will be allowed a maximum of two bid sets at the deposit rate shown above. Other requesters will be allowed only one bid set at this rate. Additional bid sets or parts thereof may be obtained by any bidder at the cost of printing and shipping by request to American Document Solutions at the address shown above. **Bidder must secure at least one bid set to become a planholder.**
- B. **Refunds: Return plans and specifications in unmarked condition within 15 working days of bid opening to American Document Solutions, 1400 Forum Blvd., Suite 7A, Columbia, Missouri 65203. Phone 573-446-7768, Fax 573-355-5433. Deposits for plans not returned within 15 working days shall be forfeited.**
- C. Information for upcoming bids, including downloadable plans, specifications, Invitation for Bid, bid tabulation, award, addenda, and access to the ADS planholders list, is available on the Division of Facilities Management, Design and Construction's web site: <https://oa.mo.gov/facilities/bid-opportunities/bid-listing-electronic-plans>.

7.0 POINT OF CONTACT:

- A. Designer: DNR Land Reclamation Program, Brent Willeford, P.E., (573) 368-2449, email: Brent.Willeford@dnr.mo.gov
- B. Project Manager: Scott Zeller, (573) 751-2668, email: Scott.Zeller@oa.mo.gov

8.0 GENERAL INFORMATION:

- A. The State reserves the right to reject any and all bids and to waive all informalities in bids. No bid may be withdrawn for a period of 20 working days subsequent to the specified bid opening time. The contractor shall pay not less than the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed, as determined by the Missouri Department of Labor and Industrial Relations and as set out in the detailed plans and specifications.

- B. Bid results will be available at <https://oa.mo.gov/facilities/bid-opportunities/bid-listing-electronic-plans> after it is verified that at least one bid is awardable and affordable.
- C. This is a federally funded/assisted construction project that requires compliance by the awarded contractor with applicable federal laws and regulations. The Bidder should review Section 007333, SUPPLEMENTARY GENERAL CONDITIONS FOR FEDERALLY FUNDED/ASSISTED CONSTRUCTION PROJECTS, which is made part of this solicitation and will be made part of the resulting contract by reference.

Very Important MissouriBUYS Instructions to Help Submit a Bid Correctly

- A. The bidder shall submit his or her bid and all supporting documentation on MissouriBUYS eProcurement System. No hard copy bids shall be accepted. Go to <https://missouribuyss.mo.gov> and register. The bidder must register and complete a profile fully with all required documents prior to submitting a bid.
- B. Once registered, log in.
1. Under "Solicitation" select "View Current Solicitations."
 2. Under "Filter by Agency" select "OA-FMDC-Contracts Chapter 8", then click "Filter Solicitation" button.
 3. Select "Active Solicitations" tab.
 4. To see the Solicitation Summary, click on the Project Number and the summary will open. Click each heading to open detailed information.
- C. Here are simplified instructions for uploading the bid to MissouriBUYS:
1. Find the solicitation by completing Steps 1 through 4 above.
 2. Select the three dots under "Actions." Select "Add New Response."
 3. When the Quote box opens, give the response a title and select "OK."
 4. The detailed solicitation will open. Select "Check All" for the Original Solicitation Documents, open each document, and select "Accept." If this step is not completed, a bid cannot be uploaded. Scroll to the bottom of the page and select "Add Attachments." If you do not see this command, not all documents have been opened and accepted.
 5. The Supplier Attachments box will open. Select "Add Attachment" again.
 6. The Upload Documents box will open. Read the instructions for uploading. Disregard the "Confidential" check box.
 7. Browse and attach up to 5 files at a time. Scroll to bottom of box and select "Upload." The Supplier Attachments box will open. Repeat Steps 5 through 7 if more than 5 files are to be uploaded.
 8. When the Supplier Attachments box opens again and uploading is complete, select "Done." A message should appear that the upload is successful. If it does not, go to the Bidder Response tab and select "Submit."
 9. The detailed solicitation will open. At the bottom select "Close."
- D. Any time a bidder wants to modify the bid, he or she will have to submit a new one. FMDC will open the last response the bidder submits. The bidder may revise and submit the bid up to the close of the solicitation (bid date and time). Be sure to allow for uploading time so that the bid is successfully uploaded prior to the 1:30 PM deadline; we can only accept the bid if it is uploaded before the deadline.
- E. If you want to verify that you are uploading documents correctly, please contact Paul Girouard: 573-751-4797, paul.girouard@oa.mo.gov ; April Howser: 573-751-0053, April.Howser@oa.mo.gov ; or Mandy Roberson: 573-522-0074, Mandy.Roberson@oa.mo.gov.
- F. If you are experiencing login issues, please contact Web Procure Support (Proactis) at 866-889-8533 anytime from 7:00 AM to 7:00 PM Central Time, Monday through Friday. If you try using a userid or password several times that is incorrect, the system will lock you out. Web Procure Support is the only option to unlock you! If you forget your userid or password, Web Procure Support will provide a temporary userid or password. Also, if it has been a while since your last successful login and you receive an "inactive" message, contact Web Procure (Proactis). If you are having a registration issue, you may contact Cathy Holliday at 573-751-3491 or by email: cathy.holliday@oa.mo.gov.

IMPORTANT REMINDER REGARDING REQUIREMENT FOR OEO CERTIFICATION

A. SECTION 002113 – INSTRUCTIONS TO
BIDDERS: Article 15.0, Section D1:

As of July 1, 2020, all MBE, WBE, and MBE/WBE contractors, subcontractors, and suppliers must be certified by the State of Missouri, Office of Equal Opportunity. No certifications from other Missouri certifying agencies will be accepted.

SECTION 002113 – INSTRUCTIONS TO BIDDERS

1.0 - SPECIAL NOTICE TO BIDDERS

- A. If awarded a contract, the Bidder's employees, and the employees of all subcontractors, who perform the work on the project must adhere to requirements in Section 013513 – Site Security and Health Requirements as applicable per Agency.
- B. The Bidder's prices shall include all city, state, and federal sales, excise, and similar taxes that may lawfully be assessed in connection with the performance of work, and the purchased of materials to be incorporated in the work. THIS PROJECT IS NOT TAX EXEMPT.

2.0 - BID DOCUMENTS

- A. The number of sets obtainable by any one (1) party may be limited in accordance with available supply.
- B. For the convenience of contractors, sub-contractors and suppliers, copies of construction documents are on file at the office of the Director, Division of Facilities Management, Design and Construction and on the Division's web site - <https://oa.mo.gov/facilities/bid-opportunities/bid-listing-electronic-plans>.

3.0 - BIDDERS' OBLIGATIONS

- A. Bidders must carefully examine the entire site of the work and shall make all reasonable and necessary investigations to inform themselves thoroughly as to the facilities available as well as to all the difficulties involved in the completion of all work in accordance with the specifications and the plans. Bidders are also required to examine all maps, plans and data mentioned in the specifications. No plea of ignorance concerning observable existing conditions or difficulties that may be encountered in the execution of the work under this contract will be accepted as an excuse for any failure or omission on the part of the contractor to fulfill in every detail all of the requirements of the contract, nor accepted as a basis for any claims for extra compensation.
- B. Under no circumstances will contractors give their plans and specifications to another contractor. Any bid received from a contractor whose name does not appear on the list of plan holders may be subject to rejection.

4.0 - INTERPRETATIONS

- A. No bidder shall be entitled to rely on oral interpretations as to the meaning of the plans and specifications or the acceptability of alternate products, materials, form or type of construction. Every request for interpretation shall be made in writing and submitted with all supporting documents not less than five (5) working days before opening of bids. Every interpretation made to a bidder will be in the form of an addendum and will be sent as promptly as is practicable to all persons to whom plans and specifications have been issued. All such addenda shall become part of the contract documents.
- B. Approval for an "acceptable substitution" issued in the form of an addendum as per Paragraph 4A above, and as per Article 3.1 of the General Conditions; ACCEPTABLE SUBSTITUTIONS shall constitute approval for use in the project of the product.
- C. An "acceptable substitution" requested after the award of bid shall be approved if proven to the satisfaction of the Owner and the Designer as per Article 3.1, that the product is acceptable in design, strength, durability, usefulness, and convenience for the purpose intended. Approval of the substitution after award is at the sole discretion of the Owner.
- D. A request for "Acceptable Substitutions" shall be made on the Section 006325 Substitution Request Form. The request shall be sent directly to the project Designer. A copy of said request should also be mailed to the Owner, Division of Facilities Management, Design and Construction, Post Office Box 809, Jefferson City, Missouri 65102.

5.0 - BIDS AND BIDDING PROCEDURE

- A. Bidders shall submit all submission forms and accompanying documents listed in SECTION 004113 – BID FORM, Article 5.0, ATTACHMENTS TO BID by the stated time or their bid will be rejected for being non-responsive.

Depending on the specific project requirements, **the following is a GENERIC list** of all possible bid forms that may be due with bid submittals and times when they may be due. Please check for specific project requirements on the proposal form (Section 004113). ***Not all of the following bid forms may be required to be submitted.***

Bid Submittal – due before stated date and time of bid opening (see IFB):

004113	Bid Form (all pages are always required)
004322	Unit Prices Form
004336	Proposed Subcontractors Form
004337	MBE/WBE/SDVE Compliance Evaluation Form
004338	MBE/WBE/SDVE Eligibility Determination for Joint Ventures
004339	MBE/WBE/SDVE GFE Determination
004340	SDVE Business Form
004541	Affidavit of Work Authorization
004545	Anti-Discrimination Against Israel Act Certification form

- B. All bids shall be submitted without additional terms and conditions, modification or reservation on the bid forms with each space properly filled. Bids not on these forms will be rejected.
- C. All bids shall be accompanied by a bid bond executed by the bidder and a duly authorized surety company, certified check, cashier's check or bank draft made payable to the Division of Facilities Management, Design and Construction, State of Missouri, in the amount indicated on the bid form, Section 004113. Failure of the contractor to submit the full amount required shall be sufficient cause to reject his bid. The bidder agrees that the proceeds of the check, draft or bond shall become the property of the State of Missouri, if for any reason the bidder withdraws his bid after closing, or if on notification of award refuses or is unable to execute tendered contract, provide an acceptable performance and payment bond, provide evidence of required insurance coverage and/or provide required copies of affirmative action plans within ten (10) working days after such tender.
- D. The check or draft submitted by the successful bidder will be returned after the receipt of an acceptable performance and payment bond and execution of the formal contract. Checks or drafts of all other bidders will be returned within a reasonable time after it is determined that the bid represented by same will receive no further consideration by the State of Missouri. Bid bonds will only be returned upon request.

6.0 - SIGNING OF BIDS

- A. A bid from an individual shall be signed as noted on the Bid Form.
- B. A bid from a partnership or joint venture shall require only one signature of a partner, an officer of the joint venture authorized to bind the venture or an attorney-in-fact. If the bid is signed by an officer of a joint venture or an attorney-in-fact, a document evidencing the individual's authority to execute contracts should be included with the bid form.
- C. A bid from a limited liability company (LLC) shall be signed by a manager or a managing member of the LLC.
- D. A bid from a corporation shall have the correct corporate name thereon and the signature of an authorized officer of the corporation manually written. Title of office held by the person signing for the corporation shall appear, along with typed name of said individual. Corporate license number shall be provided and, if a corporation organized in a state other than Missouri, a Certificate of Authority to do business in the State of Missouri shall be attached. In addition, for corporate proposals, the President or Vice-President should sign as the bidder. If the signator is other than the corporate president or vice president, the bidder must provide satisfactory evidence that the signator has the legal authority to bind the corporation.

- E. A bid should contain the full and correct legal name of the Bidder. If the Bidder is an entity registered with the Missouri Secretary of State, the Bidder's name on the bid form should appear as shown in the Secretary of State's records.
- F. The Bidder should include its corporate license number on the Bid Form and, if the corporation is organized in a state other than Missouri, a Certificate of Authority to do business in the State of Missouri shall be attached to the bid form.

7.0 - RECEIVING BID SUBMITTALS

- A. It is the bidder's sole responsibility to assure receipt by Owner of bid submittals by the date and time specified in the Invitation for Bid. Bids received after the date and time specified shall not be considered by the Owner.
- B. Bids must be submitted through the MissouriBUYS statewide eProcurement system (<https://www.missouribuyss.mo.gov/>) in accordance with the instructions for that system. The Owner shall only accept bids submitted through MissouriBUYS. Bids received by the Owner through any other means, including hard copies, shall not be considered and will be discarded by the Owner unopened.
- C. To respond to an Invitation for Bid, the Bidder must first register with MissouriBUYS by going through the MissouriBUYS Home Page (<https://www.missouribuyss.mo.gov/>), clicking the "Register" button at the top of the page, and completing the Vendor Registration. Once registered, the Bidder accesses its account by clicking the "Login" button at the top of the MissouriBUYS Home Page. Enter your USERID and PASSWORD, which the Bidder will select. Under Solicitations, select "View Current Solicitations." A new screen will open. Under "Filter by Agency" select "OA-FMDC-Contracts Chapter 8." Under "Filter by Opp. No." type in the State Project Number. Select "Submit." Above the dark blue bar, select "Other Active Opportunities." To see the Solicitation Summary, single click the Opp. No. (Project Number) and the summary will open. Single quick click each blue bar to open detailed information. The Bidder must read and accept the Original Solicitation Documents and complete all identified requirements. The Bidder should download and save all of the Original Solicitation Documents on its computer so that the Bidder can prepare its response to these documents. The Bidder should upload its completed response to the downloaded documents as an attachment to the electronic solicitation response.
- D. Step-by-step instructions for how a registered vendor responds to a solicitation electronically are provided in Section 001116 – Invitation For Bid.
- E. The Bidder shall submit its bid on the forms provided by the Owner on MissouriBUYS with each space fully and properly completed, including all amounts required for alternate bids, unit prices, cost accounting data, etc. The Owner may reject bids that are not on the Owner's forms or that do not contain all requested information.
- F. No Contractor shall stipulate in his bid any conditions not contained in the specifications or standard bid form contained in the contract documents. To do so may subject the Contractor's bid to rejection.
- G. The completed forms shall be without interlineations, alterations or erasures.

8.0 - MODIFICATION AND WITHDRAWAL OF BIDS

- A. Bidder may withdraw his bid at any time prior to scheduled closing time for receipt of bids, but no bidder may withdraw his bid for a period of twenty (20) working days after the scheduled closing time for receipt of bids.
- B. The Bidder shall modify his or her original bid by submitting a revised bid on MissouriBUYS.

9.0 - AWARD OF CONTRACT

- A. The Owner reserves the right to reject any and/or all bids and further to waive all informalities in bidding when deemed in the best interest of the State of Missouri.
- B. The Owner reserves the right to let other contracts in connection with the work, including but not by way of limitation, contracts for the furnishing and installation of furniture, equipment, machines, appliances and other apparatus.

- C. In awarding the contract the Owner may take into consideration the bidder's skill, facilities, capacity, experience, responsibility, previous work record, financial standing and the necessity of prompt and efficient completion of work herein described. Inability of any bidder to meet the requirements mentioned above may be cause for rejection of his bid. However, no contract will be awarded to any individual, partnership or corporation, who has had a contract with the State of Missouri declared in default within the preceding twelve months.
- D. Award of alternates, if any, will be made in numerical order unless all bids received are such that the order of acceptance of alternates does not affect the determination of the low bidder.
- E. No bid shall be considered binding upon the Owner until the written contract has been properly executed, a satisfactory bond has been furnished, evidence of required insurance coverage, submittal of executed Section 004541, Affidavit of Work Authorization form, documentation evidencing enrollment and participation in a federal work authorization program has been received and an affirmative action plan submitted. Failure to execute and return the contract and associated documents within the prescribed period of time shall be treated, at the option of the Owner, as a breach of bidder's obligation and the Owner shall be under no further obligation to bidder.
- F. If the successful bidder is doing business in the State of Missouri under a fictitious name, he shall furnish to Owner, attached to the Bid Form, a properly certified copy of the certificate of Registration of Fictitious Name from the State of Missouri, and such certificate shall remain on file with the Owner.
- G. Any successful bidder which is a corporation organized in a state other than Missouri shall furnish to the Owner, attached to the Bid Form, a properly certified copy of its current Certificate of Authority to do business in the State of Missouri, such certificate to remain on file with the Owner. No contract will be awarded by the Owner unless such certificate is furnished by the bidder.
- H. Any successful bidder which is a corporation organized in the State of Missouri shall furnish at its own cost to the Owner, if requested, a Certificate of Good Standing issued by the Secretary of State, such certificate to remain on file with the Owner.
- I. Transient employers subject to Sections 285.230 and 285.234, RSMo, (out-of-state employers who temporarily transact any business in the State of Missouri) may be required to file a bond with the Missouri Department of Revenue. No contract will be awarded by the Owner unless the successful bidder certifies that he has complied with all applicable provisions of Section 285.230-234.
- J. Sections 285.525 and 285.530, RSMo, require business entities to enroll and participate in a federal work authorization program in order to be eligible to receive award of any state contract in excess of \$5,000. Bidders should submit with their bid an Affidavit of Work Authorization (Section 004541) along with appropriate documentation evidencing such enrollment and participation. Section-004541, Affidavit of Work Authorization is located on the MissouriBUYS solicitation for this project. Bidders must also submit an E-Verify Memorandum before the Owner may award a contract to the Bidder. Information regarding a E-Verify is located at <https://www.uscis.gov/e-verify/>. The contractor shall be responsible for ensuring that all subcontractors and suppliers associated with this contract enroll in E-Verify.

10.0 - CONTRACT SECURITY

- A. The successful bidder shall furnish a performance/payment bond as set forth in General Conditions Article 6.1 on a condition prior to the State executing the contract and issuing a notice to proceed.

11.0 - LIST OF SUBCONTRACTORS

- A. If required by "Section 004113 – Bid Form," each bidder must submit as part of their bid a list of subcontractors to be used in performing the work (Section 004336). The list must specify the name of the single designated subcontractor, for each category of work listed in "Section 004336 - Proposed Subcontractors Form." If work within a category will be performed by more than one subcontractor, the bidder must provide the name of each subcontractor and specify the exact portion of the work to be done by each. Failure to list the Bidder's firm, or a subcontractor for each category of work identified on the Bid Form or the listing of more than one subcontractor for any category without designating the portion of work to be performed by each shall be cause for rejection of the bid. If the bidder intends to perform any of the designated subcontract work with the use of his own employees, the bidder shall make that fact

clear, by listing his own firm for the subject category. **If any category of work is left vacant, the bid shall be rejected.**

12.0 - WORKING DAYS

- A. Contract duration time is stated in working days and will use the following definition in determining the actual calendar date for contract completion:
 - 1. Working days are defined as all calendar days except Saturdays, Sundays and the following State of Missouri observed holidays: New Year's Day, Martin Luther King, Jr. Day, Lincoln Day, Washington's Birthday, Truman Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day and Christmas Day.

13.0 - AMERICAN AND MISSOURI - MADE PRODUCTS AND FIRMS

- A. By signing the bid form and submitting a bid on this project, the Bidder certifies that it will use American and Missouri products as set forth in Article 1.7 of the General Conditions. Bidders are advised to review those requirements carefully prior to bidding.
- B. A preference shall be given to Missouri firms, corporations or individuals, or firms, corporations or individuals that maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less.
- C. Pursuant to Section 34.076, RSMo, a contractor or Bidder domiciled outside the boundaries of the State of Missouri shall be required, in order to be successful, to submit a bid the same percent less than the lowest bid submitted by a responsible contractor or Bidder domiciled in Missouri as would be required for such a Missouri domiciled contractor or Bidder to succeed over the bidding contractor or Bidder domiciled outside Missouri on a like contract or bid being let in the person's domiciliary state and, further, the contractor or Bidder domiciled outside the boundaries of Missouri shall be required to submit an audited financial statement as would be required of a Missouri domiciled contractor or Bidder on a like contract or bid being let in the domiciliary state of that contractor or Bidder.

14.0 – ANTI-DISCRIMINATION AGAINST ISRAEL ACT CERTIFICATION:

- A. Pursuant to section 34.600, RSMo, if the Bidder meets the section 34.600, RSMo, definition of a “company” and the Bidder has ten or more employees, the Bidder must certify in writing that the Bidder is not currently engaged in a boycott of goods or services from the State of Israel as defined in section 34.600, RSMo, and shall not engage in a boycott of goods or services from the State of Israel, if awarded a contract, for the duration of the contract. The Bidder is requested to complete and submit the applicable portion of Section 004545 - Anti-Discrimination Against Israel Act Certification with their Bid Form. The applicable portion of the exhibit must be submitted prior to execution of a contract by the Owner and issuance of Notice to Proceed. If the exhibit is not submitted, the Owner shall rescind its Intent to Award and move to the next lowest, responsive, responsible bidder.

15.0 - MBE/WBE/SDVE INSTRUCTIONS

- A. Definitions:
 - 1. **“MBE”** means a Minority Business Enterprise.
 - 2. **“MINORITY”** has the same meaning as set forth in 1 C.S.R. 10-17.010.
 - 3. **“MINORITY BUSINESS ENTERPRISE”** has the same meaning as set forth in section 37.020, RSMo.
 - 4. **“WBE”** means a Women's Business Enterprise.
 - 5. **“WOMEN'S BUSINESS ENTERPRISE”** has the same meaning as set forth in section 37.020, RSMo.
 - 6. **“SDVE”** means a Service-Disabled Veterans Enterprise.
 - 7. **“SERVICE-DISABLED VETERAN”** has the same meaning as set forth in section 34.074, RSMo.

8. **“SERVICE-DISABLED VETERAN ENTERPRISE”** has the same meaning as “Service-Disabled Veteran Business” set forth in section 34.074, RSMo.

B. MBE/WBE/SDVE General Requirements:

1. For all bids greater than \$100,000, the Bidder shall obtain MBE, WBE and SDVE participation in an amount equal to or greater than the percentage goals set forth in the Invitation for Bid and the Bid Form, unless the Bidder is granted a Good Faith Effort waiver by the Director of the Division, as set forth below. If the Bidder does not meet the MBE, WBE and SDVE goals, or make a good faith effort to do so, the Bidder shall be non-responsive, and its bid shall be rejected.
2. The Bidder should submit with its bid all of the information requested in the MBE/WBE/SDVE Compliance Evaluation Form for every MBE, WBE, or SDVE subcontractor or material supplier the Bidder intends to use for the contract work. The Bidder is required to submit all appropriate MBE/WBE/SDVE documentation before the stated time and date set forth in the Invitation for Bid. If the Bidder fails to provide such information by the specified date and time, the Owner shall reject the bid.
3. The Director reserves the right to request additional information from a Bidder to clarify the Bidder’s proposed MBE, WBE, and/or SDVE participation. The Bidder shall submit the clarifying information requested by the Owner within two (2) Working Days of receiving the request for clarification.
4. Pursuant to section 34.074, RSMo, a Bidder that is a SDVE doing business as Missouri firm, corporation, or individual, or that maintains a Missouri office or place of business, shall receive a three-point bonus preference in the contract award evaluation process. The bonus preference will be calculated and applied by reducing the bid amount of the eligible SDVE by three percent of the apparent low responsive bidder’s bid. Based on this calculation, if the eligible SDVE’s evaluation is less than the apparent low responsive bidder’s bid, the eligible SDVE’s bid becomes the apparent low responsive bid. This reduction is for evaluation purposes only, and will have no impact on the actual amount(s) of the bid or the amount(s) of any contract awarded. In order to be eligible for the SDVE preference, the Bidder must complete and submit with its bid the Missouri Service Disabled Veteran Business Form, and any information required by the form. The form is available on the MissouriBUYS solicitation for this project.

C. Computation of MBE/WBE/SDVE Goal Participation:

1. A Bidder who is a MBE, WBE, or SDVE may count 100% of the contract towards the MBE, WBE or SDVE goal, less any amounts awarded to another MBE, WBE or SDVE. (NOTE: A MBE firm that bids as general contractor must obtain WBE and SDVE participation; a WBE firm that bids as a general contractor must obtain MBE and SDVE participation; and a SDVE firm that bids as general contractor must obtain MBE and WBE participation.) In order for the remaining contract amount to be counted towards the MBE, WBE or SDVE goal, the Bidder must complete the MBE/WBE/SDVE Compliance Evaluation Form (Section 004337) identifying itself as an MBE, WBE or SDVE.
2. The total dollar value of the work granted to a certified MBE, WBE or SDVE by the Bidder shall be counted towards the applicable goal.
3. Expenditures for materials and supplies obtained from a certified MBE, WBE, or SDVE supplier or manufacturer may be counted towards the MBE, WBE and SDVE goals, if the MBE, WBE, or SDVE assumes the actual and contractual responsibility for the provision of the materials and supplies.
4. The total dollar value of the work granted to a second or subsequent tier subcontractor or a supplier may be counted towards a Bidder’s MBE, WBE and SDVE goals, if the MBE, WBE, or SDVE properly assumes the actual and contractual responsibility for the work.
5. The total dollar value of work granted to a certified joint venture equal to the percentage of the ownership and control of the MBE, WBE, or SDVE partner in the joint venture may be counted towards the MBE/WBE/SDVE goals.
6. Only expenditures to a MBE, WBE, or SDVE that performs a commercially useful function in the work may be counted towards the MBE, WBE and SDVE goals. A MBE, WBE, or SDVE performs a commercially useful function when it is responsible for executing a distinct element of the work

and carrying out its responsibilities by actually performing, managing and supervising the work or providing supplies or manufactured materials.

D. Certification of MBE/WBE/SDVE Subcontractors:

1. In order to be counted towards the goals, an MBE or WBE must be certified by the State of Missouri Office of Equal Opportunity and an SDVE must be certified by the State of Missouri, Office of Administration, Division of Purchasing and Material Management or by the Department of Veterans Affairs.
2. The Bidder may determine the certification status of a proposed MBE or WBE subcontractor or supplier by referring to the Office of Equal Opportunity (OEO)'s online MBE/WBE directory (<https://apps1.mo.gov/MWBCertifiedFirms/>). The Bidder may determine the eligibility of a SDVE subcontractor or supplier by referring to the Division of Purchasing and Materials Management's online SDVE directory (<https://oa.mo.gov/sites/default/files/sdvelisting.pdf>) or the Department of Veterans Affairs' directory (<https://vetbiz.va.gov/basic-search/>).
3. Additional information, clarifications, etc., regarding the listings in the directories may be obtained by calling the Division at (573)751-3339 and asking to speak to the Contract Specialist of record as shown in the Supplementary Conditions (Section 007300).

E. Waiver of MBE/WBE/SDVE Participation:

1. If a Bidder has made a good faith effort to secure the required MBE, WBE and/or SDVE participation and has failed, the Bidder shall submit with its bid the information requested in MBE/WBE/SDVE Good Faith Effort (GFE) Determination form. The GFE forms are located on the MissouriBUYS solicitation for this project. The Director will determine if the Bidder made a good faith effort to meet the applicable goals. If the Director determines that the Bidder did not make a good faith effort, the bid shall be rejected as being nonresponsive to the bid requirements. Bidders who demonstrate that they have made a good faith effort to include MBE, WBE, and/or SDVE participation will be determined to be responsive to the applicable participation goals, regardless of the percent of actual participation obtained, if the bid is otherwise acceptable.
2. In determining whether a Bidder has made a good faith effort to obtain MBE, WBE and/or SDVE participation, the Director may evaluate the factors set forth in 1 CSR 30-5.010(6)(C) and the following:
 - a. The amount of actual participation obtained;
 - b. How and when the Bidder contacted potential MBE, WBE, and SDVE subcontractors and suppliers;
 - c. The documentation provided by the Bidder to support its contacts, including whether the Bidder provided the names, addresses, phone numbers, and dates of contact for MBE/WBE/SDVE firms contacted for specific categories of work;
 - d. If project information, including plans and specifications, were provided to MBE/WBE/SDVE subcontractors;
 - e. Whether the Bidder made any attempts to follow-up with MBE, WBE or SDVE firms prior to bid;
 - f. Amount of bids received from any of the subcontractors and/or suppliers that the Bidder contacted;
 - g. The Bidder's stated reasons for rejecting any bids;
3. If no bidder has obtained any participation in a particular category (MBE/WBE/SDVE) or made a good faith effort to do so, the Director may waive that goal rather than rebid.

F. Contractor MBE/WBE/SDVE Obligations

1. If awarded a contract, the Bidder will be contractually required to subcontract with or obtain materials from the MBE, WBE, and SDVE firms listed in its bid, in amounts equal to or greater than the dollar amount bid, unless the amount is modified in writing by the Owner.
2. If the Contractor fails to meet or maintain the participation requirements contained in the Contractor's bid, the Contractor must satisfactorily explain to the Director why it cannot comply with the requirement and why failing meeting the requirement was beyond the Contractor's control. If the Director finds the Contractor's explanation unsatisfactory, the Director may take any appropriate action including, but not limited to:
 - a. Declaring the Contractor ineligible to participate in any contracts with the Division for up to twelve (12) months (suspension); and/or
 - b. Declaring the Contractor be non-responsive to the Invitation for Bid, or in breach of contract and rejecting the bid or terminating the contract.
3. If the Contractor replaces an MBE, WBE, or SDVE during the course of this contract, the Contractor shall replace it with another MBE, WBE, or SDVE or make a good faith effort to do so. All MBE, WBE and SDVE substitutions must be approved by the Director.
4. The Contractor shall provide the Owner with regular reports on its progress in meeting its MBE/WBE/SDVE obligations. At a minimum, the Contractor shall report the dollar-value of work completed by each MBE, WBE, or SDVE during the preceding month and the cumulative total of work completed by each MBE, WBE or SDVE to date with each monthly application for payment. The Contractor shall also make a final report, which shall include the total dollar-value of work completed by each MBE, WBE, and SDVE during the entire contract.

STATE OF MISSOURI
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION
MBE/WBE/SDVE DIRECTORY

The MBE/WBE Directory for goods and services is maintained by the Office of Equal Opportunity (OEO). The current Directory can be accessed at the following web address:

<https://apps1.mo.gov/MWBCertifiedFirms/>

Please note that you may search by MBE, WBE, or both as well as by region, location of the business by city or state, as well as by commodity or service.

The SERVICE DISABLED VETERAN ENTERPRISE (SDVE) Directory (s) may be accessed at the following web addresses:

<https://oa.mo.gov/sites/default/files/sdvelisting.pdf>

<https://vetbiz.va.gov/basic-search/>

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement applies to contractors and their sub-contractors and can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name: _____
Tax ID #: _____
Address: _____
City, State, & Zip: _____
Phone Number: _____
Email Address: _____

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. To obtain an OFT, you may contact the AVS Office at 800-643-9748 or from the AVS website at: <https://avss.osmre.gov/>. Instructions for how to download an OFT from the AVS can be found at: <https://www.osmre.gov/programs/AVS/aml-instructions.pdf>.

Part C: Certifying and updating information in the AVS

Select only one of the following options, follow the instructions for that option, and sign and date below.

I, _____, have express authority to certify that:
(Print Name)

1. Our business is in the AVS and is accurate, complete, and up-to-date. If you select this option, you must attach an Entity OFT from the AVS to this form. Do not complete Part D.
2. Our business is in the AVS but needs to be updated. If you select this option you must attach an Entity OFT from the AVS to this form. Use Part D to provide the missing or corrected information.
3. Our business is not in the AVS and needs to be added. Complete Part D.

Date

Signature

Title

Part D: OFT Information

Contractor's Business Name: _____

If the current Entity OFT information for your business is incomplete in the AVS, or if there is no information in the AVS for your business, you must provide all of the following information as it applies to your business. Please include additional copies of this page if the space below is not sufficient to capture all information.

- Every officer (President, Vice President, Secretary, Treasurer, etc.);
- All Directors, Partners, and Members;
- All persons performing a function similar to a Director;
- Every person or business that owns 10% or more of the voting stock in your business;
- Any other person(s) who has the ability to determine the manner in which the AML reclamation project is being conducted.
- **Please list an end date for any person no longer with your business.**

Name: _____
Address: _____
Begin Date: _____
End Date: _____
% Ownership: _____
Position/Title: _____
Phone Number: _____

Name: _____
Address: _____
Begin Date: _____
End Date: _____
% Ownership: _____
Position/Title: _____
Phone Number: _____

Name: _____
Address: _____
Begin Date: _____
End Date: _____
% Ownership: _____
Position/Title: _____
Phone Number: _____

Name: _____
Address: _____
Begin Date: _____
End Date: _____
% Ownership: _____
Position/Title: _____
Phone Number: _____

PAPERWORK REDUCTION STATEMENT

The Paperwork Reduction Act of 1995 (44 U.S.C 3501) requires us to inform you that: Federal Agencies may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. This information is necessary for all successful bidders prior to the distribution of AML funds, and is required to obtain a benefit.

Public reporting burden for this form is estimated to range from 15 minutes to one hour, with an average of 30 minutes per response, including time for reviewing instructions, gather and maintaining data, and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Office of Surface Mining Reclamation and Enforcement, 1849 C Street, NW, Room 4559, Washington, DC 20240.

**U.S. Department of the Interior
Certification Regarding Lobbying**

This certification is required by Section 1352, title 31, U.S. Code, entitled "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions."

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

.....Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature: _____ Date: _____

Instruction for Certification

1. This certification and disclosure form should be filed by each person as required, with each submission that initiates agency consideration of such person for: (1) award of a Federal contract, grant, or cooperative agreement exceeding \$100,000 or (2) an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.
2. This certification and a disclosure form should be filed by each person as required, upon receipt by such person of (1) a Federal contract, grant, or cooperative agreement exceeding \$100,000; or (2) a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000, unless such person previously filed a certification, and a disclosure form, if required, at the time agency consideration was initiated.
3. Any person who requests or receives from a person referred to in paragraphs (1) and (2) above: (1) a subcontract exceeding \$100,000 at any tier under a Federal contract; (2) a subgrant, contract, or subcontract exceeding \$100,000 at any tier under a Federal grant; (3) a contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000; or (4) a contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement, shall file a certification, and a disclosure form, as required, to the next tier above.
4. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs (1) or (2) above. That person shall forward all disclosure forms to the appropriate Bureau/Office within the Department of the Interior.
5. Any certification or disclosure form filed under paragraph (4) above shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by Section 1352, Title 31, U.S. Code.

U. S. Department of the Interior

**Certification Regarding
Debarment, Suspension, Ineligibility and
Voluntary Exclusion**

Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 43 CFR Part 12, Section 12.510, Participants' responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211). Copies of the regulations are included in the proposal package. For further assistance in obtaining a copy of the regulations, contact the U.S. Department of the Interior, Acquisition and Assistance Division, Office of Acquisition and Property management, 18th and C. Streets, N.W., Washington D.C. 20240.

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Name and Title of Authorized Representative

Signature

Date

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participants shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, be entered into, it shall not knowingly enter into any lower tier covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non-procurement List (Tel. #).
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.



State of Missouri Construction Contract

THIS AGREEMENT is made (DATE) by and between:

Contractor Name and Address

hereinafter called the "Contractor,"

and the **State of Missouri**, hereinafter called the "**Owner**", represented by the Office of Administration, Division of Facilities Management, Design and Construction, on behalf of the Department of Natural Resources, Land Reclamation Program.

WITNESSETH, that the Contractor and the Owner, for the consideration stated herein agree as follows:

ARTICLE 1. STATEMENT OF WORK

The Contractor shall furnish all labor and materials and perform all work required for furnishing and installing all labor, materials, equipment and transportation and everything necessarily inferred from the general nature and tendency of the plans and specifications for the proper execution of the work for:

Project Name: **Franklin Reclamation Project
Bates County, Missouri**

Project Number: **Y2202-01**

in strict accordance with the Contract Documents as enumerated in Article 7, all of which are made a part hereof.

ARTICLE 2. TIME OF COMPLETION

The contract performance time is **100 working days** from the transmittal date of this agreement. The contract completion date is **MONTH, DAY, YEAR**. This time includes ten (10) working days for the Contractor to receive, sign and return the contract form along with required bonding and insurance certificates. Failure of the Contractor to provide correct bonding and insurance within the ten (10) working days shall not be grounds for a time extension. Receipt of proper bonding and insurance is a condition precedent to the formation of the contract and if not timely received, may result in forfeiture of the Contractor's bid security. Work may not commence until the Owner issues a written Notice to Proceed and must commence within seven (7) working days thereafter.

ARTICLE 3. LIQUIDATED DAMAGES

Whenever time is mentioned in this contract, time shall be and is of the essence of this contract. The Owner would suffer a loss should the Contractor fail to have the work embraced in this contract fully completed on or before the time above specified. THEREFORE, the parties hereto realize in order to adjust satisfactorily the damages on account of such failure that it might be impossible to compute accurately or estimate the amount of such loss or damages which the Owner would sustain by reason of failure to complete fully said work within the time required by this contract. The Contractor hereby covenants and agrees to pay the Owner, as and for **liquidated damages, the sum of \$700** per day for each and every day, Sunday and legal holidays excepted, during which the work remains incomplete and unfinished. Any sum which may be due the Owner for such damages shall be deducted and retained by the Owner from any balance which may be due the Contractor when said work shall have been finished and accepted. But such provisions shall not release the Bond of the Contractor from liability according to its terms. In case of failure to complete, the Owner will be under no obligation to show or prove any actual or specific loss or damage.

ARTICLE 4. CONTRACT SUM

The Owner shall pay the Contractor for the prompt, faithful and efficient performance of the conditions and undertakings of this contract, subject to additions, and deductions as provided herein, in current funds the sum of:

Base Bid: \$
Alternate No. 1: \$

TOTAL CONTRACT AMOUNT: (\$CONTRACT AMOUNT)

UNIT PRICES: The Owner accepts the following Unit Prices:

For changing specified quantities of work from those indicated by the contract drawings and specifications, upon written instructions of Owner, the following unit prices shall prevail. The unit prices include all labor, overhead and profit, materials, equipment, appliances, bailing, shoring, shoring removal, etc., to cover the finished work of the several kinds of work called for. Only a single unit price shall be given and it shall apply for either MORE or LESS work than that shown on the drawings and called for in the specifications or included in the Base Bid. In the event of more or less units than so indicated or included, change orders may be issued for the increased or decreased amount.

ARTICLE 5. PREVAILING WAGE RATE

MISSOURI PREVAILING WAGE LAW (Sections 290.210 to 290.340, RSMo): The Contractor shall pay not less than the specified hourly rate of wages, as set out in the wage order attached to and made part of the specifications for work under this contract, to all workers performing work under the contract, in accordance with sections 290.210 to 290.340, RSMo. The Contractor shall forfeit a penalty to the Owner of one hundred dollars per day (or portion of a day) for each worker that is paid less than the specified rates for any work done under the contract by the Contractor or by any subcontractor, in accordance with section 290.250, RSMo.

~~**DAVIS BACON ACT:** If this Project is financed in whole or in part from Federal funds (as indicated in the Instructions to Bidders or other bid or contract documents for this Project), then this contract shall be subject to all applicable federal labor statutes, rules and regulations, including provisions of the Davis Bacon Act, 40 U.S.C. §3141 et seq., and the "Federal Labor Standards Provisions," as further set forth in Section 007333 – Supplementary General Conditions for Federally Funded/Assisted Construction Projects, which is incorporated into the contract by reference. Where the Missouri Prevailing Wage Law and the Davis Bacon Act require payment of different wages for work performed under this contract, the Contractor and all Subcontractors shall pay the greater of the wages required under either law, on a classification-by-classification basis.~~

PLEASE NOTE: The Davis-Bacon Act IS NOT Applicable to Abandoned Mine Land Grant Projects

ARTICLE 6. MINORITY/WOMEN/SERVICE DISABLED VETERAN BUSINESS ENTERPRISE PARTICIPATION

The Contractor has been granted a waiver of the 10% MBE and 10% WBE and 3% SDVE participation goals. The Contractor agrees to secure the MBE/WBE/SDVE participation amounts for this project as follows: (OR)

The Contractor has met the MBE/WBE/SDVE participation goals and agrees to secure the MBE/WBE/SDVE participation amounts for this project as follows:

MBE/WBE/SDVE Firm: Subcontract Amt:\$
MBE/WBE/SDVE Firm: Subcontract Amt:\$
MBE/WBE/SDVE Firm: Subcontract Amt:\$

Total \$

MBE/WBE/SDVE assignments identified above shall not be changed without a contract change signed by the Owner.

The Director of the Division of Facilities Management, Design and Construction or his Designee shall be the final authority to resolve disputes and disagreements between the Contractor and the MBE/WBE/SDVE firms listed above when such disputes impact the subcontract amounts shown above.

ARTICLE 7. CONTRACT DOCUMENTS

The following documents are hereby incorporated into this contract by reference (all division/section numbers and titles are as utilized in the Project Manual published by the Owner for this Project):

1. Division 0 – Procurement and Contracting Information, including, but not limited to:
 - a. Invitation for Bid (Section 001116)
 - b. Instructions to Bidders (Section 002113)
 - c. Supplementary Instructions to Bidders (if applicable) (Section 002213)
 - d. The following documents as completed and executed by the Contractor and accepted by the Owner, if applicable:
 - i. Bid Form (Section 004113)
 - ii. Unit Prices (Section 004322)
 - iii. Proposed Contractors Form (Section 004336)
 - iv. MBE, WBE, SDVE Compliance Evaluation Form(s) (Section 004337)
 - v. MBE, WBE, SDVE Eligibility Determination Form for Joint Ventures (Section 004338)
 - vi. MBE, WBE, SDVE Good Faith Effort (GFE) Determination Form (Section 004339)
 - vii. Missouri Service Disabled Veteran Business Form (Section 004340)
 - viii. Affidavit of Work Authorization (Section 004541)
 - ix. Affidavit for Affirmative Action (Section 005414)
 - e. Performance and Payment Bond, completed and executed by the Contractor and surety (Section 006113)
 - f. General Conditions (Section 007213)
 - g. Supplementary Conditions (Section 007300)
 - h. Supplementary General Conditions for Federally Funded/Assisted Construction Projects (Section 007333)
 - i. Wage Rate(s) (Section 007346)
2. Division 1 – General Requirements
3. All Drawings identified in the Project Manual
4. All Technical Specifications included in the Project Manual
5. Addenda, if applicable

By signature below, the parties hereby execute this contract document.

APPROVED:

Mark Hill, P.E., Director
Division of Facilities Management,
Design and Construction

Contractor's Authorized Signature

I, Corporate Secretary, certify that I am Secretary of the corporation named above and that (CONTRACTOR NAME), who signed said contract on behalf of the corporation, was then (TITLE) of said corporation and that said contract was duly signed for and in behalf of the corporation by authority of its governing body, and is within the scope of its corporate powers.

Corporate Secretary



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
AFFIDAVIT FOR AFFIRMATIVE ACTION

PROJECT NUMBER

NAME

First being duly sworn on oath states: that

he/she is the ☐ sole proprietor ☐ partner ☐ officer or ☐ manager or managing member of

NAME

a ☐ sole proprietorship ☐ partnership
☐ limited liability company (LLC)

or ☐ corporation, and as such, said proprietor, partner, or officer is duly authorized to make this

affidavit on behalf of said sole proprietorship, partnership, or corporation; that under the contract known as

PROJECT TITLE

Less than 50 persons in the aggregate will be employed and therefore, the applicable Affirmative Action
requirements as set forth in Article 1.4 of the General Conditions of the State of Missouri have been met.

PRINT NAME & SIGNATURE

DATE

NOTARY INFORMATION

NOTARY PUBLIC EMBOSSER SEAL

STATE OF

COUNTY (OR CITY OF ST.
LOUIS)

**USE RUBBER STAMP IN CLEAR AREA
BELOW**

SUBSCRIBED AND SWORN BEFORE ME, THIS

DAY OF

YEAR

NOTARY PUBLIC SIGNATURE

MY COMMISSION EXPIRES

NOTARY PUBLIC NAME (TYPED OR PRINTED)

SECTION 006113 - PERFORMANCE AND PAYMENT BOND FORM

KNOW ALL MEN BY THESE PRESENTS, THAT we _____

as principal, and _____

_____ as Surety, are held and firmly bound unto the

STATE OF MISSOURI. in the sum of _____ Dollars (\$ _____)

for payment whereof the Principal and Surety bind themselves, their heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal has, by means of a written agreement dated the _____

day of _____, 20_____, enter into a contract with the State of Missouri for

(Insert Project Title and Number)

NOW, THEREFORE, if the Principal shall faithfully perform and fulfill all the undertakings, covenants, terms, conditions and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the State of Missouri, with or without notice to the Surety and during the life of any guaranty required under the contract; and shall also faithfully perform and fulfill all undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made with or without notice to the Surety; and shall also promptly make payment for materials incorporated, consumed or used in connection with the work set forth in the contract referred to above, and all insurance premiums, both compensation and all other kinds of insurance, on said work, and for all labor performed on such work, whether by subcontractor or otherwise, at not less than the prevailing hourly rate of wages for work of a similar character (exclusive of maintenance work) in the locality in which the work is performed and not less than the prevailing hourly rate of wages for legal holiday and overtime work (exclusive of maintenance work) in the locality in which the work is performed both as determined by the Department of Labor and Industrial Relations or determined by the Court of Appeal, as provided for in said contract and in any and all duly authorized modifications of said contract that may be hereafter made, with or without notice to the Surety, then, this obligation shall be void and of no effect, but it is expressly understood that if the Principal should make default in or should fail to strictly, faithfully and efficiently do, perform and comply with any or more of the covenants, agreements, stipulations, conditions, requirements or undertakings, as specified in or by the terms of said contract, and with the time therein named, then this obligation shall be valid and binding upon each of the parties hereto and this bond shall remain in full force and effect; and the same may be sued on at the instance of any material man, laborer, mechanic, subcontractor, individual, or otherwise to whom such payment is due, in the name of the State of Missouri, to the use of any such person.

AND, IT IS FURTHER specifically provided that any modifications which may hereinafter be made in the terms of the contract or in the work to be done under it or the giving by the Owner of any extension of the time for the performance of the contract or any other forbearance on the part of either the Owner or the Principal to the other, shall not in any way release the Principal and the Surety, or either or any of them, their heirs, executors, administrators and successors, from their liability hereunder, notice to the Surety of any such extension, modifications or forbearance being hereby waived.

IN WITNESS WHEREOF, the above bounden parties have executed the within instrument this _____ day of _____, 20 ____.

AS APPLICABLE:

AN INDIVIDUAL

Name: _____

Signature: _____

A PARTNERSHIP

Name of Partner: _____

Signature of Partner: _____

Name of Partner: _____

Signature of Partner: _____

CORPORATION

Firm Name: _____

Signature of President: _____

SURETY

Surety Name: _____

Attorney-in-Fact: _____

Address of Attorney-in-Fact: _____

Telephone Number of Attorney-in-Fact: _____

Signature Attorney-in-Fact: _____

NOTE: Surety shall attach Power of Attorney



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
PRODUCT SUBSTITUTION REQUEST

PROJECT NUMBER

PROJECT TITLE AND LOCATION

CHECK APPROPRIATE BOX

- ☐ **SUBSTITUTION PRIOR TO BID OPENING**
(Minimum of (5) working days prior to receipt of Bids as per Article 4 – Instructions to Bidders)
- ☐ **SUBSTITUTION FOLLOWING AWARD**
(Maximum of (20) working days from Notice to Proceed as per Article 3 – General Conditions)

FROM: BIDDER/CONTRACTOR (PRINT COMPANY NAME)

TO: ARCHITECT/ENGINEER (PRINT COMPANY NAME)

Bidder/Contractor hereby requests acceptance of the following product or systems as a substitution in accordance with provisions of Division One of the Bidding Documents:

SPECIFIED PRODUCT OR SYSTEM

SPECIFICATION SECTION NO.

SUPPORTING DATA

- ☐ Product data for proposed substitution is attached (include description of product, standards, performance, and test data)
- ☐ Sample ☐ Sample will be sent, if requested

QUALITY COMPARISON

	SPECIFIED PRODUCT	SUBSTITUTION REQUEST
NAME, BRAND		
CATALOG NO.		
MANUFACTURER		
VENDOR		

PREVIOUS INSTALLATIONS

PROJECT	ARCHITECT/ENGINEER	
LOCATION		DATE INSTALLED

SIGNIFICANT VARIATIONS FROM SPECIFIED PRODUCT

REASON FOR SUBSTITUTION

DOES PROPOSED SUBSTITUTION AFFECT OTHER PARTS OF WORK?☐ YES ☐ NO

IF YES, EXPLAIN

SUBSTITUTION REQUIRES DIMENSIONAL REVISION OR REDESIGN OF STRUCTURE OR A/E WORK☐ YES ☐ NO**BIDDER'S/CONTRACTOR'S STATEMENT OF CONFORMANCE OF PROPOSED SUBSTITUTION TO CONTRACT REQUIREMENT:**

We have investigated the proposed substitution. We believe that it is equal or superior in all respects to specified product, except as stated above; that it will provide the same Warranty as specified product; that we have included complete implications of the substitution; that we will pay redesign and other costs caused by the substitution which subsequently become apparent; and that we will pay costs to modify other parts of the Work as may be needed, to make all parts of the Work complete and functioning as a result of the substitution.

BIDDER/CONTRACTOR

DATE

REVIEW AND ACTION☐ Resubmit Substitution Request with the following additional information:

☐ Substitution is accepted.☐ Substitution is accepted with the following comments:

☐ Substitution is not accepted.

ARCHITECT/ENGINEER

DATE



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
FINAL RECEIPT OF PAYMENT AND RELEASE

PROJECT NUMBER

KNOW ALL MEN BY THESE PRESENT THAT: hereinafter called "Subcontractor" who heretofore entered into an agreement with hereinafter called "Contractor", for the performance of work and/or furnishing of material for the construction of the project entitled

(PROJECT TITLE, PROJECT LOCATION, AND PROJECT NUMBER)

at

(ADDRESS OF PROJECT)

for the State of Missouri (Owner) which said subcontract is by this reference incorporated herein, in consideration of such final payment by Contractor.

DOES HEREBY:

1. ACKNOWLEDGE that they have been **PAID IN FULL** all sums due for work and materials contracted or done by their Subcontractors, Material Vendors, Equipment and Fixture Suppliers, Agents and Employees, or otherwise in the performance of the Work called for by the aforesaid Contract and all modifications or extras or additions thereto, for the construction of said project or otherwise.
2. RELEASE and fully, finally, and forever discharge the Owner from any and all suits, actions, claims, and demands for payment for work performed or materials supplied by Subcontractor in accordance with the requirements of the above referenced Contract.
1. REPRESENT that all of their Employees, Subcontractors, Material Vendors, Equipment and Fixture Suppliers, and everyone else has been **paid in full** all sums due them, or any of them, in connection with performance of said Work, or anything done or omitted by them, or any of them in connection with the construction of said improvements, or otherwise.

DATED this day of , 20 .

NAME OF SUBCONTRACTOR

BY (TYPED OR PRINTED NAME)

SIGNATURE

TITLE

ORIGINAL: FILE/Closeout Documents



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

MBE/WBE/SDVE PROGRESS REPORT

Remit with ALL Progress and Final Payments

(Please check appropriate box) ☐CONSULTANT ☐CONSTRUCTION

PAY APP NO.	PROJECT NUMBER
CHECK IF FINAL <input type="checkbox"/> FINAL	DATE

PROJECT TITLE			
PROJECT LOCATION			
FIRM			
ORIGINAL CONTRACT SUM (Same as Line Item 1. on Form A of Application for Payment) \$		TOTAL CONTRACT SUM TO DATE (Same as Line Item 3. on Form A of Application for Payment) \$	
THE TOTAL MBE/WBE/SDVE PARTICIPATION DOLLAR AMOUNT OF THIS PROJECT AS INDICATED IN THE ORIGINAL CONTRACT: \$			
SELECT MBE, WBE, SDVE	TOTAL AMOUNT OF SUBCONTRACT	\$ AMOUNT PAID-TO-DATE	CONSULTANT/SUBCONSULTANT OR CONTRACTOR/SUBCONTRACTOR/SUPPLIER COMPANY NAME
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	
<input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SDVE	\$	\$	

Revised 05/21



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
AFFIDAVIT – COMPLIANCE WITH PREVAILING WAGE LAW

PROJECT NUMBER

Before me, the undersigned Notary Public, in and for the County of _____

State of _____ personally came and appeared _____

(NAME)

of the _____

(POSITION)

(NAME OF THE COMPANY)

(a corporation) (a partnership) (a proprietorship) and after being duly sworn did depose and say that all provisions and requirements set out in Chapter 290, Sections 290.210 through and including 290.340, Missouri Revised Statutes, pertaining to the payment of wages to workmen employed on public works project have been fully satisfied and there has been no exception to the full and completed compliance with said provisions and requirements and with Wage Determination No: _____ issued by the Department of Labor and Industrial Relations, State of Missouri on the _____ day of _____ 20 _____ in carrying out the contract and working in connection with _____

(NAME OF PROJECT)

Located at _____ in _____ County

(NAME OF THE INSTITUTION)

Missouri, and completed on the _____ day of _____ 20 _____

SIGNATURE

NOTARY INFORMATION

NOTARY PUBLIC EMBOSSER OR
BLACK INK RUBBER STAMP SEAL

STATE

COUNTY (OR CITY OF ST. LOUIS)

SUBSCRIBED AND SWORN BEFORE ME, THIS

DAY OF

YEAR

USE RUBBER STAMP IN CLEAR AREA BELOW

NOTARY PUBLIC SIGNATURE

MY COMMISSION
EXPIRES

NOTARY PUBLIC NAME (TYPED OR PRINTED)

FILE: Closeout Documents

GENERAL CONDITIONS

INDEX

ARTICLE:

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- 1.1. Definitions
- 1.2. Drawings and Specifications
- 1.3. Compliance with Laws, Permits, Regulations and Inspections
- 1.4. Nondiscrimination in Employment
- 1.5. Anti-Kickback
- 1.6. Patents and Royalties
- 1.7. Preference for American and Missouri Products and Services
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- 1.9. Separate Contracts and Cooperation
- 1.10. Assignment of Contract
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2. Owner/Designer Responsibilities

3. Contractor Responsibilities

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6.1. Bond

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7. Termination or Suspension of Contract

7.1. For Site Conditions

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7.3. For Convenience

SECTION 007213 - GENERAL CONDITIONS

- A. These General Conditions apply to each section of these specifications. The Contractor is subject to the provisions contained herein.
- B. The General Conditions are intended to define the relationship of the Owner, the Designer and the Contractor thereby establishing certain rules and provisions governing the operation and performance of the work so that the work may be performed in a safe, orderly, expeditious and workmanlike manner.

ARTICLE 1 – GENERAL PROVISIONS

ARTICLE 1.1 - DEFINITIONS

As used in these contract documents, the following terms shall have the meanings and refer to the parties designated in these definitions.

- 1. **"COMMISSIONER"**: The Commissioner of the Office of Administration.
- 2. **"CONSTRUCTION DOCUMENTS"**: The "Construction Documents" shall consist of the Project Manual, Drawings and Addenda.
- 3. **"CONSTRUCTION REPRESENTATIVE"**: Whenever the term "Construction Representative" is used, it shall mean the Owner's Representative at the work site.
- 4. **"CONTRACTOR"**: Party or parties who have entered into a contract with the Owner to furnish work under these specifications and drawings.
- 5. **"DESIGNER"**: When the term "Designer" is used herein, it shall refer to the Architect, Engineer, or Consultant of Record specified and defined in Paragraph 2.0 of the Supplemental Conditions, or his duly authorized representative. The Designer may be either a consultant or state employee.
- 6. **"DIRECTOR"**: Whenever the term "Director" is used, it shall mean the Director of the Division of Facilities Management, Design and Construction or his Designee, representing the Office of Administration, State of Missouri. The Director is the agent of the Owner.
- 7. **"DIVISION"**: Shall mean the Division of Facilities Management, Design and Construction, State of Missouri.

- 8. **"INCIDENTAL JOB BURDENS"**: Shall mean those expenses relating to the cost of work, incurred either in the home office or on the job-site, which are necessary in the course of doing business but are incidental to the job. Such costs include office supplies and equipment, postage, courier services, telephone expenses including long distance, water and ice and other similar expenses.
- 9. **"JOINT VENTURE"**: An association of two (2) or more businesses to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills and knowledge.
- 10. **"OWNER"**: Whenever the term "Owner" is used, it shall mean the State of Missouri.
- 11. **"PROJECT"**: Wherever the term "Project" is used, it shall mean the work required to be completed by the construction contract.
- 12. **"PROJECT MANUAL"**: The "Project Manual" shall consist of Introductory Information, Invitation for Bid, Instructions to Bidders, Bid Documents, Additional Information, Standard Forms, General Conditions, Supplemental General Conditions, General Requirements and Technical Specifications.
- 13. **"SUBCONTRACTOR"**: Party or parties who contract under, or for the performance of part or this entire Contract between the Owner and Contractor. The subcontract may or may not be direct with the Contractor.
- 14. **"WORK"**: Labor, material, supplies, plant and equipment required to perform and complete the service agreed to by the Contractor in a safe, expeditious, orderly and workmanlike manner so that the project shall be complete and finished in the best manner known to each respective trade.
- 15. **"WORKING DAYS"**: are all calendar days except Saturdays, Sundays and the following holidays: New Year's Day, Martin Luther King, Jr. Day, Lincoln Day, Washington's Birthday (observed), Truman Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Columbus Day, Veterans Day (observed), Thanksgiving Day, Christmas Day.

ARTICLE 1.2 DRAWINGS AND SPECIFICATIONS

- A. In case of discrepancy between drawings and specifications, specifications shall govern. Should discrepancies in architectural drawings, structural drawings and mechanical drawings occur,

architectural drawings shall govern and, in case of conflict between structural and mechanical drawings, structural drawings shall govern.

- B. Specifications are separated into titled divisions for convenience of reference only and to facilitate letting of contracts and subcontracts. The Contractor is responsible for establishing the scope of work for subcontractors, which may cross titled divisions. Neither the Owner nor Designer will establish limits and jurisdiction of subcontracts.
- C. Figured dimensions take precedence over scaled measurements and details over smaller scale general drawings. In the event of conflict between any of the documents contained within the contract, the documents shall take precedence and be controlling in the following sequence: addenda, supplementary general conditions, general conditions, division 1 specifications, technical division specifications, drawings, bid form and instructions to bidders.
- D. Anything shown on drawings and not mentioned in these specifications or vice versa, as well as any incidental work which is obviously necessary to complete the project within the limits established by the drawings and specifications, although not shown on or described therein, shall be performed by the Contractor at no additional cost as a part of his contract.
- E. Upon encountering conditions differing materially from those indicated in the contract documents, the Contractor shall promptly notify the Designer and Construction Representative in writing before such conditions are disturbed. The Designer shall promptly investigate said conditions and report to the Owner, with a recommended course of action. If conditions do materially differ and cause an increase or decrease in contract cost or time required for completion of any portion of the work, a contract change will be initiated as outlined in Article 4 of these General Conditions.
- E. Only work included in the contract documents is authorized, and the Contractor shall do no work other than that described therein or in accordance with appropriately authorized and approved contract changes.

ARTICLE 1.3 - COMPLIANCE WITH LAWS, PERMITS, REGULATIONS AND INSPECTIONS

- A. Since the Owner is the State of Missouri, municipal or political subdivisions, zoning ordinances, construction codes (other than licensing of trades), and other like ordinances are not applicable to construction on Owner's property, and Contractor will not be required to submit drawings and specifications to any municipal or political subdivision, authority, obtain

construction permits or any other licenses (other than licensing of trades) or permits from or submit to inspections by any municipality or political subdivision relating to the construction for this project. All permits or licenses required by municipality or political subdivision for operation on property not belonging to Owner shall be obtained by and paid for by Contractor. Each Contractor shall comply with all applicable laws, ordinances, rules and regulations that pertain to the work of this contract.

- B. Contractors, subcontractors and their employees engaged in the businesses of electrical, mechanical, plumbing, carpentry, sprinkler system work, and other construction related trades shall be licensed to perform such work by the municipal or political subdivision where the project is located, if such licensure is required by local code. Local codes shall dictate the level (master, journeyman, and apprentice) and the number, type and ratio of licensed tradesmen required for this project within the jurisdiction of such municipal or political subdivision.
- C. Equipment and controls manufacturers and their authorized service and installation technicians that do not maintain an office within the jurisdiction of the municipal or political subdivision but are a listed or specified contractor or subcontractor on this project are exempt from Paragraph 1.3 B above.
- D. The Contractor shall post a copy of the wage determination issued for the project and included as a part of the contract documents, in a prominent and easily accessible location at the site of construction for the duration of the project.
- E. Any contractor or subcontractor to such contractor at any tier signing a contract to work on this project shall provide a ten-hour Occupational Safety and Health Administration (OSHA) construction safety program for their on-site employees which includes a course in construction safety and health approved by OSHA or a similar program approved by the Department of Labor and Industrial Relations which is at least as stringent as an approved OSHA program. The contractor shall forfeit as a penalty to the public body on whose behalf the contract is made or awarded, two thousand five hundred dollars plus one hundred dollars for each employee employed by the contractor or subcontractor, for each calendar day, or portion thereof, such employee is employed without the required training.

ARTICLE 1.4 - NONDISCRIMINATION IN EMPLOYMENT

- A. The Contractor and his subcontractors will not discriminate against individuals based on race,

color, religion, national origin, sex, disability, or age, but may use restrictions which relate to bona fide occupational qualifications. Specifically, the Contractor and his subcontractors shall not discriminate:

1. Against recipients of service on the basis of race, color, religion, national origin, sex, disability or age.
2. Against any employee or applicant, for employment on the basis of race, color, religion, national origin, sex or otherwise qualified disability status.
3. Against any applicant for employment or employee on the basis of age, where such applicant or employee is between ages 40 and 70 and where such Contractor employs at least 20 persons.
4. Against any applicant for employment or employee on the basis of that person's status as a disabled or Vietnam-era veteran.

The Contractor and his Subcontractors will take affirmative action to insure applicants for employment and employees are treated equally without regard to race, color, religion, national origin, sex, disability, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion and transfer; recruitment or recruitment advertising; and selection for training, including apprenticeship. The Contractor and his Subcontractors will give written notice of their commitments under this clause to any labor union with which they have bargaining or other agreements.

- B. The Contractor and his subcontractors shall develop, implement, maintain and submit in writing to the Owner an affirmative action program if at least fifty (50) persons in the aggregate are employed under this contract. If less than fifty (50) persons in the aggregate are to be employed under this contract, the Contractor shall submit, in lieu of the written affirmative action program, a properly executed Affidavit for Affirmative Action in the form included in the contract specifications. For the purpose of this section, an "affirmative action program" means positive action to influence all employment practices (including, but not limited to, recruiting, hiring, promoting and training) in providing equal employment opportunity regardless of race, color, sex, national origin, religion, age (where the person affected is between age 40 and 70), disabled and Vietnam-era veteran status, and disability. Such "affirmative action program" shall include:

1. A written policy statement committing the total organization to affirmative action and

assigning management responsibilities and procedures for evaluation and dissemination;

2. The identification of a person designated to handle affirmative action;
3. The establishment of non-discriminatory selection standards, objective measures to analyze recruitment, an upward mobility system, a wage and salary structure, and standards applicable to lay-off, recall, discharge, demotion and discipline;
4. The exclusion of discrimination from all collective bargaining agreements; and
5. Performance of an internal audit of the reporting system to monitor execution and to provide for future planning.

In the enforcement of this non-discrimination clause, the Owner may use any reasonable procedures available, including, but not limited to: requests, reports, site visits and inspection of relevant documents of contractors and subcontractors.

- C. In the event of the Contractor's or his subcontractor's noncompliance with any provisions of this Article of the Contract, the Owner may cancel this contract in whole or in part or require the Contractor to terminate his contract with the subcontractor.

ARTICLE 1.5 - ANTI-KICKBACK

No employee of the division, shall have or acquire any pecuniary interest, whether direct or indirect, in this contract or in any part hereof. No officer, employee, designer, attorney, or administrator of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall have or acquire any pecuniary interest, whether direct or indirect, in this contract, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

ARTICLE 1.6 - PATENTS AND ROYALTIES

- A. The Contractor shall hold and save the Owner and its officers, agents, servants and employees harmless from liabilities of any nature or kind, including cost and expenses, for, or on account of, any patented or unpatented invention, process, article or appliance manufactured or used in the performance of this contract, including its use by the Owner, unless otherwise specifically stipulated in the contract documents.
- B. If the Contractor uses any design, device or materials covered by letters, patent or copyright,

the Contractor shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device or material. It is mutually agreed and understood, without exception, that the contract prices shall include all royalties or costs arising from the use of such design, device or materials, in any way involved in the work. The Contractor and/or his sureties shall indemnify and save harmless the Owner of the project from any and all claims for infringement by reason of the use of such patented or copyrighted design, device or materials or any trademark or copyright in connection with work agreed to be performed under this contract and shall indemnify the Owner for any cost, expense or damage it may be obliged to pay by reason of such infringement at any time during the prosecution of the work or after completion of the work.

ARTICLE 1.7 - PREFERENCE FOR AMERICAN AND MISSOURI PRODUCTS AND SERVICES

- A. By virtue of statutory authority a preference will be given to Missouri labor and to products of mines, forests and quarries of the state of Missouri when they are found in marketable quantities in the state, and all such materials shall be of the best quality and suitable character that can be obtained at reasonable market prices, all as provided for in Section 8.280, Missouri Revised Statutes and Cumulative Supplements.
- B. Furthermore, pursuant to Section 34.076 Missouri Revised Statutes and Cumulative Supplements, a preference shall be given to those persons doing business as Missouri firms, corporations, or individuals, or which maintain Missouri offices or places of business, when the quality of performance promised is equal or better and the price quoted is the same or less. In addition, in order for a non-domiciliary bidder to be successful, his bid must be that same percentage lower than a domiciliary Missouri bidder's bid, as would be required for a Missouri bidder to successfully bid in the non-domiciliary state.
- C. In accordance with the Missouri Domestic Products Procurement Act Section 34.350 RSMo and Cumulative Supplements any manufactured goods or commodities used or supplied in the performance of this contract or any subcontract thereto shall be manufactured, assembled or produced in the United States, unless the specified products are not manufactured, assembled or produced in the United States in sufficient quantities to meet the agency's requirements or cannot be manufactured, assembled or produced in the United States within the necessary time in sufficient quantities to meet the contract requirements, or if obtaining the specified products manufactured, assembled or produced in the

United States would increase the cost of this contract for purchase of the product by more than ten percent.

ARTICLE 1.8 - COMMUNICATIONS

- A. All notices, requests, instructions, approvals and claims must be in writing and shall be delivered to the Designer and copied to the Construction Representative for the project except as required by Article 1.12 Disputes and Disagreements, or as otherwise specified by the Owner in writing as stated in Section 012600. Any such notice shall be deemed to have been given as of the time of actual receipt.
- B. The Contractor shall attend on-site progress and coordination meetings, as scheduled by the Construction Representative, no less than once a month.
- C. The Contractor shall ensure that major subcontractors and suppliers shall attend monthly progress meetings as necessary to coordinate the work, and as specifically requested by the Construction Representative.

ARTICLE 1.9 - SEPARATE CONTRACTS AND COOPERATION

- A. The Owner reserves the right to let other contracts in connection with this work. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his work with theirs.
- B. The Contractor shall consult the drawings for all other contractors in connection with this work. Any work conflicting with the above shall be brought to the attention of the Owner's Representative before the work is performed. If the Contractor fails to do this, and constructs any work which interferes with the work of another contractor, the Contractor shall remove any part so conflicting and rebuild same, as directed by the Owner's Representative at no additional cost to the Owner.
- C. Each contractor shall be required to coordinate his work with other contractors so as to afford others reasonable opportunity for execution of their work. No contractor shall delay any other contractor by neglecting to perform contract work at the proper time. If any contractor causes delay to another, they shall be liable directly to that contractor for such delay in addition to any liquidated damages which might be due the Owner.
- D. Should the Contractor or project associated subcontractors refuse to cooperate with the instructions and reasonable requests of other Contractors or other subcontractors in the overall

coordinating of the work, the Owner may take such appropriate action and issue directions, as required, to avoid unnecessary and unwarranted delays.

- E. Each Contractor shall be responsible for damage done to Owner's or other Contractor's property by him/her or workers in his employ through their fault or negligence.
- F. Should a Contractor sustain any damage through any act or omission of any other Contractor having a contract with the Owner, the Contractor so damaged shall have no claim or cause of action against the Owner for such damage, but shall have a claim or cause of action against the other Contractor to recover any and all damages sustained by reason of the acts or omissions of such Contractor. The phrase "acts or omissions" as used in this section shall be defined to include, but not be limited to, any unreasonable delay on the part of any such contractors.

ARTICLE 1.10 - ASSIGNMENT OF CONTRACT

- A. No assignment by Contractor of any amount or any part of this contract or of the funds to be received there under will be recognized unless such assignment has had the written approval of the Director and the surety has been given due notice of such assignment and has furnished written consent thereto. In addition to the usual recitals in assignment contracts, the following language must be set forth: "It is agreed that the funds to be paid to the assignee under this assignment are subject to performance by the Contractor of this contract and to claims or liens for services rendered or materials supplied for the performance of the work called for in said contract in favor of all persons, firms or corporations rendering such services or supplying such materials."

ARTICLE 1.11 - INDEMNIFICATION

- A. Contractor agrees to indemnify and save harmless Owner and its respective commissioners, officers, officials, agents, consultants and employees and Designer, their agents, servants and employees, from and against any and all liability for damage arising from injuries to persons or damage to property occasioned by any acts or omissions of Contractor, any subcontractors, agents, servants or employees, including any and all expense, legal or otherwise, which may be incurred by Owner or Designer, its agents, servants or employees, in defense of any claim, action or suit.
- B. The obligations of the Contractor under this paragraph shall not extend to the liability of the Designer, his agents or employees, arising out of (1) the preparation or approval of maps, drawings, opinions, reports, surveys, contract changes, design or specifications, or (2) giving of or the failure to

give directions or instructions by the Designer, his agents or employees as required by this contract documents provided such giving or failure to give is the primary cause of the injury or damage.

ARTICLE 1.12 - DISPUTES AND DISAGREEMENTS

It is hereby expressly agreed and understood that in case any controversy or difference of opinion arises during construction, best efforts will be given to resolution at the field level. Should those efforts be unsuccessful, the Contractor has the right to appeal in writing, the decision of the Director's Designee to the Director at Room 730 Truman Building, P.O. Box 809, Jefferson City, Missouri 65102. The decision of the Director shall be final and binding on all parties.

ARTICLE 2 -- OWNER/DESIGNER RESPONSIBILITIES

- A. The Owner shall give all orders and directions contemplated under this contract relative to the execution of the work. During progress of work the Owner will be represented at the project site by the Construction Representative and/or Designer, whose responsibilities are to see that this contract is properly fulfilled.
- B. The Owner shall at all times have access to the work whenever it is in preparation or progress. The Contractors shall provide proper facilities for such access and for inspection and supervision.
- C. All materials and workmanship used in the work shall be subject to the inspection of the Designer and Construction Representative, and any work which is deemed defective shall be removed, rebuilt or made good immediately upon notice. The cost of such correction shall be borne by the Contractor. Contractor shall not be entitled to an extension of the contract completion date in order to remedy defective work. All rejected materials shall be immediately removed from the site of the work.
- D. If the Contractor fails to proceed at once with the correction of rejected defective materials or workmanship, the Owner may, by separate contract or otherwise, have the defects remedied or rejected. Materials removed from the site and charge the cost of the same against any monies which may be due the Contractor, without prejudice to any other rights or remedies of the Owner.
- E. Failure or neglect on the part of Owner to observe faulty work, or work done which is not in accordance with the drawings and specifications shall not relieve the Contractor from responsibility

for correcting such work without additional compensation.

- F. The Owner shall have the right to direct the Contractor to uncover any completed work.
 - 1. If the Contractor fails to adequately notify the Construction Representative and/or Designer of an inspection as required by the Contract Documents, the Contractor shall, upon written request, uncover the work. The Contractor shall bear all costs associated with uncovering and again covering the work exposed.
 - 2. If the Contractor is directed to uncover work, which was not otherwise required by the Contract Documents to be inspected, and the work is found to be defective in any respect, no compensation shall be allowed for this work. If, however, such work is found to meet the requirements of this contract, the actual cost of labor and material necessarily involved in the examination and replacement plus 10% shall be allowed the Contractor.
- G. The Designer shall give all orders and directions contemplated under this contract relative to the scope of the work and shall give the initial interpretation of the contract documents.
- H. The Owner may file a written notice to the Contractor to dismiss immediately any subcontractors, project managers, superintendents, foremen, workers, watchmen or other employees whom the Owner may deem incompetent, careless or a hindrance to proper or timely execution of the work. The Contractor shall comply with such notice as promptly as practicable without detriment to the work or its progress.
- I. If in the Owner's judgment it becomes necessary at any time to accelerate work, when ordered by the Owner in writing, the Contractor shall redirect resources to such work items and execute such portions of the work as may be required to complete the work within the current approved contract schedule.

ARTICLE 3 -- CONTRACTOR RESPONSIBILITIES

The Contractor shall register and utilize the Owner's eBuilder digital project management system for submission of documents described in the following sections. This includes but is not limited to submittals as required by designer, payment applications, Request for Information (RFI), construction change orders, Request for Proposals (RFP), Designer Supplemental Instructions (DSI), etc.

ARTICLE 3.1 -- ACCEPTABLE SUBSTITUTIONS

- A. The Contractor may request use of any article, device, product, material, fixture, form or type of construction which in the judgment of the Owner and Designer is equal in all respects to that named. Standard products of manufacturers other than those specified will be accepted when, prior to the ordering or use thereof, it is proven to the satisfaction of the Owner and Designer that they are equal in design, strength, durability, usefulness and convenience for the purpose intended.
- B. Any changes required in the details and dimensions indicated on the drawings for the substitution of products other than those specified shall be properly made at the expense of the Contractor requesting the substitution or change.
- C. The Contractor shall submit a request for such substitutions in writing to the Owner and Designer within twenty (20) working days after the date of the "Notice to Proceed." Thereafter no consideration will be given to alternate forms of accomplishing the work. This Article does not preclude the Owner from exercising the provisions of Article 4 hereof.
- D. Any request for substitution by the Contractor shall be submitted in accordance with SECTION 002113 - INSTRUCTIONS TO BIDDERS.
- E. When a material has been approved, no change in brand or make will be permitted unless:
 - 1. Written verification is received from the manufacturer stating they cannot make delivery on the date previously agreed, or
 - 2. Material delivered fails to comply with contract requirements.

ARTICLE 3.2 -- SUBMITTALS

- A. The Contractor's submittals must be submitted with such promptness as to allow for review and approval so as not to cause delay in the work. The Contractor shall coordinate preparation and processing of submittals with performance of construction activities.

Coordinate each submittal with fabrication, = purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

Submit four (4) copies to the Designer and additional copies as required for the subcontractors and material suppliers. Also provide copies to meet the requirements for maintenance manuals.

- B. All subcontractors' shop drawings and schedules shall be submitted by the Contractor and shall bear evidence that Contractor has received, reviewed, and approved them. Any shop drawings and

schedules submitted without this evidence will be returned to the Contractor for resubmission.

- C. The Contractor shall include with the shop drawing, a letter indicating any and all deviations from the drawings and/or specifications. Failure to notify the Designer of such deviations will be grounds for subsequent rejection of the related work or materials. If, in the opinion of the Designer, the deviations are not acceptable, the Contractor will be required to furnish the item as specified and indicated on the drawings.
- D. The Designer shall check shop drawings and schedules with reasonable promptness and approve them only if they conform to the design concept of the project and comply with the information given in the contract documents. The approval shall not relieve the Contractor from the responsibility to comply with the drawings and specifications, unless the Contractor has called the Designer's attention to the deviation, in writing, at the time of submission and the Designer has knowingly approved thereof. An approval of any such modification will be given only under the following conditions:
 - 1. It is in the best interest of the Owner
 - 2. It does not increase the contract sum and/or completion time
 - 3. It does not deviate from the design intent
 - 4. It is without prejudice to any and all rights under the surety bond.
- E. No extension of time will be granted because of the Contractor's failure to submit shop drawings and schedules in ample time to allow for review, possible resubmission, and approval. Fabrication of work shall not commence until the Contractor has received approval. The Contractor shall furnish prints of approved shop drawings and schedules to all subcontractors whose work is in any way related to the work under this contract. Only prints bearing this approval will be allowed on the site of construction
- F. The Contractor shall maintain a complete file on-site of approved shop drawings available for use by the Construction Representative.

ARTICLE 3.3 – AS-BUILT DRAWINGS

- A. The Contractor shall update a complete set of the construction drawings, shop drawings and schedules of all work monthly by marking changes, and at the completion of their work (prior to submission of request for final payment) note all changes and turn the set over to the Construction Representative. The updates shall show all addenda, all field changes that were made to adapt to field conditions, changes resulting from contract

changes or supplemental instructions, and all locations of structures, buried installations of piping, conduit, and utility services. All buried and concealed items both inside and outside shall be accurately located as to depth and referenced to permanent features such as interior or exterior wall faces and dimensions shall be given in a neat and legible manner in a contrasting colored pencil or ink. If approved by the Designer, an electronic file format may be provided.

ARTICLE 3.4 – GUARANTY AND WARRANTIES

A. General Guaranty

- 1. Neither the final certificate of payment nor any provision in the contract documents nor partial use or occupancy of the premises by the Owner shall constitute an acceptance of work not done in accordance with contract requirements.
- 2. The Contractor or surety shall remedy any defects in the work and pay for any damage to property resulting there from which shall appear within a period of one (1) year from the date of substantial completion unless a longer period is otherwise specified or a differing guaranty period has been established in the substantial completion certificate. The Owner will give notice of observed defects with reasonable promptness.
- 3. In case of default on the part of the Contractor in fulfilling this part of this contract, the Owner may correct the work or repair the damage and the cost and expense incurred in such event shall be paid by or recoverable from the Contractor or surety.
- 4. The work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's guaranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear under normal usage. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment

B. Extended Warranty

Manufacturer's certificates of warranty shall be obtained for all major equipment. Warranty shall be obtained for at least one year. Where a longer

period is offered at no additional cost or called for in the specific equipment specifications, the longer period shall govern.

ARTICLE 3.5 -- OPERATION AND MAINTENANCE MANUALS

A. Immediately after equipment submittals are approved and no later than ten (10) working days prior to the substantial completion inspection, the Contractor shall provide to the Designer three (3) copies of operating instructions and service manuals, containing the following:

1. Start-up and Shut-down Procedures: Provide a step-by-step write up of all major equipment. When manufacturer's printed start-up, trouble shooting and shut-down procedures are available; they may be incorporated into the operating manual for reference.
2. Operating Instructions: Written operating instructions shall be included for the efficient and safe operation of all equipment.
3. Equipment List: List of all major equipment as installed shall be prepared to include model number, capacities, flow rate, name plate data, shop drawings and air and water balance reports.
4. Service Instructions: Provide the following information for all pieces of equipment.
 - a. Recommended spare parts including catalog number and name of local supplier or factory representative.
 - b. Belt sizes, types, and lengths.
 - c. Wiring diagrams.
5. Manufacturer's Certificate of Warranty as described in Article 3.4.
6. Prior to the final payment, furnish to the Designer three (4) copies of parts catalogs for each piece of equipment furnished by him/her on the project with the components identified by number for replacement ordering.

B. Submission of operating instructions shall be done in the following manner.

1. Manuals shall be in quadruplicate, and all materials shall be bound into volumes of standard 8½" x 11" hard binders. Large drawings too bulky to be folded into 8½" x 11" shall be separately bound or folded and in envelopes, cross referenced and indexed with the manuals.
2. The manuals shall identify project name, project number, and include the name and

address of the Contractor, subcontractors and manufacturers who were involved with the activity described in that particular manual.

3. Internally subdivide the binder contents with permanent page dividers, logically organized with tab titles clearly printed under reinforced laminated plastic tabs.
4. Contents: Prepare a Table of Contents for each volume, with each product or system description identified.

ARTICLE 3.6 -- OTHER CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall keep on site, during progress of the work, a competent superintendent satisfactory to the Construction Representative. The superintendent shall represent the Contractor and all agreements made by the superintendent shall be binding. The superintendent shall carefully study and compare all drawings, specifications and other instructions and shall promptly notify the Construction Representative and Designer, in writing, any error, inconsistency or omission which may be discovered. The superintendent shall coordinate all work on the project. Any change of the superintendent shall be approved by the Construction Representative.
- B. Contractor shall, at all times, enforce strict discipline and good order among his employees, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him/her.
- C. The Contractor shall supply sufficient labor, material, plant and equipment and pay when due any laborer, subcontractor or supplier for supplies furnished and otherwise prosecute the work with diligence to prevent work stoppage and insure completion thereof within the time specified.
- D. The Contractor and each of his subcontractors shall submit to the Construction Representative, through the Designer such schedules of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the Owner may request concerning work performed or to be performed under this contract.
- E. The Contractor, subcontractors, and material suppliers shall upon written request, give the Owner access to all time cards, material invoices, payrolls, estimates, profit and loss statements, and all other direct or indirect costs related to this work.
- F. The Contractor shall be responsible for laying out all contract work such as layout of architectural, structural, mechanical and electrical work, which shall be coordinated with layouts of subcontractors

for general construction work. The Contractor is also responsible for unloading, uncrating and handling of all materials and equipment to be erected or placed by him/her, whether furnished by Contractor or others. No extra charges or compensation will be allowed as a result of failure to verify dimensions before ordering materials or fabricating items.

- G. The Contractor must notify the Construction Representative at least one working day before placing concrete or burying underground utilities, pipelines, etc.
- H. Contractors shall prearrange time with the Construction Representative for the interruption of any facility operation. Unless otherwise specified in these documents, all connections, alterations or relocations as well as all other portions of the work will be performed during normal working hours.
- I. The Contractor shall coordinate all work so there will not be prolonged interruptions of existing equipment operation. Any existing plumbing, heating, ventilating, air conditioning or electrical disconnections necessary for the project, which affect portions of this construction or building or any other building must be scheduled with the Construction Representative to minimize or avoid any disruption of facility operations. In no case, unless previously approved in writing by the Construction Representative, shall utilities be left disconnected at the end of a work day or over a weekend. Any interruption of utilities either intentionally or accidentally shall not relieve the Contractor responsible for the interruption from the responsibility to repair and restore the utility to normal service. Repairs and restoration shall be made before the workers responsible for the repair and restoration leave the job.
- J. Contractors shall limit operations and storage of materials to the area within the project, except as necessary to connect to existing utilities, and shall not encroach on neighboring property. The Contractor shall be responsible for repair of their damage to property on or off the project site occurring during construction of project. All such repairs shall be made to the satisfaction of the property owner.
- K. Unless otherwise permitted, all materials shall be new and both workmanship and materials shall be of the best quality.
- L. Unless otherwise provided and stipulated within these specifications, the Contractor shall furnish, construct, and/or install and pay for materials, devices, mechanisms, equipment, all necessary personnel, utilities including, but not limited to water, heat, light and electric power, transportation

services, applicable taxes of every nature, and all other facilities necessary for the proper execution and completion of the work.

- M. Contractor shall carefully examine the plans and drawings and shall be responsible for the proper fitting of his material, equipment and apparatus into the building.
- N. The Contractor or subcontractors shall not overload, or permit others to overload, any part of any structure during the performance of this contract.
- O. All temporary shoring, bracing, etc., required for the removal of existing work and/or for the installation of new work shall be included in this contract. The Contractor shall make good, at no cost to the Owner, any damage caused by improper support or failure of shoring in any respect. Each Contractor shall be responsible for shoring required to protect his work or adjacent property and improvements of Owner and shall be responsible for shoring or for giving written notice to adjacent property owners. Shoring shall be removed only after completion of permanent supports.
- P. The Contractor shall provide at the proper time such material as is required for support of the work. If openings are required, whether shown on drawings or not, the Contractor shall see that they are properly constructed.
- Q. During the performance of work the Contractor shall be responsible for providing and maintaining warning signs, lights, signal devices, barricades, guard rails, fences and other devices appropriately located on site which will give proper and understandable warning to all persons of danger of entry onto land, structure or equipment.
- R. The Contractor shall be responsible for protection, including weather protection, and proper maintenance of all equipment and materials.
- S. The Contractor shall be responsible for care of the finished work and shall protect same from damage or defacement until substantial completion by the Owner. If the work is damaged by any cause, the Contractor shall immediately begin to make repairs in accordance with the drawings and specifications. Contractor shall be liable for all damage or loss unless attributable to the acts or omissions of the Owner or Designer. Any claim for reimbursement shall be submitted in accordance with Article 4. After substantial completion the Contractor will only be responsible for damage resulting from acts or omissions of the Contractor or subcontractors through final warranty.
- T. In the event the Contractor encounters an unforeseen hazardous material, the Contractor

shall immediately stop work in the area affected and report the condition to the Owner and Designer in writing. The Contractor shall not be required, pursuant to Article 4, to perform, any work relating to hazardous materials.

- U. In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 4.
- V. Before commencing work, Contractors shall confer with the Construction Representative and facility representative and review any facility rules and regulations which may affect the conduct of the work.
- W. Project signs will only be erected on major projects and only as described in the specifications. If no sign is specified, none shall be erected.

ARTICLE 3.7 -- SUBCONTRACTS

- A. Subcontractor assignments as identified in the bid form shall not be changed without written approval of the Owner. The Owner will not approve changes of a listed subcontractor unless the Contractor documents, to the satisfaction of the Owner that the subcontractor cannot or will not perform the work as specified.
- B. The Contractor is fully responsible to the Owner for the acts and omissions of all subcontractors and of persons either directly or indirectly employed by them.
- C. Every subcontractor shall be bound by the applicable terms and provisions of these contract documents, but no contractual relationship shall exist between any subcontractor and the Owner unless the right of the Contractor to proceed with the work is suspended or this contract is terminated as herein provided, and the Owner in writing elects to assume the subcontract.
- D. The Contractor shall upon receipt of "Notice to Proceed" and prior to submission of the first payment request, notify the Designer and Construction Representative in writing of the names of any subcontractors to be used in addition to those identified in the bid form and all major material suppliers proposed for all parts of the work.

ARTICLE 4 -- CHANGES IN THE WORK

4.1 CHANGES IN THE WORK

- A. The Construction Representative, without giving notice to the surety and without invalidating this contract, may order extra work or make changes by

altering, adding to or deducting from the work, this contract sum being adjusted accordingly. All such work shall be executed under the conditions of the original contract. A claim for extension of time caused by any change must be adjusted at the time of ordering such change. No future request for time will be considered.

- B. Each Contract Change shall include all costs required to perform the work including all labor, material, equipment, overheads and profit, delay, disruptions, or other miscellaneous expenses. No subsequent requests for additional compensation including claims for delay, disruption, or reduced efficiency as a result of each change will be considered. Values from the Schedule of Values will not be binding as a basis for additions to or deductions from the contract price.
- C. The amount of any adjustment in this contract price for authorized changes shall be agreed upon before such changes become effective and shall be determined, through submission of a request for proposal, as follows:
 - 1. By an acceptable fixed price proposal from the Contractor. Breakdowns shall include all takeoff sheets of each Contractor and subcontractor. Breakdown shall include a listing of each item of material with unit prices and number of hours of labor for each task. Labor costs per hour shall be included with labor burden identified, which shall be not less than the prevailing wage rate, etc. Overhead and profit shall be shown separately for each subcontractor and the Contractor.
 - 2. By a cost-plus-fixed-fee (time and material) basis with maximum price, total cost not to exceed said maximum. Breakdown shall include a listing of each item of material with unit prices and number of hours of labor for each task. Labor costs per hour shall be included with labor burden identified, which shall be not less than the prevailing wage rate, etc. Overhead and profit shall be shown separately for each subcontractor and the Contractor.
 - 3. By unit prices contained in Contractor's original bid form and incorporated in the construction contract.
- D. Overhead and Profit on Contract Changes shall be applied as follows:

- 1. The overhead and profit charge by the Contractor and all subcontractors shall be considered to include, but is not limited to: incidental job burdens, small truck (under 1 ton) expense, mileage, small hand tools,

- warranty costs, company benefits and general office overhead. Project supervision including field supervision and job site office expense shall be considered a part of overhead and profit unless a compensable time extension is granted.
2. The percentages for overhead and profit charged on Contract Changes shall be negotiated, and may vary according to the nature, extent, and complexity of the work involved. However, the overhead and profit for the Contractor or subcontractor actually performing the work shall not exceed 14%. When one or more tiers of subcontractors are used, in no event shall any Contractor or subcontractor receive as overhead and profit more than 3% of the cost of the work performed by any of his subcontractors. In no case shall the total overhead and profit paid by the Owner on any Contract Changes exceed twenty percent (20%) of the cost of materials, labor and equipment (exclusive of Contractor or any Subcontractor overhead and profit) necessary to put the contract change work in place.
 3. The Contractor will be allowed to add the cost of bonding and insurance to their cost of work. This bonding and insurance cost shall not exceed 2% and shall be allowed on the total cost of the added work, including overhead and profit.
 4. On proposals covering both increases and decreases in the amount of this contract, the application of overhead and profit shall be on the net change in the cost of the work.
 5. The percentage for overhead and profit to be credited to the Owner on Contract Changes that are solely decreases in the quantity of work or materials shall be negotiated, and may vary according to the nature, extent and complexity of the work involved, but in no case shall be less than ten percent (10%). If the percentage for overhead and profit charged for work added by Contract Changes for this contract has been negotiated to less than 10%, the negotiated rate shall then apply to credits as well.
- E. No claim for an addition to this contract sum shall be valid unless authorized as aforesaid in writing by the Owner. In the event that none of the foregoing methods are agreed upon, the Owner may order the Contractor to perform work on a time and material basis. The cost of such work shall be determined by the Contractor's actual labor and material cost to perform the work plus overhead and profit as outlined herein. The

Designer and Construction Representative shall approve the Contractor's daily time and material invoices for the work involved.

- F. If the Contractor claims that any instructions involve extra cost under this contract, the Contractor shall give the Owner's Representative written notice thereof within a reasonable time after the receipt of such instructions, and in any event before proceeding to execute the work. No such claim shall be valid unless so made and authorized by the Owner, in writing.
- G. In an emergency affecting the safety of life or of the structure or of adjoining property, the Contractor, without special instruction or authorization from the Construction Representative, is hereby permitted to act at their discretion to prevent such threatened loss or injury. The Contractor shall submit a claim for compensation for such emergency work in writing to the Owner's Representative.

ARTICLE 4.2 – CHANGES IN COMPLETION TIME

- A. Extension of the number of work days stipulated in the Contract for completion of the work with compensation may be made when:
 1. The contractor documents that proposed Changes in the work, as provided in Article 4.1, extends construction activities critical to contract completion date, OR
 2. The Owner suspends all work for convenience of the Owner as provided in Article 7.3, OR
 3. An Owner caused delay extends construction activities critical to contract completion (except as provided elsewhere in these General Conditions). The Contractor is to review the work activities yet to begin and evaluate the possibility of rescheduling the work to minimize the overall project delay.
- B. Extension of the number of work days stipulated in the Contract for completion of the work without compensation may be made when:
 1. Weather-related delays occur, subject to provisions for the inclusion of a specified number of "bad weather" days when provided for in Section 012100-Allowances, OR
 2. Labor strikes or acts of God occur, OR
 3. The work of the Contractor is delayed on account of conditions which were beyond the control of the Contractor, subcontractors or suppliers, and were not the result of their fault or negligence.
- C. No time extension or compensation will be provided for delays caused by or within the control

of the Contractor, subcontractors or suppliers and for concurrent delays caused by the Owner.

- D. The Contractor shall notify the Owner promptly of any occurrence or conditions which in the Contractor's opinion results in a need for an extension of time. The notice shall be in writing and shall include all necessary supporting materials with details of any resultant costs and be submitted in time to permit full investigation and evaluation of the Contractor's claim. The Owner shall promptly acknowledge the Contractor's notice and, after recommendation from the Owner's Representative and/or Designer, shall provide a decision to the Contractor. Failure on the part of the Contractor to provide such notice and to detail the costs shall constitute a waiver by the Contractor of any claim. Requests for extensions of time shall be for working days only.

ARTICLE 5 - CONSTRUCTION AND COMPLETION

ARTICLE 5.1 – CONSTRUCTION COMMENCEMENT

- A. Upon receipt of the "Intent to Award" letter, the Contractor must submit the following properly executed instruments to the Owner:

1. Contract;
2. Performance/payment bond as described in Article 6.1;
3. Certificates of Insurance, or the actual policies themselves, showing that the Contractor has obtained the insurance coverage required by Article 6.2.
4. Written Affirmative Action Plans as required in Article 1.4.

Above referenced items must be received by the Owner within ten (10) working days after the effective date of the contract. If not received, the Owner may treat the failure to timely submit them as a refusal by the Contractor to accept a contract for this work and may retain as liquidated damages the Contractor's bid bond, cashier's check or certified check as provided in the Instructions to Bidders. Upon receipt the Owner will issue a "Notice to Proceed" with the work to the Contractor.

- B. Within the time frame noted in Section 013200 - Schedules, following receipt of the "Notice to Proceed", the Contractor shall submit to the Owner a progress schedule and schedule of values, showing activities through the end of the contract period. Should the Contractor not receive written notification from the Owner of the disapproval of the schedule of values within fifteen (15) working

days, the Contractor may consider it approved for purpose of determining when the first monthly Application and Certification for Payment may be submitted.

- C. The Contractor may commence work upon receipt of the Division of Facilities Management, Design and Construction's "Notice to Proceed" letter. Contractor shall prosecute the work with faithfulness and energy, and shall complete the entire work on or before the completion time stated in the contract documents or pay to the Owner the damages resulting from the failure to timely complete the work as set out within Article 5.4.

ARTICLE 5.2 -- PROJECT CONSTRUCTION

- A. Each Contractor shall submit for the Owner's approval, in reproducible form, a progress schedule showing the rate of progress and the order of the work proposed to carry on various phases of the project. The schedule shall be in conformance with the requirements outlined in Section 013200 – Schedules.
- B. Contractor shall employ and supply a sufficient force of workers, material, and equipment and shall pay when due, any worker, subcontractor or supplier and otherwise prosecute the work with such diligence so as to maintain the rate of progress indicated on the progress schedule, prevent work stoppage, and insure completion of the project within the time specified.

ARTICLE 5.3 -- PROJECT COMPLETION

- A. Substantial Completion. A Project is substantially complete when construction is essentially complete and work items remaining to be completed can be done without interfering with the Owner's ability to use the Project for its intended purpose.

1. Once the Contractor has reached what they believe is Substantial Completion, the Contractor shall notify the Designer and the Construction Representative of the following:
 - a. That work is essentially complete with the exception of certain listed work items. The list shall be referred to as the "Contractor's Punch."
 - b. That all Operation and Maintenance Manuals have been assembled and submitted in accordance with Article 3.5A.
 - c. That the Work is ready for inspection by the Designer and Construction Representative. The Owner shall be entitled to a minimum of ten working

days notice before the inspection shall be performed.

2. If the work is acceptable, the Owner shall issue a Certificate of Substantial Completion, which shall set forth the responsibilities of the Owner and the Contractor for utilities, security, maintenance, damage to the work and risk of loss. The Certificate shall also identify those remaining items of work to be performed by the Contractor. All such work items shall be complete within 30 working days of the date of the Certificate, unless the Certificate specifies a different time. If the Contractor shall be required to perform tests that must be delayed due to climatic conditions, it is understood that such tests and affected equipment will be identified on the Certificate and shall be accomplished by the Contractor at the earliest possible date. Performance of the tests may not be required before Substantial Completion can be issued. The date of the issuance of the Certificate of Substantial Completion shall determine whether or not the work was completed within the contract time and whether or not Liquidated Damages are due.
 3. If the work is not acceptable, and the Owner does not issue a Certificate of Substantial Completion, the Owner shall be entitled to charge the Contractor with the Designer's and Owner's costs of re-inspection, including time and travel.
- B. Partial Occupancy. Contractor agrees that the Owner shall be permitted to occupy and use any completed or partially completed portions of the Project, when such occupancy and use is in the Owner's best interest. Owner shall notify Contractor of its desire and intention to take Partial Occupancy as soon as possible but at least ten (10) working days before the Owner intends to occupy. If the Contractor believes that the portion of the work the Owner intends to occupy is not ready for occupancy, the Contractor shall notify the Owner immediately. The Designer shall inspect the work in accordance with the procedures above. If the Contractor claims increased cost of the project or delay in completion as a result of the occupancy, he shall notify the Owner immediately but in all cases before occupancy occurs.
- C. Final Completion. The Project is finally complete when the Certificate of Substantial Completion has been issued and all work items identified therein as incomplete have been completed, and when all administrative items required by the contract have been completed. Final Completion entitles the Contractor to payment of the outstanding balance of the contract amount including all change orders

and retainage. Within five (5) working days of the date of the Certificate of Substantial Completion, the Contractor shall identify the cost to complete any outstanding items of work. The Designer shall review the Contractor's estimate and either approve it or provide an independent estimate for all such items. If the Contractor fails to complete the remaining items within the time specified in the Certificate, the Owner may terminate the contract and go to the surety for project completion in accordance with Article 7.2 or release the contract balance to the Contractor less 150% of the approved estimate to complete the outstanding items. Upon completion of the outstanding items, when a final cost has been established, any monies remaining shall be paid to the Contractor. Failure to complete items of work does not relieve the Contractor from the obligation to complete the administrative requirements of the contract, such as the provisions of Article 5.3 FAILURE TO COMPLETE ALL ITEMS OF WORK UNDER THE CONTRACT SHALL BE CONSIDERED A DEFAULT AND BE GROUNDS FOR CONTRACT TERMINATION AND DEBARMENT.

- D. Liquidated Damages. Contractor agrees that the Owner may deduct from the contract price and retain as liquidated damages, and not as penalty or forfeiture, the sum stipulated in this contract for each work day after the Contract Completion Day on which work is not Substantially Complete. Assessment of Liquidated Damages shall not relieve the Contractor or the surety of any responsibility or obligation under the Contract. In addition, the Owner may, without prejudice to any other rights, claims, or remedies the Owner may have including the right to Liquidated Damages, charge the Contractor for all additional expenses incurred by the Owner and/or Designer as the result of the extended contract period through Final Completion. Additional Expenses shall include but not be limited to the costs of additional inspections.
- E. Early Completion. The Contractor has the right to finish the work before the contract completion date; however, the Owner assumes no liability for any hindrances to the Contractor unless Owner caused delays result in a time extension to the contract completion date. The Contractor shall not be entitled to any claims for lost efficiencies or for delay if a Certificate of Substantial Completion is given on or before the Contract Completion Date.

ARTICLE 5.4 -- PAYMENT TO CONTRACTOR

- A. Payments on account of this contract will be made monthly in proportion to the work which has been completed. Request for payment must be submitted on the Owner's forms. No other pay request will

be processed. Supporting breakdowns must be in the same format as Owner's forms and must provide the same level of detail. The Designer will, within 5 working days from receipt of the contractor's request for payment either issue a Certificate for Payment to the Owner, for such amount as the Designer determines is properly due, or notify the Contractor in writing of reasons for withholding a Certificate. The Owner shall make payment within 30 calendar days after the "Application and Certification for Payment" has been received and certified by the Designer. The following items are to be attached to the contractor's pay request:

1. Updated construction schedule
 2. Certified payrolls consisting of name, occupation and craft, number of hours worked and actual wages paid for each individual employee, of the Contractor and all subcontractors working on the project
- B. The Owner shall retain 5 percent of the amount of each such payment application, except as allowed by Article 5.4, until final completion and acceptance of all work covered by this contract.
- C. Each payment made to Contractor shall be on account of the total amount payable to Contractor and all material and work covered by paid partial payment shall thereupon become the sole property of Owner. This provision shall not be construed as relieving Contractor from sole responsibility for care and protection of materials and work upon which payments have been made or restoration of any damaged work or as a waiver of the right of Owner to require fulfillment of all terms of this contract.
- D. Materials delivered to the work site and not incorporated in the work will be allowed in the Application and Certification for Payment on the basis of one hundred (100%) percent of value, subject to the 5% retainage providing that they are suitably stored on the site or in an approved warehouse in accordance with the following requirements:
1. Material has previously been approved through submittal and acceptance of shop drawings conforming to requirements of Article 3.2 of General Conditions.
 2. Delivery is made in accordance with the time frame on the approved schedule.
 3. Materials, equipment, etc., are properly stored and protected from damage and deterioration and remain so - if not, previously approved amounts will be deleted from subsequent pay applications.

4. The payment request is accompanied by a breakdown identifying the material equipment, etc. in sufficient detail to establish quantity and value.
- E. The Contractor shall be allowed to include in the Application and Certification for Payment, one hundred (100%) of the value, subject to retainage, of major equipment and material stored off the site if all of the following conditions are met:
1. The request for consideration of payment for materials stored off site is made at least 15 working days prior to submittal of the Application for Payment including such material. Only materials inspected will be considered for inclusion on Application for Payment requests.
 2. Materials stored in one location off site are valued in excess of \$25,000.
 3. That a Certificate of Insurance is provided indicating adequate protection from loss, theft conversion or damage for materials stored off site. This Certificate shall show the State of Missouri as an additional insured for this loss.
 4. The materials are stored in a facility approved and inspected, by the Construction Representative.
 5. Contractor shall be responsible for, Owner costs to inspect out of state facilities, and any delays in the completion of the work caused by damage to the material or for any other failure of the Contractor to have access to this material for the execution of the work.
- F. The Owner shall determine the amount, quality and acceptability of the work and materials which are to be paid for under this contract. In the event any questions shall arise between the parties, relative to this contract or specifications, determination or decision of the Owner or the Construction Representative and the Designer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this contract affected in any manner or to any extent by such question.
- G. Payments Withheld: The Owner may withhold or nullify in whole or part any certificate to such extent as may be necessary to protect the Owner from loss on account of:
1. Defective work not remedied. When a notice of noncompliance is issued on an item or items, corrective action shall be undertaken immediately. Until corrective action is completed, no monies will be paid and no additional time will be allowed for the item or

items. The cost of corrective action(s) shall be borne by the Contractor.

2. A reasonable doubt that this contract can be completed for the unpaid balance.
3. Failure of the Contractor to update as-built drawings monthly for review by the Construction Representative.
4. Failure of the Contractor to update the construction schedule.

When the Construction Representative is satisfied the Contractor has remedied above deficiencies, payment shall be released.

H. Final Payment: Upon receipt of written notice from the Contractor to the Designer and Project Representative that the work is ready for final inspection and acceptance, the Designer and Project Representative, with the Contractor, shall promptly make such inspection. If the work is acceptable and the contract fully performed, the Construction Representative shall complete a final acceptance report and the Contractor will be directed to submit a final Application and Certification for Payment. If the Owner approves the same, the entire balance shall be due and payable, with the exception of deductions as provided for under Article 5.4.

1. Where the specifications provide for the performance by the Contractor of (certain tests for the purpose of balancing and checking the air conditioning and heating equipment and the Contractor shall have furnished and installed all such equipment in accordance with the specifications, but said test cannot then be made because of climatic conditions, such test shall may be considered as required under the provisions of the specifications, Section 013300 and this contract may be substantial Full payment will not be made until the tests have been made and the equipment and system is finally accepted. If the tests are not completed when scheduled, the Owner may deduct 150% of the value of the tests from the final payment.
2. The final payment shall not become due until the Contractor delivers to the Construction Representative:
 - a) A complete file of releases, on the standard form included in the contract documents as "Final Receipt of Payment and Release Form", from subcontractors and material suppliers evidencing payment in full for services, equipment and materials, as the case may require, if the Owner approves, or a consent from

the Surety to final payment accepting liability for any unpaid amounts.

- b) An Affidavit of Compliance with Prevailing Wage Law, in the form as included in this contract specifications, properly executed by each subcontractor, and the Contractor
 - c) Certified copies of all payrolls
 - d) As-built drawings
3. If any claim remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a claim including all costs and a reasonable attorney's fee.
 4. Missouri statute requires prompt payment from the Owner to the Contractor within thirty calendar days and from the Contractor to his subcontractors within fifteen calendar days. Failure to make payments within the required time frame entitles the receiving party to charge interest at the rate of one and one half percent per month calculated from the expiration of the statutory time period until paid.
 5. The value of all unused unit price allowances and/or 150% of the value of the outstanding work items, and/or liquidated damages may be deducted from the final pay request without executing a Contract Change. Any unit price items which exceed the number of units in the contract may be added by Contract Change.

ARTICLE 6 -- INSURANCE AND BONDS

ARTICLE 6.1 -- BOND

- A. Contractor shall furnish a performance/payment bond in an amount equal to 100% of the contract price to guarantee faithful performance of the contract and 100% of the contract price to guarantee the payment of all persons performing labor on the project and furnishing materials in connection therewith under this contract as set forth in the standard form of performance and payment bond included in the contract documents. The surety on such bond shall be issued by a surety company authorized by the Missouri Department of Insurance to do business in the state of Missouri.
- B. All Performance/Payment Bonds furnished in response to this provision shall be provided by a bonding company with a rating of B+ or higher as established by A.M. Best Company, Inc. in their most recent publication.

ARTICLE 6.2 – INSURANCE

A. The successful Contractor shall procure and maintain for the duration of the contract issued a policy or policies of insurance for the protection of both the Contractor and the Owner and their respective officers, officials, agents, consultants and employees. The Owner requires certification of insurance coverage from the Contractor prior to commencing work.

B. Minimum Scope and Extent of Coverage

1. General Liability

Commercial General Liability, ISO coverage form number or equivalent CG 00 01 ("occurrence" basis), or I-SO coverage form number CG 00 02, or ISO equivalent.

If ISO equivalent or manuscript general liability coverage forms are used, minimum coverage will be as follows: Premises/Operations; Independent Contractors; Products/Completed Operations; personal injury; Broad Form Property Damage including Completed Operations; Broad Form Contractual Liability Coverage to include Contractor's obligations under Article 1.11 Indemnification and any other Special Hazards required by the work of the contract.

2. Automobile Liability

Business Automobile Liability Insurance, ISO Coverage form number or equivalent CA 00 01 covering automobile liability, code 1 "ANY AUTO".

3. Workers' Compensation and Employer's Liability

Statutory Workers' Compensation Insurance for Missouri and standard Employer's Liability Insurance, or the authorization to self-insure for such liability from the Missouri Division of Workers' Compensation.

4. Builder's Risk or Installation Floater Insurance

Insurance upon the work and all materials, equipment, supplies, temporary structures and similar items which may be incident to the performance of the work and located at or adjacent to the site, against loss or damage from fire and such other casualties as are included in extended coverage in broad "All Risk" form, including coverage for Flood and Earthquake, in an amount not less than the replacement cost of the work or this contract price, whichever is greater, with loss payable to Contractor and Owner as their respective interests may appear.

Contractor shall maintain sufficient insurance to cover the full value of the work and materials as the work progresses, and shall furnish Owner copies of all endorsements. If Builder's Risk Reporting- Form of Endorsement is used, Contractor shall make all reports as required therein so as to keep in force an amount of insurance which will equal the replacement cost of the work, materials, equipment, supplies, temporary structures, and other property covered thereby; and if, as a result of Contractor's failure to make any such report, the amount of insurance so recoverable shall be less than such replacement cost, Contractor's interest in the proceeds of such insurance, if any, shall be subordinated to Owner's interest to the end that Owner may receive full reimbursement for its loss.

C. Minimum Limits of Insurance

1. General Liability

Contractor

\$2,000,000	combined single limit per occurrence for bodily injury, personal injury, and property damage
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\$2,000,000	annual aggregate
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2. Automobile Liability

\$2,000,000	combined single limit per occurrence for bodily injury and property damage
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3. Workers' Compensation and Employers Liability

Workers' Compensation limits as required by applicable State Statutes (generally unlimited) and minimum of \$1,000,000 limit per accident for Employer's Liability.

General Liability and Automobile Liability insurance may be arranged under individual policies for the full limits required or by a combination of underlying policies with the balance provided by a form-following Excess or Umbrella Liability policy.

D. Deductibles and Self-Insured Retentions

All deductibles, co-payment clauses, and self-insured retentions must be declared to and approved by the Owner. The Owner reserves the right to request the reduction or elimination of unacceptable deductibles or self-insured retentions, as they would apply to the Owner, and their respective officers, officials, agents, consultants and employees. Alternatively, the Owner may request Contractor to procure a bond guaranteeing

payment of losses and related investigations, claims administration, and defense expenses.

E. Other Insurance Provisions and Requirements

The respective insurance policies and coverage, as specified below, must contain, or be endorsed to contain the following conditions or provisions:

1. General Liability

The Owner, and its respective commissioners, officers, officials, agents, consultants and employees shall be endorsed as additional insured's by ISO form CG 20 26 Additional Insured - Designated Person or Organization. As additional insured's, they shall be covered as to work performed by or on behalf of the Contractor or as to liability which arises out of Contractor's activities or resulting from the performance of services or the delivery of goods called for by the Contract.

Contractor's insurance coverage shall be primary with respect to all additional insured's. Insurance of self-insurance programs maintained by the designated additional -insured's shall be excess of the Contractor's insurance and shall not contribute with it.

Additionally, the Contractor and Contractor's general liability insurer shall agree to waive all rights of subrogation against the Owner and any of their respective officers, officials, agents, consultants or employees for claims, losses, or expenses which arise out of Contractor's activities or result from the performance of services or the delivery of goods called for by the Contract.

Contractor's failure to comply with the terms and conditions of these insurance policies shall not affect or abridge coverage for the Owner, or for any of their officers, officials, agents, consultants or employees.

2. Automobile Insurance

The Owner, and their respective officers, officials, agents, consultants and employees shall be endorsed as additional insured's by ISO form CG 20 26 - Additional Insured Designated Person or Organization. As additional insured's, they shall be covered as to work performed by or on behalf of the Contractor or as to liability which arises out of Contractor's activities or resulting from the performance of services or the delivery of goods called for by the Contract.

Contractor's insurance coverage shall be primary with respect to all additional insured's. Insurance or self-insurance

programs maintained by the designated additional insured's shall be in excess of the Contractor's insurance and shall not contribute with it.

Additionally, the Contractor and Contractor's automobile insurer shall agree to waive all rights of subrogation against the Owner and any of their respective officers, officials, agents, consultants or employees for claims, losses, or expenses which arise out of Contractor's activities or result from the performance of services or the delivery of goods called for by the Contract.

Contractor's failure to comply with the terms and conditions of these insurance policies shall not affect or abridge coverage for the Owner or for any of its officers, officials, agents, consultants or employees.

3. Workers' Compensation/Employer's Liability

Contractor's workers' compensation insurance shall be endorsed with NCCI form WC 00 03 01 A - Alternative Employer Endorsement. The Alternative Employer Endorsement shall designate the Owner as "alternate employers."

4. All Coverages

Each insurance policy required by this section of the Contract shall contain a stipulation, endorsed if necessary, that the Owner will receive a minimum of a thirty (30) calendar day advance notice of any policy cancellation. Ten (10) calendar days advance notice is required for policy cancellation due to non-payment of premium.

F. Insurer Qualifications and Acceptability

Insurance required hereunder shall be issued by an A.M. Best, "B+" rated, Class IX insurance company approved to conduct insurance business in the state of Missouri.

G. Verification of Insurance Coverage

Prior to Owner issuing a Notice to Proceed, the Contractor shall furnish the Owner with Certificate(s) of Insurance and with any applicable original endorsements evidencing the required insurance coverage. The insurance certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements received by the Owner are subject to review and approval by the Owner. The Owner reserves the right to require certified copies of all required policies at any time. If the scope of this contract will exceed one (1) year - or, if any of Contractor's applicable insurance coverage expires prior to completion of the work or services required under this contract -

the Contractor will provide a renewal or replacement certificate before continuing work or services hereunder. If the Contractor fails to provide documentation of required insurance coverage, the Owner may issue a stop work order and no additional contract completion time and/or compensation shall be granted as a result thereof.

ARTICLE 7 – SUSPENSION OR TERMINATION OF CONTRACT

ARTICLE 7.1 - FOR SITE CONDITIONS

When conditions at the site of the proposed work are considered by the Owner to be unsatisfactory for prosecution of the work, the Contractor may be ordered in writing to suspend the work or any part thereof until reasonable conditions exist. When such suspension is not due to fault or negligence of the Contractor, time allowed for completion of such suspended work will be extended by a period of time equal to that lost due to delay occasioned by ordered suspension. This will be a no cost time extension.

ARTICLE 7.2 - FOR CAUSE

A. Termination or Suspension for Cause:

1. If the Contractor shall file for bankruptcy, or should make a general assignment for the benefit of the creditors, or if a receiver should be appointed on account of insolvency, or if the contractor should persistently or repeatedly refuse or fail to supply enough properly skilled workers or proper materials, or if the contractor should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, ordinances or the instructions of the Owner, or otherwise be guilty of a substantial violation of any provision of this contract, then the Owner may serve notice on the Contractor and the surety setting forth the violations and demanding compliance with this contract. Unless within ten (10) consecutive calendar days after serving such notice, such violations shall cease and satisfactory arrangements for correction be made, the Owner may suspend the Contractor's right to proceed with the work or terminate this contract.
2. In the event the Owner suspends Contractor's right to proceed with the work or terminates the contract, the Owner may demand that the Contractor's surety take over and complete the work on this contract, after the surety submits a written proposal to the Owner and receives written approval and upon the surety's failure or refusal to do so within ten (10) consecutive

calendar days after demand therefore, the Owner may take over the work and prosecute the same to completion by bid or negotiated contract, or the Owner may elect to take possession of and utilize in completing the work such materials, supplies, appliances and plant as may be on the site of the work, and all subcontractors, if the Owner elects, shall be bound to perform their contracts.

- B. The Contractor and its surety shall be and remain liable to the Owner for any excess cost or damages occasioned to the Owner as a result of the actions above set forth.
- C. The Contractor in the event of such suspension or termination shall not be entitled to receive any further payments under this contract until the work is wholly finished. Then if the unpaid balance under this contract shall exceed all expenses of the Owner as certified by the Director, such excess shall be paid to the Contractor; but, if such expenses shall exceed the unpaid balance as certified by the Director, the Contractor and their surety shall be liable for and shall pay the difference and any damages to the Owner.
- D. In exercising Owner's right to secure completion of the work under any of the provisions hereof, the Director shall have the right to exercise Owner's sole discretion as to the manner, methods and reasonableness of costs of completing the work.
- E. The rights of the Owner to suspend or terminate as herein provided shall be cumulative and not exclusive and shall be in addition to any other remedy provided by law.
- F. The Contractor in the event of such suspension or termination may be declared ineligible for Owner contracts for a minimal period of twelve (12) months. Further, no contract will be awarded to any Contractor who lists in their bid form any subcontractor whose prior performance has contributed, as determined by the Owner, to a breach of a contract. In order to be considered for state-awarded contracts after this period, the Contractor/subcontractor will be required to forward acceptance reports to the Owner regarding successful completion of non-state projects during the intervening twelve (12) months from the date of default. No contracts will be awarded to a subcontractor/Contractor until the ability to perform responsibly in the private sector has been proven to the Owner.

ARTICLE 7.3 -- FOR CONVENIENCE

- A. The Owner may terminate or suspend the Contract or any portion of the Work without cause at any time, and at the Owner's convenience. Notification of a termination or suspension shall be in writing

and shall be given to the Contractor and their surety. If the Contract is suspended, the notice will contain the anticipated duration of the suspension or the conditions under which work will be permitted to resume. If appropriate, the Contractor will be requested to demobilize and re-mobilize and will be reimbursed time and costs associated with the suspension.

B. Upon receipt of notification, the Contractor shall:

1. Cease operations when directed.
2. Take actions to protect the work and any stored materials.
3. Place no further subcontracts or orders for material, supplies, services or facilities except as may be necessary to complete the portion of the Contract that has not been terminated. No claim for payment of materials or supplies ordered after the termination date shall be considered.
4. Terminate all existing subcontracts, rentals, material, and equipment orders.

5. Settle all outstanding liabilities arising from termination with subcontractors and suppliers.

6. Transfer title and deliver to the Owner, work in progress, completed work, supplies and other material produced or acquire for the work terminated, and completed or partially completed plans, drawings information and other property that, if the Contract had been completed, would be required to be furnished to the Owner.

C. For termination without cause and at the Owner's convenience, in addition to payment for work completed prior to date of termination, the Contractor may be entitled to payment of other documented costs directly associated with the early termination of the contract. Payment for anticipated profit and unapplied overhead will not be allowed.

SECTION 007300 - SUPPLEMENTARY CONDITIONS

1.0 GENERAL:

- A. These Supplementary General Conditions clarify, add, delete, or otherwise modify standard terms and conditions of DIVISION 0, BIDDING AND CONTRACTING REQUIREMENTS.

2.0 CONTACTS:

DNR Project Designer: Brent Willeford, P.E.
Missouri Department of Natural Resources
Land Reclamation Program
PO Box 176
1101 Riverside Dr.
Jefferson City, Missouri 65102
Telephone: (573) 368-2449
Email: Brent.Willeford@dnr.mo.gov

DNR Project Coordinator: Austin Rehagen
Missouri Department of Natural Resources
Land Reclamation Program
PO Box 176
1101 Riverside Dr.
Jefferson City, Missouri 65102
Telephone: (573) 526-6980
Email: Austin.Rehagen@dnr.mo.gov

Project Manager: Scott Zeller
Division of Facilities Management, Design and Construction
301 West High Street, Room 730
Jefferson City, Missouri 65101
Telephone: (573) 751-2668
Email: Scott.Zeller@oa.mo.gov

Contract Specialist: Paul Girouard
Division of Facilities Management, Design and Construction
301 West High Street, Room 730
Jefferson City, Missouri 65102
Telephone: (573) 751-4797
Email: paul.girouard@oa.mo.gov

3.0 NOTICE: ALL BID MATERIALS ARE DUE AT THE TIME OF BID SUBMITTAL. THERE IS NO SECOND SUBMITTAL FOR THIS PROJECT.

4.0 FURNISHING CONSTRUCTION DOCUMENTS:

- A. The Owner will furnish the Contractor with approximately 5 complete sets of drawings and specifications at no charge.
- B. The Owner will furnish the Contractor with approximately 5 sets of explanatory or change drawings at no charge.
- C. The Contractor may make copies of the documents as needed with no additional cost to the Owner.

5.0 SAFETY REQUIREMENTS

Contractor and subcontractors at any tier shall comply with RSMo 292.675 and Article 1.3, E, of Section 007213, General Conditions.

6.0 OFF-SITE BORROW & SPOIL DEPOSIT SITES FOR FEDERALLY FUNDED PROJECTS:

All Federally funded projects which involve off-site borrow and/or off-site spoil deposit sites will require written certification that the site(s) are in compliance with the National Environmental Protection Act and all related applicable Federal and State laws and regulations. If the need for off-site borrow and/or spoil sites is stipulated in the Contract Documents, the following applies:

- A. The Contractor is required to use only the designated site described in the Contract Documents. If another off-site area is proposed by the Contractor, the Contractor must provide written certification to

the Division of Facilities Management, Design and Construction Project Representative that the proposed borrow or spoil site has been cleared of environmental concerns in accordance with all applicable Federal and State laws and regulations. These include but are not limited to the following: Clean Water Act; the Endangered Species Act; the National Historic Preservation Act (NHPA) (The site must have Section 106 Clearance); the Farmland Protection Act; Resource Conservation and Recovery Act; Comprehensive Environmental Response; Compensation and Liability Act; and RSMo Chapter 194, Section 194.400, Unmarked Human Burial Sites. Certifications shall include clearance letters and other evidence of coordination with the appropriate regulatory agencies. The Missouri Historic Preservation Office, PO Box 176 Jefferson City, MO 65102, may be contacted to provide assistance with the NHPA and cultural resource issues pertaining to the borrow and spoil site regulations. The Missouri State Historic Preservation Office can provide a list of qualified and certified archaeologists to assist in borrow and spoil site investigations.

- B. If project conditions require off-site borrow or off-site deposit of spoils, the Contractor will be required to provide written certification to the Division of Facilities Management, Design and Construction Project Representative that the proposed borrow or spoil site has been cleared of environmental concerns in accordance with all applicable Federal and State laws and regulations. These include but are not limited to the following: Clean Water Act; the Endangered Species Act; the National Historic Preservation Act (NHPA) (The site must have Section 106 Clearance); the Farmland Protection Act; Resource Conservation and Recovery Act; Comprehensive Environmental Response; Compensation and Liability Act; and RSMo Chapter 194, Section 194.400, Unmarked Human Burial Sites. Certifications shall include clearance letters and other evidence of coordination with the appropriate regulatory agencies. The Missouri Historic Preservation Office, PO Box 176 Jefferson City, MO 65102, may be contacted to provide assistance with the NHPA and cultural resource issues pertaining to the borrow and spoil site regulations. The Missouri State Historic Preservation Office can provide a list of qualified and certified archaeologists to assist in borrow and spoil site investigations.
- C. The Owner recognizes that additional time (beyond what is allowed in the Construction Contract) may be required in order to secure the aforementioned certifications and approvals. Should more time be required, the Owner will consider approval of a no-cost time extension contract change. The Contractor will be required to provide documentation that substantiates the need for the time extension.

7.0 PROPERTY OWNER ADDITIONAL INSURED

From SECTION 007213 - GENERAL CONDITIONS, Article 6.2, the property owner shall also be named as additionally insured. They are:

Ronald L. Herda
Rt. 1, Box 4
Hume, MO 64752

Steven S. Beshore
602 Birch St.
Peculiar, MO 64078

Jeffery A. Beshore
62 SE 40th Ln.
Lamar, MO 64759

SUPPLEMENTARY GENERAL CONDITIONS
FOR FEDERALLY FUNDED/ASSISTED CONSTRUCTION PROJECTS

1.0 Notice of Federal Funding

This project is being performed in whole or in part using federal funds. Therefore, all work or services performed by the Contractor and its subcontractors shall be subject to the terms and conditions set forth below in addition to all terms and conditions in the Construction Contract, General Conditions, and other contract documents. The concepts, rules, and guidelines set forth in 2 C.F.R. 200 describing allowable costs and administrative requirements apply.

2.0 Definitions

As used herein, “Federal Government” means the government of the United States of America. “Federal Agency” means an agency, entity, department or division of the Federal Government that is providing funding for this project. All other terms shall have the meanings established in the Construction Contract, General Conditions, and/or Project Manual, unless such definitions conflict with a definition provided in an applicable statute or regulation.

3.0 Conflicting Terms or Conditions

To the extent that any terms or conditions set forth herein conflict with the Construction Contract or its General Conditions, the more stringent of the two terms and conditions shall govern.

4.0 No Obligation by Federal Government

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, Contractor, or any other party pertaining to any matter resulting from the contract.

5.0 Compliance with Federal Laws, Regulations and Executive Orders

The Contractor and its subcontractors and suppliers are required to comply with all applicable Federal laws, regulations, and executive orders, regardless of whether set forth herein. The Contractor shall assist and enable the State of Missouri in complying with any requirements imposed by the Federal Agency as a condition of funding.

6.0 Compliance with Civil Rights Provisions

The Contractor shall comply with all Federal statutes, executive orders, and regulations relating to nondiscrimination. These include, but are not limited to the following:

Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin;

Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex;

Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps;

The Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age;

Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing;

Title VII of the Civil Rights Act of 1964 (42 U.S.C. part 2000(e), which prohibits discrimination against employees on the basis of religion;

Any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and

The requirements of any other nondiscrimination statute(s) that may apply to the application.

7.0 Equal Employment Opportunity (41 C.F.R. 60-1.4(b)).

During the performance of this contract, the Contractor agrees as follows:

- (1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- (2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicants or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- (4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

- (6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and sub contractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and sub contractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

8.0 Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity
(Executive Order 11246, 41 C.F.R. 60-4.2)

(1) The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

(2) The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Time-tables	Goals for minority participation for each trade	Goals for female participation in each trade
105	10%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 C.F.R. pt. 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 C.F.R. 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 C.F.R. pt. 60-4. Compliance with the goals will be measured against the total work hours performed.

(3) The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

(4) As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

9.0 Standard Federal Equal Employment Opportunity Construction Contract Specifications
(Executive Order 11246 - 41 C.F.R. 60-4.3)

(1) As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

(3) If the Contractor is participating (pursuant to 41 C.F.R. 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved Plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

(4) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in

geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the FEDERAL REGISTER in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

(5) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

(6) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(7) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by

the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other contractors and subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 C.F.R. pt. 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

(8) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(9) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

(10) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

(11) The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

(12) The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

(13) The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 C.F.R. 60-4.8.

(14) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each

employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

(15) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

10.0 Prohibition of Segregated Facilities

- (1) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Employment Opportunity clause in this contract.
- (2) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.
- (3) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Employment Opportunity clause of this contract.

11.0 — ~~Davis-Bacon Act~~ (40 U.S.C. §§ 3141-3144, and §§ 3146-3148, and 29 C.F.R. pt. 5)

(The requirements of the Davis-Bacon Act and this section are not applicable to projects funded by the Abandoned Mine Land Grant.)

~~(1) Minimum wages.~~

- ~~(i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 C.F.R. pt. 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which~~

~~cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.~~

~~(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:~~

- ~~(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and~~
- ~~(2) The classification is utilized in the area by the construction industry; and~~
- ~~(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.~~

~~(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.~~

~~(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.~~

~~(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.~~

~~(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.~~

(iv) ~~If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.~~

(2) ~~Withholding. The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.~~

(3) ~~Payrolls and basic records.~~

(i) ~~Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 C.F.R. 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.~~

(ii)(A) ~~The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 C.F.R. 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at~~

~~http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime Contractor to require a subcontractor to provide addresses and social security numbers to the prime Contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).~~

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 C.F.R. pt. 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 C.F.R. pt. 5, and that such information is correct and complete;
- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 C.F.R. pt. 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) ~~The Contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal Agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 C.F.R. 5.12.~~

(4) Apprentices and trainees—

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship

~~program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.~~

- ~~(ii) Trainees. Except as provided in 29 C.F.R. 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.~~

- (iii) ~~Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 C.F.R. pt. 30.~~
- (5) ~~Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 C.F.R. pt. 3, which are incorporated by reference in this contract.~~
- (6) ~~Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 C.F.R. 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal Agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 C.F.R. 5.5.~~
- (7) ~~Contract termination: debarment. A breach of the contract clauses in 29 C.F.R. 5.5 may be grounds for termination of the contract, and for debarment as a Contractor and a subcontractor as provided in 29 C.F.R. 5.12.~~
- (8) ~~Compliance with Davis Bacon and Related Act requirements. All rulings and interpretations of the Davis Bacon and Related Acts contained in 29 C.F.R. pts. 1, 3, and 5 are herein incorporated by reference in this contract.~~
- (9) ~~Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 C.F.R. pts. 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.~~
- (10) ~~Certification of eligibility.~~
 - (i) ~~By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis Bacon Act or 29 C.F.R. 5.12(a)(1).~~
 - (ii) ~~No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis Bacon Act or 29 C.F.R. 5.12(a)(1).~~
 - (iii) ~~The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. § 1001.~~

11.0 — Copeland “Anti-Kickback” Act

- (1) ~~The Contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract. The Contractor and subcontractors are prohibited from inducing, by any means, any person employed on the project to give up any part of the compensation to which the employee is entitled.~~
- (2) ~~The Contractor or subcontractor shall insert in any subcontracts the clause above, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.~~

- ~~(3) A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 C.F.R. 5.12.~~

12.0 Contract Work Hours and Safety Standards Act (40 U.S.C. 3701 to 3708, 29 C.F.R. 5.5)

- (1) Overtime requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. The Owner shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
- (4) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

13.0 Suspension and Debarment (Executive Orders 12549 and 12689, 2 C.F.R. pt. 180)

- (1) A contract award (see 2 C.F.R. 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 C.F.R. 180 that implement Executive Orders 12549 (3 C.F.R. pt. 1986 Comp., p. 189) and 12689 (3 C.F.R. pt. 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.
- (2) The contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. 180.995) or its affiliates (defined at 2 C.F.R. 180.905) are excluded (defined at 2 C.F.R. 180.940) or disqualified (defined at 2 C.F.R. 180.935).

- (3) The contractor must comply with 2 C.F.R. pt. 180, subpart C and the regulations of the granting Federal Agency regarding suspension and debarment, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- (4) This certification is a material representation of fact relied upon by the Owner. If it is later determined that the Contractor did not comply with 2 C.F.R. pt. 180, subpart C in addition to remedies available to the Owner, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- (5) By submitting a bid, the bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

14.0 Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352)

- (1) Contractors that apply or bid for an award exceeding \$100,000 agree to file the required certification (set forth below), in compliance with 31 U.S.C. § 1352 (as amended).
- (2) Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352.
- (3) Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

CERTIFICATION REGARDING LOBBYING

The Bidder or Offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form—LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

15.0 Procurement of Recovered Materials

The Contractor shall comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (42 U.S.C. § 6962). The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

Information about this requirement, along with the list of EPA designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

16.0 Fair Labor Standards Act

All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 C.F.R. pt. 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part-time workers. The Contractor has full responsibility to monitor compliance to the referenced statute or regulation. The Contractor must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division.

17.0 Access to Records and Reports

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Owner, the Federal Agency and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

18.0 Occupational Health and Safety Act

All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 C.F.R. pt. 1910 with the same force and effect as if given in full text. The employer must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The employer retains full responsibility to monitor its compliance and their subcontractor's compliance with the applicable requirements of the Occupational Safety and Health Act of 1970 (29 C.F.R. pt. 1910). The employer must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

19.0 Rights to Inventions

Contracts or agreements that include the performance of experimental, developmental, or research work must provide for the rights of the Federal Government and the Owner in any resulting invention as established by 37 C.F.R. pt. 401, Rights to Inventions Made by Non-profit Organizations and Small Business Firms under Government Grants, Contracts, and Cooperative Agreements. This contract incorporates by reference the patent and inventions rights as specified within 37 C.F.R. 401.14. Contractor must include this requirement in all sub-tier contracts involving experimental, developmental, or research work.

20.0 Energy Conservation

The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6201 et seq.).

21.0 Clean Air Act and Federal Water Pollution Control Act

- (1) If the amount of the Contract exceeds \$150,000, the Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. and the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1251 et seq.
- (2) The Contractor agrees to report each violation to the Owner, and understands and agrees that the Owner will, in turn, report each violation as required to assure notification to the Federal Agency and the appropriate Environmental Protection Agency Regional Office.
- (3) The Contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance.

22.0 Contractor Employee Whistleblower Rights and Requirement to Inform Employees of Whistleblower Rights

- (1) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on contractor employee whistleblower protections established at 41 U.S.C. § 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.
- (2) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. § 4712, as described in section 3.908 of the Federal Acquisition Regulation.
- (3) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold.

23.0 Veteran's Preference

In the employment of labor (excluding executive, administrative, and supervisory positions), the Contractor and all sub-tier contractors must give preference to covered veterans as defined within Title 49 United States Code Section 47112. Covered veterans include Vietnam-era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns (as defined by 15 U.S.C. §

632) owned and controlled by disabled veterans. This preference only applies when there are covered veterans readily available and qualified to perform the work to which the employment relates.

24.0 Drug Free Workplace Act

The Contractor shall provide a drug free workplace in accordance with the Drug Free Workplace Act of 1988, 41 U.S.C. Chapter 81, and all applicable regulations. The Contractor shall report any conviction of the Contractor's personnel under a criminal drug statute for violations occurring on the Contractor's premises or off the Contractor's premises while conducting official business. A report of a conviction shall be made to the state agency within five (5) working days after the conviction.

25.0 Access Requirements for Persons with Disabilities

Contractor shall comply with 49 U.S.C. § 5301(d), stating Federal policy that the elderly and persons with disabilities have the same rights as other persons to use mass transportation services and facilities and that special efforts shall be made in planning and designing those services and facilities to implement that policy. Contractor shall also comply with all applicable requirements of Sec. 504 of the Rehabilitation Act (1973), as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, and the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. § 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments thereto.

26.0 Seismic Safety

The Contractor agrees to ensure that all work performed under this contract, including work performed by subcontractors, conforms to a building code standard that provides a level of seismic safety substantially equivalent to standards established by the National Earthquake Hazards Reduction Guidelines for Contract Provisions for Obligated Sponsors and Airport Improvement Program Projects Issued on June 19, 2018 Page 61 Program (NEHRP). Local building codes that model their code after the current version of the International Building Code (IBC) meet the NEHRP equivalency level for seismic safety.

27.0 Domestic Preference for Procurements

As appropriate and to the extent consistent with law, the Contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this contract. For purposes of this section:

(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

28.0 Prohibition on Certain Telecommunication and Video Surveillances Services or Equipment (Pub. L. 115-232, Section 889)

Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of a Federal executive agency and recipients or

subrecipients of funds from such agencies from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons. Pursuant to such provisions, the Contractor understands and agrees that the Contractor and its subcontractors shall not obligate or expend loan or grant funds from the Federal Agency under this Contract to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115–232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

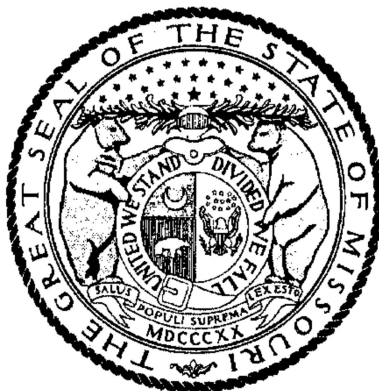
(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 28

Section 007
BATES COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Taylor Burks, Director
Division of Labor Standards

Filed With Secretary of State: March 10, 2021

Last Date Objections May Be Filed: April 8, 2021

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	*\$20.25
Boilermaker	*\$20.25
Bricklayer	*\$20.25
Carpenter	\$53.89
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	*\$20.25
Plasterer	
Communications Technician	*\$20.25
Electrician (Inside Wireman)	\$64.36
Electrician Outside Lineman	*\$20.25
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	*\$20.25
Glazier	*\$20.25
Ironworker	*\$20.25
Laborer	*\$20.25
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	*\$20.25
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	*\$20.25
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	*\$20.25
Plumber	\$71.19
Pipe Fitter	
Roofer	\$57.34
Sheet Metal Worker	*\$20.25
Sprinkler Fitter	*\$20.25
Truck Driver	*\$20.25
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title.
Public works contracting minimum wage is established for this occupational title using data provided by Missouri
Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

Heavy Construction Rates for
BATES County

Section 007

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$48.75
Millwright	
Pile Driver	
Electrician (Outside Lineman)	*\$20.25
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$40.49
General Laborer	
Skilled Laborer	
Operating Engineer	\$52.94
Group I	
Group II	
Group III	
Group IV	
Truck Driver	*\$20.25
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received less than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OVERTIME and HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 011000 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Land Reclamation Program, Department of Natural Resources, State of Missouri, intends to complete coal mine reclamation activities including; installation of 2-inch (2”) rock, MoDOT Type 3 Ditch Liner, excavating mine spoil piles; backfilling mine pits; reinforcing earthen dams; replacing corrugated metal pipe culvert and grade all work areas and other related work, all in accordance with the enclosed plans and specifications. The work also includes Alternate No. 1 which includes water treatment, fertilizer, seed and mulch. Please refer to the plans and specifications and Section 012300 Alternates for further details.
 - 1. Project Location: From Butler, MO take I-49 south 11 miles, and then take Exit 120 and turn right onto Missouri Hwy B. Go 12 miles west and continue straight onto the gravel road SW 8508, then continue 2 miles until you reach the site.
 - 2. Owner: State of Missouri, Office of Administration, Division of Facilities Management, Design and Construction, Harry S. Truman State Office Building, Post Office Box 809, 301 West High Street, Jefferson City, Missouri 65102.
- B. Contract Documents, dated October 15, 2021 were prepared for the Project by Missouri Department of Natural Resources, Land Reclamation Program.
- C. The Work will be constructed under a single prime contract.

1.3 WORK SEQUENCE

- A. A construction sequence shall be submitted by the Contractor and approved by the Owner’s Representative prior to beginning work. Areas shall be cleared and material shall be burned within the project area.

1.4 CONTRACTOR USE OF PREMISES

- A. General: During the construction period the Contractor shall have full use of the premises within the project limits for construction operations. The Contractor’s use of the premises limited only by the Owner’s right to perform work or to retain other contractors on portions of the Project.
- B. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract project limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
 - 1. Owner Occupancy: Allow for Owner occupancy and authorized use by the public.
 - 2. Driveways and Entrances: Keep driveways and entrances serving the premises clear and available to the Owner, the Owner’s employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

3. Contractor shall conduct the Work in a manner to avoid unnecessary noise, dust and other pollutants in accordance with all State and Federal regulations.
4. Contractor shall cooperate with other occupants of the site for efficient utilization of available space.

1.5 OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: The Owner will occupy the site during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.
- B. Partial Owner Occupancy: The Owner reserves the right to occupy and to place and install equipment in completed areas of the construction prior to Substantial Completion, provided such occupancy does not interfere with completion of the Work. Such placing of equipment and partial occupancy shall not constitute acceptance of the total Work.
 1. The Owner's Representative will prepare a Certificate of Partial Occupancy/Substantial Completion for each specific portion of the Work to be occupied prior to Owner occupancy.
 2. Prior to partial Owner occupancy, required inspections and tests shall have been successfully completed. Upon occupancy, the Owner will operate and maintain the occupied portions of the site.
 3. Upon occupancy, the Owner will assume responsibility for maintenance and custodial service for occupied portions of the site.

1.6 DEFINITIONS USED IN CONTRACT

- A. Refer to General Conditions, Article 1.
- B. CONSULTANT: Missouri Land Reclamation Program, P.O. Box 176, Jefferson City, Missouri 65102, or its duly authorized representative.
- C. RESIDENT PROJECT REPRESENTATIVE: The Land Reclamation Program shall provide construction inspection services for this project.
- D. OWNER'S REPRESENTATIVE: The Land Reclamation Program, Department of Natural Resources, or its duly authorized representative. The Owner's Representative will also act as Construction Manager.
- E. OFFICE OF ADMINISTRATION REPRESENTATIVE: The Division of Facilities Management, Design and Construction's Project Manager is Scott Zeller, Division of Design and Construction, 301 West High Street, Room 730, P.O. Box 809, Jefferson City, Missouri 65102, Ph: (573) 751-2668.

1.7 CONSTRUCTION PROCEDURES

- A. Construction procedures shall be determined by the Contractor. Where the work is on or adjacent to existing facilities or county roads, the Contractor shall exercise caution and schedule operations to ensure that functioning of present facilities will not be endangered and the safety of the general public is insured at all times.

1.8 UNDERGROUND OBSTRUCTIONS

- A.** Underground obstructions known to the Owner are indicated on the Contract Plans. Contractor shall notify sufficiently in advance owning utilities of his approach to any of their facilities and conform to their requirements.
- B.** Contractor shall perform exploratory operations as necessary to verify the location, elevation, and dimensions of all known or suspected underground obstructions ahead of any work affected thereby, and shall use care to avoid damage to them.
- C.** Any underground obstruction not indicated on the Contract Plans and which could not be reasonably anticipated by Contractor shall be relocated or removed and replaced by the owning utility at no expense to the Contractor, or by the Contractor as so instructed by Owner's Representative, in which case a Change Order will be issued to cover the additional cost.
- D.** The utility(s) listed below and contract details are provided for informational purposes only: The Contractor shall be responsible for contacting DIG-RITE and locating/verifying ALL Utilities at least 1 week in advance of mobilizing/completing the contracted work.

1.9 PERMITS

- A.** The Contractor is responsible for obtaining all permits necessary to complete the contracted work, except the National Pollutant Discharge Permit (NPDES – Appendix 2). The Contractor is responsible for compliance with the NPDES permit.

1.10 LAYOUT OF STAKES

- A.** From the control points and benchmarks contained in the Plans, the Contractor shall complete the layout of the work and shall be responsible for all measurements that may be required for execution of the Work to the location and limit marks indicated. The contractor shall layout the baselines at one-hundred foot intervals as shown on the plans and the associated grade and slope stakes necessary to maintain quality control and quality assurance by the Land Reclamation Program (LRP). Coordination shall be maintained with the LRP to assure the project is being constructed to the lines, grades and elevations shown on the plans and detailed in the Specifications
- B.** The Contractor shall be responsible for the protection of all existing legal survey markers and if disturbed, shall properly have it replaced by a licensed surveyor at no additional cost to the Owner. The Contractor shall notify the Owner's Representative of all potential survey markers discovered during construction.
- C.** Contractor shall submit one copy of all construction survey notes and data to the Owner's Representative upon request.
- D.** To the extent practicable, Contractor shall maintain all slopes and cut stakes in excavation areas until the adjacent excavation has reached final grade or subgrade.
- E.** When so requested by the Resident Project Representative, the Contractor shall furnish one laborer to assist the Resident Project Representative in spot checking of the construction layout and grades.

1.11 PROTECTION OF EXISTING PROPERTY

- A. Contractor shall provide for the safety and protection of existing property as set forth in the General Conditions. Any damage to existing facilities resulting from construction operations shall be reported immediately to the Resident Project Representative thereof and promptly repaired by the Contractor.
- B. Parties having jurisdiction over operating roads and utilities in the work area shall be contacted a minimum of one week prior to use or other traffic areas or excavating near underground utilities or pole lines. CALL DIG-RITE BEFORE WORK BEGINS AT 1-800-DIG-RITE.
- C. Where fences are to be breached on private property, the Owner's Representative thereof shall be contacted and arrangements made to ensure proper protection of any livestock or other property thus exposed.
- D. All gates must be closed and locked after each entry and exit unless approval is obtained from the Owner's Representative to do otherwise.
- E. The applicable requirements specified for protection of the Work shall also apply to the protection of existing property.
- F. Before acceptance of the Work by the Owner, Contractor shall restore all property affected by his operations to the original or better condition, including but not limited to fences and roads.

1.12 PROTECTION OF THE WORK

- A. Contractor shall provide for the safety and protection of the Work as set forth in the General Conditions.
- B. Owner's Representative and Resident Project Representative shall be notified immediately at any time operations are stopped due to conditions which make it impossible to continue operations safely or to obtain proper results.

1.13 MAINTENANCE AND USE OF ROADWAYS

- A. Contractor shall make adequate provisions to prevent unnecessary interference with the use of public and private roads, walkways and drives. The Contractor shall provide and maintain suitable detours or other temporary expedients, if necessary.
- B. Contractor shall repair roads, walkways and other traffic areas damaged by the operations to an equal or better condition. Traffic areas shall be kept as free as possible of excavated materials and maintained in a manner to eliminate dust.
- C. Contractor shall provide traffic barricades, construction signs, warning lights, guards and all other devices and services necessary to adequately protect the public and in accordance with all appropriate Manual of Uniform Traffic Control Devices (MUTCD), Federal Highway Administration and MoDOT Engineering Policy Standards 616.19 for Temporary Traffic Control Devices.
- D. The Contractor shall employ personnel to direct traffic through construction areas, as directed by the Owner's Representative or as required to insure the safety of workers and the public and all in accordance with the approved Traffic Control Plan provisions.
- E. All operations shall meet the approval of Owner's Representative or agencies having jurisdiction over walkways and traffic areas. It is the Contractor's responsibility to coordinate with, and ob-

tain all required permits or approvals from, the agency having jurisdiction over walkways and traffic areas.

- F. The Contractor shall repair and reseed all temporary access routes and disturbed areas at no additional expense to the Owner.

1.15 ACCEPTANCE OF WORK

- A. Upon completion of all operations, the Contractor shall request the Owner's Representative to perform an inspection for acceptance. All work must be completed in strict accordance with the Plans and Specifications prior to final acceptance. Where, in the opinion of the Owner's Representative, inspected work does not comply with the requirements of the Plans and Specifications, the Contractor shall replace rejected work at no additional cost to the Owner.

1.16 INSURANCE

- A. The "Builders Risk" portion of the required insurance as stated in Section 007213 - General Conditions, Article 6.2 will be waived for this project.

END OF SECTION 011000

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 012100 - ALLOWANCES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form, and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and procedural requirements governing allowances.
 - 1. Selected materials and equipment are specified in the Contract Documents by allowances. In some cases, these allowances include installation. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B.** Types of allowances include the following:
 - 1. Weather allowance.

1.3 WEATHER ALLOWANCE

- A.** Included within the completion period for this project are a specified number of “bad weather” days (see Schedule of Allowances).
- B.** The Contractor’s progress schedule shall clearly indicate the bad weather day allowance as an “activity” or “activities.” In the event weather conditions preclude performance of critical work activities for 50% or more of the Contractor’s scheduled workday, that day shall be declared unavailable for work due to weather (a “bad weather” day) and charged against the above allowance. Critical work activities will be determined by review of the Contractor’s current progress schedule.
- C.** The Contractor’s and Owner’s Representative shall agree monthly on the number of “bad weather” days to be charged against the allowance. This determination will be documented in writing and be signed by the Contractor’s and the Owner’s Representative. If there is a failure to agree on all or part of the “bad weather” days for a particular month, that disagreement shall be noted on this written document and signed by each party’s representative. Failure of the Contractor’s representative to sign the “bad weather” day documentation after it is presented, with or without the notes of disagreement, shall constitute agreement with the “bad weather” day determination contained in that document.
- D.** There will be no modification to the time of contract performance due solely to the failure to deplete the “bad weather” day allowance.
- E.** Once this allowance is depleted, a no cost Change Order time extension may be executed for “bad weather” days, as defined above, encountered during the remainder of the project.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 SCHEDULE OF ALLOWANCES

- A. Weather Allowance: Included within the completion period for this project are twenty (20) “bad weather” days.

END OF SECTION 012100

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 012200 - UNIT PRICES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form, and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A.** Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased. Unit Prices include all labor, materials, equipment, tools and incidentals necessary to complete the work.

1.4 PROCEDURES

- A.** Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, profit, and applicable taxes.
- B.** Measurement and Payment: Refer to individual Specification sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.
- C.** The Owner reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the Owner's expense, by an independent party acceptable to the Contractor.
- D.** Schedule: A "Unit Price Schedule" is included at the end of this Section. Specification sections referenced in the Schedule contain requirements for materials described under each unit price.
- E.** Quantities of units to be included in the Base Bid are indicated in Section 004322 – Unit Prices.

PART 2 - PRODUCTS (NOTAPPLICABLE)

PART 3 - EXECUTION

3.1 UNIT PRICE SCHEDULE

A. ALTERNATE NO. 1-Unit Price 1 – Actual Nitrogen (N):

1. Description: Actual Nitrogen (N) applied and incorporated according Division 1 Section 015723 “Temporary Storm Water Pollution Control” and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of Actual Nitrogen (N) applied.
3. Quantity in Alternate No. 1: 1200 pounds.

\$ _____ Per Pound (lb.) of Actual Nitrogen applied and incorporated.

B. ALTERNATE NO. 1-Unit Price 2– Total Phosphorus (P):

1. Description: Total Phosphorus applied and incorporated according to Division 1 Section 015723 “Temporary Storm Water Pollution Control” and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of Total Phosphorus applied.
3. Quantity in Alternate No. 1: 3000 pounds.

\$ _____ Per Pound (lb.) of Total Phosphorus applied and incorporated

C. ALTERNATE NO. 1 -Unit Price 3 – Actual Soluble Potassium (K):

1. Description: Actual Soluble Potassium applied and incorporated according to Division 1 Section 015723 “Temporary Storm Water Pollution Control” and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of Actual Soluble Potassium applied.
3. Quantity in Alternate No. 1: 4000 pounds.

\$ _____ Per Pound (lb.) of Actual Soluble Potassium applied and incorporated.

D. ALTERNATE NO. 1-Unit Price 4 – Seed:

1. Description: Seed shall be applied and incorporated according to Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Acre seeded.
3. Quantity in Alternate No. 1: 20 acres.

\$ _____ Per Acre of Seed applied and incorporated.

E. ALTERNATE NO. 1-Unit Price 5 -Mulch:

1. Description: Mulch shall be applied according to Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Acre installed.
3. Quantity in Alternate No. 1: 20 acres.

\$ _____ Per Acre of Mulch applied.

F. ALTERNATE NO. 1-Unit Price 6 – Hydrated Lime:

1. Description: Hydrated Lime applied and incorporated according to Division 31 Section 312319 “Neutralization of Acid Impoundments” and Division 35, Section 357313 “Dam Embankment”.
2. Unit of Measurement: 50 lb Units installed.
3. Quantity in Alternate No. 1: 524 50 lb Units of Hydrated Lime.

\$ _____ Per 50 lb Units of Hydrated Lime installed.

G. Unit Price 7 – Two (2”) Inch Clean Aggregate:

1. Description: Aggregate described as Two (2”) Inch Clean Aggregate according to Division 31, Section 312000 “Earth Moving”.
2. Unit of Measurement: Ton installed
3. Quantity in Base Bid: 35 Tons are to be included in the Base Bid.

\$ _____ Per Ton of Two Inch Clean Aggregate installed.

H. Unit Price 8 – MoDOT Type 3 Ditch Liner

1. Description: MoDOT Type 3 Ditch Liner installation according to Division 31, Section 312000 “Earth Moving”.
2. Unit of Measurement: Ton installed
3. Quantity in Base Bid: 951 Tons are to be included in the Base Bid.

\$ _____ Per Ton of MoDOT Type 3 Ditch Liner installed.

I. Unit Price 9 – Temporary Sediment Control Geotextile Silt Fence:

1. Description: Temporary Sediment Control Geotextile Silt Fence shall be installed according to Division 1 Section 015723 “Temporary Project Water Pollution Control.”
2. Unit of Measurement: Linear Feet (L.F.)
3. Quantity in Base Bid: 420 linear feet are included in the Base Bid.

\$ _____ Per Linear Foot (L.F.) of Geotextile Silt Fence installed.

J. Unit Price 10 – Temporary Sediment Control Straw Bale Silt Fence:

1. Description: Temporary Sediment Control Straw Bales shall be installed according to Division 1 Section 015723 “Temporary Project Water Pollution Control.”
2. Unit of Measurement: Small square bale.
3. Quantity in Base Bid: 30 bales are included in the Base Bid.

\$ _____ Per small square straw bale installed.

K. Unit Price 11 – Temporary Seed:

1. Description: Temporary Seed shall be installed according to Division 1 Section 015723 “Temporary Project Water Pollution Control.”
2. Unit of Measurement: Acre.
3. Quantity in Base Bid: Four (4) acres are included in the Base Bid.

\$ _____ Per acre of temporary seed installed.

L. Unit Price 12 – Temporary Mulch:

1. Description: Temporary Mulch shall be installed according to Division 1 Section 015723 “Temporary Project Water Pollution Control.”
2. Unit of Measurement: Acre.
3. Quantity in Base Bid: 4 acres are included in the Base Bid.

\$ _____ Per acre of temporary mulch installed.

M. Unit Price 13 – Agriculture Lime:

1. Description: Ag Lime installation according to Division 31 Section 312000 “Earth Moving”.
2. Unit of Measurement: 100 lbs ENM installed.
3. Quantity in Base Bid: 1600 100 lb Units of ENM are to be included in the Base Bid.

\$ _____ Per 100 lbs ENM of Ag Lime installed.

END OF SECTION 012200

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing Alternates.

1.3 DEFINITIONS

- A. Definition: An alternate is an amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems, or installation methods described in the Contract Documents..
 - 1. The cost for each alternate is the net addition to the Contract Sum to incorporate the Alternate into the Work. No other adjustments are made to the Contract Sum.
- B. No additional time will be allowed for alternate work unless the number of work days is so stated on the bid form.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent Work as necessary to completely and fully integrate the Alternate Work into the Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.
- B. Notification: The award of the Contract will indicate whether alternates have been accepted or rejected.
- C. Execute accepted alternates under the same conditions as other Work of this Contract.
- D. Schedule: A "Schedule of Alternates" is included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials necessary to achieve the Work described under each alternate.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: "Installation of Fertilizer, Water Treatment, Seed and Mulch" as shown on the plans, Sheets C-100, C-101, C-102, C-103, and specifications, Section 012200-Unit Prices.

END OF SECTION 012300

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section specifies administrative and procedural requirements for handling and processing Contract modifications.
- B.** Related Sections include the following: Division 1 Section 012100 "Allowances" for procedural requirements for handling and processing allowances.
 - 1. Division 1 Section 012200 "Unit Prices" for administrative requirements for unit prices.
 - 2. Division 0 Section 007213, Article 3.1 "Acceptable Substitutions" for administrative procedures for handling requests for substitutions made after Contract award.
 - 3. Division 0 Section 007213, Article 4.0 "Changes in the Work" for Contract Change requirements.

1.3 REQUESTS FOR INFORMATION

- A.** In the event that the Contractor or subcontractor, at any tier, determines that some portion of the drawings, specifications, or other contract documents requires clarification or interpretation, the contractor shall submit a "Request for Information" (RFI) in writing to the Designer. A RFI may only be submitted by the Contractor and shall only be submitted on the RFI forms provided by the Owner. The Contractor shall clearly and concisely set forth the issue for which clarification or interpretation is sought and why a response is needed. In the RFI, the Contractor shall set forth an interpretation or understanding of the requirement along with reasons why such an understanding was reached.
- B.** Responses to RFI shall be issued within ten (10) working days of receipt of the request from the contractor unless the Designer determines that a longer time is necessary to provide an adequate response. If a longer time is determined necessary by the Designer, the Designer will, within five (5) working days of receipt of the request, notify the Contractor of the anticipated response time. If the Contractor submits a RFI on a time sensitive activity on the current project schedule, the Contractor shall not be entitled to any time extension due to the time it takes the Designer to respond to the request provided that the Designer responds within the ten (10) working days set forth above.
- C.** Responses from the Designer will not change any requirement of the contract documents. In the event the Contractor believes that a response to a RFI will cause a change to the requirements of the contract document, the Contractor shall give written notice to the Designer requesting a Contract Change for the work. Failure to give such written notice within ten (10) working days, shall waive the Contractor's right to seek additional time or cost under Article 4, "Changes in the Work" of the General Conditions.

1.4 MINOR CHANGES IN THE WORK

- A. Designer will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Amount or the Contract Time, on "Designer's Supplemental Instructions" (DSI). A copy of the form is included at the end of Part 3.

1.5 PROPOSAL REQUESTS

- A. The Designer or The Designer or Owner's representative will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. The proposed change description will be issued using the "Request for Proposal" (RFP) form that is included at the end of Part 3. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Proposal Requests issued by the Designer or Owner representative are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 10 working days after receipt of Proposal Request, submit a proposal for the cost adjustments to the Contract Sum and the Contract Time necessary to execute the change. The contractor shall submit proposal on the appropriate Contract Change Detailed Breakdown form. Subcontractors may use the appropriate Contract Change Detailed Breakdown form or submit their proposal on their letterhead provided the same level of detail is included. A copy of the Contract Change Detailed Breakdown is included at the end of part 3. All proposals shall include:
 - a. A detailed breakdown of costs per Article 4.1 of the General Conditions.
 - b. If requesting additional time per Article 4.2 of the General Conditions, include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship.

1.6 CONTRACT CHANGE PROCEDURES

- A. On the Owner's approval of a Proposal Request, the Designer or Owner's representative will issue a Contract Change for signatures of the Owner and Contractor on the "Contract Change" form that is included at the end of Part 3.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 ATTACHED CONTRACT RELATED FORMS

- A. Request for Information (RFI 1 pg form)
- B. Designer's Supplemental Instructions (DSI 1 pg form)
- C. Request for Proposal (RFP 1 pg form)
- D. Contract Change Detailed Breakdown (CC Detail GC, SUB, Example 1 pg form)
- E. Contract Change (CC 1 pg form)

END OF SECTION 012600



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
REQUEST FOR INFORMATION (RFI)

PROJECT NUMBER

RFI NUMBER

TO (DESIGNER)

DATE

PROJECT TITLE

PROJECT LOCATION

DRAWING REFERENCE

SPECIFICATION REFERENCE

INFORMATION REQUESTED

PRINTED NAME

SIGNATURE

DATE

RESPONSE

PRINTED NAME

SIGNATURE

DATE

The Work shall be carried out at no additional cost to the Owner unless the Contractor notifies the FMDC Representative within ten (10) working days that there is an additional cost involved.



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
DESIGNER'S SUPPLEMENTAL INSTRUCTIONS

PROJECT NUMBER	
DSI NUMBER	DATE

TO:	PROJECT TITLE
	LOCATION
DRAWING REFERENCE	SPECIFICATION REFERENCE

The Work shall be carried out in accordance with the following Supplemental Instructions issued in accordance with the Contract Documents without change in Contract Amount or Contract Time. Prior to proceeding in accordance with these Instructions, the Contractor shall indicate acceptance of these Instructions for minor Change to the Work as consistent with the Contract Documents and return the **ORIGINAL** to the Designer.

DESCRIPTION OF CHANGE

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ATTACHMENTS

--

ISSUED BY: DESIGNER

SIGNATURE:	DATE
------------	------

ACCEPTED BY: CONTRACTOR

SIGNATURE:	DATE
------------	------

RECEIVED BY: FMDC CONSTRUCTION REPRESENTATIVE

SIGNATURE	DATE
-----------	------



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
REQUEST FOR PROPOSAL

PROJECT NUMBER
RFP NUMBER

PROJECT TITLE
PROJECT LOCATION
CONTRACTOR
DESIGNER

Please submit an itemized Proposal for changes to the Contract Sum and Contract Time for proposed modifications to the Contract Documents described herein. The submittal must include justification for any price or time changes. Submit the Proposal within ten (10) work days or notify the Designer in writing of the date on which you anticipate submitting your Proposal.

THIS IS NOT A CONSTRUCTION CHANGE DIRECTIVE

DESCRIPTION OF REQUESTED WORK

(PLEASE NOTE ANY ATTACHMENTS AND STATE WORK SUMMARY IN ONE OR TWO SENTENCES)

WORK SUMMARY:

SPECIFICATION REFERENCE		DRAWING REFERENCE	
RFI REFERENCE	CHANGE INITIATED BY <input type="checkbox"/> CONTRACTOR <input type="checkbox"/> OWNER		
REQUESTED BY			
NAME OF INDIVIDUAL SIGNING (PLEASE PRINT)	SIGNATURE		DATE



STATE OF MISSOURI
OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
CONTRACT CHANGE

PROJECT NUMBER	CHANGE NUMBER
CHECK CONTRACT TYPE <input type="checkbox"/> CONSULTANT <input type="checkbox"/> CONSTRUCTION	

1. GENERAL INFORMATION

PROJECT TITLE	NAME OF CONTRACTED FIRM
LOCATION	

2. DESCRIPTION OF CONTRACT CHANGE (attach and note additional description sheets as necessary)

☐ Not-to-Exceed for items: \$ _____

3. IMPACT OF CONTRACT CHANGE ON MBE/WBE SUB'S PARTICIPATION FOR THIS PROJECT

☐ NOT APPLICABLE

a. <input type="checkbox"/> MBE Firm <input type="checkbox"/> WBE Firm <input type="checkbox"/> SDVE Firm Name: _____ Original (Sub) Contract Amount: \$ _____ Previous Change Amounts: \$ _____ Amount This Change (Add/Deduct): \$ _____ Revised (Sub) Contract Amount: \$ _____	b. <input type="checkbox"/> MBE Firm <input type="checkbox"/> WBE Firm <input type="checkbox"/> SDVE Firm Name: _____ Original (Sub) Contract Amount: \$ _____ Previous Change Amounts: \$ _____ Amount This Change (Add/Deduct): \$ _____ Revised (Sub) Contract Amount: \$ _____
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4. CONTRACT SUMMARY

	COST	WORK DAYS
Original Contract Amount:	\$ _____	_____
Previous Change Amounts:	\$ _____	_____
Amount This Change (Add/Deduct):	\$ _____	_____
Revised Contract Total:	\$ _____	_____

IF CONSULTANT CONTRACT

PHASE OF CONTRACT	ORIGINAL COMPLETION DATE	REVISED COMPLETION DATE
-------------------	--------------------------	-------------------------

This Document, when fully executed by both Parties, shall constitute a Notice to Proceed with the Work described in this Change. This Contract Change shall modify the Contract as herein provided and includes all costs and time extensions associated with this Change to the Contract. No requests for additional compensation or time as a result of this Change will be considered.

AUTHORIZING NAME**SIGNATURES**

PRINT CONTRACTED FIRM REPRESENTATIVE	SIGNATURE	DATE
PRINT FACILITIES MANAGEMENT DESIGN AND CONSTRUCTION REPRESENTATIVE	SIGNATURE	DATE

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013100 – COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:
 - 1. Coordination with Owner's Representative and project management personnel.
 - 2. Coordination with personnel from other agencies.
 - 3. Coordination with other contracts let by the Owner in connection with this work.
 - 4. Coordination with the Construction Representative concerning special requirements in connection with this work.

1.3 COORDINATION

- A.** The Contractor shall coordinate construction operations for this project with the Construction Representative and the Owner's Representative to assure the efficient and orderly completion of the Work.
 - 1. Schedule construction operations in the sequence required to obtain the best results.
 - 2. Coordinate construction operations to allow existing facility to remain in operation while the Work is being performed.
 - 3. Coordinate construction operations to accommodate construction operations of other contracts let by the Owner.
- B.** The Contractor shall, where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports and attendance at meetings.
 - 1. Prepare similar memoranda for the Owner and separate contractors where coordination of their work is required.
- C.** Administrative Procedures: The Contractor shall coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of schedules.
 - 2. Installation and removal of temporary facilities.
 - 3. Delivery and processing of submittals.
 - 4. Progress meetings.
 - 5. Project closeout activities.

1.4 SUBMITTALS

- A.** Staff Names: Within eighteen (18) calendar days of commencement of construction operations, the Contractor shall submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. The list shall identify individuals, their duties, responsibilities, addresses and telephone numbers.
 - 1. Post copies of the list in the Project meeting room, the temporary field office and at each temporary telephone.
- B.** Schedule: Within eighteen (18) calendar days of commencement of construction operations, the Contractor shall submit a schedule which coordinates the construction activities of this work with the work of other contracts. See Section 013200-Schedules for specific requirements.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A.** A pre-construction conference will be held prior to beginning of construction. The date, time and exact place of this meeting will be determined after contract award and notification of all interested parties. The Contractor shall arrange to have the job superintendent and all prime subcontractors present at the meeting. During the pre-construction conference, the construction procedures and information necessary for submitting payment requests will be discussed and materials distributed, along with any other pertinent information.
- B.** Coordination drawings of the various trade works as applicable shall be executed prior to commencement of the work.

3.2 SPECIFIC COORDINATION PROVISIONS (Not Applicable)

END OF SECTION 013100

SECTION 013115 - PROJECT MANAGEMENT COMMUNICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including General and Supplementary Conditions, Bid Form, and other Division 1 Specification Sections apply to this Section.
- B. Division 1, Section 013300 - Submittals
- C. Division 1, Section 012600 – Contract Modification Procedures

1.2 SUMMARY

- A. Project Management Communications: The Contractor shall use the Internet web based project management communications tool, E-Builder® ASP software, and protocols included in that software during this project. The use of project management communications as herein described does not replace or change any contractual responsibilities of the participants.
 - 1. Project management communications is available through E-Builder® as provided by "e-Builder®" in the form and manner required by the Owner.
 - 2. The project communications database is on-line and fully functional. User registration, electronic and computer equipment, and Internet connections are the responsibility of each project participant. The sharing of user accounts is prohibited
- B. Support: E-Builder® will provide on-going support through on-line help files.
- C. Copyrights and Ownership: Nothing in this specification or the subsequent communications supersedes the parties' obligations and rights for copyright or document ownership as established by the Contract Documents. The use of CAD files, processes or design information distributed in this system is intended only for the project specified herein.
- D. Purpose: The intent of using E-Builder® is to improve project work efforts by promoting timely initial communications and responses. Secondly, to reduce the number of paper documents while providing improved record keeping by creation of electronic document files
- E. Authorized Users: Access to the web site will be by individuals who are authorized users.
 - 1. Individuals shall complete the E-Builder New Company/User Request Form located at the following web site: <https://oa.mo.gov/facilities/vendor-links/contractor-forms>.

Completed forms shall be emailed to the following email address: OA.FMDCE-BuilderSupport@oa.mo.gov.

2. Authorized users will be contacted directly and assigned a temporary user password.
 3. Individuals shall be responsible for the proper use of their passwords and access to data as agents of the company in which they are employed.
- F. Administrative Users: Administrative users have access and control of user licenses and all posted items. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!** Improper or abusive language toward any party or repeated posting of items intended to deceive or disrupt the work of the project will not be tolerated and will result in deletion of the offensive items and revocation of user license at the sole discretion of the Administrative User(s).
- G. Communications: The use of fax, email and courier communication for this project is discouraged in favor of using E-Builder® to send messages. Communication functions are as follows:
1. Document Integrity and Revisions:
 - a. Documents, comments, drawings and other records posted to the system shall remain for the project record. The authorship time and date shall be recorded for each document submitted to the system. Submitting a new document or record with a unique ID, authorship, and time stamp shall be the method used to make modifications or corrections.
 - b. The system shall make it easy to identify revised or superseded documents and their predecessors.
 - c. Server or Client side software enhancements during the life of the project shall not alter or restrict the content of data published by the system. System upgrades shall not affect access to older documents or software.
 2. Document Security:
 - a. The system shall provide a method for communication of documents. Documents shall allow security group assignment to respect the contractual parties communication except for Administrative Users. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!**
 3. Document Integration:
 - a. Documents of various types shall be logically related to one another and discoverable. For example, requests for information, daily field reports, supplemental sketches and photographs shall be capable of reference as related records.
 4. Reporting:
 - a. The system shall be capable of generating reports for work in progress, and logs for each document type. Summary reports generated by the system shall be available for team members.
 5. Notifications and Distribution:
 - a. Document distribution to project members shall be accomplished both within the extranet system and via email as appropriate. Project document distribution to parties outside of the project communication system shall be

accomplished by secure email of outgoing documents and attachments, readable by a standard email client.

6. Required Document Types:
 - a. RFI, Request for Information.
 - b. Submittals, including record numbering by drawing and specification section.
 - c. Transmittals, including record of documents and materials delivered in hard copy.
 - d. Meeting Minutes.
 - e. Application for Payments (Draft or Pencil).
 - f. Review Comments.
 - g. Field Reports.
 - h. Construction Photographs.
 - i. Drawings.
 - j. Supplemental Sketches.
 - k. Schedules.
 - l. Specifications.
 - m. Request for Proposals
 - n. Designer's Supplemental Instructions
 - o. Punch Lists

- H. Record Keeping: Except for paper documents, which require original signatures and large format documents (greater than 8½ x 11 inches), all other 8½ x 11 inches documents shall be submitted by transmission in electronic form to the E-Builder® web site by licensed users.

- a. The Owner and his representatives, the Designer and his consultants, and the Contractor and his Sub Contractors and suppliers at every tier shall respond to documents received in electronic form on the web site, and consider them as if received in paper document form.
 - b. The Owner and his representatives, the Designer and his consultants, and the Contractor and his Sub Contractors and suppliers at every tier reserves the right to and shall reply or respond by transmissions in electronic form on the web site to documents actually received in paper document form.
 - c. The Owner and his representatives, the Designer and his consultants, and the Contractor and his Sub Contractors and suppliers at every tier reserves the right to and shall copy any paper document into electronic form and make same available on the web site.

- I. Minimum Equipment and Internet Connection: In addition to other requirements specified in this Section, the Owner and his representatives, the Construction Manager and his representatives, the Architect and his consultants, and the Contractor and his sub-contractors and suppliers at every tier required to have a user license(s) shall be responsible for the following:

1. Providing suitable computer systems for each licensed user at the users normal work location¹ with high-speed Internet access, i.e. DSL, local cable company's Internet connection, or T1 connection.
2. Each of the above referenced computer systems shall have the following minimum system² and software requirements:
 - a. Desktop configuration (Laptop configurations are similar and should be equal to or exceed desktop system.)
 - 1) Operating System: Windows XP or newer
 - 2) Internet Browser: Internet Explorer 6.01SP2+ (Recommend IE7.0+)
 - 3) Minimum Recommend Connection Speed: 256K or above
 - 4) Processor Speed: 1 Gigahertz and above
 - 5) RAM: 512 mb
 - 6) Operating system and software shall be properly licensed.
 - 7) Internet Explorer version 7 (current version is a free distribution for download). This specification is not intended to restrict the host server or client computers provided that industry standard HTTP clients may access the published content.
 - 8) Adobe Acrobat Reader (current version is a free distribution for download).
 - 9) Users should have the standard Microsoft Office Suite (current version must be purchased) or the equivalent.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable.)

END OF SECTION 013115

¹ The normal work location is the place where the user is assigned for more than one-half of his time working on this project.

² The minimum system herein will not be sufficient for many tasks and may not be able to process all documents and files stored in the E-Builder® Documents area.

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013200 – SCHEDULES – CONSTRUCTION ACTIVITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes requirements for a bar chart schedule for the project construction activities, schedule of submittals and schedule for testing.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 SUBMITTAL PROCEDURES

- A. The Contractor shall submit to the Designer, within ten (10) working days following the Notice to Proceed, a progress schedule showing the rate of progress the Contractor agrees to maintain and the order in which he proposed to carry out the various phases of work. No payments shall be made to the Contractor until the progress schedule has been approved by the Owner.
- B. The Contractor shall submit an updated schedule for presentation at each monthly progress meeting. The schedule shall be updated by the Contractor as necessary to reflect the current schedule and its relationship to the original schedule. The updated schedule shall reflect any changes in the logic, sequence, durations or completion date. Payments to the Contractor shall be suspended if the progress schedule is not adequately updated to reflect actual conditions.
- C. The Contractor shall submit progress schedules to subcontractors to permit coordinating their progress schedules to the general construction work. The Contractor shall coordinate preparation and processing of schedules and reports with performance of other construction activities.

3.2 CONSTRUCTION PROGRESS SCHEDULE – BAR CHART SCHEDULE

- A. Bar-Chart Schedule: The Contractor shall prepare a comprehensive, fully developed, horizontal bar-chart-type, contractor's construction schedule. The Contractor for General Construction shall prepare the construction schedule for the entire Project. The schedule shall show the percentage of work to be completed at any time, anticipated monthly payments by Owner, as well as significant dates (such as completion of excavation, concrete foundation work, underground lines, superstructure, rough-ins, enclosure, hanging of fixtures, etc.) which shall serve as check points to determine compliance with the approved schedule. The schedule shall also include an activity for the number of "bad" weather days specified in Section 012100 – Allowances.

1. The Contractor shall provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. If practical, use the same Schedule of Values breakdown for schedule time bars.
 2. The Contractor shall provide a base activity time bar showing duration for each construction activity. Each bar is to indicate start and completion dates for the activity. The Contractor is to place a contrasting bar below each original schedule activity time for indicating actual progress and planned remaining duration for the activity.
 3. The Contractor shall prepare the schedule on a minimal number of separate sheets to readily show the data for the entire construction period.
 4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on schedule with other construction activities. Include minor elements involved in the overall sequence of the Work. Show each activity in proper sequence. Indicate graphically the sequences necessary for completion of related portions of the Work.
 5. Coordinate the Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests, and other required schedules and reports.
 6. Indicate the Intent to Award and the Contract Substantial Completion dates on the schedule.
- B.** Work Stages: Use crosshatched bars to indicate important stages of construction for each major portion of the Work. Such stages include, but are not necessarily limited to, the following:
1. Subcontract awards.
 2. Submittals.
 3. Purchases.
 4. Deliveries.
 5. Installation.
 6. Startup and placement into final use and operation.
- C.** Area Separations: Provide a separate time bar to identify each major area of construction for each major portion of the Work. For the purposes of this Article, the "major areas " are:
1. Mobilization
 2. Clear and Grub all areas
 3. Earthmoving
 4. Dam reinforcement and spillways installed
 4. Seeding, fertilization, mulching
 5. Substantial completion

3.3 SCHEDULE OF SUBMITTALS

- A.** Not applicable.

END OF SECTION 013200

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013300 – SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Shop Drawings.
 - 2. Product Data.
 - 3. Field Test Reports.
 - 4. Certification of Materials and Quality Assurance Submittals.
 - 5. Survey Data.
 - 6. Shipping and Weight Tickets.
 - 7. Receipts for Materials Used.
- B.** Administrative Submittals: Refer to General and Supplementary Conditions other applicable Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
 - 1. Construction Progress Schedule including Schedule of Values.
 - 2. Performance and Payment Bonds.
 - 3. Insurance certificates.
 - 4. Applications for Payment.
 - 5. Certified Payroll Reports.
 - 6. Partial and Final Receipt of Payment and Release Forms.
 - 7. Affidavit Compliance with Prevailing Wage Law.
 - 8. Record Drawings.
 - 9. Notification Permits, etc.
 - 10. MBE/WBE/SDVE Reports.
 - 11. Applicant/Violator System Eligibility.
 - 12. Certification Regarding Lobbying.
 - 13. Debarment and Suspension Certification.
- C.** The Contractor is obliged and responsible to check all shop drawings and schedules to assure compliance with contract plans and specifications. The Contractor is responsible for the content of the shop drawings and coordination with other contract work. Shop drawings and schedules shall indicate, in detail, all parts of an item or work, including erection and setting instructions and integration with the work of other trades.
- D.** The Contractor shall at all times make a copy, of all approved submittals, available on site to the Construction Representative.

1.3 SUBMITTAL PROCEDURES

- A.** The Contractor shall comply with the General and Supplementary Conditions and other applicable sections of the Contract Documents. The Contractor shall submit, with such promptness as to cause no delay in his work or in that of any other contractors, all required submittals indicated in Part 3.1 of this section and elsewhere in the Contract Documents. Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Designer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
- B.** Each drawing and/or series of drawings submitted must be accompanied by a letter of transmittal giving a list of the titles and numbers of the drawings. Each series shall be numbered consecutively for ready reference and each drawing shall be marked with the following information:
 - 1. Date of Submission
 - 2. Name of Project
 - 3. Location
 - 4. Section Number of Specification
 - 5. State Project Number
 - 6. Name of Submitting Contractor
 - 7. Name of Subcontractor
 - 8. Indicate if item is submitted as specified or as a substitution

1.4 SHOP DRAWINGS

- A.** Comply with the General Conditions, Article 3.2.
- B.** The Contractor shall submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- C.** Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information.
 - 1. Dimensions.
 - 2. Identification of products and materials included by sheet and detail number.
 - 3. Compliance with specified standards.
 - 4. Notation of coordination requirements.
 - 5. Notation of dimensions established by field measurement.
 - 6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8½ by 11 inches but no larger than 36 by 48 inches.

1.5 PRODUCT DATA

- A.** The Contractor shall comply with the General Conditions, Article 3.2.

- B.** The Contractor shall collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 - 1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 - 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

1.6 QUALITY ASSURANCE DOCUMENTS

- A.** The Contractor shall comply with the General Conditions, Article 3.2
- B.** The Contractor shall submit quality-control submittals, including receipts and weight tickets, design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.
- C.** Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
 - 1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to contractually bind the company.
- D.** Inspection and Test Reports: The Contractor shall submit the required inspection and test reports from independent testing agencies as specified in this section and in other sections of the Contract Documents.

1.7 APPLICANT/ VIOLATOR SYSTEM ELIGIBILITY

- A.** As required by federal statutes, eligibility of every successful bidder for an Abandoned Mine Land contract must be confirmed by the Office of Surface Mining's Applicant/Violator System for each contract awarded over \$25,000. This includes clearance for all subcontractor's performing work of value \$25,000 or greater. The successful bidder and subcontractors will be required to submit a signed Applicant Violator System information form and return it to the Owner's Representative. No contract shall be made until the successful bidder's eligibility has been confirmed by the Office of Surface Mining.

1.8 CERTIFICATION REGARDING LOBBYING

- A.** Federal law requires that the Contractor certify that he has not used federal funds to influence federal contracting and financial transactions.
 - 1. The Contractor must submit a signed copy of "Certification Regarding Lobbying" if the Contractor's bid exceeds \$100,000.
 - 2. The Contractor should be aware that the "Certification Regarding Lobbying" will also be required from Subcontractors if their work exceeds \$100,000.

1.9 DEBARMENT AND SUSPENSION CERTIFICATION

- A. As required by federal law, the Contractor shall certify that it has not been debarred or suspended from completing work on federally funded projects. Any bidder or equipment supplier whose firm or affiliate is listed in the General Services Administration (GSA) publication entitled "Lists of Parties Excluded from federal Procurement of Nonprocurement Programs" will be excluded from the bidding process. Anyone submitting a bid who is so listed will be determined to be a nonresponsive bidder.
1. The Contractor must submit a signed copy of "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions."
 2. The Contractor should also be aware of Item Number 6 of the Instruction for Certification (page 2 of 2) which requires all subcontractor(s) to conform to this requirement.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 REQUIRED SUBMITTALS

- A. Contractor shall submit the following information for materials and equipment to be provided under this contract.

SPEC SECTION	TITLE	CATEGORY
012600	Request for Information	Product Data
012600	Proposal for Cost Adjustment	Schedule of Values
012600	Contract Change Detailed Breakdown Form	Schedule of Values
013100	List of Key Personnel Names	Schedule of Values
013100	Preparation of Contractor's Construction Schedule	Construction Schedule
013100	Preparation of the Schedule of Values	Schedule of Values
013200	Construction Progress Schedule	Construction Schedule
013200	Schedule of Values	Schedule of Values
013200	Schedule of Values (Close Out Documents)	Schedule of Values
013200	Schedule of Values (General Conditions)	Schedule of Values
013200	List of Subcontractors	List of Subcontractors
013200	Progress Report	Construction Schedule
013200	Schedule of Inspections, Tests, and Similar Services	Construction Schedule
013300	Shop Drawings	Shop Drawings
013300	Product Data	Product Data
013300	Field Test Reports	Test Report
013300	Materials and Quality Assurance	Certification
013300	Survey Data	Certification
013300	Shipping and Weight Tickets	Product Data
013300	Receipts for Materials Used	Product Data
013300	Performance and Payment Bond	Certification
013300	Insurance Certificate	Certification
013300	Application for Payment	Schedule of Values
013300	Certified Payroll Reports	Certification
013300	Partial Receipt of Payment and Release Form	Schedule of Values

013300	Final Receipt of Payment and Release Form	Schedule of Values
013300	Affidavit - Compliance with Prevailing Wage Law	Certification
013300	Record Drawings	As-Builts
013300	Notification	Construction Schedule
013300	Permit	Certification
013300	Construction Digital Photographs	Test Report
013300	MBE/WBE/SDVE	Certification
013300	Applicant/Violator System Eligibility	Certification
013300	Certification Regarding Lobbying	Certification
013300	Debarment and Suspension Certification	Certification
013300	Certifications (signed) for Products, Materials, and Installation	Certification
013300	Construction Progress Schedule including Schedule of Values	Schedule of Values
013513	Superintendent Name and Phone Number	Certification
015723	Temp Storm Water Pollution Control	Certification
015723	Weight Tickets for Materials	Product Data
015723	Receipts for Materials	Product Data
015723	Record Photographs	Product Data
311000	Site Clearing (Weight Tickets & Receipts for Recycled/Res Waste Materials)	Product Data
311000	Site Clearing (Weight and/or Shipping Materials for Rock or Other Materials Brought On Site)	Product Data
312000	Earth Moving (Ag Lime and Effective Neutralizing Materials)	Certification
312000	Earth Moving (Weight Tickets for Materials)	Product Data
312000	Earth Moving (Receipts for Materials)	Product Data
312000	Earth Moving (Record Digital Photographs)	As-Builts
312319	Neutralization of Acid Impoundments	Certification
312319	Neutralization of Acid Impoundments (Weight Tickets for Materials)	Product Data
312319	Neutralization of Acid Impoundments (Receipts for Materials)	Product Data
312319	Neutralization of Acid Impoundments (Digital Record Photographs)	As-Builts
312319	Neutralization of Acid Impoundments (Operating Instructions)	Operation / Maintenance Manual
329219	Seeding	Certification
329219	Seeding (Weight Tickets for Materials)	Product Data
329219	Seeding (Receipts for Materials)	Product Data
321313	Seeding (Digital Record Photographs)	As-Builts
334213	Pipe Culverts	Product Data
334213	Pipe Culverts	Certification
334213	Pipe Culverts (Manufactures Instructions)	Operation / Maintenance Manual

334213	Pipe Culverts (Weight and/or Shipping Tickets/Receipts for Materials)	Product Data
334213	Pipe Culverts (Digital Record Photographs)	As-Builts
334213	Pipe Culverts (Gradation Test Reports for Bedding Materials)	Product Data
357313	Earth Dam Embankment	Product Data
357313	Earth Dam Embankment (Weight Tickets for Materials)	Product Data
357313	Earth Dam Embankment (Receipts for Materials)	Product Data
357313	Earth Dam Embankment (Digital Record Photographs)	As-Builts

END OF SECTION 013300

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013513 – SITE SECURITY AND HEALTH REQUIREMENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 ACCESS TO THE SITE

- A. The Contractor shall arrange with the Owner's Representative for the controlled entry of construction personnel, materials and equipment into the work areas.
- B. The Contractor shall establish regular working hours with the Owner's Representative. However, all work, except equipment maintenance, fueling, etc. shall be completed during daylight hours. Daylight hours shall be defined as beginning one hour before sunrise and ending one hour after sunset.
- C. The Contractor shall provide the name and phone number of the individual who is in charge on site and who can be contacted in case of an emergency. This individual must be able to furnish names and addresses of all construction personnel upon request. Omit paragraph below if not required by facility

3.2 HEALTH AND TRAFFIC CONTROLS

- A. Take all necessary reasonable measures to reduce air and water pollution by any material or equipment use during construction. Keep volatile wastes in covered containers. Do not dispose of volatile wastes or oils on the project site.
- B. Keep project neat, orderly, and in a safe condition at all times. Immediately remove all hazardous waste. Do not allow rubbish to accumulate. Provide on-site containers for collection of rubbish and dispose of it at frequent intervals during progress of work.
- C. Conduct operations and removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent facilities.
- D. Do not obstruct streets or walks or use facilities without permission from the construction representative.
- E. No driver shall exceed the facility speed limit. The facility speed limit is 15 M.P.H. unless indicated otherwise.
- F. Temporary toilet unit(s) shall be placed on site, at a location approved by the Construction Representative and shall be routinely maintained throughout the term of the project.

END OF SECTION 013513

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 015000 – CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART – GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This section includes requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.
- B.** Temporary utilities include, but are not limited to, the following:
 - 1. Water service and distribution.
 - 2. Temporary electric power and light.
 - 3. Temporary heat.
 - 4. Telephone service.
 - 5. Sanitary facilities, including drinking water.
- C.** Support facilities include, but are not limited to, the following:
 - 1. Field offices and storage sheds.
 - 2. Temporary roads and paving.
 - 3. Dewatering facilities and drains.
 - 4. Temporary enclosures.
 - 5. Temporary project identification signs and bulletin boards
 - 6. Waste disposal services.
 - 7. Construction aids and miscellaneous services and facilities.
- D.** Security and protection facilities include, but are not limited to, to following:
 - 1. Temporary fire protection.
 - 2. Barricades, warning signs, and lights.
 - 3. Sidewalk bridge or enclosure fence for the site.
 - 4. Environmental protection.

1.3 SUBMITTALS (Not Applicable)

1.4 QUALITY ASSURANCE

- A.** Regulations: Comply with industry standards and applicable laws and regulations, including but not limited to the following:
 - 1. Health and safety regulations.
 - 2. Utility company regulations.
 - 3. Police, fire department, and rescue squad rules.
 - 4. Environmental protection regulations.
- B.** Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A.** Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.

PART 2 – PRODUCTS

2.1 MATERIALS

- A.** General: Provide new materials. If acceptable to the Designer, the Contractor may use undamaged, previously used materials in serviceable condition; provided materials are suitable for use intended.
- B.** Water: When specified, provide potable water approved by local health authorities, as necessary to complete the appropriate work tasks. Delete paragraph below if wood fence or covered walkway is used. For more security, increase fence height to 8 feet (2.5 M) or more.

2.2 EQUIPMENT

- A.** General: Provide new equipment. If acceptable to the Designer, the Contractor may use undamaged, previously used equipment in serviceable condition; provided equipment is suitable for use intended.
- B.** Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage rating.
- C.** Temporary Offices: A construction office is not required on this project.
- D.** Telephones: Provide a minimum of one (1) functioning mobile telephone or landline on-site at all times for the purpose of safety.
- E.** Water: The Contractor shall provide all water required during the construction period.
- F.** Temporary Toilet Units: Provide and maintain self-contained, single-occupant toilet units of the chemical, aerated re-circulation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- G.** Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers, or a combination of extinguishers of NFPA-recommended classes for the exposures.
 - 1.** Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

PART 3 – EXECUTION

3.1 INSTALLATION

- A.** Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B.** Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A.** General: Utility connections are not available at the site. All utilities shall be provided at no additional cost to the Owner.
- B.** Temporary Water Service: Contractor shall provide all water required during the construction period.
- C.** Temporary Electric Power Service: Contractor shall provide all electric service required during the construction period. Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics for the various construction tools, machinery, lights, heating and air conditioning, pumps, and other tools required by the Contractor, Subcontractors, and the construction office during construction period. Include meters, transformers, overload-protected disconnects, automatic ground-fault interrupters, temporary wiring, panelboards, switches, and main distribution switch gear as necessary. Temporary service and light circuits shall be moved as required to maintain progress in the Work and all temporary facilities shall be removed upon completion of the Work.
- D.** Temporary Heating: Provide temporary heat required by construction activities for curing or drying of completed installations or for protection of installed construction, materials, and equipment from adverse effects of low temperatures or high humidity. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce the ambient condition required and minimize consumption of energy.
 - 1. Heating Facilities: Except where the Owner authorizes use of the permanent system, provide vented, self-contained, LP-gas or fuel-oil heaters with individual space thermostatic control.
 - 2. Use of gasoline-burning space heaters, open flame, or salamander heating units is prohibited.
- E.** Temporary Telephones: Provide a minimum of one functioning mobile phone or landline on site at all times when personnel are present on site.
- F.** Temporary Toilets: Install and maintain self-contained toilet units. Use of pit-type privies will not be permitted. Comply with regulations and health codes for the type, number, location, operation, and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.
 - 1. Shield toilets to ensure privacy.
 - 2. Provide separate facilities for male and female personnel; unless a signed waiver is provided to the Owner.
 - 3. Provide toilet tissue materials for each facility.

- G.** Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.
- H.** All open excavations associated with temporary facilities or utility installations that are not completed during the daylight period shall be surrounded by a 48" high bright orange temporary safety fence and supported by steel T-posts spaced no greater than 5' apart.

3.3 SUPPORT FACILITIES INSTALLATION

- A.** General: Locate field offices, storage sheds, and other temporary construction and support facilities for easy access.
 - 1. Maintain support facilities until near Substantial Completion. Remove prior to Substantial Completion. Personnel remaining after Substantial Completion, will be permitted to use permanent facilities, under conditions acceptable to the Owner.
- B.** Field Offices: Provide insulated, weathertight temporary offices of sufficient size to accommodate required office personnel at the Project site. Field Office shall be for the use of both the Contractor and the Resident Project Representative. Keep the office clean and orderly for use for small progress meetings. The office shall be equipped, at a minimum, with light, heat, air conditioning, first aid kit, desk or table, and a minimum of six chairs.
- C.** Storage facilities: Install storage sheds sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service.
 - 1. Contractor shall provide all temporary buildings or trailers needed for storage of equipment and materials installed under this Contract (including those furnished by Owner or others under separate contract) which require indoor storage or protected outdoor storage at the site prior to their installation. Temporary buildings and trailers and stored materials shall be in locations acceptable to Owner's Representative, and will be removed when the Work is completed.
 - 2. Owner's Representative shall be advised of any arrangements made for storage of equipment and materials in a place other than Owner's site.
 - 3. Contractor shall assume responsibility for and protect all equipment and materials during the storage period in accordance with the manufacturer or supplier's recommendations.
- D.** Project Identification and Temporary Signs: Prepare project identification and other signs of sizes indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative-treated wood or steel. No unauthorized signs shall be permitted.
 - 1. Project Identification Signs: Engage an experienced sign painter to apply graphics. Comply with details indicated.
 - 2. Temporary Signs: Prepare signs to provide directional information to construction personnel and visitors.
- E.** Collection and Disposal of Waste: Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. Do not hold materials more than 7 days during normal weather or 3 days when the temperature is expected to rise above 80° F (27° C). Handle hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material lawfully.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A.** Barricades, Warning Signs, and Lights: Comply with all appropriate and current FHA Manual on Uniform Traffic Control Device (MUTCD) standards and code requirements. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
- B.** Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations; plus minimize the possibility that air, waterways, and subsoil might become contaminated or polluted and/or other undesirable effects might occur. Avoid the use of tools and equipment that produce harmful noise. Restrict the use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A.** Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B.** Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C.** Termination and Removal: Unless the Designer requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are the Contractor's property. The Owner reserves the right to take possession of project identification signs.

END OF SECTION 015000

DIVISION 1 – GENERAL REQUIREMENTS

015723 – TEMPORARY STORM WATER POLLUTION CONTROL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to this section.

1.2 SUMMARY

- A.** Section includes:
 - 1. Furnishing, installing, maintaining (including sediment removal), and removing temporary control measures as shown on the Plans or ordered by the Resident Project Representative. Temporary water pollution and sediment control shall be accomplished through the use of seeding, mulching, straw bales, silt fences, and other erosion control devices or methods, in accordance with these Specifications.
 - 2. The temporary project water pollution control provisions contained herein shall be coordinated with the permanent erosion and sediment control features specified elsewhere in the Specifications to the extent practical to assure effective and continuous erosion control throughout the construction and post construction period.

1.3 UNIT PRICES

- A.** All work in this section required by the Specifications or Plans shall be included in the Contractor's Lump Sum contract price or in Alternate No. 1's Lump Sum Price. The Base Bid Lump Sum price and Alternate No. 1's Lump Sum price(s) shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work including maintenance and sediment removal. However, should the actual quantity of Two Inch Clean Rock, MoDOT Type 3 Ditch Liner, Sediment Control Bales, Geotextile Silt Fence, Temporary Mulch, Temporary Seeding, Agriculture Lime, Actual Nitrogen, Actual Phosphorus, Actual Potassium or Hydrated Lime vary from that required by these Specifications or Plans (more or less), the following shall apply to payment:
 - 1. Payment for temporary sediment control measures shall be made at the Unit Price established in the Contractor's Bid Proposal form.
 - 2. Quantities of two-inch clean rock shall be measured to the nearest ton.
 - 3. Quantities of the MoDOT Type 3 Ditch Liner shall be measured to the nearest ton.
 - 4. Quantities of Agriculture Lime shall be measured to the nearest 100 pound/unit.
 - 5. Quantities of Actual Nitrogen, Actual Phosphorus and Actual Potassium shall be measured to the nearest pound.
 - 6. Quantities of geotextile silt fence shall be measured to the nearest linear foot.
 - 7. Quantities of straw bale silt fence shall be measured by the standard bale.
 - 8. Quantities of temporary seeding and mulching shall be measured to the nearest acre.
 - 9. Quantities of Hydrated Lime shall be measured to the nearest 50 pound/unit.
 - 10. Payment for temporary sediment control will not be made until work has been completed in strict accordance with the specifications.
 - 11. The Unit Prices established by the Contractor's Bid Proposal Form shall include the cost of all labor, materials, tools, equipment, profit, and incidentals necessary to complete the work.

1.4 DEFINITIONS – (Not Applicable)

1.5 SUBMITTALS

- A.** Submit as specified in Division 1.
- B.** Includes, but is not limited to, the following:
 - 1. Manufacturer's installation instruction and certification for the geotextile silt fence stating that the material supplied conforms to the requirements of these specifications. The certification shall include or have attached typical results of tests for the specified properties, representative of the materials supplied.
 - 2. Weight and/or shipping tickets of materials brought on site shall be presented to the Resident Project Representative.

1.6 QUALITY ASSURANCE

- A.** Applicable Standards:
 - 1. American Society for Testing and Materials (ASTM).
 - a. ASTM D4632 Tensile Strength.
 - b. ASTM D4355 Ultraviolet Degradation
 - c. ASTM D4751 Apparent Opening Size
 - d. ASTM D4491 Permittivity.
- B.** Field Quality Control
 - 1. Prior to installation all materials required under this section shall be subject to the inspection and approval of the Resident Project Representative. During installation, the Resident Project Representative may make surveys and spot checks to ensure that plan lines and grades are met.

1.7 PROJECT CONDITIONS

- A.** Temporary project water pollution control work generally will involve installation of materials on mine spoil. Surface flow of rainwater may be considerable should precipitation occur during construction.

PART 2 – PRODUCTS

2.1 SEDIMENT CONTROL BALES

- A.** Bales shall consist of straw of oats or wheat. Hay may be substituted upon approval by the Owner's Representative.
- B.** Posts. Hardwood posts shall be used. Posts shall have a minimum length of 36 inches and be of sufficient strength to resist damage during installation and to support applied loads.
- C.** Bales shall be installed in areas located by the Owner's Representative or Resident Project Representative or as otherwise directed.
- D.** Bales shall be dug approximately 4" deep with a minimum of eight inches on either side of the gully. Excess soil shall be thrown on the uphill side of the gully.

2.2 GEOTEXTILE SILT FENCE

- A.** Fibers used in the manufacture of geotextiles shall consist of long chain synthetic polymers, composed of at least 85 percent by weight polyolefins, polyesters, or polyamides. They shall be formed into a

network such that the filaments or yarns retain dimensional stability relative to each other including selvages. The geotextile shall be free of any treatment or coating which might adversely alter its physical properties after installation. Unless otherwise specified, geotextile shall be furnished in 36-inch width (minimum) rolls.

- B. Geotextile rolls shall be furnished with suitable wrapping for protection against moisture and extended ultraviolet exposure prior to placement. Each roll shall be labeled or tagged to provide product identification sufficient for inventory and quality control purposes. Rolls shall be stored in a manner that protects them from the elements.
- C. Support Fence may be required in areas of high velocities/flows. Wire or other support fence shall be at least 24 inches high and strong enough to support applied loads.
- D. Prefabricated Fence. Prefabricated fence systems may be used provided they meet all of the above material requirements.
- E. Posts. Hardwood posts shall be used. Posts shall have a minimum length of 36 inches and be of sufficient strength to resist damage during installation and to support applied loads.
- F. Geotextile silt fence shall be installed as per manufacturer's instructions in locations as indicated on the plans or as otherwise directed by the Owner's Representative or Resident Project Representative.

Table 1: Physical Requirements for Temporary Silt Fence Geotextiles

<u>Property</u>	<u>Test method</u>	<u>Wire Fence Supported Requirements</u>	<u>Self Supported Requirements</u>
Tensile Strength, Lbs.	ASTM D4632	90 Minimum ²	90 Minimum ²
Elongation at 50% Minimum tensile strength (45 Lbs.)	ASTM D4632	N/A	50 Maximum
Permittivity (Sec ⁻¹)	ASTM D4491	0.01 *3	0.01 *3
Apparent Opening Size (AOS)(mm)	ASTM D4751	0.84 *3	0.84 *3
Ultraviolet Degradation at 500 hours.	ASTM D4355	Minimum 70% Strength Retained	Minimum 70% Strength Retained

*1 All numerical values represent minimum average roll value.

*2 When tested in any principal direction.

*3 Permittivity and AOS do not relate directly to the filtration performance of silt fence fabrics. Values presented reflect minimum criteria of products currently used. Performance tests such as VTM-51 or ASTM D5141 may be used to evaluate silt fence performance if deemed necessary by the Owner's Representative.

2.3 MULCH

- A. Shall consist of wheat or oat straw.
- B. Straw shall be relatively free of prohibited weed seed and all other noxious and undesirable seed as approved by the Owner's Representative. The straw shall not be in an advanced stage of decomposition.

2.4 TEMPORARY SEED:

- A. Provide fresh, clean new-crop seed complying with rate of application as stated herein. Ship all seed and other materials with certificates of inspection required by governing authorities. Comply with regulations applicable to such materials.
- B. All seed must comply with the requirements of the Missouri Seed Law, contain no seed of any plant on the Federal noxious weed list, and contain no seed of any weed not known to exist in Missouri.
- C. Seed, which has become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable and shall be removed from the project site.
- D. All leguminous seed shall be inoculated or treated with the proper cultures for the particular legume to be sown.
 - 1. The inoculant for treating leguminous seed shall be a pure culture of nitrogen-fixing bacteria. The containers of inoculant shall be plainly marked with the expiration date for use and the manufacturer's directions for inoculating seed.
 - 2. The process of inoculation shall be in accordance with the manufacturer's direction for the particular species of legume. The time laps for sowing the seed following inoculations shall not exceed 24 hours.
 - 3. A legume shall be inoculated separately with sufficient inoculant to cover all seed before mixing with other seeds. A commercial sticker shall be used to ensure the inoculant adheres to the seed.
 - 4. Inoculants shall be applied at double the manufacturer's recommendation.
- E. Areas finished outside of the seeding dates may be mulched as per specifications outlined in 015723.3.4 of this section.
- F. Acceptable seed mixtures and rates of application are as follows. Seed mixtures are to be applied to those areas as otherwise directed by the Owner's Representative.

Temporary Seed Mixture #1

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>VARIETY</u>	<u>PLS*/ACRE</u>
Pearl Millet	<i>Pennisetum glaucum</i>		25
Perennial Ryegrass	<i>Lolium perenne</i>	Manhattan	4
Oats	<i>Avena sativa</i>	Jerry	30

Temporary Seed Mixture #1 shall be planted in all areas if seeded between May 16 and July 31.

*Pounds of PLS/Acre is the seeding application rate in terms of Pure Live Seed per acre.

Temporary Seed Mixture #2

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>VARIETY</u>	<u>PLS*/ACRE</u>
Wheat	<i>Triticum</i>		100
Perennial Ryegrass	<i>Lolium perenne</i>	Manhattan	4
Annual Ryegrass	<i>Lolium multiflorum</i>		5
Temporary Seed Mixture #2 shall be planted in all areas if seeded between October 01 and February 29.			

*Pounds of PLS/Acre is the seeding application rate in terms of Pure Live Seed per acre.

2.5 FERTILIZER:

- A. Fertilizer shall be a standard commercial product, which when applied at the proper rate, will supply the quantity of total actual nitrogen (N), total phosphorus (P), and soluble potassium (K), required under Part 3 (3.5.G) of this Section.

PART 3 – EXECUTION

3.1 GENERAL REQUIREMENTS

- A. Prior to initiation of any disturbance within the Project limits, the Contractor shall install and maintain the temporary and/or permanent erosion and water pollution control measures in accordance with the requirements of this section and other appropriate sections of the Specifications and as shown of the Plans and as directed by the Owner's Representative or Resident Project Representative.
- B. The Contractor will be required to incorporate all permanent erosion and sediment control features into the project at the earliest practical time. Temporary pollution control measures shall be used to correct conditions that develop during construction; that are needed prior to installation of permanent pollution control features; or that are needed temporarily to control erosion that results from normal construction practices.
- C. Where erosion and sedimentation is likely to be a problem, the Owner's Representative may require the Contractor to schedule and perform clearing and grubbing such that grading and storm drainage systems are completed immediately following clearing and grubbing, if conditions permit. Temporary erosion and sediment control measures may be required between successive construction stages.
- D. The Owner's Representative may limit the surface area of erodible earth material exposed by clearing and grubbing, the surface area of erodible earth material exposed by excavation, borrow, and fill operations. The Owner's Representative may direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment. Such work may involve construction of geotextile or bale silt fence, use of temporary mulches, seeding, or other control devices or methods, as necessary to control erosion. If sediment control features are not maintained the work may be shut down until corrective actions are performed by the Contractor, at the direction of the Owner's Representative. A 24-hour written notice will be given prior to shutdown.

- E.** The Owner's Representative or Resident Project Representative may limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress commensurate with the Contractor's capability and progress in keeping the finish grading, mulching seeding, and other such permanent pollution control measures current. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately.
- F.** Unless otherwise provided or approved in writing by the Owner's Representative, construction operations in rivers, streams, and impoundments shall be restricted to those areas which must be entered for the construction of temporary or permanent structures. Rivers, streams, and impoundments shall be promptly cleared of all falsework, piling, debris, or other obstructions placed therein or caused by the construction operations.
- G.** Fording of live streams with construction equipment will not be permitted unless specifically approved by the Owner's Representative. Temporary bridges or other structures shall be used wherever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing by the Owner's Representative, mechanized equipment shall not be operated in live streams except as may be required to construct channel changes and temporary or permanent structures. If a Section 404 permit is applicable for this project, its requirements and/or conditions shall prevail.
- H.** In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, State, or local agencies, the more restrictive laws, rules, or regulations shall apply.
- I.** The Owner's Representative has obtained a NPDES permit for this Project which is included as Appendix 2. The Contractor will be required to operate within all permit restrictions. In the event that any fines are assessed to the Owner's Representative resulting from the Contractor's violation of permit restrictions, the amounts payable to the Contractor under this Project will be reduced by the amount of such fines.

 - 1. If, at any time, the Contractor is found to be in violation of the permit restrictions and requirements, he will be allowed 48 hours to take corrective actions to bring the work back into conformance with the permit restrictions and requirements. The 48 hour time period will commence to run at that date and time at which the Contractor or his superintendent at the project site is first notified of the violation.

 - a. If adequate corrective actions are not taken within 48 hours after such notification, the Contractor will be directed to cease all other operations until the necessary corrective actions have been taken, and a notice to recommence the work is issued.
 - b. No Contract Time Extensions or increase in compensation will be made to the Contractor as a result of violation of the permit restrictions and requirements.
 - 2. The Contractor shall implement and meet all applicable requirements of the NPDES permit.
 - 3. The Resident Project Representative will monitor water quality and sample, if required, in accordance with the permits.
 - 4. The Owner's Representative will bear the costs of all laboratory testing associated with monitoring.
 - 5. The Contractor will bear the cost of all laboratory testing associated with the discharge resulting from dewatering activities if required.
 - 6. The Contractor will be responsible for the repair and cost of all damages resulting from sedimentation.

3.2 STRAW BALE INSTALLATION

- A.** Straw bales shall be installed in accordance with the Plans and Specifications.
- B.** Straw bales may be used at the bottom of slopes and on the lower side of cleared areas to divert water and retain sediment.
- C.** Straw bales may be used as ditch checks and to correct rill and gully erosion in small ditches and drainage areas.
- D.** The Contractor shall maintain the integrity of the straw bales as long as they are necessary to control sediment. The Resident Project Representative and Contractor shall inspect all straw bales immediately after each rainfall and at least daily during prolonged rainfall. Any deficiencies shall be immediately corrected by the Contractor. In addition, the Contractor shall make a daily review of the location of the straw bales in areas where construction activities have changed the natural contour and drainage runoff to ensure that the straw bales are properly located for effectiveness. Where deficiencies exist, additional straw bales shall be installed as approved or directed by the Resident Project Representative.
- E.** The Contractor shall remove and dispose of sediment deposits when the deposit approached one-half (1/2) the height of the bales or sooner when directed by the Resident Project Representative. If required by heavy sediment loading, more lines of straw bales shall be installed as directed by the Resident Project Representative.
- F.** The straw bales shall remain in place until the Owner's Representative directs removal. The Contractor shall remove and dispose of any excess silt accumulations, grade and dress the area to the satisfaction of the Owner's Representative, and establish vegetation on all bare areas in accordance with the requirements of the applicable Specifications.

3.3 SILT FENCE INSTALLATION

- A.** Installation of wire supported and self-supporting geotextile fence may be required in areas of high velocities or flows, as directed by the Resident Project Representative.
- B.** Silt fence may be used at the bottom of slopes and on the lower side of cleared areas to divert water and retain sediment.
- C.** Silt fence may be used as ditch checks and to correct rill and gully erosion in small ditches and drainage areas.
- D.** Post spacing shall not exceed eight (8) feet for wire support fence installations or five (5) feet for self-supported installations. Posts shall be driven a minimum of 24 inches into the ground. Where rock is encountered posts shall be installed in a manner approved by the Owner's Representative. Closer spacing, greater embedment depth and/or wider posts shall be used as necessary in low areas and soft or swampy ground to ensure adequate resistance to applied loads.
- E.** When support fence is used, the mesh shall be fastened securely to the up-slope side of the post. The mesh shall extend into the trench a minimum of two inches and extend a maximum of 36 inches above the original ground surface.
- F.** When self-supported fence is used, the geotextile shall be securely fastened to fence posts.

- G.** The Contractor shall maintain the integrity of silt fences as long as they are necessary to contain sediment runoff. The Resident Project Representative and the Contractor shall inspect all temporary silt fences immediately after each rainfall and at least daily during prolonged rainfall. Any deficiencies shall be immediately corrected by the Contractor. In addition, the Contractor shall make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, additional silt fences shall be installed as approved or directed by the Resident Project Representative.
- H.** The Contractor shall remove and dispose of sediment deposits when the deposit approaches one-half the height of the fence or sooner when directed by the Resident Project Representative. If required by heavy sediment loading, more silt fence shall be installed as directed by the Resident Project Representative.
- I.** The silt fence shall remain in place until the Owner's Representative directs removal. Upon silt fence removal, the Contractor shall remove and dispose of any excess silt accumulations, grade and dress the area to the satisfaction of the Owner's Representative, and establish vegetation on all bare areas in accordance with the requirements of the applicable Specifications and at no additional expense to the Owner.

3.4 TEMPORARY MULCH

- A.** At the discretion of the Owner's Representative, for the purpose of temporary erosion control prior to seeding, temporary mulch may be required on all or parts of the project site. Mulch shall be composed of straw of oats or wheat for temporary water pollution control.
 - 1. At the request of the Owner's Representative; the Contractor, Resident Project Representative, and Owner's Representative shall meet on-site to determine what area(s) of the project site should be mulched and their associated acreage.
 - 2. Mulch shall be spread uniformly to form a continuous loose blanket not less than one and one-half (1 ½) inches or more than two (2) inches.
 - 3. Bunching or matting of mulch shall be avoided and corrected by hand methods, if so directly by the Owner's Representative.
 - 4. Straw mulch shall be crimped into the soil by means of a straw crimper manufactured specially for such purpose.
 - 5. The Contractor shall promptly complete the mulch application within fifteen (15) days of written notice to proceed from the Owner's Representative.
 - 6. If mulch is required on the project site totaling less than three (3) acres, the Contractor will be reimbursed for not less than three (3) acres. The three (3) acres may or may not be contiguous.

3.5 TEMPORARY SEEDING

- A.** At the discretion of the Owner's Representative, for the purpose of temporary erosion control prior to permanent seeding, temporary seed may be required on all or parts of the project site.
- B.** At the request of the Owner's Representative, the Contractor and Resident Project Representative shall meet on site to determine what area(s) of the project site should be temporary seeded and their associated acreage.
- C.** Temporary Seed Mixture 1 or 2 shall be applied at the rates as described in Section 015723.2.4.F.

- D.** Drill seed following the contour using a mechanical power drawn seed drill that places the seed at least $\frac{1}{4}$ ", but no more than $\frac{1}{2}$ " into the soil, or at depths directed by the Owner's representative. Drill seeding shall be accomplished with drills using a drill width of between 7" and 9". If inspections during seeding operations, or after there is a show of green, indicate that areas have been left unplanted, additional seed of the appropriate species and quantity shall be sown as directed by the Owner's Representative at no additional cost to the Owner. Hand broadcasting may be allowed in areas not accessible to drills or other equipment, upon request. Once applied, the seed must be covered at least $\frac{1}{4}$ " but no more than $\frac{1}{2}$ " with soil by means of hand rakes or other approved methods. Seeding rates in hand broadcasted areas shall be double those listed in Section 015723.2.4.F.
- E.** The Contractor shall promptly complete the temporary seeding within fifteen (15) days of written notice to proceed from the Owner's Representative.
- F.** If temporary seed is required on the project site totaling less than four (4) acres, the Contractor will be reimbursed for not less than for (4) acres. The four (4) acres may or may not be contiguous.
- G.** Lime and/or fertilizer will be required as directed by the Owner's Representative. Rates will be provided by the Owner's Representative. Application of lime and fertilizer shall be in accordance with the requirements already set forth in Section 312000.3.5 and Section 329219.2.3, respectively.
- H.** The seedhead of the temporary crop shall not be allowed to mature. The Contractor shall mow the temporary crop to prevent seedhead maturity. Should wet conditions not allow the Contractor to mow the crop and the seedhead matures, the Contractor shall combine the crop to prevent a volunteer cereal crop.
- I.** The permanent grass species shall not be drilled directly into the temporary seeded areas. The temporary seeded areas shall be incorporated to a depth of six (6) inches by discing, harrowing, or other approved methods.

END OF SECTION 015723

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 017400 – CLEANING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions, Bid Form and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A.** This Section includes administrative and procedural requirements for cleaning during the Project.
- B.** Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and anti-pollution regulations.
 - 1. Do not dispose of hazardous or volatile wastes, such as mineral spirits, oil, or paint thinner onsite.
 - 2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

PART 2 - PRODUCTS

2.1 MATERIALS

- A.** Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator for the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 PROGRESS CLEANING

- A.** General
 - 1. Retain all stored items in an orderly arrangement allowing maximum access, not impeding drainage or traffic, and providing the required protection of materials.
 - 2. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of this Work.
 - 3. At least **once** each month, and more often if necessary, completely remove all scrap, debris, and waste material from the job site.
 - 4. Provide adequate storage for all items awaiting removal from the job site, observing all requirements for fire protection and protection of the ecology.
- B.** Site
 - 1. Daily, inspect the site and pick up all scrap, debris, and waste material. Remove all such items to the place designated for their storage.
 - 2. Weekly, inspect all arrangements of materials stored on the site. Re-stack, tidy, or otherwise service all material arrangements.
 - 3. Maintain the site in a neat and orderly condition at all times.

3.1 FINAL CLEANING

- A.** General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B.** Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or any portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site.
 - 5. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - 6. Leave the Project clean and ready for occupancy.
- C.** Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests. Comply with regulations of local authorities. No pest control is proposed for this Project.
- D.** Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- E.** Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
 - 1. Where extra materials of value remain after Final Acceptance by the Owner, they become the Owner's property.

END OF SECTION 017400

DIVISION 31 – SITE CLEARING

311000 – SITE CLEARING

PART 1 – GENERAL:

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this section.

1.2 SUMMARY

- A.** This section includes:
 - 1. Site preparation activities such as clearing, grubbing, access, construction and waste disposal
 - 2. Materials to be handled under this contract, which may include trees, brush, and quantities of trash, mine spoil material, and coal refuse that may be acidic in nature
 - 3. The Contractor shall not use explosives on this work.

1.3 UNIT PRICES

- A.** Unit Prices are not applicable. All work in this section required by the Specifications or Plans shall be included in the Contractor's Base Bid Lump Sum contract price. The Base Bid Lump Sum shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work.

1.4 DEFINITIONS

A. MINE SPOILS

- 1. Mine spoil is the earthen material excavated by the mining process while removing coal. This material is unconsolidated and unsorted.

B. COAL WASTE

- 1. Coal waste has a pH of less than 4.5, and consists of carbon rich, acid forming materials remaining after strip or underground mining. These areas are typically bare to sparsely vegetated and consist of low grade coal materials remaining after mining.

1.5 SUBMITTALS

- A.** Includes, but are not limited to, the following:
 - 1. Submit as specified in Division I.
 - 2. The Contractor shall submit weight tickets and receipts for recycled materials and for residential waste materials.
 - 3. Weight and/or shipping materials for rock and other materials brought on-site shall be presented to the Resident Project Representative.

1.6 QUALITY ASSURANCE (NOT APPLICABLE)

1.7 PROJECT CONDITIONS

- A.** Material to be handled under this contract consists primarily of mine spoil and coal waste, which are acidic.
- B.** Saturated ground conditions may prevail in and near mine pits. Should ground conditions warrant, to fulfill the specifications set forth in this section, the Contractor shall be responsible for utilizing the appropriate low ground pressure equipment at no additional expense to the Owner. For the purposes of this section, appropriate low ground pressure equipment is defined as having maximum load pressure of 4.3 lbs. per square inch.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 CLEARING AND GRUBBING – The Contractor shall perform clearing and grubbing only to the extent necessary to perform the work required. Clearing and grubbing within the construction limits shall be rigidly adhered to.

- A.** Clearing:
 - 1. All tree clearing shall be completed between November 1st and April 1st.
 - 2. In cutting of timber growth, cuts shall be made such that all trees are felled into the area to be cleared. Exercise care when clearing near the project limits so as not to damage existing trees, vegetation, structures or utilities that are outside of the clearing limits.
 - 3. Conduct work in a manner that prevents damage to property and provides for the safety of employees and others.
- B.** Grubbing: Includes removal and disposal of tree stumps and roots larger than 3 inches in diameter.
 - 1. Backfill all excavated depressions with borrow material and grade to drain.
 - 2. Stumps shall be disposed of per Section 311000.3.3.A.

3.2 PROTECTION OF EXISTING VEGETATION – The Contractor shall protect tops, trunks, and roots of existing trees on the project site, which are designated not to be disturbed.

- A.** Box, fence around, or otherwise protect trees before any construction work is started.
- B.** Do not permit heavy equipment or stockpiles within branch spread.
- C.** Trim or prune to obtain working space in lieu of complete removal when possible. Conduct operation with experienced personnel as follows:
 - 1. Conform to good horticultural practice.
 - 2. Preserve natural shape and character.
- D.** All effort should be made to preserve large trees with exfoliating bark and dead snags. Remove when damage occurs and survival is doubtful, as determined by the Owner's Representative.

3.3 DEBRIS REMOVAL AND DISPOSAL

- A.** Disposal of site-clearing debris.
 - 1. No materials other than clearing wastes may be burned. All burning must be conducted in accordance with the requirements of the local Fire Department and all other local, state, and

- federal authorities having jurisdiction. Protection of property outside project limits and protection of on-site trees and other vegetation to remain shall be maintained at all times.
2. Burning of clearing wastes on coal refuse areas are not permitted.
 3. Appliances, scrap metal, tires, and all other recyclables within construction limits shall be considered salvage, and shall become the property of the Contractor. The Contractor shall transport all materials to an appropriate recycler.
 4. Residential waste shall be hauled to a DNR permitted landfill.

3.4 ACCESS CONSTRUCTION

- A. The Contractor shall confine all activities to within the construction limits. Any damage to the site outside of the construction limits shall be repaired to the satisfaction of the Owner's Representative at no additional cost to the Owner.
- B. All disturbed areas adjacent to the access road shall be repaired by smoothing, liming, seeding and fertilizing in accordance with these specifications at no additional expense to the Owner.

END OF SECTION 311000

DIVISION 31 – EARTH MOVING

312000 – EARTH MOVING

PART 1 – GENERAL:

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - 1. This work consists of grading and shaping of the area in accordance with the Plans and Specifications. This work includes grading mine spoil, applying Ag lime, installing 2-inch clean rock, and MoDOT Type 3 Ditch Liner. Material to be handled under this contract consists primarily of mine spoil.

1.3 MEASUREMENT AND PAYMENT

- A. All work in this section required by the Specifications and/or Plans shall be included in the Contractor's Base Bid Lump Sum Contract price. The Base Bid Lump Sum Contract shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work. However, should the actual quantities of Unit Priced items in the Contract including Ag Lime, Two (2") Inch Clean Rock, and MoDOT Type 3 Ditch Liner vary from those required by these Specifications and/or Plans (more or less), payment shall be made based on the Contractor's Section 004322 - Unit Prices Bid Proposal Form, and the following:
 - 1. Original vendor/ quarry scale ticket(s) for each pre-approved delivery of Ag Lime and rock hauled to the project site shall be provided to the Resident Project Representative showing the Unit of Measure and Actual Quantity delivered.
 - 2. Ag Lime shall be measured to the nearest one hundred (100 lbs.) pounds ENM.
NO payment shall be made for Ag Lime until it has been installed/incorporated in accordance with the Specifications.
 - 3. Quantities of 2-inch Clean Rock, and MoDOT Type 3 Ditch Liner shall be measured to the nearest ton.
 - 4. The Unit Prices established by the Contractor's Bid Proposal Form shall include the cost of all labor/installation/incorporation, materials, tools, equipment, profit, and incidentals.

1.4 DEFINITIONS

- A. Mine Spoil:
 - 1. The majority of the material to be handled consists of mine spoil. Mine spoil is earth and rock material excavated by the surface mining process while removing coal from the pits. The mine spoil generally represents overburden materials excavated deep below the surface.
 - 2. The Contractor shall be responsible to grade the spoil piles to the contours shown on the plans.
 - 3. Mine spoil shall comprise the final grade. The Contractor shall apply and incorporate amendments per Section 312000.3.4 and Section 329219.3.3 in these areas.

B. Coal Waste:

1. Coal waste has a pH of less than 4.5, and consists of carbon rich, acid forming materials remaining after strip or underground mining. These areas are typically bare to sparsely vegetated and consist of low grade coal materials remaining after mining.
2. Any incidental coal waste encountered shall be excavated and buried in accordance with Section 312000.3.2.A, or as directed by the Owner's Representative.

1.5 SUBMITTALS:

A. Includes, but are not limited to, the following:

1. Submit as specified in Division 1.
2. Certificates from vendors certifying that Ag lime meets all requirements of these Specifications.
3. Effective Neutralizing Materials (ENM) values shall be stated on all tickets.
4. Weight and/or shipping tickets of materials brought on-site shall be presented to the Resident Project Representative.

1.6 QUALITY ASSURANCE

A. Applicable Standards:

1. Missouri Agriculture Liming Materials Act. 1976.
2. The Owner's Representative will make surveys and spot checks to ensure that plan lines and grades are obtained on the project. The Contractor shall schedule work so the Owner's Representative may make the require field tests and surveys. The Contractor shall furnish one laborer to assist the Owner's Representative in spot checking construction layout and grades. Spot check of grades by the Owner's Representative will be only for verification that work is in accordance with the plans. The Owner's Representative is not responsible for setting grades for the Contractor.

1.7 PROJECT CONDITIONS

- A.** Materials to be handled under this contract consist primarily of mine spoils and coal waste which are acidic.
- B.** Saturated ground conditions may prevail in or near the mine pit. Should ground conditions warrant, to fulfill the specifications set forth in this section, the Contractor shall be responsible for utilizing the appropriate low ground pressure equipment at no additional expense to the Owner. For the purposes of this section, appropriate low ground pressure equipment is defined as having maximum load pressure of 4.3 lbs. per square inch.

PART 2 – PRODUCTS

2.1 AG LIME:

- A.** Shall consist of agricultural liming material conforming to the Missouri Agricultural Liming Materials Act. 1976.
- B.** Ag Lime shall contain not less than four hundred (400 lbs.) pounds ENM (Effective Neutralizing Material) per ton.
1. Ag lime with different ENM per ton equivalents **SHALL NOT** be mixed during application, storage, or transportation, unless specifically approved by the Owner's Representative.
 2. Contractor shall not stockpile lime unless approved by the Owner's Representative.

3. If Ag lime meeting the above specifications is not locally available, the Contractor may submit a proposal for use of equivalent material based upon the minimum pounds of ENM per ton of Ag lime to be applied.
- C. Manufacturer's certification shall include the minimum pound of ENM per ton of the material to be supplied.
- D. Ag lime must be obtained from a DNR permitted quarry.
- E. See Appendix 1 for a sample calculation regarding Effective Neutralizing Material (ENM).

2.2 2-INCH CLEAN ROCK:

- A. Two (2") inch clean rock shall be clean, sound, durable limestone obtained from a DNR permitted quarry.
- B. Two (2") Inch Clean Aggregate shall meet the minimum requirements for Grade 5 Aggregate for Drainage outlined in Section 1009.3.5 of the Missouri Standard Specification for Highway Construction.

2.3 MoDOT TYPE 3 DITCH LINER:

- A. Sources for MoDOT Type 3 Ditch Liner must be approved by the Owners Representative prior to purchase and/or delivery to the project site.
- B. MoDOT Type 3 Ditch Liner shall be clean, sound, durable limestone obtained from a DNR permitted quarry.
- C. MoDOT Type 3 Ditch Liner shall comply with Section 609.60.2.3 of the Missouri Standard Specifications for Highway Construction. MoDOT Type 3 Ditch Liner shall consist of material with a predominant rock size of 12 inches, a maximum rock size of 20 inches and a gradation such that no more than 15 percent will be less than 4 inches.

PART 3 – EXECUTION

3.1 SEQUENCE OF WORK

- A. The Contractor will perform all operations specified in the sequence of work submitted by the Contractor and approved by the owner's representative.

3.2 EXCAVATION

- A. All excavation shall be performed to the lines and grades indicated and specified. Care shall be exercised not to excavate below the grades shown. Any excess excavation shall be backfilled to grade with approved materials and compacted in accordance with the Specifications at no additional cost to the Owner.

- B.** Incidental coal waste found in the elevations and grades, shall be limed, and buried a minimum of six (6') feet below final grade or as directed by the Owner's Representative.

3.3 EARTHEN FILL

- A.** Construct fill to the elevations and grades as shown in the Plan Drawings and applicable Specifications.
- B.** Incidental coal waste found in mine spoil shall be excavated, limed, and buried a minimum of six (6') feet below final grade as directed by the Owner's Representative.
- C.** Do not place snow, ice, or frozen material in fill.
- D.** Do not place fill on frozen surfaces.
- E.** Excavation material containing a substantial percentage of cobbles, boulders, and other debris (which does not break-up during placement) are to be placed at depths greater than two (2') feet below the final grade.
- F.** The maximum allowable content of rock fragments with a diameter greater than three (3") inches allowed in the upper twelve (12") inches of the final grade is fifteen (15%) percent. Rocks larger than twelve (12") inches in diameter are **not allowed** in the upper twelve (12") inches of fill under any circumstances. Rocks shall be buried or placed in windrows or piles along the site periphery as directed by the Resident Project Representative/ Owner's Rep.
- G.** The Owner's Representative must approve all final grades prior to placement of Ag Lime.

3.4 GRADING

- A.** The transition between the graded areas and the undisturbed areas shall be graded to minimize abrupt slope changes and the possibility of erosion.
- B.** Degree of finish shall be that ordinarily obtained from blade grader operations and shall be accomplished and maintained so that no ponding of surface water occurs.
- C.** The finished grade shall be at Final Plan grade elevations or no more than three-tenths (0.3') foot above or below.
- D.** Finish-grade all ditches and swales to drain readily as shown in the Plan Drawings and applicable Specifications.
- E.** Provide rounded transitions at top and bottom of banks and at other breaks in grade and carry final grade contours to existing contours such that there is a smooth transition with no ponding.
- F.** The Contractor shall limit the amount of compaction on the upper twenty-four (24") inches of surface. Equipment traffic shall be kept to a minimum over areas that have reached final grade.

3.5 AG LIME APPLICATION

- A.** Ag lime shall be as specified in Section 312000.2.1
- B.** The Contractor shall evenly spread Ag lime utilizing an agricultural spreader at the rate of eight thousand (8,000lbs.) pounds ENM (Effective Neutralizing Material) per acre onto the surface of all graded spoil, or as directed by the Owner's Representative. Spreading by use of a blade shall not be allowed. See Appendix 1 for a sample calculation regarding ENM.
 - 1. Immediately following Ag lime application, the Contractor shall deep rip to a depth of twelve (12") inches and incorporate agricultural lime into the final grade as directed by the Owner's Representative. Continue the incorporation and manipulation process until the agricultural lime is thoroughly mixed to a minimum depth of twelve (12") inches in the material to be treated, or as directed by the Owner's Representative.
 - 2. The Contractor shall incorporate Ag lime into the final grade prior to completing work in Section 329219-Seeding.
 - 3. The Contractor shall obtain approval of the Owner's Representative prior to application of Ag lime. Application will not be permitted during adverse conditions, such as high winds or rain.
 - 4. Deep ripping shall consist of at least two (2) passes, with each pass being on an approximate sixty (60) degree bias of the previous pass.
 - 5. Ripping shanks shall be set no wider than twenty-four (24") inches apart or as directed by the Owner's Representative.
 - 6. The Contractor shall incorporate Ag lime into the upper twelve (12") inches of the final grade within twenty-four (24) hours of application. If, due to heavy rainfall, substantial washing of the lime occurs prior to incorporation, the Contractor will be required to supply and reapply Ag lime to the affected areas at no additional cost to the Owner.
 - 7. After deep ripping the Ag lime application, the Contractor shall thoroughly disc the spoil to a depth of eight (6") inches utilizing an offset construction disc, as directed by the Resident Project Representative.
- C.** Small, incidental and individual barren areas, identified on the plans shall have Ag Lime evenly applied at the rate of eight thousand (8,000 lbs.) pounds ENM per acre and incorporated to a minimum depth of twelve (12") inches by thorough ripping and discing, unless otherwise directed by the Resident Project Representative/Owner's Rep.

3.6 MATERIAL HANDLING

- A.** The Contractor operations shall not mix coal waste and mine spoil.
 - 1. In the event that mine spoil becomes contaminated due to Contractor's operations, such material shall be disposed of, in accordance with the requirements outlined for coal waste and shall be replaced as directed by the Owner's Representative at no additional expense to the Owner.

3.7 SURFACE WATER CONTROL

- A.** The Contractor is responsible for control of grading around excavations to prevent surface water from flowing and ponding into excavation areas.
- B.** Runoff from the site may not exceed those limits included in the NPDES permit (See Appendix 2 of these Specifications).

- C.** The contractor is liable for all damage outside the construction limits for this project that is due to the Contractor's operations, including sedimentation caused by construction.
- D.** Drain as required to continually maintain all excavation and trenches free of water or mud from any source and discharge to approved drains or channels.
- E.** Remove sub-grade materials rendered unsuitable by excessive wetting and replace with approved backfill material.
- F.** Should the contractor allow water to impound in contaminated areas, all subsequent discharge shall fall under the NPDES permit's Special Conditions contained in Appendix 2, and shall be performed at no additional cost to the Owner.

END OF SECTION 312000

DIVISION 31 - EARTHWORK

ALTERNATE NO. 1 - 312319 – NEUTRALIZATION OF ACID IMPOUNDMENTS

PART 1 - GENERAL:

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.

1.2 SUMMARY

- A. Section includes
 - 1. This work shall include the neutralization and dewatering of any water that is impounded by the Contractor during project construction that does not meet NPDES Permit discharge parameters. The work shall also include the neutralization and dewatering of all other water that is or becomes impounded on acidic mine spoil as a site precondition or related to construction activities that does not meet NPDES Permit requirements. The water impoundments (Strip Pits) may contain acid water that will require treatment and neutralization prior to discharge. The Contractor shall coordinate with the Owner's Representative to assure that all water that discharges from impoundments is in compliance with the NPDES Permit (Appendix 2). When water is impounded during construction, neutralization and dewatering may be required. The Owner's Representative shall monitor all discharges for compliance with NPDES permit. Discharges not in compliance shall result in immediate action by the Contractor to remedy the problem and comply with all NPDES conditions. The Contractor shall submit a neutralization plan for the Owner's approval ten (10) calendar days prior to initiating the water neutralization procedure.

1.3 UNIT PRICES

- A. All work in this section required by the Specifications or Plans shall be included in the Contractor's Alternate No. 1 Lump Sum price. The Alternate No. 1 Lump Sum shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work. However, should the actual quantity of hydrated lime vary from those required by these Specifications or Plans (more or less), the following shall apply to payment:
 - 1. Payment for hydrated lime (more or less) shall be made at the Unit Prices established in the Contractor's Bid Proposal Form.
 - 2. Quantities of hydrated lime shall be measured to the nearest 50 pounds.
 - 3. The Unit Prices established by the Contractor's Proposal Form shall include cost of all labor, materials, tools, equipment, profit, and incidentals necessary to complete the work.

1.4 DEFINITIONS – (NOT APPLICABLE)

1.5 SUBMITTALS

Submit as specified in Division 1.

Hydrated Lime

- A. Calcium Hydroxide Equivalent must be at least 92 percent. The moisture content at the time of shipment must not exceed 9 percent.
- B. Includes the following:
 - 1. Supplier's certification for hydrated lime and copies of all laboratory tests reports for Calcium Hydroxide Equivalent of the hydrated lime.
 - 2. Copies of all weight tickets for hydrated lime delivered to the project site.
 - 3. Contractor's proposed method for neutralization and circulation of hydrated lime.
 - 4. The Contractor's proposed schedule for neutralizing and dewatering impoundments.
 - 5. Weight and/or shipping tickets of materials brought on-site shall be presented to the Resident Project Representative.

1.6 QUALITY ASSURANCE

- A. Applicable Standards
 - 1. American Society for Testing and Materials (ASTM)
 - a. C-911 Quicklime, Hydrated Lime, and Limestone for Chemical Uses.
 - b. D-1293 pH on Industrial Water
 - 2. Standard Methods for the Examination of Water and Wastewater, 17th Edition, 1989. American Public Health Association, American Waterworks Association, Water Pollution Control Federation.
 - a. Section 4500-H 424 – pH values.
- B. Field Quality Control:
 - 1. The pH of the impoundment water will be monitored daily by the Owner's Representative during discharge. If the discharge is found to be in non-compliance with the NPDES permit parameters as contained in Appendix 1, the dewatering activities will be stopped and retreatment will be required until in compliance with the permit.

1.7 PROJECT CONDITIONS

- A. Job Conditions
 - 1. Sequencing the neutralizing and dewatering of impounded water is important since the water may re-acidify due to seepage from surrounding materials.
 - 2. Sustained and unprotected exposure to hydrated lime may be hazardous to workers. The contractor is reminded to provide for the safety of all personnel involved in its use.

3. The Contractor is referred to the NPDES permit in Appendix 2. It shall be the Contractor's responsibility to assure that all discharges meet the requirements of the NPDES permit. The Owner's Representative will monitor all discharges for compliance with NPDES permit.
4. The Contractor shall not conduct neutralizing activities whenever there is ice present on the impoundment surface.

PART 2 – PRODUCTS

A. HYDRATED LIME

1. Material for neutralization of the acid water during construction activities shall consist of hydrated lime conforming to ASTM C-911 and shall meet the following specific requirements
2. The hydrated lime shall contain particles sufficiently fine so that no less than 97 percent will pass through a No. 400 sieve. The Calcium Hydroxide Equivalent must be at least 92 percent. The moisture content at the time of receipt on site must not exceed 9 percent.

PART 3 – EXECUTION

- A. Hydrated lime shall be applied to the Acid Pit, in accordance with sections 3.3, 3.4, 3.5 and 3.6 below. The hydrated lime shall be mixed in a slurry thoroughly in water solution prior to installation.

3.1 PROCEDURES-HYDRATED LIME

- A. The Contractor shall furnish to the Owner's Representative a proposal for the procedure for circulation and mixing of the hydrated lime into a slurry.
- B. The procedure must be submitted and approved ten (10) calendar days before proceeding.
- C. Approval of the procedure by the Owner's Representative will not relieve the Contractor of his responsibility of satisfactory completion of the work.
- D. Impounded water and water in the strip pits shall be tested by the Owner's Representative prior to discharge off site. If discharge does not meet the NPDES limits, neutralization shall be necessary. Neutralized water shall be immediately discharged as directed by the Owner's Representative. Water shall be discharged in a manner that does not cause erosion or damage to existing vegetation or structures.
- E. Hydrated lime shall be applied to the acid pit prior to completion of earthwork.

3.2 APPLICATION

- A. Hydrated Lime material shall be applied uniformly over the entire surface of the impoundment as a slurry.
- B. Impoundment water shall be continuously circulated during the application of the slurry to assure proper mixing of the impoundment water.

- C. A minimum of 3 different locations around the acid pit shall be used for the hydrated lime slurry installation.
- D. In the event that any water sample fails to meet requirements of the NPDES permit, additional lime applications or mixing shall be continued until such time as the permit requirements are met.

3.3 TESTING

- A. The Owner's Representative shall be responsible for monitoring all discharges for compliance with NPDES permit. The Owner's Representative shall be responsible for monitoring all applications of the hydrated lime.
- B. Prior to discharging from an impoundment, the Owner's Representative will take a water sample and test the water for compliance with NPDES permit parameters.
- C. Any impounded water, from stormwater runoff, that discharges off the project limits will be sampled, tested, and treated as per the NPDES parameters. Water sampling and analysis costs for stormwater runoff will be the responsibility of the Owner's Representative. Immediately after all impoundment water is discharged, the Contractor is to take appropriate actions to prevent further accumulation of surface runoff and seepage. The Contractor shall be responsible for water testing and treatment of re-contaminated and impounded water resulting from recharge by surface runoff or seepage at no additional cost to the Owner.

3.4 IMPOUNDMENT DISCHARGE

- A. Under no circumstances shall the Contractor be permitted to discharge impoundments without prior approval of the Owner's Representative.
- B. The Owner's Representative shall conduct water testing and monitoring for impoundment discharge to ensure discharge meets standards found in the NPDES permit for this project.
- C. Once the Owner's Representative has determined the water is acceptable for discharging, the Contractor shall initiate the dewatering activities immediately, or as directed by Owner's Representative.
- D. The Owner's Representative will direct the Contractor to shut down operations and direct the Contractor to conduct immediate mitigation procedures when discharge does not meet NPDES discharge standards.
- E. The Contractor shall be responsible for treatment of re-contaminated and impounded water following initial neutralization and dewatering.

END OF SECTION 312319

DIVISION 32 – EXTERIOR IMPROVEMENTS

ALTERNATE NO. 1 - 329219 – SEEDING

PART 1 – GENERAL:

1.1 RELATED DOCUMENTS

- A.** Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section.

1.2 SUMMARY

- A.** Section includes:
 - 1. Alternate No. 1 work shall include seedbed preparation, fertilizing, seeding, and mulching of all areas disturbed by construction operations. The Contractor shall seed all disturbed areas according to these Specifications. Should the Contractor disturb areas outside of the construction limits, such areas shall be repaired and reseeded in accordance with these Specifications at no additional cost to the Owner. All work in this section should be completed during the Monday-Friday work week during daylight hours.

1.3 MEASUREMENT AND PAYMENT

- A.** All work in this section required by the Specifications or Plans shall be included in the Contractor's Alternate No. 1's Lump sum contract price. The Alternate No. 1 Lump Sum shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work. However, should the actual quantity of fertilizer differentiate from that required by the Plans or Specification (more or less), the following shall apply to payment:
 - 1. Payment for fertilizer shall be made at the Unit Prices established in the Contractor's Bid Proposal Form.
 - a. Quantities of fertilizer shall be measured to the nearest pound. No payment will be made for fertilizer until seed operations have been completed in strict conformance with the Specifications.
 - b. The Unit Prices established by the Contractor's Bid Proposal Form shall include cost of all labor, materials, tools, equipment, profit, and incidentals necessary to complete the work.

1.4 DEFINITIONS (NOT APPLICABLE)

1.5 SUBMITTALS

- A.** Submit as specified in Division 1.
- B.** Includes, but is not limited to the following:
 - 1. Seed and fertilizer shall be accompanied by certificates from vendors certifying they meet requirements of these Specifications.
 - 2. Receipts proving quantity of materials used.
 - 3. Receipts, tickets, and certificates for all of the materials listed above or elsewhere in these Specifications must be submitted to the Owner's Representative prior to installation.

1.6 QUALITY ASSURANCE

A. Applicable Standards:

1. Federal Seed Act: Rules and Regulations.
2. Field and Laboratory Methods Applicable to Overburden and Mine Soils, A. A. Sobek et. a., PB/280 495 EPA-600/2-78/054, March, 1978.
3. Soil Testing in Missouri: A Guide for conducting Soil Tests in Missouri. Missouri Cooperative Extension Service publication EC923, revised 8/83.
4. Missouri Seed Law.

B. Seed Labeling and Certification:

1. Ship all seed and other materials with certificates of inspection required by governing authorities. Make sure seed and certification complies with regulations applicable to such materials.

C. Field Quality Control

1. The Owner's Representative shall ensure that the Contractor follows all seeding specifications and that seed mixes are planted in appropriate areas. The Owner's Representative shall:
 - a. Inspect and remove all company seed tickets from seed bags to ensure the quantity and quality of seed is adequate and that the proper mixture and species are planted. Seed without bag tags or company certification **shall not** be planted and will be replaced at no cost to the Owner.
 - b. Ensure all soil amendments meet specification for quantity and quality. **No payment** shall be made for amendments or products that do not meet specifications.
 - c. Ensure all specified seed methods are followed. **No payment** shall be made for seed that does not meet specifications.
 - d. Ensure all areas are planted and seeded with the appropriate seed mixtures. **No payment** shall be made for seeding work that does not meet specifications.
 - e. Ensure all rutted or damaged areas are smoothed, repaired, and seeded. **No payment** shall be made until all such areas are repaired.
 - f. Ensure that the entire site is mulched according to specifications. **No payment** shall be made if mulch is not applied as specified.
2. If the Contractor does not meet specified methods or use specified materials, the Owner's Representative will take appropriate action. Any seeding methods that do not meet specifications will not be paid for by the Owner's Representative until such work is corrected and at no additional cost to the Owner or time extension to the contract.
3. If the work or materials do not meet specification, the Contractor shall be responsible to replace material, work or make repairs at no cost to the Owner or time extension to the contract.

1.7 PROJECT CONDITIONS

A. JOB CONDITIONS

1. Saturated ground conditions may prevail in some low-lying areas. Should ground conditions warrant, and to fulfill the specifications set forth in this section, the Contractor shall be responsible for utilizing appropriate low ground pressure equipment at no additional expense to the Owner. For the purposes of this section, appropriate low ground pressure equipment is defined as having a maximum load pressure of 4.3 lbs. per square inch.

2. The Contractor shall perform seeding only after preceding work affecting ground surface is completed, has been approved by the Owner's Representative, and the initial soil amendments have been incorporated.
3. Whenever conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions or obstructions, the Contractor shall notify the Owner's Representative prior to seeding.

PART 2 – PRODUCTS

2.1 GENERAL

A. SEED:

1. All seed must comply with the requirements of the Missouri Seed Law, contain no seed of any plant of the Federal noxious weed list, and contain no seed of any weed not known to exist in Missouri.
2. Seed, which has become wet, moldy, or otherwise damaged in transit or in storage will not be acceptable and shall be removed from the project site.
3. Provide fresh, clean new-crop seed complying with rate of application as stated herein. Seed mixtures are to be applied to those areas so designated on the Plans or as otherwise directed by the Owner's Representative. Acceptable seed mixtures and rates of application are as follows:

Seed Mixture #1- All Project Areas

<u>COOL SEASON GRASS MIX</u>	<u>POUNDS OF PLS*/ ACRE</u>	<u>VARIETY</u>
Redtop	1.0	
Timothy	6.0	
Smooth Brome	8.0	
Orchard Grass	10.0	
Ladino Clover	3.0	
Red Clover	5.0	
Alfalfa	4.0	
Perennial Ryegrass	3.0	Manhattan
Tall Fescue	15.0	
Oats	20(Not PLS)	
This Seed Mixture shall be planted between March 1 st and June 15 th , and/or between August 1 st and October 1 st unless otherwise directed by the Owner's Representative.		
*Pounds of PLS/ Acre is the seeding application rate in terms of Pure Live Seed per acre.		

B. INOCULANTS:

1. All leguminous seed shall be inoculated or treated with the proper cultures for the particular legume to be sown.
2. The inoculant for treating leguminous seed shall be a pure culture of nitrogen-fixing bacteria. The containers of inoculant shall be plainly marked with the expiration date for use and the manufacturer's directions for inoculating seed.

3. The process of inoculation shall be in accordance with the manufacturer's direction for the particular species of legume. The time lapse for sowing the seed following inoculations shall not exceed 24 hours.
4. Legumes shall be inoculated separately with sufficient inoculant to cover all seed before mixing with other seeds. A commercial sticker shall be used to ensure the inoculant adheres to the seed.
5. Inoculants shall be applied at double the manufacturer's recommendation.

C. FERTILIZER:

1. Fertilizer shall be a standard commercial product, which when applied at the proper rate, will supply the quantity of actual nitrogen (N), actual phosphorus (P), and actual soluble potassium (K).

D. MULCH:

1. Shall consist of straw of wheat or oats.
2. The mulch shall be free of prohibited weed seed and all other noxious and undesirable seed, and shall not be in an advanced stage of decomposition.

PART 3 – EXECUTION

3.1 SITE CONDITIONS

- A. Seeding schedule: Seeding shall be performed only during the specific time period as stated hereafter:
 1. All seed mixtures shall be seeded according to dates listed in 329219, 2.1. A.
- B. When conditions are such by reason of drought, excessive moisture, frozen soil or when in the opinion of the Owner's Representative less than satisfactory results are likely to be obtained, seeding work shall be halted as directed by the Owner's Representative and resumed only when conditions are favorable or when approved alternative or corrective measures and procedures have been enacted.
- C. The Contractor is to proceed with complete seeding work as rapidly as portions of the site become available, working within seasonal limitations. In any event, seeding shall be accomplished before the prepared seedbed becomes eroded, crusted over, or dried out and shall not be conducted when the ground is frozen or snow covered.

3.2 SEEDBED PREPARATION

- A. The Contractor is to grade areas to be seeded to a smooth, even surface of a loose, uniformly fine texture.
- B. After areas required to be seeded have been brought to final grade and treated with Ag lime in accordance with Section 312000.3.5, the soil shall be tilled to a depth of six (6") inches by disking, chisel plowing or other methods approved by the Owner's Representative, until the condition of the seedbed is acceptable to the Owner's Representative.
 1. Undulations or irregularities in the surface shall be leveled and existing grass, sod, weeds, and seeds must be tilled under.
 2. Restore prepared areas as directed by the Owner's Representative if eroded or otherwise disturbed after final grading and prior to seeding.

3. Seedbed shall be free of any growth, rocks, clods, or other obstructions in excess of 4" diameter or which otherwise may interfere with subsequent seeding or maintenance operations.

3.3 FERTILIZATION

A. Rate of Application:

1. All disturbed areas shall receive a fertilizer rate of sixty (60) pounds of actual nitrogen per acre, one hundred and fifty (150) pounds of actual phosphorous per acre and two hundred (200) pounds of actual soluble potassium per acre, or as otherwise directed by the Resident Project Representative.

B. Incorporation

1. Fertilizer:
 - a. Initial fertilizer application shall be distributed uniformly over all areas to be seeded at the rates written in these specifications.
 - b. Incorporate thoroughly into the soil to a depth of six (6) inches by discing or other methods approved by the Owner's Representative within twenty-four (24) hours of application.
 - c. Fertilizer shall not be applied more than two (2) weeks prior to the seeding operation for any specific area being planted.

3.4 SEEDING

A. Seed shall be applied at the rates previously described in this section.

B. Seed Mixture.

1. Drill seed following the contour using a mechanical power drawn seed drill that places the seed at least ¼", but no more than ½" into the soil, or at depths directed by the Owner's Representative at no additional cost to the Owner.

C. Hydro seeding or Hand broadcasting may be allowed in areas not accessible to drill or other equipment. Hand broadcasted seed must be covered with at least ¼" but no more than ½" with soil by means of hand rakes or other approved methods. Seeding rates in hand broadcasted areas shall be double those listed in Section 329219.2.1.A.

D. The Contractor shall cultipack seeded areas upon completion of the seeding operation.

E. The contractor may use specialized cultipacker seeders for seed incorporation, in which case, the previous requirement for cultipacking may be omitted as a separate operation. The type of cultipacker seeder to be used shall ensure adequate seed depth and placement and shall be subject to prior written approval of the Owner's Representative.

3.5 MULCHING

A. Application Rate and Method:

1. All seeded areas will be protected against erosion by spreading straw mulch after completion of the seeding operations. Mulch shall be spread uniformly to form a continuous blanket not less than 1-1/2 inches or more than 2 inches loose measurement over seeded areas.
2. Bunching or matting of mulch shall be avoided and corrected by hand methods, if so directly by the Owner's Representative.

B. Anchoring

1. Straw mulch shall be crimped into the soil by means of a straw crimper manufactured specially for such purpose.

3.6 RECONDITIONING EXISTING AREAS

- A.** Existing areas damaged by the Contractor's operations (e.g., Contractor's storage areas) including storage of materials and equipment, and movement of vehicles, are to be reconditioned. The Contractor is also to recondition existing grass areas where minor regrading is required.
- B.** Contractor is to provide fertilizer, seed, Ag lime, and mulch as required for reconditioned areas as well as new soil as may be required to fill low spots to finished grade, at no additional cost to the Owner.
- C.** The contractor shall rip or chisel all disturbed areas to a depth of twelve (12) inches, unless otherwise directed by the Owner's Representative.
- D.** Contractor is to remove diseased and unsatisfactory grass areas. These grasses shall be buried in the soil at a depth of at least one (1) foot. Contractor shall remove topsoil containing foreign materials resulting from the Contractor's operation including oil drippings, stone, gravel, and other materials as directed by the Owner's Representative.
- E.** Where substantial grass remains (but is thin) the Contractor shall mow, rake, aerate (if compacted), fill low spots, remove humps, cultivate, fertilize, seed and mulch in accordance with these Specifications.

END OF SECTION 329219

DIVISION 33 - UTILITIES

334213 – PIPE CULVERTS

PART 1 GENERAL:

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this section.

1.2 SUMMARY

- A.** Culvert installation as indicated on the Plans and as described in these Specifications.
- B.** Related Work Specified Elsewhere
 - 1. Site Clearing: Section 311000
 - 2. Earthwork: Section 312000
 - 3. Seeding: Section 329219

1.3 UNIT PRICES

- A.** All work in this section required by the Specifications or Plans shall be included in the Contractor's Base Bid Lump Sum contract price. The Base Bid Lump Sum shall include all labor, materials, equipment, tools, and incidentals necessary to complete the work.

1.4 DEFINITIONS

A. CORRUGATED METAL PIPE AND FITTINGS

- 1. This work shall consist of providing corrugated metal pipe of the diameter, shape, and length designated on the Plans.
- 2. Pipe shall be from a MoDOT approved qualified plant and will be accepted based on certification and manufacturer QC documentation.
- 3. The pipe shall be 14 gauge. (0.079").
- 4. Corrugations shall be 3" x 1" and shall be spiral or helical.
- 5. The pipe shall be polymer coated inside and outside.
- 6. The pipe shall be free of visible defects.
- 7. The nominal size for the pipe and fittings is based on the nominal inside diameter of the pipe.
- 8. Corrugated fittings shall be fabricated by the pipe manufacturer. Fittings produced by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the Owner's Representative. Formed bands shall be used on the pipe. Helically corrugated pipe shall have reformed ends. Bands shall be formed with a minimum of two corrugations matching the profile of the pipes being joined

together. The corrugations shall be spaced to provide seating in the second corrugation of each pipe and without creating more than one-half-inch (13 mm) annular space between the pipe ends when joined together.

9. Contractor shall inspect all sections of pipe, inside, and outside, for shipping damage or manufacturing defects. Pipe with damage or defects shall be rejected. The Engineer shall be consulted if the contractor is unsure if rejection warranted.

2.1 SDR-35 PVC PLASTIC PIPE:

1. Pipe shall be polyvinyl chloride (PVC), smooth interior and smooth exterior.
2. SDR 35 PVC pipe of the diameter, shape, and length designated on the Plans shall be provided or an approved equal.
3. Joints shall be manufactured with double gasketed spigots and polymer reinforced bells. Joints shall be as specified by the manufacturer of the pipe.
4. Pipe shall comply with the ASTM D1785 for pipe stiffness and joint integrity and ASTM D 2665 for standard specifications.
5. The pipe manufacturer shall specify that the joints comply with D-2672.
6. The pipe shall be free of foreign inclusions and visible defects.
7. The nominal size for the pipe and fittings is based on the nominal inside diameter of the pipe.
8. The ends of the pipe shall be cut squarely and cleanly so as not to adversely affect jointing.
9. Fittings produced by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the Owner's Representative.
10. If it is necessary to cut a section pipe, the ends of the pipe shall be cut squarely and cleanly so as not to adversely affect jointing. All splicing shall be as specified by the manufacturer and shall be approved by the engineer.

2.2 SUBMITTALS

- A. Submit as specified in Division I.
- B. Includes, but is not limited to, the following:
 1. Gradation test reports for bedding materials.
 2. Manufacturer's certifications and installation instructions for the pipe.
 3. Weight and/or shipping tickets of materials brought on-site shall be presented to the Resident Project Representative.

2.3 QUALITY ASSURANCE

- A. Applicable Standards:
 1. American Society for Testing and Materials (ASTM)
 - a. C-127 Specific Gravity and Absorption of Coarse Aggregate.
 - b. A-742 Standard Specification for Steel Sheet, Metallic Coated and Polymer Pre-coated for Corrugated Steel Pipe.
 - c. A-849 Standard Specification for post-applied coatings, pavings, and linings, for corrugated steel sewer and drainage pipe.

2. Missouri Standard Specifications for Highway Construction, 2004.
3. AASHTO
 - a. M-145 Classification of Soils and Soil Aggregate Mixtures for Highway Construction Purposes.
 - b. M-246 Standard Specification for Steel Sheet, Metallic Coated and Polymer Pre-coated for Corrugated Steel Pipe.

B. Field Quality Control

1. All materials and workmanship shall be subject to the final inspection of the Resident Project Representative.
2. The Resident Project Representative will make surveys and spot checks to ensure that plan lines and grades are obtained on the project. The Contractor will schedule work such that the Resident Project Representative may make the required field tests and surveys. The Contractor will furnish one laborer to assist the Resident Project Representative in spot checking construction layout and grade.

1.2 PROJECT CONDITIONS

A. Job Conditions

1. Storm Drainage Work will generally involve installation of materials on previously graded materials that are prone to erosion. Surface flow of rainwater may be considerable should precipitation occur during construction of storm drainage systems.
2. The Contractor shall use appropriate measures to continuously remove water from excavated trenches and construction area in order to assure proper bedding and installation of the pipe materials.
3. If water pumping is required, it shall be the Contractor's responsibility to ensure that all water discharges meet the requirements of the NPDES Permit.

PART 2 – PRODUCTS

A. Not Applicable

PART 3 – EXECUTION

3.1 CONSTRUCTION

- A.** The Contractor shall confine all activities to as small an area as practicable. Any damage to the site caused by Contractor activities shall be repaired to the satisfaction of the Owner's Representative at no additional cost to the Owner.
- B.** Borrow areas shall be graded to drain with a smooth transition to surrounding contours.
- C.** All disturbed areas shall be repaired by smoothing, liming, seeding, and fertilizing in accordance with these specifications at no additional expense to the Owner.

3.2 CORRUGATED METAL PIPE INSTALLATION

- A.** The existing pipes shown on the plans that are to be removed or replaced shall be considered salvage and shall be removed from the site and disposed of at a permitted landfill or recycled by the Contractor.
- B.** All pipes shall be laid to the lines and grade given on the plans. Any pipe which is not in true alignment or which shows any undue settlement after placement shall be taken up and re-laid at the Contractor's expense.
- C.** If a soft base is encountered upon removal of the existing pipe, the soft material shall be excavated to minimum depth of 48-inches and replaced compacted borrow fill or aggregate approved by the Owners Representative.
- D.** Bedding material shall have a maximum particle size of 1.0 inches.
- E.** The pipe shall be backfilled in six (6) inches (maximum) loose lifts. The haunching shall be worked around the pipe by hand to assure uniform support. Each six (6) inch layer shall be thoroughly compacted around the haunches and sides with a pneumatic hand tamper or approved equal. Fill over the top of the pipe shall be compacted in six (6)-inch loose lifts to one foot above the top of the pipe. Fill more than one (1) foot above the top of the pipe may be compacted in twelve (12) inch loose lifts.
- F.** The pipe shall be laid upon a firm bed and backfilled as specified in this section and by the Plans. Bedrock, large rock, soft ground, and refuse are unacceptable in the pipe trench.
- G.** Backfill shall not contain refuse of any type, including brush, limbs, or other trash or rocks larger than three (3) inches in diameter.
- H.** Transverse field joints shall be of such design that the successive connection of pipe sections will form a continuous line free from appreciable irregularities in the flow line. Each successive length of pipe in a field joint shall be adjusted longitudinally or circumferentially when necessary such that coupling bands will properly engage the corrugations in both lengths of pipe.
- I.** All pipes shall be handled to avoid damage. Pipe having damaged coating, any localized bends in excess of five percent of the specified pipe diameter, or any dent in excess of one-half inch (12 mm) will be rejected, regardless of previous approvals. Rejected damaged pipe may be used if repaired to the satisfaction of the engineer.
- J.** Any pipe damaged during installation shall be removed and replaced.

END OF SECTION 334213

DIVISION 35 – DAM CONSTRUCTION, FLUMES AND EQUIPMENT

357313 – EARTH DAM EMBANKMENT

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this section.

1.2 SUMMARY

- A.** This work consists of grading, shaping, and compacting of the area in accordance with the Plans and Specifications.
- B.** In preparing the foundation site for dam embankments, the Contractor shall remove any topsoil, organic material, rocks, boulders, coal wastes, and any other deleterious materials down to the bottom of the core trench as shown on the Plan Sheets. Materials removed shall be stockpiled for later reuse, or disposed of properly, as appropriate for the material.
- C.** When the work is being conducted on dam embankments, it shall be the Contractor's responsibility to use reasonable prudence and care to ensure the integrity of the dams and to prevent failure of said structures. Once work is initiated on dam embankments, it shall be continued, without interruption, during normal work times until it is completed.
- D.** Any time that the Contractor is working on a dam the Contractor shall prevent water from overtopping the structure during precipitation events.
- E.** The Contractor is referred to the NPDES permit in Appendix 2. It shall be the Contractor's responsibility to ensure that all water discharges meet the requirements of the NPDES Permit (see Appendix 2).

1.3 UNIT PRICES

- A.** All work in this section required by the Specifications and/or Plans shall be included in the Contractor's Base Bid Lump Sum contract price. The Base Bid Lump Sum shall include all labor, materials, equipment, tools, Unit Prices, and incidentals necessary to complete the work. However, should the actual quality of MoDOT Type 3 Ditch Liner (contained in the Unit Prices) vary from that required by these Specifications or Plans (more or less), the following shall apply to payment:
 - 1.** Payment for MoDOT Type 3 Ditch Liner (more or less) shall be made at the Unit Price established in the Contractor's Bid Proposal Form.
 - 2.** Quantities of MoDOT Type 3 Ditch Liner shall be measured to the nearest ton.
 - 3.** The Unit Price established by the Contractor's Bid Proposal Form shall include the cost of all labor, materials, tools, equipment, profit, and incidentals.

1.4 DEFINITIONS

- A. MINE SPOIL**
 - 1.** The majority of the material to be handled consists of mine spoil. Mine spoil is the earthen material excavated by the surface mining process while removing coal from the pit. This material is unconsolidated and unsorted.

2. Mine spoil will be used for the dam embankment. Mine spoil that is cohesive in nature which can be properly compacted shall be used for constructing the dam embankments. Ag lime shall be applied to the surface of each eight (8") inch lift of spoil in the dam embankment prior to compaction as directed by the Owner's Representative. Ag lime shall be incorporated to a minimum of six (6") inches at the surface of the dam embankment as per Section 312000.3.5.

B. COAL WASTE

1. Coal waste has a pH of less than 4.5, and consists of carbon rich, acid forming materials remaining after strip or underground mining. These areas are typically bare to sparsely vegetated and consist of low grade coal and discolored (gray shale) materials remaining after mining.
2. Coal waste may not be used in the construction of any dam embankments.
3. Any coal waste encountered in the construction or modification of the dam embankments shall be excavated and removed from the site at no additional expense to the Owner. Excavated coal waste shall be buried in the coal waste disposal areas at a minimum of six (6') feet below final grade.

C. ORGANIC MATERIALS

1. Organic materials include any material containing organic matter such as vegetation, sod, brush, woody debris, roots, manure, rotted straw, hay or other biodegradable material unsuitable for dam construction. Organic materials may not be used in the construction of the dam embankment.

1.5 SUBMITTALS

A. Includes, but are not limited to, the following:

1. Submit as specified in Division I.
2. Certified test reports from a qualified, independent testing laboratory of bulk-saturated-surface-dry specific gravity for all aggregate types.
3. The planned method of dewatering shall be submitted to the Owner's Representative for review and approval prior to the initiation of such work, if required.
4. Weight and/or shipping tickets of materials brought on site shall be presented to the Resident Project Representative (RPR).

1.6 QUALITY ASSURANCE

A. Applicable Standards:

1. American Society for Testing and Materials (ASTM):
 - a. D-698-91 Laboratory Compaction Characteristics of Soil Using Standard Effort.
 - b. D-2167 Density of Soil in Place by Rubber Balloon Method.
 - c. D-2922 Density of Soil and Soil Aggregate in Place by Nuclear Method.
 - d. C-911 Quicklime, Hydrated Lime, and Limestone for Chemical Uses.
 - e. D-1293 pH on Industrial Water.
 - f. D-2412 Methods of Applying Pipe Stiffness for Engineering Design.
 - g. D-2321 Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications.
 - h. F-2764 Standard Specification for thirty (30") inch to sixty (60") inch Polypropylene Triple Wall.
Pipe and Fittings for Non-pressure Sanitary Sewer Applications.
 - i. D-3212 Standard Specifications for Joints for Drain and Sewer plastic Pipes
Using Flexible Elastomeric Seals.
 - j. F-477 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic
Pipe.

2. Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985. American Public Health Association, American Waterworks Association, Water Pollution Control Federation.
 - a. Section 424 – pH values
3. Missouri Agriculture Liming Materials Act, 1976.

B. Field Quality Control

1. The Resident Project Representative will make surveys and spot checks to ensure that plan lines and grades are obtained on the project. The Contractor will schedule work such that the Resident Project Representative may make the required field tests and surveys. The Contractor will furnish one laborer to assist the Resident Project Representative in spot checking construction layout and grades.
2. The Resident Project Representative will have the option to conduct field compaction density tests. In general, the Resident Project Representative will conduct a field density test for each two thousand (2,000 cu ft) cubic yards of fill placed. (This frequency may be increased or decreased as job conditions dictate at the option of the Owner's Representative.)

1.7 PROJECT CONDITIONS

A. Job Conditions

1. Dam Embankment Work will generally involve installation of materials in wet conditions. Surface flow of rainwater may be considerable should precipitation occur during construction of dam embankments
2. The Contractor shall use appropriate measures to continuously remove water from excavated trenches and construction areas in order to assure proper bedding and installation of the core trench and pipe materials.
3. If water pumping is required, it shall be the Contractor's responsibility to ensure that all water discharges meet the requirements of the NPDES Permit (see Appendix 2).

PART 2 – PRODUCTS

2.1 MoDOT TYPE 3 DITCH LINER

- A.** Sources for MoDOT Type 3 Ditch Liner must be approved by the Owners Representative prior to purchase and/or delivery to the project site.
- B.** MoDOT Type 3 Ditch Liner shall comply with Section 609.60.2.3 of the Missouri Standard Specifications for Highway Construction. MoDOT Type 3 Ditch Liner shall consist of material with a predominant rock size of 12 inches, a maximum rock size of 20 inches and a gradation such that no more than 15 percent will be less than 4 inches.
- C.** MoDOT Type 3 Ditch Liner shall be clean, sound, durable limestone obtained from a DNR permitted quarry.
- D.** Stone shall consist of quarried rock and shall be sound, durable, and angular or blocky in shape. No more than ten (10) percent of the stone shall have an elongation greater than 3:1. No stone shall have an elongation greater than 4:1.
- E.** The stone shall be free from cracks, seams, or other defects that would tend to increase its deterioration from natural causes.

- F. The stone shall contain a combined total of not more than ten percent (10%) by weight of earth, sand, shale, and non-durable rock.
- G. The minimum bulk-saturated-surface-dry specific gravity of the stone determined in accordance with ASTM C-127 shall be 2.55. MoDOT Type 3 Ditch Liner shall be well graded, except the maximum stone size shall be limited as shown on the plans.

2.2 SDR-35 PVC PLASTIC PIPE:

- A. Pipe shall be polyvinyl chloride (PVC), smooth interior and smooth exterior.
- B. SDR 35 PVC pipe of the diameter, shape, and length designated on the Plans shall be provided or an approved equal.
- C. Joints shall be manufactured with double gasketed spigots and polymer reinforced bells. Joints shall be as specified by the manufacturer of the pipe.
- D. Pipe shall comply with the ASTM D1785 for pipe stiffness and joint integrity and ASTM D 2665 for standard specifications.
- E. The pipe manufacturer shall specify that the joints comply with D-2672.
- F. The pipe shall be free of foreign inclusions and visible defects.
- G. The nominal size for the pipe and fittings is based on the nominal inside diameter of the pipe.
- H. The ends of the pipe shall be cut squarely and cleanly so as not to adversely affect jointing.
- I. Fittings produced by manufacturers other than the supplier of the pipe shall not be permitted without the approval of the Owner's Representative.
- J. If it is necessary to cut a section pipe, the ends of the pipe shall be cut squarely and cleanly so as not to adversely affect jointing. All splicing shall be as specified by the manufacturer and shall be approved by the engineer.

PART 3 – EXECUTION

3.1 EXCAVATION

- A. All excavation shall be performed to the lines and grades indicated and specified. Care shall be exercised not to excavate below the grades shown. Any excessive excavation due to fault or negligence of the Contractor shall be backfilled and compacted to grade with mine spoil at no additional expense to the Owner.
- B. Coal waste may not be used in the construction of the dam embankments.
- C. Any contaminated material or material otherwise unsuitable for dam construction encountered shall be excavated and removed from the dam embankment areas at no additional expense to the Owner. Excavated coal waste shall be buried at a minimum of six (6') feet below final grade.

3.2 EMBANKMENT

- A.** Construct Dam embankments to the elevations indicated using approved mine spoil.
 - 1. Place fill only on sub-grade approved by Resident Project Representative.
 - 2. Do not place snow, ice or frozen material in fill.
 - 3. Do not place fill upon frozen surfaces.
 - 4. All materials used for construction of the Dam shall be free from roots, sticks, and other organic materials and shall consist primarily of soils. Areas exhibiting weak or unstable materials (i.e. pumping), or contain large amounts of gravel or rock, shall be removed and replaced at no cost to the owner.
 - 5. Material shall be placed in eight (8") inch loose lifts and shall be compacted with a sheep foot roller until roller feet penetrate no more than 3 inches into underlying material. Each lift shall be compacted to not less than the required density before the next layer is placed thereon.
 - 6. After placement of the material in the lift, it shall be spread parallel to the axis of the embankment and with a uniform thickness prior to compaction. Each lift shall be constructed continuously and approximately horizontal for the width and length of such portion of the lift.
 - 7. The distribution of materials throughout the earth-fill shall be such that the lifts shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture, gradation, or moisture from the surrounding material.
 - 8. The lift surface shall be maintained to prevent rutting and/or displacement of the lift material by equipment traffic. If rutting and/or displacement should occur, the area will be re-graded and compacted in accordance with the specifications prior to placing the next lift.
 - 9. Borrow material containing a substantial percentage of rock, shale, cobbles, boulders and other debris which does not break-up during placement and compaction is not acceptable for embankment construction.

3.3 GRADING

- A.** All areas within the dam embankments, including excavated and filled sections, and adjacent transition areas shall be reasonably smooth, compacted and free from irregular surface changes.
- B.** Each lift is to be graded to remove mounds and ridges caused by dumping operations and to obtain uniform thickness prior to and during compacting.
- C.** Degree of finish shall be that ordinarily obtained from blade grader operations and shall be accomplished and maintained so that no ponding of surface water occurs.
- D.** The overall finish grades shall be graded to plan elevation plus or minus three tenths ($\pm 0.3'$) of a foot. The top of dam shall be graded to plan elevation plus or minus one tenth ($\pm 0.1'$) of a foot.

3.4 COMPACTION

- A.** The Resident Project Representative shall perform all compaction sampling and testing. Compaction of fill for the dam embankments shall be to the following limits:
 - 1. All material shall be compacted to a minimum of ninety five percent (95%) of the maximum density as determined by ASTM D-698
 - 2. The moisture content of the material being compacted shall be within plus four (4%) percent or minus two (-2%) percent of the standard optimum moisture content per ASTM D-698.

- B.** If, in the opinion of the Resident Project Representative, the moisture content of the material to be compacted is more than two percent (2%) below the standard optimum moisture content, the material shall be uniformly moistened throughout the lift by sprinkling or other approved methods. It shall not be acceptable to allow water to flow across the material or to use other gravity flow methods. During application of water, the Contractor shall have sufficient control that water does not appear or stand on the surface at the time of application nor during the compaction operations. If water should appear on the surface, the Contractor shall rework the material in accordance with Section 357313.3.4.C of this Specification. The above shall be at no additional expense to the Owner.
- C.** If, in the opinion of the Resident Project Representative, the compacted material of any lift in the fill has a moisture content greater than four percent (4%) above the standard optimum moisture content, it shall be removed and replaced with suitable material and compacted in accordance with the Specifications prior to placing the next lift; or work in the area shall cease until the lift in question has dried; or the lift shall be worked with a harrow, scarifier, or other suitable equipment to reduce the moisture content to the required amount and then re-compacted in accordance with the Specifications prior to placing the next lift of material. Depth control for reworking the material shall be such that the operation does not extend through the entire lift thickness. The above shall be at no additional expense to the Owner.
- D.** If, in the opinion of the Resident Project Representative, the surface of any lift is too dry or smooth to bond with the next lift to be placed thereon, it shall be moistened and/or worked at no additional expense to the Owner with a harrow, scarifier, or other suitable equipment in an approved manner and to a sufficient depth to provide satisfactory bonding before the next lift of material is placed. Depth control for reworking the material shall be such that the operation does not extend through the entire lift thickness.
- E.** Embankment fill shall be placed in eight (8") inch maximum loose lift thickness and compaction of each lift shall consist of at least four complete passes with a sheep foot roller until roller feet penetrate no more than 3 inches into underlying material, or using other approved equipment with a minimum ground pressure of 10 psi., each pass shall cover the entire layer.

 - 1. The compactive method described herein does not relieve the Contractor of meeting the requirements outline in Section 329219.3.4.A. Should the lift being compacted not meet the requirements outlined in Section 329219.3.4.A, the Contractor shall continue his compaction efforts at no additional expense to the Owner until the minimum dry density is achieved.
 - 2. Areas exhibiting pumping or instability when driven over with a loaded tandem dump truck or equivalent shall be removed, replaced, and recompacted at no cost to the owner.
- F.** Continuous leveling and manipulating will be required during compacting operations and the moisture content shall be adjusted as necessary to permit proper consolidation.

3.5 DEWATERING

- A.** Any time that the Contractor is working on a dam or the Contractor is modifying and/or removing a spillway, the Contractor shall, at a minimum, lower and maintain the water level in the impoundment to an elevation to prevent water from overtopping the structure during precipitation events.
- B.** Under no circumstances shall discharge of an impoundment be permitted until the water has been tested and the results have been approved by the Owner's Representative.

- C. Prior to discharging from an impoundment, the Owner's Representative will take a water sample and test the water for compliance with NPDES permit parameters (see Appendix 2).
- D. In the event that any sample fails to meet requirements of the NPDES permit (see Appendix 2), the Contractor shall treat the water until such time as the permit requirements are met. All subsequent sample collection and analysis shall be the responsibility of the Contractor and will be conducted at the direction of the Resident Project Representative.
- E. Any impoundment discharges that will be discharge off the project limits will be sampled and tested as per the NPDES parameters (see Appendix 2). Such sampling costs will be the responsibility of the Owner's Representative. Immediately after all impoundment water is discharged, the Contractor is to take appropriate actions to prevent further accumulation of surface runoff and seepage. The Contractor shall be responsible for treatment of re-contaminated and impounded water resulting from recharge by surface runoff or seepage at no additional cost to the Owner.
- F. The sample must be analyzed and, if the results are within NPDES limitations (see Appendix 2), discharge must be initiated all within seventy-two (72 hrs) hours of sampling. If a rainfall event occurs during this period, a new sample shall be taken. During dam embankment construction, the Contractor shall take all necessary precautions and actions to prevent water from overtopping the structure during precipitation events.

3.6 MATERIAL HANDLING

- A. The Contractor shall be responsible for ensuring that his operations are conducted in such a manner as to avoid mixing of coal waste with mine spoil and topsoil
- B. In the event that mine spoil becomes contaminated with coal waste due to Contractors operations, such material shall be disposed of and replaced as directed by the Owner's Representative at no additional expense to the Owner.

3.7 SURFACE WATER CONTROL

- A. The Contractor is responsible for control of grading around excavations to prevent surface water from flowing and ponding into excavation areas.
- B. Runoff from the site shall not exceed those limits included in the NPDES Permit (see Appendix 2 of these Specifications).
- C. The Contractor is liable for all damage outside the construction limits of this project that is due to the Contractor's operations, including sedimentation caused by construction.
- D. Drain as required to continually maintain all excavation and trenches free of water or mud from any source and discharge to approved drains or channels.
- E. Remove subgrade materials rendered unsuitable by excessive wetting and replace with approved backfill material.
- F. Should the Contractor allow water to impound in contaminated areas, all subsequent discharge shall fall under NPDES permit (see Appendix 2) special conditions and any treatment required shall be performed at no additional expense to the Owner.

3.8 MODOT TYPE 3 DITCH LINER INSTALLATION

- A.** MoDOT Type 3 Ditch Liner shall be placed in a manner which will produce a reasonable well-graded mass of stone with the minimum practicable percentage of voids.
- B.** The larger stones shall be well distributed and the entire mass of stone shall conform to the specified gradation. All material shall be placed and distributed such that there will be no objectionable accumulations of either the larger or smaller sizes of stone.
- C.** It is the intent of this specification to produce a fairly compact MoDOT Type 3 Ditch Liner protection in which all sizes of material are placed in their proper proportions. Hand placing or rearranging of individual stones by mechanical equipment may be required to the extent necessary to secure the specified results.

3.9 PIPE INSTALLATION

- A.** This work shall consist of providing PVC Pipe of the diameter, shape and length designated on the Plans.
- B.** The pipe shall be free of foreign inclusions and visible defects.
- C.** The normal size for the pipe and fittings is based on the nominal inside diameter of the pipe.
- D.** The pipe shall be installed at the grade and elevations shown on the plans as per the installation detail.
- E.** Any pipe which is not in true alignment or which shows any undue settlement after laying shall be taken up and re-installed at the Contractor's expense.
- F.** The pipe shall be laid upon a firm bed and backfilled as specified in this section and by the plans.
- G.** All pipes shall be installed as shown on the construction drawings. Pipes shall be installed at grades shown on the Plans. Pipe Conduit lines shall be installed and properly aligned and backfilled prior to placement of earth fill.
- H.** Pipe shall be bedded and backfilled as shown on the drawings or described in the specifications. Friable soil material approved by the RPR shall be used for blinding around the conduit prior to machine backfilling. The minimum moisture content of the fill material shall be such that, when kneaded in the hand, the fill material will form a ball which does not readily separate. The conduit shall not be displaced during backfilling.
- I.** Trench backfill shall be placed in successive six (6) inch loose layers and tamped, as directed by the Resident Project Representative, prior to laying the next successive lift. The haunching shall be worked around the pipe by hand to assure uniform support. Each six (6) inch layer shall be thoroughly compacted around the haunches and sides with a pneumatic hand tamper or approved equal. Fill over the top of the pipe shall continue to be compacted in 6-inch loose lifts.
- J.** All backfill shall have sufficient moisture and compaction, as approved by the Resident Project Representative.

- K.** The pipe shall be backfilled in six (6") inch (maximum) loose lifts. The haunching shall be worked around the pipe by hand to assure uniform support. Each six (6") inch layer shall be thoroughly compacted around the haunches and sides with a pneumatic hand tamper. Fill over the top of the pipe shall be compacted in six (6") inch loose lifts.
- L.** A rigid Anti-Seep Collar, as per the plan drawings, shall be installed in accordance with the manufacturer's recommendations.

END OF SECTION 357313

Appendix 1

Effective Neutralizing Material Calculation

Effective Neutralizing Material (ENM) sample calculation

Notes:

1. Pounds of ENM DOES NOT EQUAL pounds of Ag lime. Pounds of ENM per ton of Ag lime vary from quarry to quarry. Pounds of ENM per ton of Ag lime can vary within a single quarry as the quality of the limestone being mined and how fine it is crushed varies.
2. The pounds of ENM per ton of Ag lime used in the sample below IS AN ASSUMPTION. 425 pounds of ENM per ton of Ag lime is assumed for EXAMPLE PURPOSES ONLY. The only way to determine the pounds of ENM per ton of Ag lime is to call the supplier and ask how many pounds of ENM per ton they are currently producing. It should also be asked of the supplier if they have a lot of variation or if it tends to be fairly consistent.
3. The base bid quantity used in the example below is ASSUMED FOR THE PURPOSES OF THIS EXAMPLE. The actual base bid quantity must be obtained from Sections 00313 and 01026 of the specifications. The application and incorporation method and amount of ENM per acre are described in Section 312000 of the specifications.

Sample calculation:

Sections 004322 - Unit Prices and 012200 - Unit Prices of the specifications require a Unit Price for the application and incorporation of Ag lime. The unit of measurement is 100 POUNDS OF ENM NOT 100 POUNDS OF AG LIME. These sections contain a base bid quantity of ENM to be included with the Contractor's base bid.

If the base bid quantity is 50,000 units and the units are in 100 pound increments of ENM, then the total pounds of ENM required is:

$$50,000 \times 100 = 5,000,000 \text{ pounds of ENM}$$

If the Contractor calls a supplier and the supplier states his Ag lime is running at 425 pounds of ENM per ton of Ag lime then the tons of Ag lime required in the Contractor's base bid is:

$$5,000,000 \text{ pounds of ENM required} \div 425 \text{ pounds ENM per ton of Ag lime} = 11,764.7 \text{ tons of Ag lime}$$

Therefore, 11,764.7 tons of Ag lime are required to fulfill the base bid requirement of 50,000, 100 pound units of ENM.

Note: if the supplier's pounds of ENM per ton increase, then less tons of Ag lime will be required. If the pounds ENM per ton decrease, then more tons of Ag lime will be required.

Appendix 2

NPDES PERMIT

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

General Operating Permit

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No	MOG050087
Owner:	MO DNR Land Reclamation Program
Address:	PO Box 176 Jefferson City, MO 65102
Continuing Authority:	MO DNR Land Reclamation Program PO Box 176 Jefferson City, MO 65102
Facility Name:	Franklin Reclamation Project
Facility Address:	County Road SW 8508 HUME, MO 64752
Legal Description:	Sec. 06, T38N, R33W, Bates County
UTM Coordinates:	358785.875/4218908.436
Receiving Stream:	Tributary to Walnut Creek (U)
First Classified Stream - ID#:	100K Extent-Remaining Streams (C) 3960.00
USGS# and Sub Watershed#:	10290102 - 0602

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein.

FACILITY DESCRIPTION All Outfalls SIC #9512

All Outfalls - This Missouri State Operating Permit (permit) authorizes the discharge of stormwater, impoundment water and mine dewatering to waters of the state of Missouri from reclamation sites under the control of the Missouri Department of Natural Resources, Land Reclamation Program, including but not limited to the following primary SIC Codes: 1629, 9512

This permit authorizes only wastewater, including storm water, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System, it does not apply to other regulated areas. This permit may be appealed in accordance with RSMo Section 644.051.6 and 621.250, 10 CSR 20-6.020, and 10 CSR 20-1.020.

December 01, 2021

Issue Date

October 31, 2026

Expiration Date

Chris Wieberg, Director
Water Protection Program

DEFINITIONS

The terms defined in this section are used throughout the permit. Any use of these terms in the permit meet the definition established here, unless otherwise noted.

Abandoned mine – A mine where mining operations have occurred in the past and the applicable reclamation bond or financial assurance has been released or forfeited, or, if no reclamation bond or other financial assurance has been posted, no mining operations have occurred for five years or more.

Acid mine drainage – Mine drainage which, before any treatment, either has a pH of less than 6.0 or a total iron concentration equal to or greater than 10 mg/L. Acid mine drainage is not authorized for discharge without treatment under this permit.

Active mining area – The area, on and beneath land, used or disturbed in activity related to the extraction, removal, or recovery of coal from its natural deposits. This term excludes coal preparation plants, coal preparation plant associated areas, and post-mining areas.

Alkaline mine drainage – Mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and a total iron concentration of less than 10 mg/L.

Bond release – The time at which the appropriate regulatory authority returns a reclamation or performance bond based upon determination that reclamation work (including, in the case of underground mines, mine sealing and abandonment procedures) has been satisfactorily completed.

Coal preparation plant – A facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from impurities and then is loaded for transit to a consuming facility.

Coal preparation plant associated areas – Coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities.

Mine drainage – Any drainage, and any water pumped or siphoned, from an active mining area or post-mining area.

Post mining area – A reclamation area or the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

Reclamation area – The surface area of a coal mine which is being returned to required contour and on which revegetation (specifically, seeding or planting) work will or has commenced.

APPLICABILITY

1. This Missouri State Operating Permit (permit) authorizes the discharge of stormwater, impoundment water, and mine dewatering effluent directly or overland flow to waters of the State of Missouri from reclamation sites under the control of the Missouri Department of Natural Resources Land Reclamation Program. These sites are assigned the SIC Codes #9512 and #1629.
2. Acid mine drainage (as defined above) is not authorized under this permit for discharge without treatment for protection of the general narrative criteria found pursuant to 10 CSR 20-7.031(4). The chosen treatment shall be sufficient to comply with all narrative criteria, including color, as well as comply in-stream with all applicable numeric criteria found in 10 CSR 20-7.031 Tables A1 through B.
3. This permit does not apply to active mining sites, coal preparation plants, coal preparation plant associated areas, or any of the discharges related to these sites. This permit applies only to post-mining activities at sites abandoned within or prior to 1977 and not subject to the Regulatory Program of the Surface Mining Control and Reclamation Act of 1977 identified as mine land reclamation and the associated construction projects under the control of the Missouri Department of Natural Resources Land Reclamation Program or assigns. Active mining and coal preparation sites have differing effluent discharges; these conditions were not considered in the development of this general permit.
4. This permit does not cover construction of earthen basins used for wastewater management. Construction of an earthen basin or holding structure may require a construction permit. Instructions on how to obtain a construction permit are located at <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater/construction-engineering>. Questions regarding permit requirements may be directed to Department's Water Protection Program phone line at 573-751-1300, or toll free at 800-361-4827.

APPLICABILITY, CONTINUED

5. This permit authorizes only stormwater to be discharged in Metropolitan No-Discharge watersheds. This permit does not authorize the discharge of impoundment water or mine dewatering effluent to be released in these watersheds. Discharge to the watersheds of a Metropolitan No-Discharge Stream (10 CSR 20-7.031 Table F) is prohibited except uncontaminated cooling water, non-contaminated stormwater flows, permitted stormwater discharges in compliance with permit conditions, and excess wet-weather bypass discharges not interfering with beneficial uses per 10 CSR 20-7.015(5) and 7.031(7). Existing interim discharges of wastewater may be allowed until interceptors are available within 2,000 feet or a distance deemed feasible by the Department, or unless construction of outfalls to alternative receiving waters not listed in Table F is deemed feasible by the Department. Only (a), (c), (e), and (f) from “allowable non-stormwater discharges” found in Applicability Condition #16 below are authorized for discharge to Metropolitan No-Discharge Streams. The other types of non-stormwater discharges are not authorized for discharge to Metropolitan No-Discharge watersheds.
6. This permit does not authorize discharges which are located in a way to allow water to be released into sinkholes, caves, fissures, or other openings in the ground which could drain into aquifers directly or indirectly (except losing streams) per 10 CSR 20-7.015(7).
7. This permit does not authorize the discharge of industrial or domestic wastewater into the watersheds of lakes and reservoirs designated as L1 in 10 CSR 20-7.031, per 10 CSR 20-7.015(3)(C). Stormwater only discharges are authorized in these watersheds so long as no degradation of water quality occurs.
8. For facilities which would discharge directly to Outstanding State Resource Waters:
 - (a) Outstanding State Resource Waters are protected against any degradation in quality as defined in 10 CSR 20-7.015(6)(B) and 7.031(3)(C).
 - (b) This permit does not authorize wastewater discharge to Outstanding State Resource Waters.
 - (c) This permit authorizes stormwater discharge facilities to operate and continue to discharge only stormwater in Outstanding State Resource Watersheds so long as no degradation of water quality occurs.
9. For facilities operating within the watershed of Outstanding National Resource Water, which includes the Ozark National Riverways and the National Wild and Scenic Rivers System:
 - (a) This permit authorizes only no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate.
 - (b) Any discharge from a no-discharge facility, including stormwater, will be considered a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)2.-3.] occurs. In the event of a catastrophic or chronic storm event, the no-discharge facility is authorized to release only the amount of stormwater required to prevent damage to the facility or established Best Management Practices (BMPs).
10. Facilities located within the watershed of an impaired water as designated in the 305(b) Report must be evaluated on a case-by-case basis for inclusion under this permit. Facilities found to be discharging the listed pollutant(s) of concern for any impaired water may be required to obtain a site-specific permit. However, the remediation aspect of the reclamation work will be taken into consideration, as many mine reclamation projects occur on stream segments impacted by mining activities, and reclamation projects are expected to improve water quality in receiving streams after completion.
11. This permit does not allow stream channel or wetland alterations unless approved by Section 404 of the federal Clean Water Act (CWA) permitting authorities.
12. This permit does not authorize the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course.
13. The Department may require any facility authorized by a general permit to apply for a site-specific permit [10 CSR 20-6.010(13)(C)]. Cases where a site-specific permit may be required include, but are not limited to, the following:
 - (a) The discharge(s) is a significant contributor of a pollutant(s) which impairs the beneficial uses of the receiving stream;
 - (b) The discharger is not in compliance with the conditions of the general permit;
 - (c) A Total Maximum Daily Load (TMDL) containing requirements applicable to the discharge(s) is approved.
14. If a facility covered under a current general permit desires to apply for a site-specific permit, the facility may do so by contacting the Department for application requirements and procedures.
15. Facilities covered under a current site-specific permit who desire to apply for inclusion under this general permit may contact the Department for application requirements and procedures.

APPLICABILITY, CONTINUED

16. The following are additional allowable non-stormwater discharges authorized under this permit:
 - (a) Discharges from fire-fighting activities;
 - (b) Fire hydrant flushing (testing);
 - (c) Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
 - (d) Landscape watering, provided all pesticides, herbicides, and fertilizers have been applied in accordance with manufacturer's instructions;
 - (e) Uncontaminated ground water or spring water which has not contacted industrial materials, wastewater, or processes; and
 - (f) Foundation or footing drains where flows are not contaminated with process materials or wastewater.
17. Any non-stormwater discharges other than those explicitly authorized in condition #16 above or explicitly included for permit coverage are prohibited. For clarity, a number of prohibited discharges will be listed here as a reminder. These discharges were not considered when developing the limitations of the permit and are thus prohibited. The list is not all inclusive, but contains common prohibited discharges:
 - (a) Water from washout of concrete;
 - (b) Water from the washing of vehicles and equipment, with or without detergents;
 - (c) Potable water treated with chlorine;
 - (d) Water from the washout of form release oils, curing compounds, or other construction materials;
 - (e) Water containing soaps, solvents, or detergents from any source; and
 - (f) Water containing substances from a spill on site, hazardous or otherwise.
18. This permit authorizes the operation of oil water separators solely for the treatment of stormwater. The oil water separators must be appropriately operated and sized per manufacturer's or engineering specifications. Oil water separators used to treat wastewater (including drips, spills, shop floor drains, pavement wash water, etc.) must be authorized under permit MO-G14 for oil water separator discharges or a site-specific permit authorizing all industrial activities at the site. This permit authorizes only the discharge of stormwater treated by an oil water separator (precipitation that has fallen on the site and is discharged through the oil water separator). The facility must maintain oil water separator sludge removal records for a period of at least five years and provide them to the Department if requested. Sludge from the oil water separator is considered used oil per 10 CSR 25-11.279 and must be disposed of accordingly.
19. Spills, Overflows, and Other Unauthorized Discharges.
 - (a) Any spill, overflow, or other discharge(s) not specifically authorized in this permit are unauthorized discharges.
 - (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.
 - (c) If the unauthorized discharge was from an overflow from a no-discharge wastewater basin, the report must include all records confirming operation and maintenance records documenting proper maintenance in accordance with condition (d) below.
 - (d) Permittee shall adhere to the following minimum BMPs for no-discharge wastewater holding structures:
 - (1) To prevent unauthorized discharges, the no-discharge wastewater basin must be properly operated and maintained to contain all wastewater plus run-in and direct precipitation. During normal weather conditions, the liquid level in the storage structure shall be maintained below the upper operating level, so adequate storage capacity is available for use during adverse weather periods. The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period. Typically this should be accomplished prior to expected seasonal wet and winter climate periods. Maintain liquid level in the no-discharge wastewater structure at least 2.0 feet from the bottom of the discharge pipe, top of the basin, or the bottom of the overflow canal, whichever is lower.
 - (2) Weekly inspection of no-discharge wastewater basins shall occur. Inspection notes will be kept at the facility and made available to the Department upon request.
 - (3) The inspections will note any issues with the no-discharge structure and will record the level of liquid as indicated by the depth marker.

EXEMPTION

Facilities discharging all effluent (stormwater, mine dewatering, and wastewater) directly to a combined sewer system (as defined in 40 CFR 122.26 and 40 CFR 35.2005) connecting to a publicly owned treatment works which has consented to receive such a discharge are exempt from permit requirements.

TABLE A1	COAL MINE RECLAMATION ACTIVITIES INTERIM LIMITS FOR EXISTING FACILITIES AT RENEWAL ONLY					
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limits shall become effective upon issuance and are effective until December 31, 2024. The final effluent limitations in Table A2 shall become effective on January 1, 2025, and remain in effect until expiration of the permit. All discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETERS	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS ***	
		DAILY MAXIMUM		BENCHMARK	SAMPLING FREQUENCY	SAMPLE TYPE
STORMWATER ASSOCIATED WITH COAL MINE LAND DISTURBANCE						
OUTFALL: MGP PF FEATURE/LIMIT SET DESIGNATOR: 01A/SW						
Flow	MGD	*		-	once/quarter ◇	24 hr estimate
Chloride	mg/L	*		-	once/quarter ◇	grab
Chloride + Sulfate	mg/L	**		1,000	once/quarter ◇	grab
Iron, Total Recoverable	µg/L	**		7,000	once/quarter ◇	grab
pH †	SU	6.0-9.0		-	once/quarter ◇	grab
Settleable Solids	mL/L/hr	**		1.5	once/quarter ◇	grab
Sulfate	mg/L	*		-	once/quarter ◇	grab
Total Suspended Solids	mg/L	**		100	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>APRIL 28, 2022</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
DISCHARGES FROM COAL MINE SHAFT PUMPING, COAL MINE DRAINING, AND PROCESSING AREA IMPOUNDMENT DRAINING						
OUTFALL: MGP PF FEATURE/LIMIT SET DESIGNATOR: 01B OR 01C ††/01B:MS, 01C:PI						
EFFLUENT PARAMETERS	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS***	
		DAILY MAXIMUM		MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	††	24 hr estimate
Chloride	mg/L	*		*	††	grab
Chloride + Sulfate	mg/L	*		*	††	grab
Iron, Total Recoverable	µg/L	7,000		3,500	††	grab
Manganese, Total Recoverable ‡	µg/L	4,000		2,000	††	grab
pH †	SU	6.0-9.0		-	††	grab
Settleable Solids	mL/L/hr	1.5		1.0	††	grab
Specific Conductance	µmhos/cm	*		*	††	grab
Sulfate	mg/L	*		*	††	grab
Total Suspended Solids	mg/L	100		50	††	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>N/A</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

TABLE A2		COAL MINE RECLAMATION ACTIVITIES FINAL LIMITS FOR ALL NEW FACILITIES AND FOR ALL EXISTING FACILITIES AFTER DECEMBER 1 ST , 2024				
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance for new facilities; and January 1, 2025, for existing facilities; and remain in effect until expiration of the permit. All discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS ***	
		DAILY MAXIMUM		BENCHMARK	SAMPLING FREQUENCY	SAMPLE TYPE
STORMWATER ASSOCIATED WITH COAL MINE LAND DISTURBANCE						
OUTFALL: MGP PF FEATURE/LIMIT SET: 01A						
Flow	MGD	*		-	once/quarter ◇	24 hr estimate
Chloride	mg/L	*		-	once/quarter ◇	grab
Chloride + Sulfate	mg/L	**		1,000	once/quarter ◇	grab
Iron, Total Recoverable	µg/L	**		7,000	once/quarter ◇	grab
pH †	SU	6.0-9.0		-	once/quarter ◇	grab
Settleable Solids	mL/L/hr	**		1.5	once/quarter ◇	grab
Sulfate	mg/L	*		-	once/quarter ◇	grab
Total Suspended Solids	mg/L	**		100	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> VIA THE DEPARTMENT’S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>N/A</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
DISCHARGES FROM COAL MINE SHAFT PUMPING, COAL MINE DRAINING, AND PROCESSING AREA IMPOUNDMENT DRAINING						
OUTFALL: MGP PF NUMBER/ LIMIT SET DESIGNATOR: 1BN OR 1CN ††/1BN:MS, 1CN:PI						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS ***	
		DAILY MAXIMUM		MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	††	24 hr estimate
Chloride	mg/L	*		*	††	grab
Chloride + Sulfate	mg/L	1000		*	††	grab
Iron, Total Recoverable	µg/L	7,000		1,000	††	grab
Manganese, Total Recoverable ‡	µg/L	4,000		2,000	††	grab
pH †	SU	6.5-9.0		-	††	grab
Settleable Solids	mL/L/hr	1.5		1.0	††	grab
Specific Conductance	µmhos/cm	*		*	††	grab
Sulfate	mg/L	*		*	††	grab
Total Suspended Solids	mg/L	100		50	††	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT’S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>N/A</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

See table notes on page 8

TABLE B	METALLIC MINERAL RECLAMATION ACTIVITIES FOR ALL FACILITIES					
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. All discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS ***	
		DAILY MAXIMUM		BENCHMARK	SAMPLING FREQUENCY	SAMPLE TYPE
STORMWATER ASSOCIATED WITH METALLIC MINERAL LAND DISTURBANCE						
OUTFALL: MGP PF NUMBER/ LIMIT SET DESIGNATOR: 01D/SW						
Flow	MGD	*		-	once/month	24 hr estimate
Cadmium, Total Recoverable	µg/L	**		9	once/month	grab
Chloride	mg/L	*		-	once/month	grab
Chloride + Sulfate	mg/L	**		1,000	once/month	grab
Cobalt, Total Recoverable	µg/l	*		-	once/month	grab
Copper, Total Recoverable	µg/l	*		-	once/month	grab
Iron, Total Recoverable	µg/L	**		7,000	once/month	grab
Lead, Total Recoverable	µg/L	**		160	once/month	grab
Mercury, Total Recoverable	µg/l	*		-	once/month	grab
pH †	SU	6.5-9.0		-	once/month	grab
Settleable Solids	mL/L/hr	**		1.5	once/month	grab
Specific Conductance	µmhos/cm	*		-	once/month	grab
Sulfate	mg/L	*		-	once/month	grab
Total Suspended Solids	mg/L	**		100	once/month	grab
Zinc, Total Recoverable	µg/L	**		180	once/month	grab
REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>N/A</u> .						
METALLIC MINERAL MINE SHAFT PUMPING, MINE DRAINING, AND PROCESSING AREA IMPOUNDMENT DRAINING						
OUTFALL: MGP PF NUMBER/ LIMIT SET: 01E/WW						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS***	
		DAILY MAXIMUM		MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	‡‡	24 hr estimate
Cadmium, Total Recoverable	µg/L	9		1	‡‡	grab
Chloride	mg/L	*		*	‡‡	grab
Chloride + Sulfate	mg/L	*		*	‡‡	grab
Cobalt, Total Recoverable	µg/l	*		*	‡‡	grab
Copper, Total Recoverable	µg/l	23		15	‡‡	grab
Iron, Total Recoverable	µg/l	7,000		1,000	‡‡	grab
Lead, Total Recoverable	µg/l	160		6	‡‡	grab
Mercury, Total Recoverable	µg/l	*		*	‡‡	grab
pH †	SU	6.5-9.0		-	‡‡	grab
Settleable Solids	mL/L/hr	1.5		1.0	‡‡	grab
Specific Conductance	µmhos/cm	*		*	‡‡	grab
Sulfate	mg/L	*		*	‡‡	grab
Total Suspended Solids	mg/L	100		50	‡‡	grab
Zinc, Total Recoverable	µg/l	188		187	‡‡	grab
REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>N/A</u> .						

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, CONTINUEDTable Notes:

- * Monitoring requirement only.
- ** Monitoring and reporting associated with benchmark. See STORMWATER REQUIREMENTS for additional requirements.
- *** If a discharge occurs during the reporting period, samples shall be collected and tested for the required parameters listed in Table A. Report as no-discharge when a discharge does not occur during the reporting period. If multiple samples are collected and analyzed during the sampling period, the multiple samples are not to be averaged at intervals exceeding one calendar month. The permittee may report 'No-Discharge' if all reasonable attempts to collect a sample throughout the reporting period have resulted in the inability to collect an effluent sample.
- † pH is measured in standard units (SU) and is not to be averaged.
- †† Permitted Feature 01B/1BN added for discharge from mine shaft pumping. Permitted feature 01C/1CN added for coal mine and processing area impoundment draining. 01B/01C for existing facilities at renewal; 1BN/1CN added for new facilities. Permitted feature 01B/01C will have the schedule of compliance included.
- ‡ The effluent shall be tested prior to discharge for pH and iron to determine if it meets the definition of "acid mine drainage." (see definitions in permit above.) Monitoring and limitations for manganese are required only when the drainage is classified as "acid mine drainage". If it does not meet the definition of acid mine drainage, "conditional monitoring not required this period" may be reported for this parameter. The NODI code for this in eDMR is AG.
- ‡‡ Monitoring is required once/month during discharge of the impoundment, with once/day monitoring required when the total depth of the impoundment or shaft surface water reaches 1 foot or less. The first reported monthly sample shall be a dip sample taken from the impoundment prior to discharging for the first time. In the case of both abandoned coal mine and metallic mineral shafts, if the impoundment is less than 150 feet in length, one grab sample from the midpoint is an adequate sample. If the impoundment is longer than 150 feet, three grab samples shall be taken, one near each end and one near the midpoint. All discharges from the impoundment must not exceed pre-project instream water quality monitoring results. If the pre-project water quality or impoundment monitoring results indicate pollutants at levels above the limits in this permit, the facility should contact the Water Protection Program to discuss next steps for discharging, including possible alternative limits. Alternative limits shall not, in any case, cause general narrative water quality standard excursions. eDMR will accept only one value per parameter when entering data. All additional monthly or daily data shall be uploaded as an attachment to the monthly report. The daily monitoring requirement does not apply to temporary impoundments created by reclamation contractors.

◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

SCHEDULE OF COMPLIANCE

Schedules of compliance are allowed per 40 CFR 122.47 and 10 CSR 20-7.031(11). Existing coal mine reclamation facilities (renewal permits only, not applicable to new permits or new facilities) shall attain compliance with final effluent limitations established in this permit for chlorides plus sulfates, monthly average iron, and pH in coal mining impoundment and processing area draining effluent as soon as reasonably achievable, with final limitations becoming effective after three (3) years, on August 1st, 2024.

PRE-PROJECT AND POST-PROJECT SAMPLING REQUIREMENTS

If land disturbance of more than one acre or impoundment draining is to occur in a project, pre- and post-project receiving stream sampling is required to document water quality using the following guidelines:

1. Pre- and post-project sampling is not done at the outfalls of the project site. The samples required under this section are done at specific in-stream monitoring locations to document water quality of the receiving streams before and after project completion. Pre-project sampling shall be submitted with the application for discharge. Post-project sampling shall be submitted with the application for termination.
2. The following receiving stream locations must be sampled unless alternate arrangements are approved by the Water Protection Program:
 - (a) The first stream, including those that are unclassified, downstream of all drainage from the project site if there is flowing water.
 - (b) If the sample required in (a) was not a classified stream with designated uses, a sample shall also be taken at the first classified stream, downstream of all drainage from the project site. This sampling point should be at least one-half (1/2) mile below the project, but before the classified stream to be sampled flows into another stream. If the stream flows into another stream before one-half mile, sample prior to the stream confluence.
 - (c) If the project flows into more than one classified stream, all classified streams receiving flow from the site must be sampled unless the area draining to the classified stream is less than five acres and contains no gob pile, slurry ponds, or other concentrated form or coal waste or acid forming materials.
 - (d) All locations shall be sampled at least twice prior to initiation of reclamation work. Sampling dates must be at least four weeks apart, and sampling should not occur within one week following precipitation that has produced surface runoff. At the end of the project, each location should be sampled once, within four weeks of completing work, and not within one week following precipitation that has produced surface runoff.
 - (e) Samples shall be analyzed for the same parameters as impoundment draining with the addition of dissolved oxygen (DO).

STORMWATER CONDITIONS

1. When a sample of stormwater is collected:
 - (a) The laboratory results of all samples from a discharge collected and analyzed must be retained on site with monitoring records and made available to the Department upon request and shall be submitted with renewal application materials.
 - (b) Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.
 - (c) For flow-through BMPs, stormwater samples shall be collected within the first 60 minutes of discharge occurring as a result of precipitation events exceeding 0.1 inches during a 24-hour period, if possible.
 - (d) For retention BMPs, stormwater samples shall be collected only when a discharge occurs and, if possible, shall be taken from the outfalls. Dip sampling of effluent in retention structures should not be performed.
 - (e) Stormwater samples shall be collected prior to leaving or at the property boundary or before the discharge enters waters of the state on the property.

More information on stormwater sampling may be found in the following document: Industrial Stormwater Monitoring and Sampling Guide (Document number: EPA 832-B-09-003) published by the Environmental Protection Agency (EPA) in March 2009, https://www3.epa.gov/npdes/pubs/msgp_monitoring_guide.pdf.

2. This permit stipulates pollutant benchmarks applicable to the facility's stormwater discharges.
 - (a) Benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Stormwater monitoring, numeric benchmark compliance, and visual inspections shall be used to determine the overall effectiveness of the BMPs identified in the Stormwater Pollution Prevention Plan (SWPPP).
 - (b) If a sample exceeds a benchmark concentration or an inspection exceeds a narrative requirement, the facility must review the SWPPP and BMPs to determine what improvements or additional controls are needed to reduce the pollutant concentrations in the facility's future stormwater discharges.
 - (c) Every time a numeric benchmark exceedance occurs, a Corrective Action Report (CAR) must be completed. A CAR is a document recording the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and be available to the Department upon request. This permit may require CARs be submitted to the Department upon permit renewal; see Renewal Requirements section below.
 - (d) Failure to take corrective action to address any narrative or numeric benchmark exceedance, and failure to make measureable progress towards achieving the numeric benchmark(s), is a permit violation.

STORMWATER CONDITIONS, CONTINUED

- (e) Stormwater benchmarks and required minimum BMPs as described in this permit are enforceable permit conditions. Any requested change(s) to numeric benchmark values or deviation from minimum BMP requirements must be established through the permitting process, which may include a transfer to a site specific permit to incorporate site specific conditions. Assessment, evaluation, and implementation of specific BMPs to meet numeric benchmarks or minimum BMP requirements, must be addressed through the SWPPPs and CARs.
3. This permit requires the development and implementation of a SWPPP. The Land Reclamation Program shall be required to draft and implement the SWPPP on each site under this permit. When applying for coverage under this permit, a SWPPP including an Alternative Analysis of the BMPs must be developed, implemented, and maintained at the facility. Failure to implement and maintain the chosen alternative, which can be revised and updated, is a permit violation. The Alternative Analysis is a structured evaluation of BMPs to determine which are reasonable and cost effective. The analysis should include practices designed to be 1) non-degrading 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest quality water attainable for the facility is discharged. The analysis must demonstrate why “no discharge” or “no exposure” are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional Alternatives Analysis unless new BMPs are established to address BMP failures. This structured analysis of BMPs serves as the Antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3).
4. The permittee shall select, install, use, operate, and maintain the BMPs prescribed in the SWPPP in accordance with the concepts and methods described in the following documents: *Developing Your Stormwater Pollution Prevention Plan, a Guide for Industrial Operators*, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (EPA) in June 2015. https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf. (General information may also be found at <https://www.epa.gov/npdes/industrial-stormwater-guidance>.); and *Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites*, (Document number EPA 833-R-06-004) published by EPA in May 2007 (This manual as well as other information, including examples of construction SWPPPs, is available at the EPA internet site at https://www.epa.gov/sites/production/files/2015-10/documents/sw_swppp_guide.pdf).
- (a) **New Facilities:** The new SWPPP for the facility must be prepared within 60 days and implemented within 180 days of permit issuance.
- (b) **Existing Facilities:** The existing SWPPP for your facility must be reviewed, revised as necessary, and implemented within 30 days of reissuance of coverage.
- (c) **Expanding Facilities:** The existing SWPPP for the facility, including the Alternative Analysis, must be reviewed and revised as necessary. Once expansion occurs the revised SWPPP must be implemented within 30 days of permit modification.
5. The purpose of the SWPPP and the BMPs listed therein is to prevent pollution per 10 CSR 20-2.010(56) to waters of the state. A deficiency of a BMP means it was not effective in preventing pollution of waters of the state or meeting benchmarks of this permit. Corrective action means the facility took steps to eliminate the deficiency. The SWPPP must be kept on-site (either electronically or paper copy), readily available upon request, and should not be sent to the Department unless specifically requested. Throughout coverage under this permit, the facility must perform SWPPP review and revision to incorporate any significant site condition changes which impact the nature and condition of stormwater discharges. For all facilities the SWPPP must include the following:
- (a) An assessment of all stormwater discharges associated with the facility, facility activities, and facility materials. This assessment must include a list of potential contaminants and an annual estimate of amounts used and/or produced in the described activities.
- (b) A listing of BMPs and a narrative explaining how the BMPs will be implemented to control and minimize the amount of potential contaminants entering stormwater.
- (c) Wash water for vehicles, building, or pavement must be handled in a no-discharge manner (infiltration, hauled off-site, etc.). Describe the disposal method and include all pertinent information (destination for effluent, BMPs, etc.) in the SWPPP. If wash water is not produced, note this instead.
- (d) A site map or, if necessary, multiple maps. The map shall be updated as needed to reflect current BMPs in use. Stormwater outfalls do not need to be marked in the field. The map does not need to be printed on paper. Electronic or other accessible maps will be considered adequate compliance with this condition. The map(s) shall show the following:
- (1) Boundaries of the property and the size of the property in acres;
 - (2) Location and extent of significant structures and impervious surfaces;
 - (3) Direction of stormwater flow, marking areas (use arrows) where high potential for soil erosion are found;
 - (4) Location of all permitted features, outfalls, structural BMPs, and other stormwater control measures;
 - (5) Location of all stormwater conveyances including ditches, pipes, and swales;
 - (6) Location of potential stormwater pollutant sources;

STORMWATER CONDITIONS, CONTINUED

- (7) If applicable, municipal separate storm sewer systems (MS4s) and where stormwater from the facility discharges to them;
 - (8) Locations of the following activities which are exposed to precipitation:
 - i. Fueling stations;
 - ii. Vehicles and equipment maintenance and/or cleaning areas;
 - iii. Loading and unloading areas;
 - iv. Locations used for the treatment, storage, or disposal of wastes;
 - v. Salt storage areas (salt used for de-icing or other commercial or industrial purposes);
 - vi. Liquid storage tanks, noting whether they have secondary containment; and
 - vii. Processing and storage areas.
 - (9) Locations and sources of run-on to your site from adjacent property that may contain significant quantities of pollutants.
- (e) A schedule for monthly site inspections and a brief written report, which includes the name of the inspector, the signature of the inspector, and the date. The inspections must include observation and analysis of BMP effectiveness, deficiencies, and corrective action to be taken.
- (1) At a minimum, the following areas must be inspected:
 - i. Disturbed areas;
 - ii. Stormwater controls and pollution prevention measures;
 - iii. Locations where stabilization measures have been implemented;
 - iv. Material, waste, borrow, or equipment storage and maintenance areas;
 - v. Areas where stormwater flows; and
 - vi. Points of discharge.
 - (2) During inspections, at the minimum, the following must be checked:
 - i. Whether all stormwater controls are installed, operational, and working as intended;
 - ii. Whether any new or modified stormwater controls are needed;
 - iii. Facilities examined for conditions that could lead to a spill or leak; and
 - iv. Facility examined for visual signs of erosion or sedimentation at outfalls. Excessive erosion or sedimentation may be due to BMP failure or insufficiency. Response to the excessive erosion or sedimentation should be addressed in the inspection report.
 - (3) Operational deficiencies must be corrected within seven (7) days and must be documented in the inspection report.
 - (4) Minor structural deficiencies must be corrected within fourteen (14) calendar days and must be documented in the SWPPP records.
 - (5) For major structural deficiencies which are projected to take longer than fourteen (14) calendar days to correct, The facility may submit a written request to the Department justifying additional time, if necessary, to complete corrective action. If required by the Department, the permittee shall work with the regional office to determine the best course of action. The permittee should consider temporary structures in the interim to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
 - (6) BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
 - (7) Inspection reports must be kept with the SWPPP and must be made available to the Department upon request.
 - (8) Inactive facilities: the requirement to conduct facility inspections on a monthly basis does not apply at a facility that is inactive and unstaffed as long as there are no industrial materials or activities exposed to stormwater. Such a facility shall only be required to conduct an inspection annually. To invoke this exception, notification the facility is inactive must be made in the application materials submitted to the Department for renewal or issuance of a new permit. If a facility is already covered by a permit when they become inactive, they must submit notification to the appropriate Department Regional Office in writing of their intent to be considered "inactive". The SWPPP shall also be updated to reflect this information. If circumstances change and industrial materials or activities become exposed to stormwater or the site becomes active, this exception will no longer apply, and the facility must immediately resume required monthly inspections.
- (f) A provision for designating an individual to be responsible for environmental matters.
- (g) A provision for providing training to all personnel involved in material handling, material storage, and housekeeping of areas having materials exposed to stormwater. Proof of training must be made available to the Department upon request.
- (h) A provision for evaluating benchmarks/effluent limitations established in this permit.

STORMWATER CONDITIONS, CONTINUED

6. The following minimum BMPs must be implemented at all facilities:
 - (a) Collection facilities shall be provided on-site, and arrangements shall be made for proper disposal of waste products, including but not limited to petroleum waste products, solid waste, de-icing products, and solvents, which may be exposed to stormwater. Keep storage bins for waste products covered to minimize contact with precipitation, where possible.
 - (b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances. This might include, for example, utilizing drip pans under vehicles and equipment stored outdoors, covering fueling areas, using dry clean-up methods, use of absorbents, and cleaning pavement surfaces to remove oil and grease.
 - (c) Store all paints, solvents, petroleum products, petroleum waste products and storage containers (such as drums, cans, or cartons) so they are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention, control, and countermeasures to prevent any spill of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall prevent the contamination of groundwater.
 - (d) Provide sediment and erosion control sufficient to minimize sediment loss off of the property, pollution of waters of the state, and to comply with the conditions of this permit, Missouri Clean Water Law, and the CWA. This may require the use of straw bales, silt fences, sediment basins, or other treatment structures. This may also require the construction of properly designed sediment basins or other treatment structures.
 - (1) Ensure that all erosion and sediment controls remain in effective operating condition.
 - (2) A sediment or erosion control measure needs maintenance to continue operating effectively. Wherever a problem is discovered, initiate efforts to fix it immediately. Complete such work by the end of the next work day when possible.
 - (3) When a sediment or erosion control must be completely replaced or significantly repaired, complete the work within seven (7) days unless infeasible. If seven days is infeasible, replacement or repair must be completed as soon as practicable.
 - (e) Provide good housekeeping practices on-site to keep solid waste from entering waters of the state. For example, direct stormwater away from areas where storage, loading and unloading, and material handling occur and perform good housekeeping to prevent the discharge discolored or otherwise impacted stormwater.
 - (f) Facilities shall manage materials (products, stockpiles, waste piles, etc.).
 - (1) Minimize erosion from soil or other stockpiles from stormwater and wind via a temporary cover where possible.
 - (2) Minimize sediment from stormwater that runs off stockpiles using sediment controls.
 - (3) Prevent stormwater flows from causing erosion of stockpiles, for example, by diverting flows around them.
 - (4) Facility shall ensure materials are not discharged off-site or into a water of the state during a high water event.
 - (g) Minimize the generation of dust and off-site tracking (track-out) of raw, final, or waste materials in order to minimize contact pollutants discharged in stormwater.
 - (1) Restrict vehicle traffic to designated and controlled exit points.
 - (2) Use stabilization techniques at all exit points onto paved roads
 - (3) Use additional controls to remove sediment from vehicle and equipment tires prior to exit from facility where necessary.
 - (4) Remove sediment that is tracked out of the facility onto paved roads by the end of the work day where possible.
 - (h) Minimize the accumulation of metals or aging equipment with visible rust in outdoor locations exposed to stormwater. Ensure metal equipment and scrap are stored indoors or in a covered container when possible.
 - (i) The drainage area around secondary containments and the interior of the secondary containments shall be inspected monthly. Solids, sludge, and soluble debris shall not be allowed to accumulate in the secondary containment.
 - (j) The drainage area around secondary containments and the interior of the secondary containments shall be inspected monthly. Records of inspection shall be stored with permit records. Solids, sludge, and soluble debris shall not be allowed to accumulate in the secondary containment.

LAND DISTURBANCE CONDITIONS

The facility will not be required to procure a separate general permit (MO-RA000000) for land disturbance activities which discharge through outfalls authorized in this permit if the following conditions are followed. If land disturbance activities discharge to any location other than through a permitted outfall, a separate MORA general permit or site specific permit is required. The general permit does not cover disturbance of contaminated soils.

1. Minimum Best Management Practices (BMPs) for land disturbance must prevent discharges from causing or contributing to an exceedance of water quality standards, including general criteria. All pollution prevention measures must be described in the SWPPP; at a minimum such measures must be designed, installed, implemented, and maintained to:
 - (a) Control stormwater volume and velocity to reduce peak flow rate at the facility and minimize erosion of the outlets, downstream channel, and stream banks.
 - (b) Installation of sediment controls necessary to prevent soil erosion at the project boundary must be complete prior to the start of all phases of land disturbance in areas where stormwater runoff may freely leave the site. For projects where perimeter controls are infeasible, other practices shall be implemented to minimize discharges to perimeter areas of the project.
 - (c) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property to comply with water quality criteria (narrative and numeric) and effluent limits or benchmarks contained in this permit.
 - (d) Minimize the amount of soil exposed during construction or land disturbance activity.
 - (e) Minimize the disturbance of steep slopes.
 - (f) Minimize sediment discharges from the project. Design, install, and maintain erosion and sediment controls addressing factors such as the amount, frequency, intensity, and duration of precipitation; the nature of resulting stormwater runoff; and soil characteristics, including the range of soil particle size expected to be present on the project;
 - (g) Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal, and maximize stormwater infiltration and filtering unless infeasible;
 - (h) Unless infeasible, preserve topsoil, existing vegetation, and trees.
 - (i) Remove any sediment from perimeter controls per the manufacturer's instructions or before it has accumulated to one-half of the above-ground height of any perimeter control.
 - (j) For protection of surface waters of the state, the facility shall:
 - (1) Provide and maintain a 25-foot, undisturbed, natural buffer from any stream or property boundary;
 - (2) If less than 25 feet, provide and maintain an undisturbed natural buffer supplemented by erosion and sediment controls to achieve the sediment load reduction equivalent to a 25-foot undisturbed natural buffer; or
 - (3) If infeasible to provide and maintain an undisturbed natural buffer of any size, implement erosion and sediment controls to achieve the sediment load reduction equivalent to a 25-foot undisturbed natural buffer.
 - (4) Where retaining a buffer of any size, the buffer should be measured perpendicularly from any of the following points, whichever is further landward from the water. The ordinary high water mark of the water body, [33 CFR 328.3(c)(6)]; or the edge of the stream or river bank, bluff, or cliff, whichever is applicable.
 - (k) The facility shall ensure BMPs are properly installed at the locations and times specified in the SWPPP. Peripheral or border BMPs to control runoff from disturbed areas shall be installed or marked for preservation before general site clearing is started. Note, this requirement does not apply to earth disturbances related to initial site clearing for establishing entry, exit, and access of the site, which may require stormwater controls be installed immediately after the earth disturbance. For phased projects, BMPs shall be properly installed iteratively prior to construction activities. Stormwater discharges shall pass through an appropriate sediment control measure, such as a sedimentation basin, sediment traps, or silt fences, prior to leaving the land disturbance area.
 - (l) Stormwater control inlets susceptible to receiving sediment shall have curb inlet protection. Curb inlet protection shall be cleaned as needed and per manufacturer's specification when applicable.
 - (m) Where land disturbance stormwater will flow from a roadway, a sediment catching BMP such as a berm or silt fence shall be provided.
2. In addition to the SWPPP requirements found in the STORMWATER REQUIREMENTS section above, the following shall be included in a "Land Disturbance" section of the SWPPP:
 - (a) A list and description of selected BMPs in use for land disturbance at the site. The list shall include structural, operational, managerial, and procedural BMPs used or intended for use. Procedural BMPs are activities or behaviors such as street sweeping or good housekeeping techniques. Descriptions shall include whether the BMP is temporary or permanent; the site conditions required for effective use of the BMP (maximum slope, etc.); BMP installation/construction procedures, including representative drawings as necessary; and operation and maintenance procedures for the BMPs. Procedural BMPs shall be described based on frequency required, interval between executions, or other detailed site conditions or qualifying events shown to be applicable to each procedural BMP. The descriptions must indicate where and how BMPs will be implemented to address specific, variable site locations including but not limited to entry/exit, slopes, stream buffer zones, allowable dewatering activities, sediment stockpiles, and stabilization measures.

LAND DISTURBANCE CONDITIONS, CONTINUED

- (b) A description of any anticipated dewatering methods. The description shall include a detailed list of BMPs planned or implemented to treat water pumped from trenches and excavations. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited unless managed by proper controls. In no case shall water from trenches or excavations be pumped off-site or into waters of the state without being treated by the specified BMPs, which must treat the water to comply with the narrative general water quality standards found in 10 CSR 20-7.031(4).
 - (c) Land disturbance areas shall be inspected at the same time as general inspections required in the STORMWATER REQUIREMENTS section, condition #7, above. In addition, the land disturbance BMPs will be inspected after the following conditions, and a record of the additional inspections will be kept with the SWPPP:
 - (1) At least once every seven calendar days and within 48 hours after any storm event equal to or greater than a 2-year, 24-hour storm has ceased during a normal work day and within 72 hours if the rain event ceases during a non-work day such as a weekend or holiday; or
 - (2) Once every 14 calendar days and within 24 hours of the occurrence of a storm event of 0.25 inches of precipitation or greater or the occurrence of runoff from snowmelt. To determine if a storm event of 0.25 inches or greater has occurred on your site, the responsible individual must either keep a properly maintained rain gauge on site or obtain the storm event information from a weather station for the location.
 - (3) If inspections occur every 14 calendar days, there is a storm event at the site continuing for multiple days, and each day of the storm produces 0.25 inches or more of rain, the facility is required to conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the end of the storm.
 - (4) An individual must conduct an inspection within 24 hours once a storm event has produced 0.25 inches within a 24 hour period, even if the storm event is still continuing.
 - (5) The SWPPP must explain how the person responsible for erosion control will be notified when stormwater runoff occurs. If weather conditions prevent correction of BMPs within seven calendar days, the reasons for the delay must be documented (including pictures), and there must be a narrative explaining why the work cannot be accomplished within the seven day time period. The documentation must be filed with the regular inspection reports. The permittee shall correct the problem as soon as weather conditions allow.
 - (6) Areas on-site and finally stabilized must be inspected at least once per month and are not required to meet (1), (2), (3), and (4) above.
 - (d) A section recording the dates the land disturbance section of the SWPPP is updated and the purpose of the update. The land disturbance section of the SWPPP shall be updated when the design, operation, or maintenance of land disturbance BMPs are changed; when design of the land disturbance project is changed and could significantly alter the quality of stormwater discharges; facility site inspections indicate deficiencies in land disturbance BMPs, or the BMPs are found to be ineffective as minimizing and controlling erosion and sedimentation; or the Department notifies the facility in writing of deficiencies in land disturbance BMPs or the SWPPP, including notification that discharges from the site caused violations of water quality standards, including general criteria found at 10 CSR 20-7.031(4).
 - (e) The Land Reclamation Program shall be responsible for notifying each contractor or entity (including but not limited to utility crews, city employees or their agents, or other personnel) who will perform work which could impact stormwater runoff at the site. These notifications shall include notice of the existence of the SWPPP and what actions or precautions shall be taken while on-site to minimize the potential for erosion and the potential for damaging any BMP.
3. For disturbed areas:
- (a) For temporarily ceased soil disturbing activities on any portion of the project not resuming for a period exceeding 14 calendar days, the facility shall construct BMPs to establish interim stabilization, and stabilization must be initiated immediately and completed within 14 calendar days.
 - (b) For permanently ceased soil disturbing activities on any portion of the project, final stabilization of disturbed areas must be initiated immediately and completed within 14 calendar days. Allowances to the 14 day completion period for temporary and final stabilization may be made due to weather and equipment malfunctions. The use of allowances shall be documented in the SWPPP.
 - (c) Interim stabilization shall consist of well-established and maintained BMPs reasonably certain to protect waters of the state from sediment pollution over an extended period of time. This may require adding more BMPs to an area normally used during daily operations. These BMPs may include a combination of sediment basins, check dams, sediment fences, and/or mulch. The types of BMPs used must be suited to the area disturbed, taking into account the number of acres exposed and the steepness of the slopes. If the slope of the area is greater than 4:1 (four feet horizontal to one foot vertical) or if the slope is greater than 3% and greater than 150 feet in length, the permittee shall establish interim stabilization within seven days of ceasing operations on interim areas.
 - (d) If vegetative stabilization measures are being implemented, stabilization is considered "installed" when activities necessary to seed or plant the area are complete. Final stabilization is not considered achieved until vegetation is established. Two years of growing seasons may be required to ensure roots are fully established and vegetation and soils will not be washed away during high-precipitation storm events. If non-vegetative stabilization measures are being implemented, stabilization is considered "installed" when all such measures are implemented or applied.

STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Standard Conditions Part I dated August 01, 2014, hereby incorporated as though fully set forth herein.

PERMIT REQUIREMENTS

1. Electronic Discharge Monitoring Report (eDMR) Submission System. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only Department-approved reporting method for this permit unless specified elsewhere in this permit, or a waiver is granted by the Department. The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due.
2. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (Section 644.055, RSMo). The fee structure can be found at 10 CSR 20-6.011.
3. Compliance with all requirements in this permit does not supersede nor remove liability for compliance with county and other local ordinances.
4. The laboratory results of all samples from a discharge collected and analyzed must be uploaded into the eDMR system.
5. Non-stormwater outfalls must be clearly marked in the field. Stormwater outfalls shall be, at a minimum, marked on a map kept with the SWPPP.
6. The permittee shall furnish to the Department, upon request, copies of records required to be kept according to the terms and conditions of this permit. Records may be maintained electronically and provided electronically through email if applicable.
7. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - (a) The alteration or addition could significantly change the nature or increase the quantity of pollutants in the discharge. This notification applies to pollutants subject to the effluent limitations of this permit as well as new pollutants different from pollutants listed in this permit; or
 - (b) The alteration or addition results in a significant change in disposal practices and may justify the application of permit conditions different from or absent in the current permit.
8. Before releasing water accumulated in petroleum secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).
 - (a) If odor or sheen is found, the water shall not be discharged without treatment and shall be disposed of in accordance with legally approved methods, such as being sent to an accepting wastewater treatment facility.
 - (b) If the facility wishes to discharge the accumulated stormwater with hydrocarbon odor or presence of sheen, the water shall be treated using an appropriate removal method. Following treatment and before release, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream found in 10 CSR 20-7.031 Table A before discharge is authorized. Records of all testing and treatment of water accumulated in secondary containment shall be available on demand to the Department. Electronic records retention is acceptable.
9. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with RSMo 644.051.16 and the CWA section 402(k); however, this permit may be reopened and modified or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Clean Water Act Sections 301(b)(2)(C) and (D), §304(b)(2), and §307(a) (2) if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit or controls any pollutant not limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.
10. Changes in Discharges of Toxic Substances. In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:
 - (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit if the discharge will exceed the highest of the following notification levels:

- 1) One hundred micrograms per liter (100 µg/L);
 - 2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
 - 3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
 - 4) One milligram per liter (1 mg/L) for antimony;
 - 5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - 6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
 - (b) An activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit if the discharge will exceed the highest of the following “notification levels”:
 - 1) Five hundred micrograms per liter (500 µg/L);
 - 2) One milligram per liter (1 mg/L) for antimony;
 - 3) Ten (10) times the maximum concentration value reported for the pollutant in the permit application in accordance with §122.21(g)(7).
 - 4) The level established by the Director in accordance with §122.44(f).
11. Reporting of Non-Detects.
- (a) Compliance analysis conducted by the permittee or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, Section A, #4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory established reporting limit (RL) are used interchangeably in this permit.
 - (b) The permittee shall not report a sample result as “non-detect” without also reporting the MDL. Reporting “non-detect” without also including the MDL will be considered failure to report, which is a violation of this permit.
 - (c) For the daily maximum, the permittee shall report the highest value; if the highest value was a non-detect, use the less than “<” symbol and the laboratory’s highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).
 - (d) When calculating monthly averages, zero shall be used in place of any value(s) not detected. Where all data used in the average are below the MDL or RL, the highest MDL or RL shall be reported as “<#” for the average as indicated in item (c).

PERMIT RENEWAL

1. Unless terminated, the permittee shall submit an application for the renewal of this permit by submitting *Form E-Application for General Permit* <https://dnr.mo.gov/document/form-e-application-general-permit-under-missouri-clean-water-law-mo-780-0795-0> no later than thirty (30) days prior to the permit’s expiration date.
2. When a facility submits a timely and complete application in accordance with 10 CSR 20-6.010(10)(C)1 and the Department is unable through no fault of the permittee to issue a renewal prior to expiration of the previous permit, the terms and conditions of the expired permit are administratively continued and will remain fully effective and enforceable until such time when a permit action is taken. Failure to submit a renewal application is a violation of the Missouri Clean Water Law. Failure to apply for renewal of a permit may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.
3. This facility must submit all corrective action reports completed for the last permit term if a benchmark exceedance occurred.

PERMIT TRANSFER

1. This permit may not be transferred to a new owner in any fashion except by submitting an *Application for Transfer of Operating Permit* <https://dnr.mo.gov/sites/dnr/files/vfc/2018/10/main/780-1517-f.pdf> signed by the current owner and future owner of the facility along with the appropriate modification fee. In some cases, revocation and reissuance may be necessary. Standard Condition Part 1, Subsection D.7 applies.
2. Facilities that have undergone transfers of ownership without prior notice to the Department will be considered to be operating without a permit.

PERMIT TERMINATION

1. Post-project sampling for instream water quality (see PRE-PROJECT AND POST-PROJECT SAMPLING REQUIREMENTS above) shall be submitted with the application for termination.
2. The permittee shall apply for permit termination when activities covered by this permit have ceased and no significant materials as defined by 10 CSR 20-6.200(1)(C)27 remain on the property or if on the property are stored in such a way as to have no

potential for pollution. Whenever a release or a potential for release from a permitted facility is permanently eliminated, the existing permit may be terminated.

3. Proper closure of any effluent storage structure is required prior to permit termination.
4. Permits do not terminate automatically upon expiration. In order to terminate this permit, the permittee shall notify the Department's appropriate regional office by completing and submitting *Request for Termination of Operating Permit* <https://dnr.mo.gov/document-search/request-termination-operating-permit-mo-780-2814> . The Department may require inspection of the premises prior to granting termination of a permit.

NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to Sections 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

MISSOURI DEPARTMENT OF NATURAL RESOURCES FACT SHEET FOR MASTER GENERAL PERMIT MO-G05XXX

The Federal Water Pollution Control Act [Clean Water Act (CWA)] Section 402 of Public Law 92-500 (as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the CWA). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (permit) are issued by the Missouri Department of Natural Resources (Department) under an approved program, operated in accordance with federal and state laws (Federal CWA and Missouri Clean Water Law Section 644 as amended). Permits are issued for a period of five (5) years unless otherwise specified.

Per 40 CFR 124.56, 40 CFR 124.8, and 10 CSR 20-6.020(1)(A)2., a Fact Sheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the permit. A Fact Sheet is not an enforceable part of an MSOP.

Part I – Facility Information

Facility Type: Land Reclamation Land Disturbance and Dewatering
Facility SIC Code(s): 9512, 1629

This permit is for Land Reclamation projects involving land disturbance and projects consisting solely of pond and shaft dewatering under control of the Missouri Department of Natural Resources, Land Reclamation Program. Surface discharges from these reclamation projects result from precipitation, including snow melt, runoff/impoundment discharges, and shaft pumping. These projects may also involve stockpiling aggregate, soil, or biosolids for reclamation use.

This permit establishes a SWPPP requirement with quarterly monitoring for pollutants of concern for all facilities covered under this permit. 10 CSR 20-6.200(7) specifies “general permits shall contain BMP requirements and/or monitoring and reporting requirements to keep the stormwater from becoming contaminated”. The requirements are established in accordance with 10 CSR 20-7.031 in a manner deemed protective of all possible receiving stream conditions. Specific local conditions are not considered when developing conditions for a general permit. A facility may apply for a site-specific permit if they desire a review of site-specific conditions.

The facilities eligible for this permit are the sites covered under the land reclamation or Abandoned Mine Land portion of the SMCRA, rather than under the regulatory program established within the same act. As such, these facilities are not subject to the coal mining Effluent Limit Guideline (ELG) 40 CFR 125.3(a). However, as portions of this ELG establish technology limits for abandoned mine reclamation areas, as this is extremely similar to activities authorized in this permit, the permit writer reviewed these technology limits and considered them when developing select limits and benchmarks within this permit.

CLARIFICATION:

- Definitions were added to this permit to clarify various terms used in the mining industry and in land reclamation activities.
- Clarified acid mine drainage is not authorized for discharge under this permit without treatment to meet limitations.
- Clarified this permit is not applicable to active mining sites, coal preparation plants, or associated areas.

CHANGES TO THE RENEWAL OF THIS PERMIT INCLUDE:

- Updated language throughout the permit to current permit language used by the Department.
- Updated applicability statements to current permit language.
- Clarified conditions which were ambiguous.
- Updated non-stormwater discharges covered by this permit, and included examples of excluded discharges.
- Oil water separator use for stormwater treatment is authorized by the permit.
- Updated requirements for spills, overflows, and unauthorized discharges.
- Added chloride and sulfate monitoring and limits to coal reclamation stormwater discharges.
- Updated benchmark requirements.
- Schedule of compliance for coal mine reclamation sites to meet chloride and sulfate and pH limits when dewatering.
- Updated SWPPP and site minimum BMP requirements.
- Added a section clarifying land disturbance requirements.
- Mine shaft pumping and processing area impoundment draining requirements have been combined into a single table.

Part II – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. This permit applies to facilities discharging to the following water body categories:

- ☒ Missouri or Mississippi River [10 CSR 20-7.015(2)]
- ☒ Lakes or Reservoirs [10 CSR 20-7.015(3)], excluding L1 lakes.
- ☒ Losing Streams [10 CSR 20-7.015(4)]
- ☒ Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)], stormwater discharges only
- ☒ Special Streams [10 CSR 20-7.015(6)], stormwater discharges only to OSRW, no-discharge facilities only in ONRW
- ☐ Subsurface Waters [10 CSR 20-7.015(7)]
- ☒ All Other Waters [10 CSR 20-7.015(8)]

Missouri Water Quality Standards (10 CSR 20-7.031) defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses shall be maintained in accordance with 10 CSR 20-7.031(4). A general permit does not take into consideration site-specific conditions.

MIXING CONSIDERATIONS:

This permit applies to receiving streams of varying low flow conditions. Therefore, the effluent limitations must be based on the smallest low flow streams considered, which includes waters without designated uses. As such, no mixing is allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)]. No Zone of Initial Dilution is allowed. [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:

This permit requires pre- and post-permit receiving stream monitoring. Please see PRE-PROJECT AND POST-PROJECT SAMPLING REQUIREMENTS in the permit for more information.

Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions

305(B) REPORT, 303(d) LIST, & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 305(b) of the Federal CWA requires each state identify waters not meeting Water Quality Standards and for which adequate water pollution controls have not been required. Water Quality Standards protect such beneficial uses of water as whole body contact, maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of waters which are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed which shall include the TMDL calculation. For facilities with an existing general permit before a TMDL is written on their receiving stream, the Department will evaluate the permit and may require any facility authorized by this general permit to apply for and obtain a site-specific operating permit. Requests for coverage of a new facility under this general permit will be evaluated on a case-by-case basis for facilities located within the watershed of an impaired water as designated on the 305(b) Report.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA Section 303(d)(4); CWA Section 402(c); 40 CFR Part 122.44(I)] requires a reissued permit to be as stringent as the previous permit with some exceptions.

- ✓ Applicable: Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
 - Five years of DMR data were available to support removal of some parameters. The permit writer determined arsenic, barium, chromium, cobalt, and mercury were not necessary for monitoring, as the data did not indicate they were pollutants of concern at the metallic minerals sites.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
 - Monthly averages were not implemented for stormwater outfalls in this permit as the discharge consists of only stormwater which is not continuous pursuant to 40 CFR 122.45(d). Further, average monthly limitations are impracticable measures of non-continuous stormwater discharges because they vary widely in frequency,

magnitude, and duration. This permit applies only acute short-term or daily maximum measures which represent stormwater discharges which are acute and sporadic in nature. Discharges of industrial stormwater rarely persist for long durations, making them impracticable to assess using measures with long term exposures or averaging periods. Last, the instream water quality target remains unchanged and the conditions of this permit are protective of both narrative and numeric water quality criteria.

- The previous permit special conditions contained a specific set of prohibitions related to general criteria (GC) found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality criteria in the previous permit. This permit assesses each general criteria as listed in the previous permit's special conditions. Federal regulations 40 CFR 122.44(d)(1)(iii) requires instances where reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4)(A) through (I) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality while maintaining permit conditions applicable to permittee disclosures and in accordance with 10 CSR 20-7.031(4) where no water contaminant by itself or in combination with other substances shall prevent the water of the state from meeting the following conditions:

 - (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
 - ✓ For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing in the research done by the permit writer on the industry indicates putrescent wastewater would be discharged from the facility.
 - ✓ For all outfalls, there is RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because of the nature of the activities on site. The primary activity is land disturbance, and the sites are likely to have large stockpiles of materials which are mobile in stormwater. The limits on settleable solids are maintained in this permit for both stormwater and wastewater discharges due to this reasonable potential. At metallic mineral outfalls, the limits are based on technology capabilities; however, it is believed these technology based limitations will also be protective of the receiving stream's water quality.
 - (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
 - ✓ For all outfalls, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing in the research done by the permit writer on the industry indicates oil will be present in sufficient amounts to impair beneficial uses. Oil and grease monitoring was added to stormwater requirements of all facility types for monitoring only, as the heavy truck traffic at these sites, as well as some flocculants used and stored onsite at some facilities, indicate this may be a pollutant of concern.
 - ✓ For all outfalls, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing in the research the permit writer did on the industry indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses.
 - (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
 - ✓ For all outfalls, there is RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because of the nature of the industrial activity at the site. The primary activity is land disturbance, and the sites are likely to have large stockpiles of materials which are mobile in stormwater. The limits on total suspended solids (TSS) are maintained in this permit for both stormwater and wastewater discharges due to this reasonable potential. Some TSS limits in this permit were established by the permit writer based on a review of similar facilities regulated under a related Effluent Limitation Guideline (ELG) and based on technology; however, it is believed these technology limitations are also protective of water quality of the receiving streams.
 - ✓ For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing discovered in the research of the permit writer indicates offensive odor will be present in sufficient amounts to impair beneficial uses. Odor is not expected in stormwater discharges from this industry.
 - (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
 - ✓ The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.

- (E) Waters shall maintain a level of water quality at their confluences to downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including waters of another state.
 - This criteria was not assessed for antibacksliding as this is a new requirement, approved by the EPA on July 30, 2019.
- (F) There shall be no significant human health hazard from incidental contact with the water.
 - ✓ Much like the condition above, the permit writer considered specific toxic pollutants when writing this permit, including those pollutants could cause human health hazards. The discharge is limited by numeric effluent limitations for those conditions could result in human health hazards.
- (G) There shall be no acute toxicity to livestock or wildlife watering.
 - ✓ The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of livestock and wildlife watering.
- (H) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
 - ✓ For all outfalls, there is no RP for physical changes impairing the natural biological community because nothing found in research by the permit writer on the industry indicates discharges would cause physical changes to the receiving stream.
 - ✓ It has been established any chemical changes are covered by the specific numeric effluent limitations established in the permit.
 - ✓ For all outfalls, there is RP for hydrologic changes impairing the natural biological community as reclamation may include changing the hydrology of the site or area; however, all changes are controlled and approved as part of a reclamation activity, and receive US Army Corps of Engineer approval as needed. It is expected that any changes will long term improve the natural biological community of the area.
- (I) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
 - ✓ The conditions of this permit, including SWPPP conditions, requires management of solid waste on site. Compliance with the conditions of this permit are expected to result with no reasonable potential to violate this criterion.
- The previous permit had a special condition stating: "There shall be no open burning of containers, cartons, and other wastes on-site." The permit writer has determined this special condition was outside the scope of NPDES permitting and was removed.
- The previous permit had a special condition which indicated spills from hazardous waste substances must be reported to the department. However, this condition is covered under standard conditions therefore was removed from special conditions.
- The previous permit's condition requiring the facility notify the appropriate regional office within five days if results of settleable solids exceeds 1.5 mL/L/hr has been removed. The permit writer believes the reporting requirements of standard conditions part I and corrective action reports (as required by the stormwater conditions of this permit) are sufficient to correct these exceedances. Additional notification to the regional offices is not required and would provide no additional benefit to the environment.
- Language in the previous permit prohibited discharges within 2 miles of an OSRW, in the watershed of an ONRW, within 1000 ft up gradient of major reservoirs (L2), or within 2 miles upstream of biocriteria reference locations or critical habitats for endangered species. This setback language in the previous permit is believed to have been established to provide a buffer between the discharge and the above types receiving streams, thus reducing the potential for general water quality criteria to be violated by a facility's discharge. The language in this permit has been updated to reflect requirements in regulations and current permitting practices. The current setbacks are protective of the receiving streams' designated uses.

ANTIDEGRADATION:

Antidegradation policies ensure protection of water quality for a particular water body on a pollutant by pollutant basis to ensure Water Quality Standards are maintained to support beneficial uses such as fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as an Outstanding National Resource Water or Outstanding State Resource Water [10 CSR 20-7.031(3)(C)]. Antidegradation policies are adopted to minimize adverse effects on water.

For stormwater discharges, the Department has determined the best avenue forward for implementing the Antidegradation requirements into general stormwater permits is by requiring the appropriate development and maintenance of a SWPPP. The SWPPP must identify all reasonable and effective Best Management Practices (BMPs), taking into account environmental impacts and costs. This analysis must document why no discharge or no exposure options are not feasible at the facility. This selection and documentation of appropriate control measures will then serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.

Any facility seeking coverage under this permit which undergoes expansion or discharges a new pollutant of concern must update their SWPPP and select reasonable and cost effective new BMPs. New facilities seeking coverage under this permit are required to develop a SWPPP including this analysis and documentation of appropriate BMPs. Renewal of coverage for a facility requires a review of the SWPPP to ensure the selected BMPs continue to be appropriate. The facility must review and maintain stormwater BMPs as appropriate.

For wastewater discharges under this permit, the facilities are expected to be remediating the land and water of the area; while the anticipated discharges are technically “new”, they are anticipated to be short term, consist mostly of land disturbance stormwater, and ultimately improve water quality in the immediate receiving streams and surrounding areas. A full antidegradation review is not required for each of these discharges, as the pollutants of concern are known and limited in the permit.

BENCHMARKS:

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor and, if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, determined monthly averages are typically unpredictable measures of stormwater discharges. The Technical Support Document for Water Quality Based Toxics Control (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum daily limit (MDL) or benchmark determined by the site-specific conditions including the receiving water’s current quality.

Numeric benchmark values are based on water quality standards or other stormwater permits including the Environmental Protection Agency’s (EPA’s) Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

- ✓ Applicable; this permit contains benchmark requirements.

BEST MANAGEMENT PRACTICES:

Minimum site-wide best management practices are established in this permit to ensure all permittees are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state; therefore, pollutants cannot be released unless in accordance with RSMo 644.011 and 644.016 (17).

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:

This special condition reiterates the federal rules found in 40 CFR 122.44(f) and 122.42(a)(1). In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as “...any pollutant listed as toxic under section 307(a)(1) or, in the case of “sludge use or disposal practices,” any pollutant identified in regulations implementing section 405(d) of the CWA.” Section 307 of the clean water act then refers to those parameters found in 40 CFR 401.15. The permittee should also consider any other toxic pollutant in the discharge as reportable under this condition.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS: Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.

- ✓ Not applicable; this permit does not authorize discharge of domestic waste, sludge, or biosolids. This includes discharges to onsite lagoons. If a facility has an onsite lagoon, they may need to obtain a separate general or site specific permit to cover discharges or land application from this structure.

Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.

- ✓ Not applicable; this permit does not authorize discharge or land application of biosolids or sludge. A separate permit must be obtained for these activities, either general or site specific.

EFFLUENT LIMITATION GUIDELINE:

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

- ✓ The facilities eligible for this permit are the sites covered under the land reclamation or Abandoned Mine Land portion of the SMCRA, rather than under the regulatory program established within the same act. As such, these facilities are not subject to the coal mining Effluent Limit Guideline (ELG) 40 CFR 125.3(a). However, as portions of this ELG establish technology limits for abandoned mine reclamation areas; as this is extremely similar to activities authorized in this permit, the permit writer reviewed these technology limits and used them to develop limits and benchmarks within this permit.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. The final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: <https://dnr.mo.gov/document-search/electronic-discharge-monitoring-report-waiver-request-form-mo-780-2692> . A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is not transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

To assist the facility in entering data into the eDMR system, the permit describes limit sets in each table in Part A of the permit. The data entry personnel should use these identifiers to ensure data entry is being completed appropriately.

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations within the permit to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, RSMo 644.076.1, as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission.

LAND APPLICATION:

Land application, or surficial dispersion of wastewater and/or sludge, is performed by facilities to maintain a basin as no-discharge. Requirements for these types of operations are found in 10 CSR 20-6.015; authority to regulate these activities is from RSMo 644.026.

- ✓ Not applicable; this permit does not authorize operation of a surficial land application system to disperse wastewater or sludge.

LAND DISTURBANCE:

Land disturbance, sometimes called construction activities, are actions which cause disturbance of the root layer or soil; these include clearing, grading, and excavating of the land. 40 CFR 122.26(b)(14) and 10 CSR 20-6.200(3) requires permit coverage for these activities. Coverage is not required for facilities when only providing maintenance of original line and grade, hydraulic capacity, or to continue the original purpose of the facility.

- ✓ Applicable; this permit provides coverage for land disturbance activities. These activities have SWPPP requirements and may be combined with the standard site SWPPP.

- Land disturbance BMPs should be designed to control the expected peak discharges. To calculate peak discharges, the website <https://www.lmnoeng.com/Hydrology/rational.php> has the rational equation to calculate expected discharge volume from the peak storm events.

MAJOR WATER USER:

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). <https://dnr.mo.gov/document-search/frequently-asked-major-water-user-questions-pub2236/pub2236>

- ✓ Facilities meeting this definition must register with the Water Resources Center as soon as possible. <https://apps5.mo.gov/MWU/>

NUTRIENT MONITORING:

Nutrient monitoring is required for facilities characteristically or expected to discharge nutrients (nitrogenous compounds and/or phosphorus) when the design flow is equal to or greater than 0.1 MGD per 10 CSR 20-7.015(9)(D)8.

- ✓ This industry is not expected to have nutrients present in the discharge; therefore, no nutrient monitoring is required at this time.

OIL/WATER SEPARATORS:

Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

- ✓ Applicable; this permit authorizes the operation of OWS for the treatment of stormwater without the requirement to obtain a separate permit. If the OWS treats water other than precipitation which has run across the property (non-precipitation discharges include: wash water, effluent from shop drains, drips, spills, etc.) the facility must obtain an MOG14 or site specific permit to cover the discharges.

OPERATOR CERTIFICATION REQUIREMENTS:

As per 10 CSR 20-6.010(8) Terms and Conditions of a Permit, permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation.

- ✓ Not applicable; the facilities covered under this permit are not required to have a certified operator.

PRETREATMENT PROGRAM:

This permit does not regulate pretreatment requirements for facilities discharging to an accepting permitted wastewater treatment facility. If applicable, the receiving entity (the publicly owned treatment works - POTW) must ensure compliance with any effluent limitation guidelines for pretreatment listed in 40 CFR Subchapter N per 10 CSR 20-6.100. Pretreatment regulations per RSMo 644.016 are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities.

- ✓ Not Applicable; the facilities covered under this permit, at this time, are not required to meet pretreatment requirements under an ELG.

PUBLIC NOTICE OF COVERAGE FOR AN INDIVIDUAL FACILITY:

Public Notice of reissuance of coverage is not required unless the facility is a specific type of facility as defined in 10 CSR 20-6.200(1). The need for an individual public notification process shall be determined and identified in the permit [10 CSR 20-6.020(1)(C)5.].

- ✓ Not applicable; public notice is not required for issuance of coverage under this permit to individual facilities for the first time.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation 40 CFR Part 122.44(d)(1)(i) requires effluent limitations for all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with 40 CFR Part 122.44(d)(iii) if the permit writer determines any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the water quality standard, the permit must contain effluent limits for the pollutant.

- ✓ Conservative assumption; a traditional statistical Reasonable Potential Analysis has not been conducted for this master general permit; but instead the Department has made a reasonable potential determination based on sources of pollutants related to water quality standards. Activities performed by facilities covered under this master general permit were evaluated as to whether discharges have reasonable potential to cause or contribute to excursions of general criteria listed in 10 CSR 20-7.031(4). A reasonable potential to violate water quality standards is assumed for certain pollutants of concern due to the nature of the

activities carried out under this permit, resulting in the effluent limits contained in the permit for those pollutants. See the individual parameter descriptions below for more information on the limitation basis.

- ✓ The permit writer reviewed industry materials, available DMR data, available past inspections, and other documents and research to evaluate general and narrative water quality reasonable potential for this permit. Permit writers also use the Department's permit writer's manual (<https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/wastewater-permit-writers-manual>), the EPA's permit writer's manual (<https://www.epa.gov/npdes/npdes-permit-writers-manual>), program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding technology based effluent limitations, effluent limitation guidelines, and water quality standards. Best professional judgment is based on the experience of the permit writer, cohorts in the Department and resources at the EPA, research, and maintaining continuity of permits if necessary.

SCHEDULE OF COMPLIANCE (SOC):

Per § 644.051, RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. An SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR 122.2. For new effluent limitations, the permit may include interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR 122.47(a)(1) and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, an SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

- ✓ Applicable: This permit contains a three (3) year SOC for chlorides and sulfates and pH in mine dewatering effluent at existing coal mine reclamation facilities. This SOC provides ample time for renewal facilities to sample discharges, evaluate compliance with the effluent limitations, and take corrective action as necessary. The schedule of compliance applies only to facilities currently operating under this permit. All new facilities will be immediately subject to the limitations for chlorides and sulfates and pH.

SETBACKS:

Setbacks are common elements of permits and are established to provide a margin of safety in order to protect the receiving water from accidents, spills, unusual events, etc.

- ✓ Discharge to the watersheds of a Metropolitan No-Discharge Stream (10 CSR 20-7.031 Table F) for stormwater only is authorized by this permit, if the discharges are in compliance with 10 CSR 20-7.015(5) and 10 CSR 20-7.031(7). Discharges to these watersheds are authorized for uncontaminated stormwater discharges only. Certain non-stormwater discharges are authorized under this permit, many are not allowed to discharge to these watersheds; see Special Conditions #5 and #16 in the permit for more information. Impoundment dewatering effluent is not authorized for discharge into Metropolitan No Discharge streams' watersheds.
- ✓ This permit does not authorize discharges which are located in a way to allow water to be released into sinkholes, caves, fissures, or other openings in the ground which could drain into aquifers (except losing streams) per 10 CSR 20-7.015(7). The previous permit did not authorize discharges to losing streams; however, this was reassessed by the permit writer and found to have no support in regulation for stormwater discharges. It is the best professional judgment of the permit writer to allow discharges to losing streams as the effluent is stormwater only. This permit continues to prohibit the discharge of effluent to sinkholes or other ground openings which empty directly to groundwater. The issuing authority will assess whether a discharge from a facility is eligible for this permit based on the distance from a sinkhole and the likelihood of effluent having reasonable potential to enter and affect groundwater.
- ✓ This permit does not authorize the discharge of industrial wastewater into the watersheds on lakes and reservoirs that are designated as L1, per 10 CSR 20-7.015(3)(C). Stormwater only discharges are allowed in these watersheds so long as water quality is preserved.
- ✓ This permit authorizes stormwater discharge in Outstanding state Resource Waters (OSRW) so long as no degradation of water quality occurs in the OSRW due to discharges from the permitted facility per 10 CSR 20-7.015(6)(B) and 10 CSR 20-7.031(3)(C). The previous permit did not authorize these discharges; however, the permit writer has determined these discharges are acceptable as long as they do not cause degradation to the receiving stream. The Antidegradation Analysis performed by the facility for the SWPPP should include the determination of no degradation. Additionally, if the facility is found to be causing degradation during an inspection or through complaint investigations, they will be required to become a no discharge facility or obtain a site specific permit with more stringent monitoring and SWPPP requirements. Wastewater is not authorized for discharge in these watersheds.
- ✓ For facilities operating within the watershed of Outstanding National Resource Water, which includes the Ozark National Riverways and the National Wild and Scenic Rivers System, no discharge facilities are authorized. This includes no-discharge of stormwater.
- ✓ Facilities located within the watershed of an impaired water as designated in the 305(b) Report must be evaluated on a case-by-case basis for inclusion under this permit. Facilities found to be discharging the listed pollutant(s) of concern for any impaired

water may be required to obtain a site-specific permit. Missouri's impaired waters can be found at <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters>. The pollutants of concern at the facilities covered under this permit are found in Tables A1, A2, and B. The Department will assess the pollutants of concern for impaired waters on the 305(b) report and evaluate the reasonable potential for the facility to cause further impairment to the receiving stream. If the facility is not expected to cause further impairment to the receiving stream, this general permit may be issued to the facility.

SLUDGE – DOMESTIC BIOSOLIDS:

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. <https://extension.missouri.edu/publications/eq421>

- ✓ This permit does not authorize discharge or land application of biosolids. Sludge/biosolids must be removed by contract hauler, incinerated, stored in the lagoon, etc.

SLUDGE – INDUSTRIAL:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

- ✓ Not applicable; sludge is not generated by this industry.

SPILL REPORTING:

Any emergency involving a hazardous substance must be reported to the Department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. These reporting requirements apply when the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I.

<https://revisor.mo.gov/main/OneSection.aspx?section=260.500&bid=13989&hl>.

Underground and above ground storage devices for petroleum products, vegetable oils, and animal fats may be subject to control under SPCC and are expected to be managed under those provisions, if applicable. Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) which are transported, stored, or used for maintenance, cleaning or repair shall be managed according to the provisions of RCRA and CERCLA.

STANDARD CONDITIONS:

The standard conditions Part I attached to this permit incorporate all sections of 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the permit should be reviewed by the permittee to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf, BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

A SWPPP must be prepared if the SIC code for the facility is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all

encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include but is not limited to minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established. The EPA has developed factsheets on the pollutants of concern for specific industries along with the BMPs to control and minimize stormwater (<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities>). Along with EPA's factsheets, the International Stormwater BMP database (<http://bmpdatabase.org>) may provide guidance on BMPs appropriate for specific industries.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (<https://dnr.mo.gov/document-search/antidegradation-implementation-procedure>). Alternative analysis evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The alternative analysis evaluation should include practices designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of *Antidegradation Implementation Procedure* defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure*, Section II.B.

If parameter-specific numeric benchmark exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review; and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of modification site-specific permit application, which includes an appropriate fee; the Form A and Form C applications are found at: <https://dnr.mo.gov/forms-applications>

- ✓ Applicable: A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate control practices specific to site conditions, and provide for maintenance and adherence to the plan.

UNDERGROUND INJECTION CONTROL (UIC):

The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to section 1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by RSMo 577.155; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in RSMo 577.155; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the Department finds the injection activity may endanger USDWs, the Department may require closure of the injection wells or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: <https://dnr.mo.gov/document-search/class-v-well-inventory-form-mo-780-1774>.

- ✓ Not applicable; this permit does not authorize subsurface wastewater systems or other underground injection. These activities must be assessed under an application for a site specific permit.

VARIANCE:

Per the Missouri Clean Water Law Section 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law Section 644.006 to 644.141 or any standard, rule, or regulation promulgated pursuant to Missouri Clean Water Law Section 644.006 to 644.141.

- ✓ Not Applicable: This permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITATIONS:

Per 10 CSR 20-2.010(78), the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant which may be discharged into the stream without endangering its water quality. Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's Technical Support Document For Water Quality-based Toxics Control (TSD) (EPA/505/2-90-001).

- ✓ Not applicable; water quality limitations based on TSD methods were not applied in this permit. See individual parameter descriptions for limit derivation methods.

WATER QUALITY STANDARDS:

Per 10 CSR 20-7.031(4), General Criteria shall be applicable to all waters of the state at all times, including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the Department to include in each NPDES permit conditions to achieve water quality established under Section 303 of the CWA, including state narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

Per 10 CSR 20-7.031(1)(FF), a toxicity test conducted under specified laboratory conditions on specific indicator organism; and per 40 CFR 122.2, the aggregate toxic effect of an effluent measured directly by a toxicity test. A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with, or through synergistic responses when mixed with receiving water.

- ✓ Not Applicable: At this time, permittees are not required to conduct a WET test.

Part IV – Effluent Limitations Determination

Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to permit modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

EFFLUENT LIMITATIONS FOR TABLE A1 & A2:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVERAGE/ BENCHMARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
STORMWATER FOR COAL MINE LAND DISTURBANCE			BENCHMARK				
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 Hr. TOT
CHLORIDE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	mg/L	**	1,000	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH	SU	6.0-9.0	-	*/*	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS (SS)	mL/L/hr	*	1.5	1.5/1.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	**	100	100/50	ONCE/QUARTER	ONCE/QUARTER	GRAB
COAL MINE SHAFT PUMPING, MINE DRAINING, AND PROCESSING AREA IMPOUNDMENTS			MONTHLY AVERAGE				
FLOW	MGD	*	*	SAME	††	ONCE/MONTH	24 HR EST.
CHLORIDE	mg/L	*	*	NEW	††	ONCE/MONTH	GRAB

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVERAGE/ BENCHMARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
CHLORIDE + SULFATE	mg/L	1,000	*	NEW	††	ONCE/MONTH	GRAB
IRON, TR	µg/L	7,000	1,000	7,000/3,500	††	ONCE/MONTH	GRAB
MANGANESE, TR ‡	µg/L	4,000	2,000	NEW	††	ONCE/MONTH	GRAB
pH †	SU	6.5-9.0	-	*/*	††	ONCE/MONTH	GRAB
SETTLEABLE SOLIDS	mL/L/hr	1.5	1.0	SAME	††	ONCE/MONTH	GRAB
SPECIFIC CONDUCTANCE	µmhos/cm	*	*	SAME	††	ONCE/MONTH	GRAB
SULFATE	mg/L	*	-	SAME	††	ONCE/MONTH	GRAB
TOTAL SUSPENDED SOLIDS	mg/L	100	50	SAME	††	ONCE/MONTH	GRAB

* Monitoring and reporting requirement only

** Monitoring with associated benchmark

† Report the minimum and maximum pH values; pH is not to be averaged

‡ The effluent shall be tested prior to discharge for pH and iron to determine if it meets the definition of “acid mine drainage.” (see definitions in permit above.) Monitoring and limitations for manganese are required only when the drainage is classified as “acid mine drainage”. If it does not meet the definition of acid mine drainage, “conditional monitoring not required this period” may be reported for this parameter. The NODI code for this in eDMR is AG.

†† Monitoring is required once/month during discharge of the impoundment, with once/day monitoring required when the total depth of the impoundment or shaft surface water reaches 1 foot or less. The first reported monthly sample shall be a dip sample taken prior to discharging from the impoundment for the first time. In the case of both abandoned coal mine and metallic mineral shafts, if the impoundment is less than 150 feet in length, one grab sample from the midpoint is an adequate sample. If the impoundment is longer than 150 feet, three grab samples shall be taken, one near each end and one near the midpoint. All discharges from the impoundment must not exceed pre-project instream water quality monitoring results. If the pre-project water quality or impoundment monitoring results indicate pollutants at levels above the limits in this permit, the facility should contact the Water Protection Program to discuss next steps for discharging, including possible alternative limits. Alternative limits shall not, in any case, cause general narrative water quality standard excursions. eDMR will accept only one value per parameter when entering data. All additional daily data shall be uploaded as an attachment to the monthly report. The daily monitoring requirement does not apply to temporary impoundments created by reclamation contractors.

NEW Parameter not established in previous state operating permit

TR Total Recoverable

DERIVATION AND DISCUSSION OF LIMITS, STORMWATER FOR COAL MINE LAND DISTURBANCE:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the estimated volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

Chloride, Sulfate, Chloride + Sulfate

Chloride, Sulfate: Quarterly Monitoring/Reporting

Chloride + Sulfate: Quarterly Monitoring with a 1,000 mg/L Benchmark

Sulfate is a pollutant of concern at coal mines and thus reclamation sites. It's found in high quantities in coal and in the surrounding soils due to mingling. In Missouri, water quality standards for sulfates alone are not found; however, there is a water quality standard for the combined chlorides and sulfates. Therefore, in this permit, monitoring and reporting is required of both chlorides and sulfates and the totaled sum of both. The benchmark of 1,000 mg/L is considered technologically feasible by sites operating standard BMP technologies designed to control and prevent the discharge of sediment, which is often a vehicle for chloride and sulfate in stormwater.

pH

6.0 to 9.0 SU. Technology based limits, established using the permit writer's best professional judgment and based on similar site technology limitations found in a relevant, if not directly applicable ELG, 40 CFR 434 Subpart F. The previous permit required monitoring only but these limitations are reasonable technology limitations that permittees should be able to meet until implementation of the water quality standard limits for this parameter. The permit writer determines these limitations are also sufficiently protective of water quality given the dilution provided by rain events in the receiving streams.

Settleable Solids (SS)

Previous permit limits continued, but limits were switched to benchmarks for stormwater. The previous permit required a daily maximum limit of 1.5 mL/L/hr and a monthly average limit of 1.0 mL/L/hr. There is no numeric water quality standard for SS;

however, sediment discharges can negatively impact aquatic life. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids indicating uncontrolled materials leaving the site. Furthermore, settleable solids in stormwater are a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. The benchmark value falls within the range of values implemented in other permits having similar industrial activities

Total Suspended Solids (TSS)

Daily maximum limit of 100 mg/L. The previous permit required a daily maximum limit of 100 mg/L, with a monthly average limit of 50 mg/L. Monthly average limitations are removed from stormwater in this permit (see the Antidegradation section of the fact sheet above for more information) and switched to benchmarks. Solids are a primary pollutant of concern in stormwater at these sites, which largely consist of land disturbance stormwater. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. The permit writer has determined maintaining the 100 mg/L daily maximum benchmark limit for this pollutant is an appropriate and relevant control. The TSS technology limit in the ELG 40 CFR 434 Subpart E was considered but was deemed less relevant as the facilities eligible for this permit are those eligible for the Land Reclamation Program, meaning no active mining has occurred in at least 40 years. As such, the more typical stormwater TSS benchmark of 100 mg/L was deemed appropriate.

DERIVATION AND DISCUSSION OF LIMITS, COAL MINE SHAFT PUMPING, MINE DRAINING, AND PROCESSING AREA IMPOUNDMENTS:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the estimated volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

Chloride, Sulfate, Chloride + Sulfate

Chloride, Sulfate: Monitoring/Reporting only

Chloride + Sulfate: 1,000 mg/L Daily Maximum Limit

Sulfate is a pollutant of concern at coal mines and thus reclamation sites. It's found in high quantities in coal and in the surrounding soils due to mingling. In Missouri, water quality standards for sulfates alone are not found; however, there is a water quality standard for the combined chlorides and sulfates. Therefore, in this permit, we require monitoring and reporting of both chlorides and sulfates and the totaled sum of both. DMR data from these facilities indicated levels of chloride + sulfate above the water quality standard; therefore, limits are required to protect water quality standards found in 10 CSR 20-7.031. A three year schedule of compliance is provided to existing facilities to meet these limitations.

Iron, Total Recoverable

Daily maximum limit of 7,000 µg/L with a monthly average limit of 1,000 µg/L. The previous permit had a daily maximum limit of 7,000 µg/L with a monthly average limit of 3,500 µg/L. The permit writer believes the previous limits were based on those found in the ELG; however, the fact sheet of the previous permit did not explain the source. The permit writer reviewed the available data for the discharges and found reasonable potential for the exceedance of chronic total recoverable iron in stream with data as high as 3,880 µg/L reported. The water quality standards found at 10 CSR 20-7.031 Table A1 indicate the chronic standard for iron for the protection of aquatic life to be 1,000 µg/L. However, acute standards are not assigned. The permit writer determined that a technology limit based on the ELG 40 CFR 434 Subpart E for similar sites is a reasonable technology limit for the acute standard for iron. A schedule of compliance is offered to existing facilities to meet the new water quality based limitations based on the chronic water quality standards. The 7,000 µg/L limit may also be a level around which staining or discoloration of discharges may occur (staining and discoloration of surface water occur at highly variable levels); therefore, the facilities should implement visual inspections to ensure compliance with the general narrative water quality standards. Narrative water quality standards must not be violated, even if the facility is in compliance with the benchmarks or limitations in this permit.

pH

6.5 to 9.0 SU, new to this permit. The previous permit required monitoring only. The wastewater flows from these facilities do not receive the dilution provided during rain events; therefore, the permit writer believes there is reasonable potential to exceed water quality standards in stream. As there is reasonable potential, the more stringent of either water quality or technology must be applied; therefore, water quality limitations are applied. Existing facilities are provided a 3 year schedule of compliance to

meet the new limits; however, these sites are similar in operation to other reclamation sites, like those covered under 40 CFR 434 and the permit writer determined that the facility can meet technology based standards 6.0-9.0 SU immediately.

Settleable Solids (SS)

Previous permit limits continued, but limits were switched to benchmarks for stormwater. The previous permit required a daily maximum limit of 1.5 mL/L/hr and a monthly average limit of 1.0 mL/L/hr. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids indicating uncontrolled materials leaving the site. Furthermore, settleable solids in stormwater are a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. The benchmark value falls within the range of values implemented in other permits having similar industrial activities

Specific Conductance

Monitoring, continued from the previous permit. In the previous permit this was referred to as “conductivity”. Specific conductance is an indicator parameter used to identify general water quality. Specific conductance is the measure of the ability of water to pass an electrical current at 25° C. Because dissolved salts and other inorganic chemicals (such as metals) conduct electrical current, increases in these pollutants lead to increases in specific conductance. Significant changes in specific conductance in a waterbody may indicate pollutants have entered it. As chloride, sulfate, and metals are pollutants of concern in the discharges from these sites, conductivity is included as an indicator.

Total Suspended Solids (TSS)

Daily maximum limit of 100 mg/L with a monthly average limit of 50 mg/L continued from the previous permit. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. General permits must be protective of water quality over a range of stream sizes and conditions throughout the state. The permit writer has determined maintaining the 100 mg/L daily maximum limit for this pollutant is protective of the water quality of the receiving streams covered by this permit.

EFFLUENT LIMITATIONS FOR TABLE B:

Facilities under the new limitations of this table are not provided a schedule of compliance to meet the limitations, as there are no current facilities under this category at the time of issuance of this permit. The limitations shall be met at the time of issuance.

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVERAGE/ BENCHMARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
METALLIC MINERAL LAND DISTURBANCE STORMWATER			BENCHMARK				
FLOW	MGD	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
ARSENIC, TR	REMOVED						
BARIUM, TR	REMOVED						
CADMIUM, TR	µg/L	**	10	*/*	ONCE/MONTH	ONCE/MONTH	GRAB
CHLORIDE	mg/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
CHLORIDE + SULFATE	mg/L	**	1,000	NEW	ONCE/MONTH	ONCE/MONTH	GRAB
CHROMIUM, TR	REMOVED						
COBALT, TR	µg/l	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
COPPER, TR	µg/L	**	23	*/*	ONCE/MONTH	ONCE/MONTH	GRAB
IRON, TR	µg/L	**	7,000	*/*	ONCE/MONTH	ONCE/MONTH	GRAB
LEAD, TR	µg/L	**	160	*/*	ONCE/MONTH	ONCE/MONTH	GRAB
MERCURY, TR	µg/l	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
pH	SU	6.5-9.0	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
SETTLABLE SOLIDS	mL/L/hr	**	1.5	1.5/1.0	ONCE/MONTH	ONCE/MONTH	GRAB
SPECIFIC CONDUCTANCE	µmhos/cm	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
SULFATE	mg/L	*	-	SAME	ONCE/MONTH	ONCE/MONTH	GRAB
TOTAL SUSPENDED SOLIDS	mg/L	**	100	100/50	ONCE/MONTH	ONCE/MONTH	GRAB
ZINC, TR	µg/L	**	188	*/*	ONCE/MONTH	ONCE/MONTH	GRAB
METALLIC MINERAL MINE SHAFT PUMPING, MINE DRAINING, AND PROCESSING AREA IMPOUNDMENT DRAINING			MONTHLY AVERAGE				
FLOW	MGD	*	*	SAME	††	ONCE/MONTH	GRAB
ARSENIC, TR	REMOVED						
BARIUM, TR	REMOVED						
CADMIUM, TR	µg/l	9	1	*/*	††	ONCE/MONTH	GRAB
CHLORIDE	mg/L	*	*	SAME	††	ONCE/MONTH	GRAB
CHLORIDE + SULFATE	mg/L	*	*	NEW	††	ONCE/MONTH	GRAB
CHROMIUM, TR	REMOVED						
COBALT, TR	µg/l	*	*	SAME	††	ONCE/MONTH	GRAB
COPPER, TR	µg/l	23	15	*/*	††	ONCE/MONTH	GRAB
IRON, TR	µg/l	7,000	1,000	*/*	††	ONCE/MONTH	GRAB
LEAD, TR	µg/l	160	6	*/*	††	ONCE/MONTH	GRAB
MERCURY, TR	µg/l	*	*	SAME	††	ONCE/MONTH	GRAB
pH †	SU	6.5-9.0	-	SAME	††	ONCE/MONTH	GRAB
SETTLABLE SOLIDS	mL/L/hr	1.5	1.0	SAME	††	ONCE/MONTH	GRAB
SPECIFIC CONDUCTANCE	µmhos/cm	*	*	SAME	††	ONCE/MONTH	GRAB
SULFATE	mg/L	*	*	SAME	††	ONCE/MONTH	GRAB
TOTAL SUSPENDED SOLIDS	mg/L	100	50	SAME	††	ONCE/MONTH	GRAB
ZINC, TR	µg/l	188	187	*/*	††	ONCE/MONTH	GRAB

- * Monitoring and reporting requirement only
- ** Monitoring with associated benchmark
- † Report the minimum and maximum pH values; pH is not to be averaged
- NEW Parameter not established in previous state operating permit
- TR Total Recoverable

DERIVATION AND DISCUSSION OF LIMITS, METALLIC MINERAL LAND DISTURBANCE STORMWATER:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)], the estimated volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the estimated total flow in millions of gallons per day (MGD).

Cadmium, Total Recoverable

Monthly monitoring with a benchmark of 9 µg/L. The previous permit required monitoring only for this parameter. Very little data were available for review by the permit writer. Only one metallic minerals reclamation site reported discharges in the previous permit cycle, and only three data points. The data provided indicated cadmium is a pollutant of concern in the discharges from these facilities. While reviewing the DMR data, the permit writer observed all data were reported as stormwater data; however, after review of the submitted paper DMRs, it was determined one of the data points (08/31/2016) for each reporting period was, in fact, for impoundment discharges from the site. The two stormwater data points both met this benchmark.

Chloride; Sulfate; Chloride plus Sulfate

Chloride (separate), Sulfate (separate): Monitoring only. Monitoring for these parameters is required separately to total them into the combined chloride plus sulfate parameter.

Chloride + Sulfate: Monitoring with a 1,000 mg/L benchmark. The previous permit did not require reporting of the combined chloride and sulfate parameters; however, Missouri Water Quality Standards found in 10 CSR 20-7.031 have standards for both chloride individually and the two parameters totaled. The requirements for this pollutant in stormwater in this permit are currently not based on water quality, as reasonable potential for exceedances of the standard has not been established. However, it does not add additional burden to the facilities to report the totaled amount, allowing the permit writer to compare the data to water quality standards. This permit requires them be totaled and compared to a benchmark of 1,000 mg/L. This benchmark is commonly applied in industrial permits where chloride and sulfate are pollutants of concern.

Cobalt, Total Recoverable

Monitoring, continued from the previous permit. DMR data did not indicate values of water quality concern for this parameter. However, it is a known pollutant of concern at metallic minerals sites; therefore, monitoring is continued.

Copper, Total Recoverable

Monitoring, continued from the previous permit. DMR data did not indicate values of water quality concern for this parameter. However, it is a known pollutant of concern at metallic minerals sites; therefore, monitoring is continued.

Iron, Total Recoverable

Monitoring with a benchmark of 7,000 µg/L. The previous permit required monitoring only for this parameter. The permit writer uses best professional judgment to apply a technology based benchmark in this permit, specifically that similar sites regulated under 40 CFR 434 Subpart E must meet a similarly applied technology limit. The 7,000 µg/L benchmark is believed to be achievable with proper BMP operations and has been met at numerous industrial sites. The technology benchmark, while not a limitation based on water quality, may also be used as a guideline to ensure general narrative water quality standards are maintained at the site, as the criteria found at 10 CSR 20-7.031(4) for unsightly color may be exceeded at varying values.

Lead, Total Recoverable

Monitoring with a benchmark of 160 µg/L. The previous permit required monitoring only for this parameter. The permit writer used best professional judgment to apply a benchmark to this parameter at a level known to be achievable with the correct installation and operation of typical BMPs. Lead is a pollutant of concern at these sites due to previous mining activities. Lead is transported to outfalls via solids, so proper installation and maintenance of sediment control BMPs are necessary for benchmark compliance.

Mercury, Total Recoverable

Monitoring, continued from the previous permit. DMR data did not indicate values of water quality concern for this parameter; however, since it is a known pollutant of concern at metallic minerals sites, monitoring is continued.

pH

6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall, continued from the previous permit. pH is a primary pollutant of concern in mine and mine reclamation discharges, as they can be highly acidic. The limit will protect and maintain all receiving streams' water quality.

Settleable Solids (SS)

Monitoring with a benchmark of 1.5mL/L/hr. The previous permit required a daily maximum limit of 1.5 mL/L/hr with a monthly average of 1.0 mL/L/hr. This permit implements a water quality based limitation to protect a wide variety of receiving streams, including losing streams. Benchmarks were implemented and monthly averages were removed from stormwater discharges in this renewal (see the “Antibacksliding” section for more information). There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. Solids are a primary pollutant of concern in mine reclamation activities due to land disturbance.

Specific Conductance

Monitoring, continued from the previous permit. In the previous permit this was referred to as “conductivity”. Specific conductance is an indicator parameter used to identify general water quality. Specific conductance is the measure of the ability of water to pass an electrical current at 25° C. Because dissolved salts and other inorganic chemicals (such as metals) conduct electrical current, increases in these pollutants lead to increases in conductivity. Significant changes in specific conductance in a waterbody may indicate pollutants have entered it. As chloride, sulfate, and metals are pollutants of concern in the discharges from these sites, specific conductance is included as an indicator.

Total Suspended Solids (TSS)

Monitoring with a benchmark of 100 mg/L. The previous permit required a daily maximum limit of 100 mg/L, with a monthly average limit of 50 mg/L. Monthly averages were removed from stormwater discharges in this renewal (see the “Antibacksliding” section for more information). There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. Solids are a primary pollutant of concern in mine reclamation activities due to land disturbance.

Zinc, Total Recoverable

Monitoring with a benchmark of 180 µg/L. The previous permit required monitoring only for this parameter. The permit writer uses best professional judgment to require a benchmark for this parameter. DMR data indicates BMPs need to be improved at these facilities to meet the benchmark. Zinc is a pollutant of concern in the discharges due to previous mining activities. Zinc is transported to outfalls via solids, so proper installation and maintenance of sediment control BMPs is necessary for benchmark compliance.

Arsenic, Total Recoverable; Barium, Total Recoverable; Chromium, Total Recoverable

Monitoring is removed for these pollutants per the permit writer's best professional judgment. They were determined to not be pollutants of concern in the discharges of these facilities. No limits were established therefore this removal is not subject to antibacksliding regulations.

DERIVATION AND DISCUSSION OF LIMITS, METALLIC MINERAL MINE SHAFT PUMPING, MINE DRAINING, AND PROCESSING AREA IMPOUNDMENT DRAINING:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the estimated volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the estimated total flow in millions of gallons per day (MGD).

Cadmium, Total Recoverable

Daily maximum limit of 9 µg/L with a monthly average limitation of 1 µg/L. The previous permit required monitoring only for this parameter. Very little data were available for review by the permit writer. Only one metallic minerals reclamation site reported discharges in the previous permit cycle with only three data points available. The data provided indicated cadmium is a pollutant of concern in the discharges from these facilities. While reviewing the DMR data, the permit writer observed all data were reported as stormwater data; however, after review of the submitted paper DMRs, it was determined one of the data points (08/31/2016) for each reporting period was, in fact, for impoundment discharges from the site. The data point reported was well

above the water quality standards, at 77.1 µg/L, indicating reasonable potential to exceed. A limit is added to protect the water quality standards found at 10 CSR 20-7.031 Table A1 & A2. No schedule of compliance is provided for this parameter, as no existing facilities under this permit are metallic minerals facilities.

Chloride; Chloride + Sulfate; Sulfate

Chloride (separate), Sulfate (separate): Monitoring for these parameters is required separately to total them into the combined chloride + sulfate parameter.

Chloride + Sulfate: Monitoring and reporting required. The previous permit did not require reporting of the combined chloride and sulfate parameters; however, Missouri Water Quality Standards found in 10 CSR 20-7.031 have standards for both chloride individually and the two parameters totaled. It does not add additional burden to the facilities to report the totaled amount, allowing the permit writer to compare the data to water quality standards. DMR data reported for this parameter did not indicate exceedances of the chloride + sulfate water quality standards, and the number of data points was not sufficient to determine reasonable potential statistically. However, the sulfate data reported in the previous permit cycle was quite high, and sites should consider BMP measures to address levels of these pollutants in the discharge.

Cobalt, Total Recoverable

Monitoring, continued from the previous permit. DMR data did not indicate values of water quality concern for this parameter; however, since it is a known pollutant of concern at metallic minerals sites, monitoring is continued.

Copper, Total Recoverable

Daily maximum limit of 23 µg/L with a monthly average limit of 15 µg/L. The previous permit required monitoring only for this parameter. Very little data were available for review by the permit writer. Only one metallic minerals reclamation site reported discharges in the previous permit cycle with only three data points available. The data provided indicated copper is a pollutant of concern in the discharges from these facilities. While reviewing the DMR data, the permit writer observed all data were reported as stormwater data; however, after review of the submitted paper DMRs, it was determined one of the data points (08/31/2016) for each reporting period was, in fact, for impoundment discharges from the site. The data point reported was well above the water quality standards, at 128 µg/L, indicating reasonable potential to exceed. A limit is added to protect the water quality standards found at 10 CSR 20-7.031 Table A1 & A2. No schedule of compliance is provided for this parameter, as no existing facilities under this permit are metallic minerals facilities.

Iron, Total Recoverable

Daily maximum limit of 7,000 µg/L with a monthly average limit of 1,000 µg/L. The previous permit required monitoring only. The permit writer reviewed the available data for the discharges and found reasonable potential for the exceedance of total recoverable iron in stream with data as high as 11,700 µg/L reported. The water quality standards found at 10 CSR 20-7.031 Table A1 indicate the chronic standard for iron for the protection of aquatic life to be 1,000 µg/L.

The water quality standards are more stringent for the monthly average limits and are therefore applied to this parameter; however, the daily maximum is based on available industry-related treatment technology and assessments, including similar sites which may be covered under the ELG 40 CR 434, subpart E.. The 7,000 µg/L limit may also be a level around which staining of surfaces or discoloration of discharges may occur (staining and discoloration of surface water occur at highly variable levels); therefore, the facilities should implement visual inspections to ensure compliance with the general narrative water quality standards. Narrative water quality standards must not be violated, even if the facility is in compliance with the benchmarks or limitations in this permit.

Lead, Total Recoverable

Daily maximum limit of 160 µg/L with a monthly average limit of 6 µg/L. The previous permit required monitoring only for this parameter. Very little data were available for review by the permit writer. Only one metallic minerals reclamation site reported discharges in the previous permit cycle with only three data points available. The data provided indicated lead is a pollutant of concern in the discharges from these facilities. While reviewing the DMR data, the permit writer observed all data were reported as stormwater data; however, after review of the submitted paper DMRs, it was determined one of the data points (08/31/2016) for each reporting period was, in fact, the impoundment discharges from the site. Lead was reported well above the water quality standards at 1,070 µg/L, indicating reasonable potential to exceed. Lead is a pollutant of concern at these sites due to previous mining activities. Lead is transported to outfalls via solids, so proper installation and maintenance of sediment control BMPs is necessary for limit compliance. A limit is added to protect the water quality standards found at 10 CSR 20-7.031 Table A1 & A2. No schedule of compliance is provided for this parameter, as no existing facilities under this permit are metallic minerals facilities.

Mercury, Total Recoverable

Monitoring, continued from the previous permit. DMR data did not indicate values of water quality concern for this parameter; however, it is a known pollutant of concern at metallic minerals sites, therefore monitoring is continued.

pH

6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall, continued from the previous permit. pH is a primary pollutant of concern in mine and mine reclamation discharges, as they can be highly acidic. The limit will protect and maintain all receiving streams' water quality. One DMR data point was reported at 3.4 SU, indicating reasonable potential for excursions from the water quality standards.

Settleable Solids (SS)

The previous permit required a daily maximum limit of 1.5 mL/L/hr with a monthly average of 1.0 mL/L/hr, which are continued herein. This permit implements a water quality based limitation to protect receiving a wide variety of receiving streams, including losing streams. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. Solids are a primary pollutant of concern in mine reclamation activities due to land disturbance.

Specific Conductance

Monitoring, continued from the previous permit. In the previous permit this was referred to as "conductivity". Specific conductance is an indicator parameter, used to identify general water quality. Specific Conductance is the measure of the ability of water to pass an electrical current at 25° C. Because dissolved salts and other inorganic chemicals (such as metals) conduct electrical current, increases in these pollutants lead to increases in conductivity. Significant changes in conductivity in a waterbody may indicate pollutants have entered it. As both chlorides and sulfates and metals are pollutants of concern in the discharges from these sites, and cause increases in conductivity, it is included as an indicator.

Total Suspended Solids (TSS)

Daily maximum limit of 100 mg/L with a monthly average limit of 50 mg/L, continued from the previous permit. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. Solids are a primary pollutant of concern in mine reclamation activities due to land disturbance. The limit is maintained as DMR data indicated it was achievable by these sites, and it is protective of receiving streams' water quality to be maintained.

Zinc, Total Recoverable

Daily maximum limit of 188 µg/L, with a monthly average limit of 187 µg/L. The previous permit required monitoring only for this parameter. Very little data were available for review by the permit writer. Only one metallic minerals reclamation site reported discharges in the previous permit cycle, with only three data points available. The data provided indicated zinc is a pollutant of concern in the discharges from these facilities. While reviewing the DMR data, the permit writer observed all data were reported as stormwater data; however, after review of the submitted paper DMRs, it was determined one of the data points (08/31/2016) for each reporting period was, in fact, for impoundment discharges from the site. Zinc was reported well above the water quality standards at 6,290 µg/L, indicating reasonable potential to exceed. Zinc is a pollutant of concern at these sites due to previous mining activities. Zinc is transported to outfalls via solids, so proper installation and maintenance of sediment control BMPs is necessary for limit compliance. A limit is added to protect the water quality standards found at 10 CSR 20-7.031 Table A1 & A2. No schedule of compliance is provided for this parameter, as no existing facilities under this permit are metallic minerals facilities.

Arsenic, Total Recoverable; Barium, Total Recoverable; Chromium, Total Recoverable

Monitoring is removed for these pollutants per the permit writer's best professional judgment. They were determined to not be pollutants of concern in the discharges of these facilities.

PART V– SAMPLING AND REPORTING REQUIREMENTS

SAMPLING FREQUENCY:

Sampling frequency is established in accordance with Department policy. Effluent limitations are expressed in a daily maximum and a monthly average for wastewater and a daily maximum only for stormwater. Results from samples may be submitted as both the daily maximum and the monthly average. If the facility collects multiple samples during any month, the permit requires the facility to submit a monthly average. If no discharges occur during a sampling period, report as “no discharge.”

SAMPLING TYPE JUSTIFICATION:

Sampling type was continued from the previous permit. The sampling types are representative of the discharges and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

Part VI – Administrative Requirements

On the basis of preliminary staff review and applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the permit. The proposed determinations are tentative pending public comment.

PUBLIC MEETING:

A public meeting is not required for general permits with fewer than 50 General Permit Covered Facilities (GPCFs). MOG05 covers four GPCFs.

PUBLIC NOTICE:

The Department shall give public notice when a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest or because of water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and facility must be notified of the denial in writing.

The Department must give public notice of a pending permit or of a new or reissued Missouri State Operating Permit. The public comment period is a length of time not less than thirty (30) days following the date of the public notice, during which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed permit, please refer to the Public Notice page located at the front of this draft permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- ✓ The Public Notice period for this permit was from May 28, 2021 through June 28, 2021. One comment was received from the Operating Permits Section's Industrial Unit after a meeting with the Land Reclamation Program in which the applicability of the ELG 40 CFR 434 was questioned. After a review, it was determined that sites under the purview of the Land Reclamation Program were not subject to the *regulatory* program under Surface Mining Control and Reclamation Act, including the bond requirements. References to the ELG were removed, resulting in a slight increase in the TSS and SS limits and removal of the manganese limit, as these were tied directly to the ELG technology limits and do not have an established water quality numeric standard.
- ✓ This permit went through a second public notice from September 10, 2021 through October 11, 2021.

DATE OF FACT SHEET: 04/09/2021 EDITED 08/18/2021

COMPLETED BY:

AMBERLY SCHULZ – ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
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Appendix 3

Storm Water Pollution Prevention Plan (SWPPP)

STORM WATER POLLUTION PREVENTION PLAN

NPDES GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES

FOR: Project Number: Y2202-01
Project Name: Franklin Reclamation Project
Barton County, Missouri

PREPARED BY: Missouri Department of Natural Resources
Land Reclamation Program
Abandoned Mine Lands

The project location and scope of work is as follows:

The Franklin Abandoned Mine Land Reclamation Project is located 2 miles west of Hume, Missouri. The site of reclamation is on private property, located along County Road SW 8508, Deepwater, Missouri in Henry County. The Project is located in sections 6 and 7, Township 38N, Range 33W

Eighteen (18) acres of abandoned mine lands would be reclaimed. The hazardous features, including dangerous highwalls associated with a hazardous water body, will be sloped to grades no greater than 4:1. After final grading, the site will be graded to a gently sloping topography; all disturbed areas will be revegetated with a mixture of cool season grasses and legumes.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION PROGRAM
ABANDONED MINE LANDS
STORM WATER POLLUTION PREVENTION PLAN

Project Name: Franklin Reclamation Project
Project Number: Y2202-01 Construction Acreage: 18 acres
County: Bates Section(s): 6 & 7 Township: 38N Range: 33W

The plans and specifications have been prepared to comply with the provisions of the NPDES Permit Number MOG50000, issued by the Missouri Department of Natural Resources (MDNR) Water protection Program (WPP) for storm water discharges from Construction Site activities. **This General Permit is applicable to all reclamation sites resulting in the disturbance of one or more acres total land area.**

Background

This project is being conducted in order to either restore abandoned lands to productive use, to protect the health and safety of the people, to correct and prevent soil erosion, stream pollution, water, air, and land pollution, and/or other injurious effects to persons, property, wildlife and natural resources. It is recognized that the MDNR, Land Reclamation and MDNR-Water Protection Program are committed to ensuring that abandoned mine reclamation activities in Missouri are conducted in such manner so as to minimize, to the fullest extent practicable, any further adverse impact to the public's health safety and/or the environment. It is hereby recognized that this site may exist in a state of non-compliance with or in violation of, the provisions of the Environmental Protection Act and/or the WPP's Rules and Regulations. It is further recognized and agreed that the LRP and its Contractor(s) do not assume the responsibilities for the pre-existing pollutorial sources. It shall be the objective of all parties that offsite pollution will be controlled to the maximum extent practicable, throughout the course of this reclamation project.

Controls

The plans and specifications for the above-mentioned project, together with all attachments and documents incorporated therein by reference, comprise the storm water pollution prevention plan as required by the General Permit. The following items highlight the critical components of the storm water pollution prevention plan developed for this construction site and covered by this permit:

- 1) An assessment of all storm water discharges associated with the facility, including any materials existing or stored onsite will be conducted as part of the site design and in preparation of applying for a stormwater permit;
- 2) The construction limits, grading plan, erosion and sediment controls and storm water management controls as shown in the Project Plans;
- 3) The Temporary Storm Water Pollution Control, Site Clearing, Earth Moving, and Seeding requirements of the contract;

- 4) Schedule (Section 013216) of the Specifications, which requires submittal of the progress schedule by the contractor prior to the preconstruction meeting and monthly updates;
- 5) The Temporary Seeding, Erosion and Sediment Control as detailed in Temporary Storm Water Pollution Control (Section 015723), and Dam Embankment (Section 357313) of the Specifications, including other sections which relate to the establishment of vegetation, erosion control, and storm water pollution prevention;
- 6) The Temporary Erosion Controls, described in the Specifications, especially Section 015723.3.1.D, which states that the Contractor may be directed to provide immediate permanent or temporary pollution control measures to prevent contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment. Such work may involve construction of geotextile or bale silt fence, use of temporary mulches, seeding, or other control devices or methods, as necessary to control erosion. This section incorporates the requirements of the General Permit for storm water discharges;
- 7) Controls will be implemented to ensure that biosolids are not carried by storm water into the receiving streams, and
- 8) Site Inspections by the Design Engineer or Resident Project Representative will be conducted to ensure that storm water pollution controls are in place and operating correctly. At a minimum, these inspections will be conducted on a monthly basis. The disturbed areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Should the inspection reveal inadequate or ineffective measures in preventing storm water pollutants entering the drainage system, the Resident Project Representative will discuss these findings with the Contractor. The Contractor and the Resident Project Representative will establish the revised or additional control measures determined necessary and appropriate, and the timetable for implementation. The Resident Project Representative will document on the Inspection Report, major observations relating to the implementation of this storm water pollution prevention plan, discussions with the Contractor with regard to this plan and any specific changes to the plan.
- 9) The Department's Regional Office will be notified within fifteen (15) days by letter of any corrections of deficiencies. Deficiencies that consist of minor repairs or maintenance will be corrected within seven (7) days. Deficiencies that require additional time or installation of a treatment device to correct may be detailed in the written notification. Inspection reports will be kept on site with the SWPPP. These will be made available to DNR personnel upon request.

NPDES PERMIT No. MOG050000
Storm Water Pollution Prevention Plan
Certifications

Project Name: Franklin Reclamation Project

Project Number: Y2202-01

The Storm Water Pollution Prevention Plan and Training was presented and discussed at the Preconstruction Meeting on _____. It shall be the responsibility of the Contractor to provide the necessary training to ensure all stormwater management practices are properly installed and maintained. The Land Reclamation Program Staff will be trained through the Office of Surface Mining's National Technical Training Program or on-site training.

The plans and specifications and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

The Department's Regional Office will be notified within fifteen (15) days by letter of any corrections of deficiencies. Deficiencies that consist of minor repairs or maintenance must be corrected within seven (7) days. Deficiencies that require additional time or installation of a treatment device to correct should be detailed in the written notification.

Supervisor of Resident Project Representative
Missouri Department of Natural Resources
Land Reclamation Program
Abandoned Mine Lands

Date

Signature (Contractor/Subcontractor)

Title

Date

Name of Firm

Street Address

City

State

Zip code

Telephone Number