

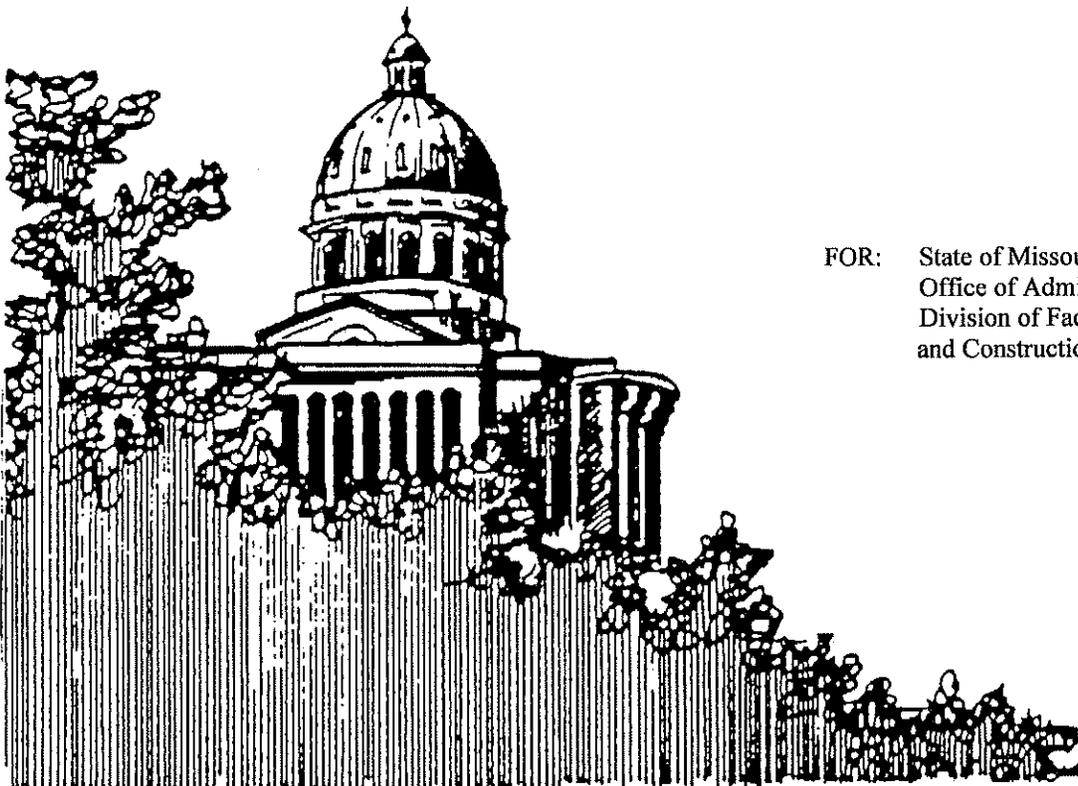
PROJECT MANUAL

Westminster Reclamation Project Callaway County, Missouri

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

DATE ISSUED: March 1, 2020

PROJECT NO.: Y2002-01



FOR: State of Missouri
Office of Administration
Division of Facilities Management, Design
and Construction

SECTION 000107 - PROFESSIONAL SEALS AND CERTIFICATIONS

PROJECT NUMBER: Y2002-01

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 and 35**



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SECTION 000115 – LIST OF DRAWINGS

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:

<u>TITLE</u>	<u>SHEET #</u>	<u>DATE</u>
Cover Sheet	G-100	03/01/2020
Existing Conditions	G-101	03/01/2020
Plan View	C-100	03/01/2020
Cross Sections-Baseline 1 Station 0+50 to Station 3+50	C-101	03/01/2020
Cross Sections-Baseline 1 Station 3+75 to Station 6+50	C-102	03/01/2020
Cross Sections-Baseline 1 Station 6+75 to Station 9+00	C-103	03/01/2020
Details	D-100	03/01/2020

END OF SECTION 000115

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. Westminster Reclamation Project
Callaway County, Missouri
Project No.: Y2002-01

3.0 BIDS WILL BE RECEIVED:

- A. Until: 1:30 PM, Thursday, May 28, 2020
- B. **Only electronic bids on MissouriBUYS shall be accepted: <https://missouribuys.mo.gov>. Bidder must be registered to bid.**

4.0 DESCRIPTION:

- A. Scope: The project includes completing coal mine reclamation activities including constructing earthen dams; backfilling of abandoned coal mine pits; grading, liming/treating, and covering barren and exposed coal spoils; seed, fertilize, and mulch all work areas; plus perform other related work in accordance with the enclosed plans and specifications.
- B. Estimate: \$167,500 to \$230,500
- C. MBE/WBE/SDVE Goals: MBE 10.00%, WBE 10.00%, & SDVE 3.00%. **NOTE: Only MBE/WBE firms certified by a State of Missouri public entity 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.**
- D. ****NOTE:** Bidders are provided new Good Faith Effort (GFE) forms on MissouriBUYS.

5.0 PRE-BID MEETING:

- A. Place/Time: 10:30 AM; Monday, May 11, 2020; Address: 710 West 7th Street, Fulton. From Jeff City: Drive NE on US-54 22 miles. Exit right on MO Hwy F / Martin Luther King Blvd into Fulton. Drive ½ mi, turn left on Hickman Ave and continue ¼ mi; turn left on 7th St and drive 0.1 mi. Park on shoulder of steep drive at 710 W 7th St.
- 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 \$30 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, phone # 573-368-2449, fax # 573/751-0534
- B. Project Manager: Ron Littich, phone # 573-751-8296, fax # 573-751-7277

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.

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://missouribuy.mo.gov> and register. The bidder must register before access is granted to the solicitation details and bidding is possible, however, the bidder can review a summary of the project by selecting "Bid Board" and then checking off "Open" under "Status" and "OA-FMDC-Contracts Chapter 8" under "Organization" in the boxes shown on the left margin.
- B. Once registered, log in.
1. Under "Solicitation" select "View Current Solicitations." A new screen will open.
 2. Under "Filter by Agency" select "OA-FMDC-Contracts Chapter 8."
 3. Under "Filter by Opp. No." type in the State Project Number. Select "Submit."
 4. Above the dark blue bar, select "Other Active Opportunities."
 5. 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.
- 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, we encourage you to submit a fake bid early. Label the fake bid as such to distinguish it from the real bid. The contracts person you contact will let you know if your "bid" was received successfully. Please contact Kelly Copeland: 573-522-2283, kelly.copeland@oa.mo.gov, or Paul Girouard: 573-751-4797, paul.girouard@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 INFORMATION REGARDING REQUIREMENT FOR OEO CERTIFICATION

SPECIFICATION CHANGES:

A. SECTION 002113 – INSTRUCTIONS TO BIDDERS: Article 14.0, Section B.1. (bottom of page 6 of 8): Delete: “an MBE or WBE must be certified by the State of Missouri, Office of Equal Opportunity and”.

To allow MBE, WBE, or MBE/WBE contractors, subcontractors, and suppliers to have ample time to register with the Office of Equal Opportunity, this requirement will not take effect until July 1, 2020. Until then, we will continue to accept certifications from the Office of Equal Opportunity and other Missouri certifying agencies.

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, will be required to undergo a fingerprint background check and obtain a State of Missouri identification badge prior to beginning work on site. The Bidder should review the information regarding this requirement in Section 013513 – Site Security and Health Requirements prior to submitting a bid.
- 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

- 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.missouribuys.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.missouribuys.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, 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 - 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.

A. 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.

B. 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/oeo/>). 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 (<http://oa.mo.gov/purchasing/vendor-information/missouri-service-disabled-veteran-business-enterprise-sdve-information>) or the Department of Veterans Affairs' directory (<https://www.vip.vetbiz.gov/>).
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).

C. 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.

D. 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://www.vip.vetbiz.va.gov>



State of Missouri Construction Contract

THIS AGREEMENT, 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: **Westminster Reclamation Project
Callaway County, Missouri**

Project Number: **Y2002-01**

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 **45** 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 \$500** 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: \$

TOTAL CONTRACT AMOUNT: (\$CONTRACT AMOUNT)

UNIT PRICES: The Owner accepts the following Unit Prices: see ATTACHMENT A

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

It is understood and agreed by and between the parties that not less than the prevailing hourly rate of wages shall be paid for work of a similar character 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 in the locality in which the work is performed, both as determined by the Department of Labor and Industrial Relations or as determined by the court on appeal, to all workmen employed by or on behalf of the Contractor or any subcontractor, exclusive of maintenance work. Only such workmen as are directly employed by the Contractor or his subcontractors, in actual construction work on the site shall be deemed to be employed.

When the hauling of materials or equipment includes some phase of the construction other than the mere transportation to the site of the construction, workmen engaged in this dual capacity shall be deemed to be employed directly on the project and entitled to the prevailing wage.

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

Contract documents shall consist of the following component parts:

- 1. Division 0, with executed forms
- 2. Division 1
- 3. Executed Construction Contract Form
- 4. The Drawings
- 5. The Technical Specifications
- 6. Addenda
- 7. Contractor's Proposal as accepted by the Owner

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

DELETE IF PRIVATE OR PARTNERSHIP

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	DATE INSTALLED
LOCATION		

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
 SUBMIT WITH ALL INVOICES: (PLEASE CHECK APPROPRIATE BOX BELOW)
CONSULTANT CONSTRUCTION

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

PROJECT TITLE
PROJECT LOCATION
FIRM
TOTAL CONTRACT AMOUNT \$

THE PERCENTAGE AND DOLLAR AMOUNT OF THIS PROJECT THAT ARE TO BE MBE/WBE/SDVE AS INDICATED IN THE ORIGINAL CONTRACT: % and \$.

CHECK MBE WBE SDVE	ITEM OF WORK	TOTAL AMOUNT OF SUBCONTRACT	\$ AMOUNT & % COMPLETE (PAID-TO-DATE)	CONSULTANT/SUBCONSULTANT OR CONTRACTOR/SUBCONTRACTOR/SUPPLIER NAME, ADDRESS, CONTACT, AND PHONE NUMBER
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"/>		\$	\$ %	- -

ORIGINAL: Attach to ALL Progress and Final Payments



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

USE RUBBER STAMP IN CLEAR AREA BELOW

DAY OF

YEAR

NOTARY PUBLIC SIGNATURE

MY COMMISSION EXPIRES

NOTARY PUBLIC NAME (TYPED OR PRINTED)

FILE: Closeout Documents

GENERAL CONDITIONS

INDEX

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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

- A. 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, 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

- A. 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

- A. 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

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

\$2,000,000 annual aggregate

2. Automobile Liability

\$2,000,000 combined single limit per occurrence for bodily injury and property damage

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

- A. 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:

Designer: Brent Willeford
DNR - Land Reclamation Program
1101 Riverside Drive
Jefferson City, MO 65102
Telephone: 573-368-2449; Fax: 573/751-0534
Email: Brent.Willeford@dnr.mo.gov

Construction Representative: Mike Mueller
DNR - Land Reclamation Program
Same address as above
Telephone: 573-526-5887
Email: Mike.Mueller@dnr.mo.gov

Project Manager: Ron Littich
Division of Facilities Management, Design and Construction
301 West High Street, Room 730, Jefferson City, Missouri 65102
Telephone: 573-751-8296; Fax: 573-751-7277
Email: Ronald.Littich@oa.mo.gov

Contract Specialist: Kelly Copeland
Division of Facilities Management, Design and Construction
301 West High Street, Room 730, Jefferson City, Missouri 65102
Telephone: 573-522-2283
Email: Kelly.Copeland@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 ILLEGAL IMMIGRATION REFORM AND IMMIGRANT RESPONSIBILITY ACT

The Contractor understands and agrees that by signing a contract for this project, they certify the following:

- A. The Contractor shall only utilize personnel authorized to work in the United States in accordance with applicable federal and state laws. This includes but is not limited to the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and INA Section 274A.
- B. If the Contractor is found to be in violation of this requirement or the applicable laws of the state, federal and local laws and regulations, and if the State of Missouri has reasonable cause to believe that the Contractor has knowingly employed individuals who are not eligible to work in the United States, the state shall have the right to cancel the contract immediately without penalty or recourse and suspend or debar the contractor from doing business with the state.
- C. The Contractor agrees to fully cooperate with any audit or investigation from federal, state or local law enforcement agencies.

6.0 SAFETY REQUIREMENTS

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

7.0 INSURANCE REQUIREMENTS:

From SECTION 007213 - GENERAL CONDITIONS, Article 6.2, delete "Builders Risk or Installation Floater" insurance requirement.

8.0 PROPERTY OWNER ADDITIONAL INSURED

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

1. Karen L. Mertens
710 W. 7th St.
Fulton, MO 64740
Home: (573) 642-6737
Cell: (573) 220-7663
2. Kenneth Douglas Mertens
1509 Woodrail Ave.
Columbia, MO 65203
Cell: (573) 826-0122
3. John Mitchell Mertens
7 Oak Lane
Mexico, MO 65265
(573) 826-0147
4. Gregory Kent Mertens
710 West 7th Street
Fulton, MO 64740
(573) 826-0362
5. Clifton Paul Mertens
204 Elderbrook Drive
Columbia, MO 65201
(573) 489-0864

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 26

Section 014
CALLAWAY 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 8, 2019**

Last Date Objections May Be Filed: **April 8, 2019**

OCCUPATIONAL TITLE	** Date of Increase	Basic Hourly Rates
Asbestos Worker		\$62.43
Boilermaker		\$24.58*
Bricklayer		\$47.47
Carpenter		\$44.11
Lather		
Linoleum Layer		
Millwright		
Pile Driver		
Cement Mason		\$24.58*
Plasterer		
Communications Technician		\$50.12
Electrician (Inside Wireman)		\$50.12
Electrician Outside Lineman		\$24.58*
Lineman Operator		
Lineman - Tree Trimmer		
Groundman		
Groundman - Tree Trimmer		
Elevator Constructor		\$24.58*
Glazier		\$24.58*
Ironworker		\$60.07
Laborer		\$50.25
General Laborer		
First Semi-Skilled		
Second Semi-Skilled		
Mason		\$48.05
Marble Mason		
Marble Finisher		
Terrazzo Worker		
Terrazzo Finisher		
Tile Setter		
Tile Finisher		
Operating Engineer		\$55.75
Group I		
Group II		
Group III		
Group III-A		
Group IV		
Group V		
Painter		\$36.63
Plumber		\$66.67
Pipe Fitter		
Roofer		\$46.11
Sheet Metal Worker		\$51.39
Sprinkler Fitter		\$24.58*
Truck Driver		\$24.58*
Truck Control Service Driver		
Group I		
Group II		
Group III		
Group IV		

*The Division of Labor Standards received less than 1,000 reportable hours as required by RSMo 290.257.4(b). Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center, in accordance with RSMo 290.257.2.

Heavy Construction Rates for
CALLAWAY County

Section 014

OCCUPATIONAL TITLE	** Date of Increase	Basic Hourly Rates
Carpenter		\$24.58*
Millwright		
Pile Driver		
Electrician (Outside Lineman)		\$24.58*
Lineman Operator		
Lineman - Tree Trimmer		
Groundman		
Groundman - Tree Trimmer		
Laborer		\$44.80
General Laborer		
Skilled Laborer		
Operating Engineer		\$58.05
Group I		
Group II		
Group III		
Group IV		
Truck Driver		\$24.58*
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 as required by RSMo 290.257.4(b). Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center, in accordance with RSMo 290.257.2.

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 Commission, Department of Natural Resources, State of Missouri, intends to complete coal mine reclamation activities including; Constructing Earthen Dams; backfill abandoned coal mine pits, grade, lime, seed, fertilize and mulch all work areas and other related work, all in accordance with the enclosed plans and specifications.
 - 1. Project Location: Callaway County located on west side of Fulton, MO within the city limits. Directions: Driving from Jefferson City, Missouri take US-54 east for approximately 22 miles. Turn right onto MO Hwy F/ Martin Luther King Blvd in Fulton. Travel approximately ½ mile and turn left onto Hickman Ave. Travel ¼ mile to the next road intersection then turn left onto 7th street. Travel to 0.1 mile to the steep residential driveway at 710 W. 7th Street.
 - 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 March 1, 2020 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 DESIGNER'S ESTIMATE OF CONSTRUCTION COSTS

- A. \$167,500-\$230,500.

1.4 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 completely cleared and material shall be burned within the project area.

1.5 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. On-Site operations shall be limited to hours beginning at 6:30 a.m. and ending at 7:00 p.m.. However, all work, except equipment maintenance, fueling, etc. shall be completed during daylight hours.

- C. 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.

1.6 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.

1.7 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 Ron Littich, Division of Design and Construction, 301 West High Street, Room 730, P.O. Box 809, Jefferson City, Missouri 65102, Ph: (573) 751-8296.

1.8 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.

1.9 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.

1.10 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.

1.11 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 as directed 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.

1.12 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.

1.13 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.

1.14 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 obtain 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

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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 - EXECUTION

2.1 SCHEDULE OF ALLOWANCES

- A. Weather Allowance: Included within the completion period for this project are five (5) "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 (Not Applicable)

PART 3 - EXECUTION

3.1 UNIT PRICE SCHEDULE

- A. Unit Price 1 – MoDot Type 2 Ditch Liner
 1. Description: MoDot Type 2 Ditch Liner installation according to Division 35, Section 357313 "Earth Embankment Dam"
 2. Unit of Measurement: Ton of MoDot Type 2 Ditch Liner installed.
 3. Quantity in Base Bid: 250 Tons are to be included in the Base Bid.

B. Unit Price 2 – 1-Inch Minus Aggregate

1. Description: 1-Inch Minus Aggregate described in Division 31, Section 312000 “Earth Moving”.
2. Unit of Measurement: Ton installed.
3. Quantity in Base Bid: 120 Tons are to be included in Base Bid.

C. Unit Price 3 – Agricultural Lime

1. Description: Agricultural Lime installation according to Division 31, Section 312000, “Earth Moving”.
2. Unit of Measurement: 100 lbs ENM installed.
3. Quantity in Base Bid: 900 100 lb Units of ENM are to be included in the Base Bid.

D. Unit Price 4 – Nitrogen (N)

1. Description: Nitrogen applied and incorporated according to Division 1, Section 015723 “Temporary Project Water Pollution Control” and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of actual Nitrogen (N) applied.
3. Quantity in Base Bid: 360 pounds actual N are included in the Base Bid.

E. Unit Price 5 – Phosphorus (P)

1. Description: Phosphorus applied and incorporated according to Division 1, Section 015723 “Temporary Project Water Pollution Control”, and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of actual Phosphorus (P) applied.
3. Quantity in Base Bid: 900 pounds actual P are included in the Base Bid.

F. Unit Price 6 – Potassium (K)

1. Description: Potassium applied and incorporated according to Division 1, Section 015723 “Temporary Project Water Pollution Control”, and Division 32, Section 329219 “Seeding”.
2. Unit of Measurement: Pound (lb.) of actual Potassium (K) applied.
3. Quantity in Base Bid: 1,350 pounds actual K are included in the Base Bid.

G. Unit Price 7 – 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 (LF) installed.
3. Quantity in Base Bid: 1100 linear feet are included in the Base Bid.

H. Unit Price 8 – 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 bales installed.
3. Quantity in Base Bid: 20 bales are included in the Base Bid.

END OF SECTION 012200

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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 1 pg form)
- E. Contract Change (CC 2 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

(This area is intentionally left blank for the user to provide details of the information requested.)

PRINTED NAME	SIGNATURE	DATE
--------------	-----------	------

RESPONSE

(This area is intentionally left blank for the user to provide a response to the information requested.)

PRINTED NAME	SIGNATURE	DATE
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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

(This area is intentionally left blank for the description of change.)

ATTACHMENTS

(This area is intentionally left blank for 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
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		<input type="checkbox"/> NOT APPLICABLE
a. <input type="checkbox"/> MBE Firm <input type="checkbox"/> WBE Firm <input type="checkbox"/> SDVE Firm	b. <input type="checkbox"/> MBE Firm <input type="checkbox"/> WBE Firm <input type="checkbox"/> SDVE Firm	
Name: _____	Name: _____	
Original (Sub) Contract Amount: \$ _____	Original (Sub) Contract Amount: \$ _____	
Previous Change Amounts: \$ _____	Previous Change Amounts: \$ _____	
Amount This Change (Add/Deduct): \$ _____	Amount This Change (Add/Deduct): \$ _____	
Revised (Sub) Contract Amount: \$ _____	Revised (Sub) Contract Amount: \$ _____	

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

IF CONSULTANT CONTRACT	IF CONSTRUCTION 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



STATE OF MISSOURI
 OFFICE OF ADMINISTRATION
 DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION
CONTRACT CHANGE INTERNAL FMDC CHECKLIST-PAGE TWO

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

To be filled out and submitted with all Contract Changes by Project Manager or Construction Representative. **FOR INTERNAL USE ONLY.**

1. For Consultant Contracts

- Attach Consultant's proposal with verification that cost is reasonable.
- Provide schedule change information for P6 update.
- Note any specific changes to A/E Contract Sections as appropriate in Change Description.

2. For Construction Contracts

- Attach RFIs, RFPs, Drawings, or other correspondence related to the Contract Change.
- Attach independent cost estimate verifying cost for Contract Change is reasonable.
- Attach Contractor's proposal – including Supplier's and/or Subcontractor's proposals – as appropriate
- For time extensions attach Contractor's justification along with Consultant's and/or internal recommendations.

3. Reason for Change

REASONS: For every itemized Change – select a Reason for the Type of Contract, provide a dollar amount, note Work Days added, note the PCC Number (when known), and give a written explanation. Combine items for the same Reason and attach additional sheets as necessary.

- CR – Contractor Related (Consultant Contract Only)
- ORA – Owner Requested by Agency
- ORD – Owner Requested by FMDC
- CE – Consultant Error
- CO – Consultant Omission
- UFC – Unforeseen Field Condition

Change Reason One

REASON CODE	PCC NUMBER	WORK DAYS ADDED	COST
			\$
REMARKS			

Change Reason Two

REASON CODE	PCC NUMBER	WORK DAYS ADDED	COST
			\$
REMARKS			

4. Account Numbers – List account numbers to be charged

ACCOUNT NUMBER	AMOUNT	NOTES
	\$	
ACCOUNT NUMBER	AMOUNT	NOTES
	\$	

5. Concurrences/Approvals

NOTE: After approval distribute copies of Page One to Fiscal/blue, Designer, Contractor, and Agency as well as Page One and Page Two to Construction Representative, Project Manager, and Section Leader.

PROJECT MANAGER	DATE	CONSTRUCTION REPRESENTATIVE	DATE
UNIT MANAGER/SECTION LEADER			DATE

Prolog Contract Change Entry

INITIALS	CONSECUTIVE CONTRACT CHANGE NUMBER	DATE
REMARKS		



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

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013100 – PROJECT MANAGEMENT AND 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 013210-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

The Contractor shall coordinate the location of equipment and materials staging area with the Owner's Representative.

END OF SECTION 013100

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013200 – SCHEDULE – 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.
 - a. 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/Demobilization
 2. Clear & grub
 3. Earthwork-General Grading
 4. Earthwork-Pond Construction
 5. Erosion Control Fabric Installation
 6. Seeding, fertilization, mulching
 7. Substantial completion

3.3 SCHEDULE OF SUBMITTALS

- A. Not applicable.

END OF SECTION 013200

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 013300 – SUBMITTALS – PROJECT ITEMS

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. MBW/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.

SECTION	DESCRIPTION	Shop Drawings	Product Data	Certifications	Manufacturer's Instruc-	Weight Tickets for Mate-	Inspection Report	Receipts for Materials	Record Photographs	Maintenance Data	Operating Instruction	Landfill/Recycling Re-
015723	Temp Storm Water Pollution Control			x		x		x	x			
311000	Site Clearing and Preparation											x
312000	Earth moving			x		x		x	x			
329219	Seeding			x		x		x	x			
334900	Storm Drainage Structure		x	x	x	x		x	x			
357313	Earth Dam Embankment			x		x		x	x			

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.** On-Site operations shall be limited to hours beginning at 6:30 a.m. and ending at 7:00 p.m.. However, all work, except equipment maintenance, fueling, etc. shall be completed during daylight hours.
- 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.

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

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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 – 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.

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 – 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 be 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.
 - 2. The Owner reserves the right to take possession of project identification signs.

END OF SECTION 015000

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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 Base Bid Lump Sum contract price. The Base Bid Lump Sum price 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 Sediment Control Bales, Geotextile Silt Fence, Temporary Mulch, Temporary Seeding, Lime or Fertilizer 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 geotextile silt fence shall be measured to the nearest linear foot.
 3. Quantities of straw bale silt fence shall be measured by the standard bale.
 4. Quantities of temporary seeding and mulching shall be measured to the nearest acre.
 5. Payment for temporary sediment control will not be made until work has been completed in strict accordance with the specifications.
 6. 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 polyolefin's, 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

Property	Test method	<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.

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	5
Oats	<i>Avena sativa</i>	Jerry	30

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.

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	5
Annual Ryegrass	<i>Lolium multiflorum</i>		5

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 on 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. Forging 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. 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 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.
- 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

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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 MEASUREMENT AND PAYMENT

- 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. Materials to be handled under this contract consist 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 is 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

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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, and installing 1-inch road stone. Material to be handled under this contract consists primarily of mine spoil and coal/ clay waste which are acidic.

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 and One (1") Inch Clean Aggregate, 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. All tickets shall be provided to the Resident Project Representative showing the unit of measure and actual quantity delivered.
 - 2. Quantities of 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 1-inch clean aggregate 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 soil amendments per Section 312000.3.5 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 and discolored (gray) shales remaining after mining.
2. Any incidental coal waste/ acidic shales encountered shall be excavated and buried in accordance with Section 312000.3.2.B, 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 required 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 1-INCH MINUS ROCK:

- A. One (1") inch minus rock shall be clean, sound, durable limestone obtained from a DNR permitted quarry.
- B. One (1") Inch minus Aggregate shall meet the minimum requirements for Type-1 Aggregate for Base outlined in Section 1007.1 of the Missouri Standard Specification for Highway Construction.

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/ acidic shales 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 as directed by the Resident Project Representative/ Owner's Representative.
- 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 ten thousand (10,000 lbs.) 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. 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.
 - 2. Immediately following Ag lime application, the Contractor shall incorporate agricultural lime into the upper twelve (12") inches of spoil material by deep ripping using a track-mounted ripper or other approved method, 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.
 - 3. 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.
 - 4. Ripping shanks shall be set no wider than twenty-four (24") inches apart or as directed by the Owner's Representative.
 - 5. The Contractor shall incorporate Ag lime 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.

6. After deep ripping the Ag lime application, the Contractor shall thoroughly disc the spoil to a depth of eight (8") inches utilizing an offset construction disc, as directed by the Resident Project Representative.
 7. The Contractor shall incorporate Ag lime into the final grade prior to completing work in Section 329219-Seeding.
- C. Small, incidental and individual barren areas, identified on the plans shall have Ag Lime evenly applied at the rate of four thousand (4,000 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.

3.6 MATERIAL HANDLING

- A. The Contractor operations shall not mix coal waste and mine spoil (See notes on plans).
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

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DIVISION 32 – EXTERIOR IMPROVEMENTS

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. 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 shall be completed during the Monday-Friday workweek 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 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. However, should the actual quantity of fertilizer differ 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. When encountering conditions detrimental to plant growth, 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

<u>WARM SEASON GRASS MIX</u>	<u>POUNDS OF PLS*/ ACRE</u>	<u>VARIETY</u>
Little bluestem (<i>Schizachyrium scoparium</i>)	10.0	Kaw
Big bluestem (<i>Andropogon gerardii</i>)	3.0	Aldous
Sideoats grama (<i>Bouteloua curtipendula</i>)	3.0	
Indiangrass (<i>Sorghastrum nutans</i>)	3.0	Osage
Oats	20 (Not PLS)	
Illinois Bundleflower (<i>Desmanthus illinoensis</i>)	2.0	
Purple Milkweed (<i>Asclepias purpurascens</i>)	0.3	
Butterfly Milkweed (<i>Asclepias tuberosa</i>)	0.3	
Lanceleaf Coreopsis (<i>Coreopsis lanceolata</i>)	0.3	
Prairie Blazing Star	0.3	
Purple Prairie Clover (<i>Dalea purpurea</i>)	0.3	
Purple Coneflower (<i>Echinacea purpurea</i>)	0.3	
This Seed Mixture shall be planted between January 1 st and May 15 th 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: 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 forty (40) pounds of actual nitrogen per acre, one hundred (100) pounds of actual phosphorous per acre and one hundred fifty (150) 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 and 2.

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. Except for the hydro seeded areas, 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

334900 – STORM DRAINAGE STRUCTURES

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. Storm drainage swales, terraces and erosion control blanket as described in these specifications and as indicated on the Plans.
 - 2. Related Work Specified Elsewhere:
 - a. Site Clearing: Section 311000
 - b. Earthwork: Section 312000

1.3 MEASUREMENT AND PAYMENT

- 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 SUBMITTALS

- A. Includes, but are not limited to, the following:
 - 1. As specified in Division 1.
 - 2. Manufacturer's certifications and installation instructions for the erosion control blanket.
 - 3. Weight and/or shipping tickets of materials brought on-site shall be presented to the Resident Project Representative.

1.5 QUALITY ASSURANCE

- A. Applicable Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. D6818 Tensile Test of Turf Reinforcement Mats
 - b. D6567 Standard Test Method for Measuring the Light Penetration of a Rolled Erosion Control Product (RECP)
 - c. D6475 Standard Test Method for Measuring Mass per Unit Area of Erosion Control Blankets
 - d. D6525 Standard Test Method for Measuring Nominal Thickness of Rolled Erosion Control Products
 - e. D1117 Standard Guide for Evaluating Nonwoven Fabrics

- f. D7322 Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Ability to Encourage Seed Germination and Plant Growth Under Bench-Scale Conditions
 - g. D6460 Standard Test Method for Determination of Rolled Erosion Control Product (RECP) Performance in Protecting Earthen Channels from Stormwater-Induced Erosion
2. Missouri Standard Specifications for Highway Construction, 2018.

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.

1.6 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 installation of storm drainage control structures and measures.
- 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 (Appendix 3).

PART 2 – PRODUCTS

2.1 EROSION CONTROL BLANKET

- A. Erosion Control Blanket (ECB) used to retard erosion and establish vegetation shall be machine produced mat of 100% weed free agricultural wheat straw. The straw shall be evenly distributed and mechanically stitch bonded in a minimum two (2”) inch centers with biodegradable thread to a leno woven biodegradable natural fiber jute netting on the top and bottom. All materials shall be 100% biodegradable. Erosion Control Blanket materials shall meet the National Transportation Product Evaluation Program (NTPEP) requirements below.**

B. NTPEP Test Values:

Tensile Strength	ASTM D6818	15.1lb/in x 15.2lb/in
Light Penetration/Cover	ASTMD6567	18.3% / 81.7%
Mass per unit/area	ASTM D6475	8.08 OZ/SY
Thickness	ASTM D6525	226 mils
Water absorption	ASTM D1117	406%
Vegetative Enhancement	ASTM D7322	593%
Limiting Velocity	ASTM D6460	9.2 Ft/Sec
Limiting Shear	ASTM D6460	2.39 SF

- C. Erosion control blankets shall be protected from the elements prior to installation.
- D. Netting shall be 100% biodegradable, natural fiber, jute type with openings of ½" x ½" nominal openings. Thread pattern for the netting shall be 2 inches by 2 inches. Netting shall be on both the top and bottom of the blanket.
- E. Stakes and/or staples shall be 100% biodegradable from bacteria (in accordance to ASTM 5338 and ASTM 5271) and approved by the blanket manufacturer. Stakes and staples shall be a minimum of 4 inches long and have a "Barb Head" shaped top.

PART 3 – EXECUTION

3.1 EROSION CONTROL BLANKET

- A. Erosion Control Blanket shall be placed as shown on the plans or as directed by the Resident Project Representative. The ends of the blanket shall extend approximately 10 feet beyond the edge of the disturbed area. The blanket shall be installed parallel with the contours in an eight (8) foot wide strip.
- B. The staking pattern shall be either that shown in these plans and specifications or the manufacturer's recommendations – whichever is more stringent.
- C. Prior to laying the blanket, the ground shall be graded smooth to finish and shall have no depressions, voids, or soft spots and be free from protruding rocks, large dirt clods, etc. Grade shall be hand dressed where necessary.
- D. Seeding, fertilizing and liming shall be completed prior to placing the blanket.
- E. The blanket shall be flush with the ground and not have voids between the ground and the blanket.
- F. The blanket shall be smooth with no bunched areas.

3.2 TERRACE CONSTRUCTION

- A. If indicated on the plan view sheets, terraces shall be constructed according to the Terrace Details shown on the plan detail sheets.
- B. Embankment fill shall be placed in eight (8) inch maximum loose lift thickness and compaction of each lift shall consist of at least three (3) complete passes by equipment with a minimum ground pressure of 10 psi. Each pass shall cover the entire layer.
- C. Continuous leveling and manipulating will be required during compacting operations and the moisture content shall be adjusted as necessary or, as directed by the Resident Project Representative, to permit proper consolidation.

END OF SECTION 334900

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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-2 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-2 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-2 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. MINESPOIL

- 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 riprap (rock blanket).
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-2 DITCH LINER

- A.** Sources for MoDOT Type-2 Ditch Liner must be approved by the Owners Representative prior to purchase and/or delivery to the project site.
- B.** MoDOT Type-2 Ditch Liner shall comply with Section 609.60.2.2 of the Missouri Standard Specifications for Highway Construction. MoDOT Type 2 Ditch Liner shall consist of material with a predominant rock size of 6 inches. A maximum rock size of 10 inches and a gradation such as no more than 15 percent will be less than 3 inches. The rock for Ditch Liner shall be clean, sound, durable limestone obtained from a DNR permitted quarry.
- C.** 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.
- D.** The stone shall be free from cracks, seams, or other defects that would tend to increase its deterioration from natural causes.
- E.** The stone shall contain a combined total of not more than ten percent (10%) by weight of earth, sand, shale, and non-durable rock.

- F. The minimum bulk-saturated-surface-dry specific gravity of the stone determined in accordance with ASTM C-127 shall be 2.55. MoDOT Type 2 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.

2.3 POLYMER COATED CORRUGATED METAL PIPE AND FITTINGS

- A. This work shall consist of providing polymer coated corrugated metal pipe of the diameter, shape, and length designated on the Plans.
- B. Pipe shall be from a MoDOT approved qualified plant and will be accepted based on certification and manufacturer QC documentation.
- C. The pipe shall be 14 gauge. (0.079").
- D. Corrugations shall be 2 2/3" x 1/2".
- E. The pipe shall be polymer coated inside and outside. The polymer coating shall meet or exceed the requirements of ASTM A-742 and A ASHTO M-246. The polymer coating shall be a minimum of 10 mils thick on all surfaces. The polymer shall be composed of polyethylene and acrylic acid copolymer.
- F. The pipe shall be free of visible defects.

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 finish grades shall be graded to plan elevation plus or minus three tenths ($\pm 0.3'$) 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 2 DITCH LINER INSTALLATION

- A. MoDOT Type 2 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 2 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 Metal 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

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Appendix 1

Effective Neutralizing Material Calculation

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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.

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Appendix 2

NPDES PERMIT

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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: **MOG050084**

Owner: **MO DNR Land Reclamation Program**
Address: **PO Box 176
Jefferson City, MO 64740**

Continuing Authority: **MO DNR Land Reclamation Program
PO Box 176
Jefferson City, MO 65102**

Facility Name: **Westminster Rec. Project - Callaway Co.**
Facility Address: **710 W. 7th Street
FULTON, MO 64740**

Legal Description: **See Page 2**
UTM Coordinates: **See Page 2**
Receiving Stream: **See Page 2**
First Classified Stream - ID#: **See Page 2**
USGS and Sub Watershed: **See Page 2**

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 Standard Industrial Classification (SIC) Codes: 1629, 9512; or activities that the department determines are similar to facilities that are under the above SIC codes.

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 644.051.0 and 621.250, 10 CSR 20-6.020, and 10 CSR 20-1.020.

January 01, 2020
Issue Date


Edward B. Galbraith, Director
Division of Environmental Quality

June 30, 2021
Expiration Date


Chris Wieberg, Director
Water Protection Program

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Outfall Number: 001
Legal Description: Sec. 17, T47N, R09W, Callaway County
UTM Coordinates: 590190.912/4300466.519
Receiving Stream: Tributary to Stinson Creek(U)
First Classified Stream - ID#: 100K Extent-Remaining Streams (C) 3960.00
USGS# and Sub Watershed#: 10300102 - 1508

Outfall Number: 002
Legal Description: Sec. 17, T47N, R09W, Callaway County
UTM Coordinates: 590129.000/4300624.635
Receiving Stream: Tributary to Stinson Creek(U)
First Classified Stream - ID#: 100K Extent-Remaining Streams (C) 3960.00
USGS# and Sub Watershed#: 10300102 - 1508

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APPLICABILITY

1. 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 Standard Industrial Classification (SIC) Codes:

<u>SIC Code</u>	<u>Activity</u>
9512	Land, Mineral, Wildlife and Forest Conservation
1629	Heavy construction, Not Elsewhere Classified

or activities that the Missouri Department of Natural Resources (department) determines are similar to facilities that are under the above SIC Codes.

2. 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)]. A determination of the suitability of this general permit will be made by the Water Protection Program on a case-by-case basis for inclusion under this permit prior to issuance. 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) The discharge(s) is to a losing stream,
 - (d) The discharge(s) is to a wetland,
 - (e) Within the watershed of an impaired water as designated on the CWA Section 305(b) Report,
 - (f) Facilities that are found to be discharging the listed pollutant(s) of concern for any impaired water, or
 - (g) A Total Maximum Daily Load (TMDL) containing requirements applicable to the discharge(s) is approved.
- Missouri's impaired waters can be found at www.dnr.mo.gov/env/wpp/waterquality/index.html.
3. 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.
4. 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.
5. This permit does not authorize discharges:
- (a) Within two stream miles upstream of segments of streams or lakes listed as an Outstanding State Resource Water (OSRW)¹;
 - (b) Within the watershed of an Outstanding National Resource Water (ONRW)¹
 - (c) Within 1000 feet up gradient of reservoirs or lakes used for public drinking water supplies (class L1)¹ or major reservoirs (class L2)¹; or
 - (d) Within two stream miles upstream of biocriteria reference locations¹ or streams, lakes, or reservoirs identified as critical habitat for endangered species.
6. The following are allowable non-stormwater discharges authorized under this permit:
- (a) Discharges from fire-fighting activities;
 - (b) Fire hydrant flushing (testing);
 - (c) Potable water, including water line flushing;
 - (d) Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
 - (e) Irrigation drainage;
 - (f) Landscape watering, provided all pesticides, herbicides and fertilizers have been applied in accordance with manufacturer's instructions;
 - (g) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
 - (h) Routine external building wash down that does not use detergents;
 - (i) Uncontaminated ground or spring water;
 - (j) Foundation or footing drains where flows are not contaminated with process materials; and
 - (k) Incidental windblown mist from cooling towers that may collect on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

TABLE A-1		COLE MINE RECLAMATION				
The permittee 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. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Stormwater Associated with Coal Mine Land Disturbance						
Flow	mgd	*		*	once/quarter	24 hr. estimate
Settleable Solids	mL/L	1.5		1.0	once/quarter	grab
Total Suspended Solids	mg/L	100		50	once/quarter	grab
pH – Units (Note 3)	SU	*		*	once/quarter	grab
Discharge from Coal Mine Shaft Pumping						
Flow	mgd	*		*	***	Note 1
Settleable Solids (Note 2)	mL/L	1.5		1.0	***	grab
Total Suspended Solids	mg/L	100		50	***	grab
pH – Units (Note 3)	SU	*		*	***	grab
Coal Mine and Processing Area Impoundment Draining						
Flow	mgd	*		*	***	24 hr. estimate
Settleable Solids (Note 2)	mL/L	1.5		1.0	***	grab
Total Suspended Solids	mg/L	100		50	***	grab
pH – Units (Note 3)	SU	*		*	***	grab
Iron, Total Recoverable	mg/L	7.0		3.5	***	grab
Conductivity	umhos/cm	*		*	***	grab
Sulfate	mg/L	*		*	***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> TO THE APPROPRIATE REGIONAL OFFICE. THE FIRST REPORT IS DUE <u>APRIL 28, 2020</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE AS REQUIRED BY THE FEDERAL NPDES eREPORTING RULE. PARTICIPATION IN THE DEPARTMENT'S ELECTRONIC DISCHARGE MONITORING REPORT SUBMISSION SYSTEM (eDMR) IS REQUIRED.						

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

*** Sample once per day per discharge of impoundment or shaft surface water when the total depth of the impoundment or shaft surface water reaches 1 foot or less.

Note 1 – Report total volume discharged.

Note 2 – The Settleable Solids test must be taken during shaft pumping or impoundment draining. It is not necessary to analyze for Settleable Solids before discharge.

Note 3 – BMPs to neutralize acidic mine drainage must be in place when pH levels drop below 6.5.

Reporting Schedule for Quarterly Sampling	
Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

TABLE A-2		METALLIC MINERAL RECLAMATION LAND DISTURBANCE				
The permittee 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. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Stormwater Associated with Land Disturbance at Metallic Mineral Reclamation Sites						
Flow	mgd	*		*	once/month	24-hour estimate
Settleable Solids	ml/L	1.5		1.0	once/month	grab
Total Suspended Solids	mg/L	100		50	once/month	grab
pH - Units	SU	**		**	once/month	grab
Arsenic, Total Recoverable	µg/L	*		*	once/month	grab
Barium, Total Recoverable	µg/L	*		*	once/month	grab
Cadmium, Total Recoverable	µg/L	*		*	once/month	grab
Chromium, Total Recoverable	µg/L	*		*	once/month	grab
Cobalt, Total Recoverable	µg/L	*		*	once/month	grab
Copper, Total Recoverable	µg/L	*		*	once/month	grab
Iron, Total Recoverable	µg/L	*		*	once/month	grab
Lead, Total Recoverable	µg/L	*		*	once/month	grab
Mercury, Total Recoverable	µg/L	*		*	once/month	grab
Zinc, Total Recoverable	µg/L	*		*	once/month	grab
Conductivity	umhos/cm	*		*	once/month	grab
Chloride	mg/L	*		*	once/month	grab
Sulfate	mg/L	*		*	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> TO THE APPROPRIATE REGIONAL OFFICE. THE FIRST REPORT IS DUE <u>N/A</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. AS REQUIRED BY THE FEDERAL NPDES eREPORTING RULE, PARTICIPATION IN THE DEPARTMENT'S ELECTRONIC DISCHARGE MONITORING REPORT SUBMISSION SYSTEM (eDMR) IS REQUIRED.						

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Reporting Schedule for Quarterly Sampling	
Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

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EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

TABLE A-3		METALLIC MINERAL RECLAMATION SHAFT AND IMPOUNDMENT DRAINING				
The permittee 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. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Discharge or Stormwater Associated with Shaft and Impoundment Draining at Metallic Mineral Reclamation Sites						
Flow	mgd	*		*	***	24-hour estimate
Settleable Solids	ml/L	1.5		1.0	***	grab
Total Suspended Solids	mg/L	100		50	***	grab
pH - Units	SU	**		**	***	grab
Arsenic, Total Recoverable	µg/L	*		*	***	grab
Barium, Total Recoverable	µg/L	*		*	***	grab
Cadmium, Total Recoverable	µg/L	*		*	***	grab
Chromium, Total Recoverable	µg/L	*		*	***	grab
Cobalt, Total Recoverable	µg/L	*		*	***	grab
Copper, Total Recoverable	µg/L	*		*	***	grab
Iron, Total Recoverable	µg/L	*		*	***	grab
Lead, Total Recoverable	µg/L	*		*	***	grab
Mercury, Total Recoverable	µg/L	*		*	***	grab
Zinc, Total Recoverable	µg/L	*		*	***	grab
Conductivity	umhos/cm	*		*	***	grab
Chloride	mg/L	*		*	***	grab
Sulfate	mg/L	*		*	***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> TO THE APPROPRIATE REGIONAL OFFICE. THE FIRST REPORT IS DUE <u>N/A</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. AS REQUIRED BY THE FEDERAL NPDES eREPORTING RULE, PARTICIPATION IN THE DEPARTMENT'S ELECTRONIC DISCHARGE MONITORING REPORT SUBMISSION SYSTEM (eDMR) IS REQUIRED.						

* Monitoring requirement only.

** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

*** Sample once per day per discharge of impoundment or shaft surface water when the total depth of the impoundment or shaft surface water reaches 1 foot or less.

Reporting Schedule for Quarterly Sampling	
Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

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PERMIT REQUIREMENTS

1. Sampling data shall be maintained by the permittee for a period of three-years after termination of the permit.
2. The department may collect a sample of stormwater discharge during site inspection.
3. All fueling facilities present on-site shall adhere to applicable federal and state regulations, including spill prevention, control and countermeasures concerning underground storage, above ground storage and dispensers.
4. Discharge shall not contain floating solids or visible foam other than in trace amounts.
5. All outfalls must be clearly marked in the field.
6. There shall be no open burning of containers, cartons and other wastes on-site.
7. If the project includes discharge of waters from abandoned coal mine and processing area impoundments, water quality analysis will be required for each such impoundment prior to discharge using the abandoned coal mine and processing area impoundment draining parameters. This requirement does not include temporary impoundments created by reclamation contractors. If the project includes discharge of waters from metallic mineral mine shafts and impoundments, water quality analysis will be required for each impoundment or shaft prior to discharge using the metallic mineral mine impoundment draining parameters. In the case of both abandoned coal mines and metallic mineral mine shafts, if the impoundment is less than 150 feet in length, one grab sample from the midpoint will be 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. If pre-project water quality in the receiving stream does not meet state water quality standards, effluent limits may be established to allow discharge of water of the same quality as that of the receiving streams. (In this case, the receiving stream would be the nearest stream sampling station, for which there are at least two sets of pre-project water quality data.) See pre-project and post-project sampling requirements under Permit Requirement 8.
8. Pre-project and end of project stream sampling is required to document water quality using the following guidelines if the project involves land disturbance of more than one acre or impoundment draining:
 - (a) These receiving stream locations must be sampled unless alternate arrangements are approved by the Water Protection Program.
 - (1) Any stream without designated uses at a point downstream of all drainage from the project site if there is flowing water.
 - (2) The first classified stream at a point where that stream is downstream of all drainage from the project site. This station should be as close to the project site as access will allow, but at least one-half (1/2) mile below the project unless the stream to be sampled flows into another classified stream less than one mile below the project.
 - (3) If the project area drains to more than one classified stream, all receiving classified streams must be sampled unless the area draining to that classified stream is less than ten acres and contains no gob pile, slurry pond or other concentrated form of coal waste or acid forming materials.
 - (4) All locations will 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, which produced surface runoff. At the end of the project the locations need to be sampled once.
 - (5) Samples will be analyzed for the same parameters as impoundment draining with the addition of dissolved oxygen.
9. The analytical and sampling methods used must conform to the following reference methods unless alternates are approved by the Water Protection Program:
 - (a) Standard Methods for the Examination of Waters and Wastewaters, (22nd edition (or most recent version) published by the Water Pollution Control Federation, 3900 Wisconsin Avenue, Washington, D.C. 20016;
 - (b) A.S.T.M. Standards. Part 31 Water and Part 26 Atmospheric Analysis, published by American Society for Testing and Materials, Philadelphia, PA 19103;
 - (c) Methods for Chemical Analysis of Water and Wastes, (EPA-600/4-79-020) published by Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, OH 54202; and
 - (d) NPDES Compliance Sampling Inspection Manual, published by Environmental Protection Agency, Enforcement Division, Office of Water Enforcement, 401 Main Street, S.W., Washington, D.C. 20460.
10. If the results of the sampling show settleable solids levels of 1.5 milliliters per liter or greater, written notification shall be made to the appropriate Department of Natural Resources Regional Office within five days of notification of analytical results. The letter shall indicate the date(s) sampled, the actual analytical results, permit number, and shall include what revisions or new management practices are being implemented to reduce the solids. Repeat monitoring shall occur on the next rainfall event over 0.3 inches which results in a discharge.

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PERMIT REQUIREMENTS (continued)

11. Release of a hazardous substance must be cleaned up and reported to the department in accordance with 10 CSR 24-3.010 within 24 hours or as soon as possible. If the spill occurs outside of normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the spill to the department's 24-hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. Leaving a message on a department staff member voice-mail does not satisfy this reporting requirement. This requirement applies to the following types of spills:
- (a) Any spill of any material that leaves the property of the facility; and
 - (b) Any spill of any material, outside of secondary containment, exposed to precipitation greater than 25 gallons or an equivalent volume of solid material.

A record of each reportable spill shall be retained with the Stormwater Pollution Prevention Plan (SWPPP) and made available to the department upon request. The department may also require the submittal of a written or electronic report detailing measures taken to clean up the spill within five (5) days of the spill. Such a report must include the type of material spilled, volume, date of spill, date clean-up was completed, clean-up method, and final disposal method. This requirement is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

12. The Land Reclamation Program shall be required to draft and implement a Stormwater Pollution Prevention Plan (SWPPP) for the permitted site. The SWPPP shall include a listing of the Best Management Practices (BMPs) to be used on the site that are designed to be non-degrading of water quality. The chosen BMPs shall be reasonable and cost effective while ensuring that the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the site is discharged. The SWPPP development and implementation serves as the Antidegradation review, fulfilling the requirements of 10 CSR 20-7.031.

The Best Management Practices chosen and listed in the SWPPP must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMPs is a permit violation. The Pollutants of Concern for this permit are listed in Tables A-1, A-2 and A-3 of this permit.

The purpose of the SWPPP and the BMPs listed therein is to prevent pollutants from entering waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR20-2.010(56)] of waters of the state, or failed to achieve compliance with benchmarks. Corrective action means the facility took steps to eliminate the deficiency. Any changes proposed on the site related to stormwater control and BMPs shall be reflected in the SWPPP prior to implementation. A copy of the updated SWPPP is required to be accessible on-site, in either paper or electronic format.

The SWPPP must include the following:

- (a) An assessment of all stormwater discharges associated with the facility, including any materials existing or stored onsite.
- (b) A listing of Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater.
- (c) A schedule for implementing the BMPs, if necessary.
- (d) The SWPPP must include a schedule for monthly site inspections and a brief written report. The inspections must include observation and evaluation of BMP effectiveness, deficiencies, and corrective measures that will be taken. The Department's Regional Office must be notified within fifteen (15) days by letter of any corrections of deficiencies. Deficiencies that consist of minor repairs or maintenance must be corrected as soon as possible but within seven (7) days. Deficiencies that require additional time or installation of a treatment device to correct should be detailed in a written notification. Inspection reports must be kept on site with the SWPPP. These must be made available to DNR personnel upon request.
- (e) A provision for designating an individual to be responsible for environmental matters.
- (f) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of areas having materials exposed to stormwater. This may be satisfied by in-house training provided by facility staff. Proof of training shall be submitted upon request of DNR.

13. The following are minimum BMPs that must be implemented at all facilities:
- (a) 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.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMP's 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/or management sufficient to prevent any spills of these pollutants from entering a water of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep trash from entering into waters of the state.
 - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits. Temporary BMPs such as silt fences shall be removed once the site has been stabilized and permit terminated.

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PERMIT REQUIREMENTS (continued)

14. All conditions set forth in this permit and those listed in Standard Conditions Part I must be complied with. At no time shall any discharge result in a violation of water quality standards [10 CSR 20-7.031]. A facility will be required to obtain a site-specific permit if the department determines that a site-specific permit is necessary to protect water quality.
15. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (Section 644.055, RSMo). The fees can be found at 10 CSR 20-6.011.
16. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally-consistent set of data about the NPDES program. All general covered permitted facilities under this master general permit shall comply with the department's requirements for electronic permitting. Application to participate in the eDMR system is required as part of the application for general permit coverage in order to constitute a complete permit application.
17. This operating permit does not affect, remove, or replace any requirement of the Endangered Species Act; the National Historic Preservation Act; the Comprehensive Environmental Response, Compensation and Liability Act (CERLA); or the Resource Conservation and Recovery Act (RCRA). Substances regulated by federal law under the CERLA and RCRA that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERLA. Determination of applicability to the above mentioned acts is the responsibility of the permittee.

STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Standard Conditions Part I dated August 1, 2014, and hereby incorporated as though fully set forth herein.

1. Water Quality Standards

- (a) To the extent required by law, discharges to waters of the state shall not cause a violation of Missouri Water Quality Standards (10 CSR 20-7.031), including both specific and general criteria.
- (b) General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times, including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) 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;
 - (2) Waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor, or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment, and solid waste as defined in Missouri Solid Waste Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Section 260.200-260.247, RSMo.

2. Changes in Discharges of Toxic Substances

The facility shall notify the department as soon as it knows or has reason to believe:

- (a) That an activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that 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 2,5-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; or
 - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
- (b) That the facility has begun or is expected to begin to use or manufacture as an intermediate product, by-product, final product, or waste product any toxic pollutant which was not reported in the permit application.
 - (1) Toxic pollutants shall consist of, but are not limited to pollutants listed in 10 CSR 20-7.031 Table A or 40 CFR 122 Appendix D.

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STANDARD CONDITIONS (continued)

3. 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 Section 301(b)(2)(C) and (D), 304(b)(2)(A) and (B), and 307(a)(2) of the CWA, if the effluent standard or limitation issued or approved:
 - Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
 - Controls any pollutant not limited in this permit.
 - Incorporate new or modified effluent limitations or other conditions, if the result of a wasteload allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards (10 CSR 20-7.031).
 - Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, an effluent limitation derived from a TMDL is developed for the receiving waters, which would then be included in a list of waters of the state not fully achieving Missouri Water Quality Standards.

The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

PERMIT RENEWAL

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than thirty (30) days prior to the permit's expiration date. As part of the complete application and as required by the federal NDPES eReporting rule participation in the department's Electronic Discharge Monitoring Report Submission System (eDMR) will be required. More information can be found at: <http://dnr.mo.gov/env/wpp/edmr.htm>. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

PERMIT TERMINATION

This permit may be terminated 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. In order to terminate this permit, the facility shall notify the department by submitting Form H (www.dnr.mo.gov/forms/780-1409-f.pdf).

DUTY TO COMPLY

The permittee shall comply with all conditions of this general permit. Any noncompliance with this general permit constitutes a violation of Chapter 644, Missouri Clean Water Law, 10 CSR 20-6, and 10 CSR 20-7. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

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LAND RECLAMATION PROGRAM

DEC 31 2019

Appendix 3

Storm Water Pollution Prevention Plan (SWPPP)

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STORM WATER POLLUTION PREVENTION PLAN
NPDES GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES

FOR: Project Number: Y2002-01
Project Name: Westminster Reclamation Project
Callaway 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 Tindall Farms Abandoned Mine Land Reclamation Project is located within the city limits of Fulton, Missouri. The site of reclamation is on private property, with the area being at the physical address of 710 W. 7th St., Fulton, Missouri. The Project is located in section 17, Township 47N, Range 9W.

Eight (8) acres of previously affected mine lands comprising of a Dangerous 300 feet long highwall and an associated hazardous water bodies will be reclaimed. The Hazardous features will be sloped to grades no greater than 5:1. Additionally, a permanent pond located at the bottom of the slope will be constructed as a retention pond. After final grading, the site will be graded to a gently sloping topography; all disturbed areas will be revegetated with a mixture warm season grasses and legumes.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION PROGRAM
ABANDONED MINE LANDS
STORM WATER POLLUTION PREVENTION PLAN

Project Name: Westminster Reclamation Project
Project Number: Y2002-01 Construction Acreage: 8 acres
County: Callaway Section: 17 Township: 47 Range: 9W

The plans and specifications have been prepared to comply with the provisions of the NPDES Permit Number MOG050084, 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 pollutional 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, Special Excelsior Blanket and Riprap Sections as detailed in Temporary Storm Water Pollution Control (Section 015723), Storm Drainage Structures (334900), 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 if 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. MOG050084
Storm Water Pollution Prevention Plan
Certifications

Project Name: Westminster Reclamation Project

Project Number: Y2002-01

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