

**THE NAVAJO NATION**

**NAVAJO ABANDONED MINE LANDS  
RECLAMATION PROGRAM**

**CHACOAN I AML RECLAMATION  
PROJECT**

**PROJECT MANUAL**

**March 2014**



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# **REQUEST FOR PROPOSAL**

## REQUEST FOR PROPOSAL

The Navajo Nation AML Reclamation Program is requesting proposals from qualified contractors and business entities for the Chacoan I AML Reclamation Project. Original proposal documents, complete with cost, shall be clearly marked in a package envelope entitled, "Proposal for Chacoan I AML Reclamation Project." All submittals are due no later than **4 p.m. (local time) on the 31 March 2014** at the Navajo AML-Shiprock AML Field Office, 1 Uranium BLVD, Shiprock, NM 87420. The project areas are located within Sanostee, Newcomb, Coyote Canyon, and Nahodishgish Navajo Nation Chapter boundaries. The duration of the contract is approximately **180** calendar days.

The proposal documents detailing the **FIXED COST** items of work, the Scope of Work, requirements, and criteria are available for purchase at the following locations:

- Butler's Office Equipment & Supply, Inc., 1900 East Historic Highway 66, Gallup, NM, (505) 722-6661; and
- San Juan Reproduction, 135 Airport Drive, Farmington, NM, (505) 327-5044.

**The contract will be awarded in accordance with the Navajo Business Opportunity Act.**

A mandatory pre-proposal meeting followed by a site tour of the project areas is scheduled on **Tuesday, 25 March 2014, 8:00 a.m., Shiprock AML Field Office**. This meeting will discuss various aspects of the project, highlight various safety precautions, and show the sites to the prospective bidders. Failure to attend the entire meeting and site tour will result in rejection of the proposal. Bidders are responsible for their personnel and vehicle safety. For additional information, please contact:

Mr. Gilbert Dayzie, Civil Engineer  
Shiprock AML Program Office  
(505) 368-1220 or [gdayzie@frontier.com](mailto:gdayzie@frontier.com)

# **PROPOSAL INSTRUCTIONS**

## Proposal Instructions

### 1. Proposals:

At the minimum, a Proposal will include:

- a) Name, address, and telephone number of the proposer;
- b) Date of submission;
- c) Brief history of the Proposer including general background of the business, financial and other resources, and experience and training in abandoned mine reclamation work;
- d) Name and qualifications of key personnel and sub-contractors identified to work on the contract on any standard Federal or State form or similarly formatted information, including brief resumes and identification of licenses and certificates (qualifications of the individuals must be submitted for all proposed sub-contractors, joint ventures, or partnerships). An organizational chart depicting personnel to be involved in the project shall be provided;
- e) Completed Applicator Violator System forms;
- f) Completed Navajo Nation Certificate Regarding Debarment and Suspension;
- g) Signature of official(s) authorized to obligate the Proposer;
- h) List of equipment to be used to successfully complete the project;
- i) Certified check, cashier's check or PROPOSAL BOND in the amount of five-percent (5%) of the proposal amount;
- j) Methodology of work and Safety Plan specific for these projects;
- k) Time schedule;
- l) Acknowledgment of Addendum/Addenda, if any;
- m) Sub-contractor list (if any) for OWNER's approval;
- n) Proof of Navajo Preference, if any; and
- o) Cost Proposal secured in a separate envelop from the proposal package.

The Proposer may use any suitable format for the proposal and no minimum or maximum number of pages for the Proposal is set. **Cost proposal will be in a separate envelope within the main proposal envelope.** All Proposals received by the deadline will be accepted for evaluation. There will be no formal public opening of the Proposals. Proposals received after the established deadline will not be considered and will be returned unopened.

### 2. Proposal Guarantee:

Each Proposal must be accompanied by: a certified check of the Proposer, or a proposal bond prepared on the form attached hereto, duly executed by the Proposer as Principal and having as Surety thereon a surety company that meets the satisfaction of the OWNER, in the amount of 5% of the proposal. **All Bonds must be issued in the State the Contractor is licensed.** Cashier's checks or Proposal bond will be returned to all except the three (3) lowest responsive Proposers after evaluation of the Proposals. The remaining cashier's checks and Proposal Bonds will be returned after the OWNER and the accepted Proposer have executed the contract. If no award

has been made within thirty (30) calendar days after the date of the Proposal opening, the cashier's check or Proposal Bond will be returned to the Proposer any time thereafter, as long as the Proposer has not been notified of the acceptance of its Proposal.

### **3. Interpretations of Plans and Specifications:**

If any person contemplating submitting a Proposal for the proposed CONTRACT is in doubt as to the true meaning of any part of the MAPS/DRAWINGS, SPECIFICATIONS or other proposed PROPOSAL DOCUMENTS, he or she may submit to the Department Manager III of the Navajo AML Reclamation/UMTRA Department, a written request for an interpretation. Any interpretation of the proposed documents will be made only by ADDENDUM duly issued by the Department Manager III, Navajo AML Reclamation/UMTRA Department, if an ADDENDUM is required. A copy of such ADDENDUM will be mailed, faxed or delivered to each Proposer attending the full pre-proposal meeting and tour. The OWNER will not be responsible for any other explanations or interpretations of the proposed documents.

### **4. Addenda or Bulletins:**

Any ADDENDUM or bulletins issued during the time of solicitation for proposals shall become part of the document issued to the Proposers for the preparation of the Proposal, shall be covered in the Proposal and shall be made a part of the CONTRACT.

### **5. Applicant Violator Systems:**

The AVS application must be completed and attached to the Proposal. The application will be sent by the OWNER to the Office of Surface Mining Reclamation and Enforcement, Lexington AVS Office, to determine if the Proposer meets the AVS requirements.

### **6. Navajo Nation Certificate Regarding Debarment and Suspension**

The Navajo Nation Certificate Regarding Debarment and Suspension will be completed and attached to the Proposal. A copy of the certificate is included with this contract documents.

### **7. Award of the Contract:**

The selection will be a two-step process: *1) Technical evaluation; and 2) Price negotiations.* Proposals will be evaluated by a **Proposal Evaluation Team** first for technical competence of the proposers to perform the project work as well as for completeness of the proposals. The OWNER will use a point-system for this purpose.

#### **A. Technical Evaluation:** Factors for evaluation will be the following:

- a) The Proposer's qualifications, including but not limited to, relevant experience or specialized technical competence to perform AML reclamation work showing examples of past AML projects, recent experience, number and availability of

- qualified personnel, composition of team (in-house or subcontracted), team qualification, and references for past relevant projects.
- b) Capability to perform the reclamation work with respect to completion of quality work within reasonable time and within budget. This shall be demonstrated by similar experience shown on any State or Federal forms or other similar format; completeness and environmental soundness of the proposal and methodology for the work including reclamation techniques, appropriateness and availability of the equipment proposed for the construction work; responsiveness to the RFP in all respects; record of any regional and national awards; familiarity with the Navajo Nation and knowledge of the unique problems associated in the project areas; and demonstrated sensitivity to Navajo cultural values.
  - c) Proposer's safety record in past construction work, health and safety plan proposed for the project to ensure worker safety, accident prevention, and radiological protection.
  - d) Possession of appropriate licenses/registration to perform the project work.
  - e) Assurance to comply with all the applicable Navajo Nation laws, rules, regulations as well as various stipulations and terms and conditions of the contract.
  - f) Submittal of Proposal Security and capability to provide the required Performance Bond, Payment Bond, and the Certificate of Insurance.
  - g) Priority Preference.

**B. Price Negotiation:** Before negotiations, Maximum Feasible Cost (MFC) will be developed. Upon completion of the technical evaluation, the **Proposal Evaluation Team** will enter into cost negotiations, if necessary, with the most qualified Proposers and award of the contract will be made in accordance with the Navajo Business Opportunity Act. The OWNER reserves the right to waive any technicalities or informalities in the proposals and reject any/or all proposals in its best interest. Should negotiations fail to arrive at a reasonable cost, the OWNER could re-advertise the RFP with a revised **Scope of Work** or make any other appropriate decision in the best interest of the OWNER, taking into consideration such factors as time, cost, etc.

## **8. Consideration of Proposals:**

The OWNER shall normally have no more than thirty (30) calendar days after receipt of proposals to consider award of the contract, unless this time is extended for reason(s) beyond the OWNER's control. If no award is made within thirty (30) calendar days or within the extended period of time, all proposals shall be considered automatically rejected.

## **9. Qualifications:**

The OWNER will consider Proposals from all Proposers or Contractors who are qualified for the type of reclamation work advertised. The Proposer's past performance, organization, equipment, knowledge of mine reclamation, and ability to perform and complete their past contracts within

the time limit specified, amount of the Proposal, will be primary elements considered by the OWNER in awarding the contract.

The Proposer shall possess a valid General Contractor's license, which qualifies the Proposer to do the mine reclamation work, or a valid equivalent license from another state acceptable to the OWNER.

**10. Liquidated Damages for Failure to Enter into Contract:**

The successful Proposer's failure to execute and deliver the contract and required bonds within ten (10) calendar days after receiving notice of acceptance of the Proposal, shall forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with the Proposal unless the OWNER extends the time in its best interest.

**11. Time of Completion and Liquidated Damages:**

Proposers must agree to commence work on or before the date noted in the written "Notice To Proceed" issued by the OWNER and to fully complete the project within the negotiated contract time. As noted in the General Conditions, the Proposer will agree to pay liquidated damages in the amount of \$ 500.00 for each working day the project construction is not completed within the specified time including all extensions approved by the OWNER.

**12. Conditions of Work:**

Each Proposer must be fully informed of the conditions relating to the construction of the project, the requirements of construction equipment relative to the project and the employment of labor. Failure to do so will not relieve a successful proposer of any contractual obligations, including the obligation to furnish all material and labor necessary to carry out the provisions of the contract.

**13. Security for Faithful Performance:**

Simultaneously with delivery of the executed contract, the contractor shall furnish a Performance Bond and a Payment Bond, for faithful performance of this contract and payment of all persons performing labor on the project under this contract, as specified in the General Conditions herein. The Performance Bond must be one-hundred percent (100%) of the Original Contract Amount, unless otherwise provided for in the Contract Documents, and shall remain in effect until a valid Certificate of Substantial Completion has been duly issued for the Project. Upon issuance of such Certificate of Substantial Completion, Contractor may reduce the Performance Bond to twenty-five percent (25%) of the Original Contract Amount, said Performance Bond which shall remain effective for two (2) years from the date of issuance of the Certificate of Substantial Completion. The Payment Bond shall be 100% of the contract price, with a corporate surety approved by the OWNER.



**14. Power of Attorney:**

Attorneys-in-fact who sign the Proposal Bond, the Performance Bond or the Payment Bond must file with each bond a certified and dated copy of their power of attorney.

**15. Laws, Regulations, and Other Provisions:**

The Proposer's attention is directed that all applicable Laws of the Navajo Nation and the Federal Government, and rules/regulations of all authorities having jurisdiction over the construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

The Proposer's attention is called to the provisions regarding: Navajo Nation Business Opportunity Act (NNBOA); Navajo Preference in Employment Act; Navajo Nation Sales Tax; Prevailing Wage Rates determined by the Navajo Office of Labor Relations; requirements of the Applicant/Violators System (AVS) eligibility checks; requirements of a Payment Bond and Performance Bond, each equal to 100% of the contract amount until substantial completion—25% Performance Bond still required during two-year warranty period; 10% retainage from each progressive payment until the acceptable completion of the work and approval of the final payment; requirement of a proposal guarantee in the form of a firm commitment, such as a proposal bond, certified check or cashier's check made payable to the OWNER in the amount of equal to 5% of the proposal amount; and the various Navajo Nation statutes and regulations governing public health and safety, the protection of environmental, cultural, archaeological and wildlife resources; and various conditions specified in the PROPOSAL DOCUMENTS.

**16. Obligation of Proposer:**

During the opening of the Proposals, each Proposer will have inspected the site(s), read and become thoroughly familiar with the Technical Specifications, maps and drawings, and contract documents (including all Addenda) specifically including the Navajo Preference Requirements contained in the Navajo Nation Business Opportunity Act and Navajo Preference in Employment Act. Failure or omission of any Proposer to examine any form, instrument or document shall in no way relieve any Proposer from any obligation with respect to its Proposal.

Safety and security of personnel making site visits during the pre-proposal meeting, or during any other site visit before the proposal opening (Proposer can do only with written expressed permission of the OWNER, given sufficient advance notice), will be the sole responsibility of the Proposer. The Proposer is also responsible for any and all cost associated with the preparation of the PROPOSAL DOCUMENT, including the field visit(s).

**17. Notice of Special Conditions:**

Attention is particularly called to those parts of the PROPOSAL DOCUMENTS and Technical Specifications which deal with the following:

- a) Inspection and testing of materials.
- b) Insurance requirements.
- c) Wage rates.
- d) Indian Preference in subcontracting, procurement and employment.
- e) Dispute resolution.
- f) Sovereign Immunity.

**18. Execution of Contract:**

The PROPOSAL DOCUMENTS shall be executed in five (5) counterparts and shall be distributed as follows:

Contractor	1 copy
Navajo Nation	4 copies

**19. Time Allowed for Signing Contract:**

The successful Proposer will normally be allowed ten (10) calendar days after the date the contract is awarded to him/her by the OWNER to deliver to the OWNER the signed contract, required Bonds, and Certificate of Insurance. The OWNER may extend the time in its best interest.

**20. Wage Scales:**

Wages paid on this project shall be those established by the OWNER and are included as part of the Contract Documents (See Prevailing Wage Scale).

**21. Navajo Nation Sales Tax:**

The contractor will be subject to the Navajo Nation Sales Tax. A copy of the law imposing such tax may be obtained from the Office of the Navajo Tax Commission. The cost of the Navajo Nation Sales Tax will be included in the Contractor's proposal and no extra payment will be allowed.

**22. Qualifications of Proposals:**

Proposers shall add no qualifying provisions to their Proposals.

**23. Subcontracting and Assignment:**

- A. The Contractor is specifically advised that any person, firm or other party whom the contractor identifies to award a subcontract under this contract must be approved by and acceptable to the OWNER. Like the Contractor, the sub-contractor is also required to comply with all Navajo Nation, State, and Federal laws applicable to this contract.

- B. The Contractor shall be fully responsible to the OWNER for the acts and omissions of the sub-contractor and of persons directly or indirectly employed by the sub-contractor, as if they were employed by the Contractor directly.
- C. The Contractor shall cause appropriate provisions to be inserted in all subcontract agreements relative to the work to bind the sub-contractor(s) to the contractor by the terms and conditions of the PROPOSAL DOCUMENTS and to give the contractor the same power with regard to terminating any subcontract that the OWNER may exercise over the Contractor under any provision of the PROPOSAL DOCUMENTS. A copy of the executed agreement between the contractor and the sub-contractor shall be furnished to the OWNER.
- D. The Contractor shall not assign the contract or sublet it as a whole without the written consent of the OWNER, nor shall the Contractor assign any monies due or to become due to contractor hereunder, without the previous written consent of the OWNER.
- E. If the Contractor desires to assign the contract, the assignment must be concurred by the contractor's surety and must receive the written approval of the OWNER prior to its execution. Upon approval, the Contractor shall file copies of all appropriate documents with the OWNER.

**END OF PROPOSAL INSTRUCTION**

# **PROPOSAL BOND**

# **AGREEMENT**

**EJCDC**

**C-520**

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

**SUGGESTED FORM OF AGREEMENT  
BETWEEN OWNER AND CONTRACTOR FOR  
CONSTRUCTION CONTRACT (STIPULATED PRICE)  
AS MODIFIED FOR THE  
CHACOAN I AML RECLAMATION PROJECT**

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



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*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

This Suggested Form of Agreement has been prepared for use with the Standard General Conditions of the Construction Contract (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the other. The language contained in the Suggested Instructions to Bidders (EJCDC C-200, 2007 Edition) is also carefully interrelated with the language of this Agreement. Their usage is discussed in the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

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## INTRODUCTION

This Suggested Form of Agreement between Owner and Contractor for Construction Contract (Stipulated Price) ("Agreement") has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts ("Instructions to Bidders") (EJCDC C-200, 2007 Edition); the Suggested Bid Form for Construction Contracts ("Bid Form") (EJCDC C-410, 2007 Edition); and the Standard General Conditions of the Construction Contract ("General Conditions") (EJCDC C-700, 2007 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition), and the Narrative Guide to the 2007 EJCDC Construction Documents (EJCDC C-001, 2007 Edition).

This Agreement form assumes use of a Project Manual that contains the following documentary information for a construction project:

- Bidding Requirements, which include the advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders; and
- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.

The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter, and because many contracts are awarded without going through the bidding process. In some cases, however, the actual Bid may be attached as an exhibit to the Agreement to avoid extensive rekeying. (The definitions of terms used in this Agreement, including "Bidding Documents," "Bidding Requirements," and "Contract Documents," are set forth Article 1 of the General Conditions.)

Suggested provisions are accompanied by "Notes to User" to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location: doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in the Uniform Location of Subject Matter (EJCDC N-122).

EJCDC has designated Section 00520 for this Agreement. If this convention is used, the first page of the Agreement would be numbered 00520-1. If CSI's MasterFormat 04™ is being used for the Project Manual, consult MasterFormat 04 for the appropriate section number and number the pages accordingly.

For brevity, paragraphs of the Instructions to Bidders are referenced with the prefix "I," those of the Bid Form are referenced with the prefix "BF," and those of this Agreement are referenced with the prefix "A."

**NOTE:** EJCDC publications may be purchased from any of the organizations listed on the page immediately following the cover page of this document.



**SUGGESTED FORM OF AGREEMENT  
BETWEEN OWNER AND CONTRACTOR  
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)  
AS MODIFIED FOR THE  
CHACOAN I AML RECLAMATION PROJECT**

BUSINESS UNIT NOS. AND AMOUNTS TO ENCUMBER: \_\_\_\_\_

TOTAL AMOUNT OF CONTRACT NOT TO EXCEED: \_\_\_\_\_

BEGINNING DATE OF CONTRACT: \_\_\_\_\_

ENDING DATE OF CONTRACT: \_\_\_\_\_

THIS AGREEMENT is by and between \_\_\_\_\_ (“Owner”) and  
\_\_\_\_\_ (“Contractor”).

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents.  
The Work is generally described as follows:

See Exhibit “C”: Technical Specifications, Maps, and Drawings.

**ARTICLE 2 – THE PROJECT**

2.01 The Project for which the Work under the Contract Documents may be the whole or only  
a part is generally described as follows:

The work will involve reclamation, maintenance, and procurement of historic mining equipment at seven (7)  
AML Project Areas.

**ARTICLE 3 – ENGINEER**

The Project has been designed by Navajo AML Reclamation Program who ~~which~~ is to act as Owner’s  
representative, assume all duties and responsibilities, and have the rights and authority assigned to  
Engineer in the Contract Documents in connection with the completion of the Work in accordance  
with the Contract Documents.

## ARTICLE 4 – CONTRACT TIMES

### 4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

### 4.02 *Dates for Substantial Completion and Final Payment*

- A. The Work will be substantially completed on or before 31 December 2014, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before 31 December 2014.

~~for~~

### ~~4.02 *Days to Achieve Substantial Completion and Final Payment*~~

- ~~A. The Work will be substantially completed within \_\_\_\_ days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within \_\_\_\_ days after the date when the Contract Times commence to run.~~

### 4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500.00 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500.00 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

## ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

A. For all Work other than Unit Price Work, a lump sum of:  
All specific cash allowances are included in the above price in accordance with Paragraph 11.02 of the General Conditions.

B. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

### UNIT PRICE WORK

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>	<u>Bid Unit Price</u>	<u>Bid Price</u>
100	Earth Work	CYD	52,746	\$	\$
200	Re-vegetation	AC.	20	\$	\$
300	Gabion Work	CYD	622	\$	\$
400	Coal Fire Excavation	CYD	45,000	\$	\$
500	Concrete Cloth	FT	780	\$	\$
600	Rock Mulch	CYD	5,085	\$	\$
700	Concrete Grout Mix	CYD	162	\$	\$
800	Pipe Work	FT	820	\$	\$
900	Coal Mining Cart Procurement	EA.	3	\$	\$
Total of all Bid Prices (Unit Price Work)					\$

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions.

C. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

## ARTICLE 6 – PAYMENT PROCEDURES

### 6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

### 6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30<sup>th</sup> day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to 100% of the work completed ~~the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions, and less 10 percent of each payment as Retainage, and less the 4% Navajo Nation business activity tax.~~

- a. ~~10 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and~~
- b. ~~10 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).~~

- B. ~~Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less \_\_\_\_\_ percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.~~

### 6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

## ARTICLE 7 – INTEREST

- 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the rate of 0 percent per annum.

## ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."
- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## ARTICLE 9 – CONTRACT DOCUMENTS

### 9.01 Contents

A. The Contract Documents are as shown in Article 7 of Exhibit B. ~~consist of the following:~~

1. ~~This Agreement (pages 1 to \_\_, inclusive).~~
2. ~~Performance bond (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
3. ~~Payment bond (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
4. ~~Other bonds (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
  - a. ~~\_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
  - b. ~~\_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
  - c. ~~\_\_\_\_ (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
5. ~~General Conditions (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
6. ~~Supplementary Conditions (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
7. ~~Specifications as listed in the table of contents of the Project Manual.~~
8. ~~Drawings consisting of \_\_\_\_ sheets with each sheet bearing the following general title: \_\_\_\_ [or] the Drawings listed on attached sheet index.~~
9. ~~Addenda (numbers \_\_\_\_ to \_\_\_\_, inclusive).~~
10. ~~Exhibits to this Agreement (enumerated as follows):~~
  - a. ~~Contractor's Bid (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
  - b. ~~Documentation submitted by Contractor prior to Notice of Award (pages \_\_\_\_ to \_\_\_\_, inclusive).~~
  - c. ~~[List other required attachments (if any), such as documents required by funding or lending agencies].~~

11. ~~The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:~~

a. ~~Notice to Proceed (pages \_\_\_\_\_ to \_\_\_\_\_, inclusive).~~

b. ~~Work Change Directives.~~

c. ~~Change Orders.~~

B. ~~The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).~~

C. ~~There are no Contract Documents other than those listed above in this Article 9.~~

D. ~~The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.~~

## ARTICLE 10 – MISCELLANEOUS

### 10.01 *Terms*

A. ~~Terms used in this Agreement will have the meanings stated in the General Conditions (Exhibit A) and the Supplementary Conditions (Exhibit B).~~

### 10.02 *Assignment of Contract*

A. ~~Assignment of this Contract is restricted pursuant to Article 37 of Exhibit B. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.~~

### 10.03 *Successors and Assigns*

A. ~~As provided for in Article 40 of Exhibit B. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.~~

### 10.04 *Severability*

A. ~~As provided for in Article 39 of Exhibit B. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed~~



~~to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.~~

#### 10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

B. AMI Contractor Information Form for participation in the Applicant/Violator System (AVS) is attached as Exhibit "D".

C. Navajo Nation Certification Regarding Debarment and Suspension is attached as Exhibit "E".

#### ~~10.06 *Other Provisions*~~



IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf

This Agreement will be effective on \_\_\_\_\_ which is the Effective Date of the Agreement.

OWNER:

Navajo Nation

By: Ben Shelly

Title: President

Attest:

Title:

Address for giving notices:

P.O. Box # 1875

Window Rock, AZ 86515

CONTRACTOR

By:

Title:

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

Title:

Address for giving notices:

License No.:

(Where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Agent for service of process on Navajo Nation:

I have reviewed the terms and conditions of this agreement and they are in compliance with Navajo Nation Law.

Bidtah Becker, Assistant Attorney General  
Navajo Nation Department of Justice

Date

# **EXHIBIT A**

## **GENERAL CONDITIONS**

**EJCDC**

**C-700**

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

**STANDARD GENERAL CONDITIONS  
OF THE CONSTRUCTION CONTRACT  
AS MODIFIED FOR THE  
CHACOAN I AML RECLAMATION PROJECT**

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly by



AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
*A Practice Division of the*  
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

## EXHIBIT A

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition). **This document is Exhibit A to the C-520 for the Chacoan I AML Reclamation Project.**

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STANDARD GENERAL CONDITIONS OF THE  
CONSTRUCTION CONTRACT  
AS MODIFIED FOR  
THE CHACOAN I AML RECLAMATION PROJECT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the ~~Bidding Requirements or Contract Documents and printed with initial capital letters~~, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer/Owner which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder or Proposer*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement, also referred to as a Modification (see Article 17 of Exhibit B).
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work, referred to in the Contract Documents as either “Contract” or “Agreement”. ~~The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.~~

12. *Contract Documents*—Those items so designated in Article 7 of Exhibit B. in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work as provided for in Article 6 of the C-520 in accordance with all provisions in the Contract Documents, as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 herein for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the All Sections of the Technical Specifications, including all Maps and Drawings.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material, excluding natural geologically occurring radioactive material, in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—~~The total construction of which the~~ Work to be performed under the Contract Documents which may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications or Technical Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder or Proposer*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions (Exhibit B)*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and

furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 *Terminology*

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or



- c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 – PRELIMINARY MATTERS

### 2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the Owner ~~other, with copies to each additional insured identified in the Supplementary Conditions,~~ certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner ~~respectively are~~ is required to purchase and maintain in accordance with Article 5 herein.

### 2.02 *Copies of Documents*

- A. Contractor shall purchase a complete Project Manual and is responsible for all copying of the Project Manual necessary to complete the Work. ~~Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.~~

### 2.03 *Commencement of Contract Times; Notice to Proceed*

- A. ~~The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A~~

Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. ~~In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.~~

#### 2.04 *Starting the Work*

- A. Contractor shall start to perform the Work upon the Notice to Proceed~~on the date when the Contract Times commence to run~~. No Work shall be done at the Site prior to the Notice to Proceed~~date on which the Contract Times commence to run~~.

#### 2.05 *Before Starting Construction*

- A. Upon receipt of the NOTICE TO PROCEED, the CONTRACTOR shall have fifteen (15) CALENDAR DAYS to mobilize equipment to the site, unless otherwise specified. WORK shall commence in accordance with the TECHNICAL SPECIFICATIONS, MAPS and DRAWINGS. The CONTRACTOR shall provide the PROGRAM MANAGER with the following before the WORK commences:

1. A progress schedule for the proposed WORK in calendar form and proposed work hours in the specified sequence of WORK.
2. A list of personnel to be employed on the PROJECT, in conformance to the Navajo Preference in Employment Act.
3. A Health and Safety Plan approved by the OWNER, including rapid communication procedures with the closest available emergency response units and medical centers. All Health and Safety requirements set forth in Section 9 of the Technical Specifications will be adhered to.
4. Proof of all permits, licenses, BONDS, Certificate of Insurance and all other such items as required by the CONTRACT documents.
5. An updated list of equipment to be used to successfully complete the PROJECT. All equipment items are required to be inspected, documented, and approved by the OWNER prior to the usage on the PROJECT.
6. Qualifications and resumes of key personnel for the PROJECT will be submitted for OWNER's approval. The OWNER reserves the right to approve the assigned SUPERINTENDENT.
7. CONTRACTOR's Chain of Command for the PROJECT.
8. Notice of SUB-CONTRACTORS retained for the performance of the CONTRACT and subject to the OWNER's approval. Schedule of Values to be coordinated with the OWNER.
9. CONTRACTOR's Storm Water Pollution Prevention Plan.

- B. Prior to commencement of the WORK, the CONTRACTOR shall be in compliance with provisions set forth by all applicable Navajo Nation and federal laws including, but not limited to, the Navajo Preference in Employment Act, Navajo Business Opportunity Act, tax laws, cultural resources laws, historic preservation laws, environmental laws, and threatened and endangered species laws.

C. The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the PROPOSAL DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for care and protection of the WORK, or the restoration of any damaged WORK, except such caused by agents or employees of the OWNER.

D. The CONTRACTOR shall in advance, notify the ENGINEER within 24 hours of the actual time construction operations will begin. The CONTRACTOR shall not commence any actual construction prior to the date on which the NOTICE TO PROCEED is issued.

A. ~~Preliminary Schedules: Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:~~

- ~~1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;~~
- ~~2. a preliminary Schedule of Submittals; and~~
- ~~3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.~~

## 2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on



Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### **ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE**

#### **3.01 *Intent***

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9 herein.

#### **3.02 *Reference Standards***

- A. Standards, Specifications, Codes, Laws, and Regulations
  1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Navajo Nation Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A herein) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. *Resolving Discrepancies:*

1. ~~As provided for in Article 38 of Exhibit B. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:~~
  - a. ~~the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or~~
  - b. ~~the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).~~

### 3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive in accordance with a Modification pursuant to Article 17 of Exhibit B.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

#### A. Contractor and any Subcontractor or Supplier shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

#### B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

### 4.01 *Availability of Lands*

- A. Owner shall furnish the Site, with consent of the land user and chapter. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. ~~N/A Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.~~
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

### 4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The ~~Supplementary Conditions~~ Technical Specifications, Maps and Drawings identify:
  - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
  - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, along with information and data acquired by the requisite site visit, in submitting its bid and/or proposal. ~~, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions.~~ Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
  - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A herein, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A herein; and
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03 herein.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or



- b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A herein.
- 3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- 4. Any change or adjustment in the Contract Price, Contract Times, or Scope of Work for the Contract shall be in accordance with Article 17 of Exhibit B.

#### 4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
  - 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
  - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
    - a. reviewing and checking all such information and data;
    - b. locating all Underground Facilities shown or indicated in the Contract Documents;
    - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
    - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
- B. *Not Shown or Indicated:*
  - 1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith

(except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, in accordance with Article 17 of Exhibit B, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* ~~The Supplementary Conditions~~ Technical Specifications, Maps and Drawings identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, along with information and data acquired by the requisite site visit, ~~but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions.~~ Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. ~~N/A Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.~~
- D. ~~N/A If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.~~
- E. ~~N/A Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.~~
- F. ~~N/A If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.~~
- G. ~~N/A To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition,~~



~~provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~

- H. ~~To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.~~
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 – BONDS AND INSURANCE

### 5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds in accordance with Article 13 of Exhibit B. ~~, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.~~
- B. N/A ~~All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney in fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney in fact signed each bond.~~
- C. N/A ~~If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.~~

## 5.02 *Licensed Sureties and Insurers*

- A. ~~N/A All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.~~

## 5.03 *Certificates of Insurance*

- A. ~~Contractor shall provide insurance as required by Articles 12 and 14 of Exhibit B. deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.~~
- B. ~~Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.~~
- C. ~~Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.~~
- D. ~~Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.~~
- E. ~~The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.~~

## 5.04 *Contractor's Insurance*

- A. ~~Contractor shall purchase and maintain such insurance as is required pursuant to Articles 12 and 14 of Exhibit B. appropriate for the Work being performed and as will provide protection from elaims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:~~
- ~~1. elaims under workers' compensation, disability benefits, and other similar employee benefit acts;~~
  - ~~2. elaims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;~~

- ~~3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;~~
  - ~~4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - ~~a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or~~
    - ~~b. by any other person for any other reason;~~~~
  - ~~5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and~~
  - ~~6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.~~
- B. The policies of insurance required by this Paragraph 5.04 shall:
- ~~1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;~~
  - ~~2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;~~
  - ~~3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;~~
  - ~~4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);~~
  - ~~5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and~~

6. ~~include completed operations coverage:~~

a. ~~Such insurance shall remain in effect for two years after final payment.~~

b. ~~Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.~~

5.05 *Owner's Liability Insurance*

A. ~~N/A In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.~~

5.06 *Property Insurance*

A. ~~N/A Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~

1. ~~include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;~~
2. ~~be written on a Builder's Risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.~~
3. ~~include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);~~
4. ~~cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;~~
5. ~~allow for partial utilization of the Work by Owner;~~
6. ~~include testing and startup; and~~

7. ~~be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.~~
- B. ~~N/A Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.~~
- C. ~~N/A All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.~~
- D. ~~N/A Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~
- E. ~~N/A If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

5.07 ~~N/A Waiver of Rights~~

- A. ~~N/A Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners,~~



employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. ~~N/A~~ Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. ~~loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and~~
2. ~~loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.~~

C. ~~N/A~~ Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 ~~N/A~~ Receipt and Application of Insurance Proceeds

A. ~~N/A~~ Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. ~~N/A~~ Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 ~~N/A~~ Acceptance of Bonds and Insurance; Option to Replace

A. ~~N/A~~ If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the

~~objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.~~

5.10 N/A Partial Utilization, Acknowledgment of Property Insurer

- A. N/A ~~If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.~~

## ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

### 6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
  - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07 herein) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12 herein. Adjustments in Contract Times may only be made by a Change Order contract Modification in accordance with Article 17 of Exhibit B.

### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
  - 1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a



proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:
  - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
  - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
  - 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
  - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
  - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1 herein, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d herein, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:

- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and
  - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2 herein.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B herein. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B herein. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B herein), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions, General Requirements, or other contract documents require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity ~~except as may otherwise be required by Laws and Regulations.~~
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06 herein, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. ~~N/A To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.~~
- C. ~~To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer as provided for in Article 24 of Exhibit B, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.~~

#### 6.08 *Permits*

- A. ~~Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in~~

obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. ~~Owner~~ Contractor shall include in its bid and pay all charges of utility owners for the establishment of initial connections for providing permanent service to the Project that is subject of the Work.

#### 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any applicable Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to applicable Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with applicable Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times in accordance with Article 17 of Exhibit B. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05 herein.

#### 6.10 *Taxes*

- A. ~~Contractor's tax obligations are as provided for in Article 19 of Exhibit B. shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.~~

#### 6.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.



3. ~~To the fullest extent permitted by Laws and Regulations,~~ Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

4. Contractor shall limit and minimize disturbance to previously disturbed areas as provided for in the Technical Specifications.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

#### 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

#### 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
  - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions Technical Specifications identify any Owner's safety programs that are applicable to the Work. Contractor shall develop a health and safety plan as required by the Technical Specifications which is subject to approval by the Engineer.
  - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
  - E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 herein caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
  - F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B herein that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

## 6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued in accordance with Article 17 of Exhibit B.

## 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

### 1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

### 2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

### C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

- a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
- b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;



- c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
  3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

*D. Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 herein and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1 herein.

*E. Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

#### 6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

#### 6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees the Work in accordance with Article 41 of Exhibit B to ~~Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.~~
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
  - 1. observations by Engineer;
  - 2. recommendation by Engineer or payment by Owner of any progress or final payment;
  - 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
  - 4. use or occupancy of the Work or any part thereof by Owner;
  - 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
  - 6. any inspection, test, or approval by others; or
  - 7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. Indemnification shall be as provided for in Article 24 of Exhibit B. ~~To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but~~

~~not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.~~

- B. ~~N/A In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.~~
- C. ~~N/A The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:~~
  - 1. ~~the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or~~
  - 2. ~~giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.~~

#### 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner

and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## ARTICLE 7 – OTHER WORK AT THE SITE

### 7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. ~~If such other work is not noted in the Contract Documents, then:~~
  - 1. ~~written notice thereof will be given to Contractor prior to starting any such other work; and~~
  - 2. ~~if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.~~
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7 herein, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

## 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
  - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
  - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

## 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 herein are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

# ARTICLE 8 – OWNER'S RESPONSIBILITIES

## 8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

## 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

## 8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

## 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C herein.



8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. ~~N/A Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.~~

8.07 *Change Orders*

- A. Owner is ~~obligated to~~ may execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B herein.

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or for Contractor's compliance with the approved safety precautions and programs incident thereto, except as required under the Technical Specifications, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. ~~N/A Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.~~

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner approved ~~has been informed~~ pursuant to Paragraph 6.13.D.



## ARTICLE 9 – ENGINEER’S STATUS DURING CONSTRUCTION

### 9.01 *Owner’s Representative*

- A. Engineer will be Owner’s representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner’s representative during construction are set forth in the Contract Documents.

### 9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor’s executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer’s efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer’s visits and observations are subject to all the limitations on Engineer’s authority and responsibility set forth in Paragraph 9.09 herein. Particularly, but without limitation, during or as a result of Engineer’s visits or observations of Contractor’s Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09 herein. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer’s consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or

Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05 herein.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04 herein, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17 herein.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21 herein.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12 herein.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14 herein.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05 herein.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work there under. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05 herein. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B herein.

- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05 herein.
- D. ~~When functioning as interpreter and judge under this Paragraph 9.08 Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.~~

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or for Contractor's compliance with the safety precautions and programs incident thereto, except as required under the Technical Specifications or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A herein will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner/Engineer has approved been informed pursuant to Paragraph 6.13.D herein.

**ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive, in accordance with Article 17 of Exhibit B. Upon receipt of any such

document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05 herein.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D herein.

#### 10.03 *Execution of Change Orders*

- A. In accordance with Article 17 of Exhibit B, Owner and Contractor shall may execute appropriate Change Orders recommended by Engineer covering:
  - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A herein, (ii) required because of acceptance of defective Work under Paragraph 13.08.A herein or Owner's correction of defective Work under Paragraph 13.09 herein, or (iii) agreed to by the parties;
  - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05 herein; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A herein.

#### 10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

## 10.05 Claims

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09 herein, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim, and in the case of any claim for adjustment of volume of earthwork, shall require surveying measurements performed by a registered land surveyor. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C herein or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D herein will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 33 of Exhibit B ~~Article 16 within 30 days of such action or denial.~~
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.



## ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### 11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B herein, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B herein, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If ~~required by Owner~~, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01 herein.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:



- a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
- b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
- c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and

not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 herein or specifically covered by Paragraph 11.01.A.4 herein, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
  3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
  4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
  5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A herein.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C herein.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B herein, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

## 11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
    - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
    - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order ~~will~~ may be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price ~~shall~~ may be correspondingly adjusted in accordance with Article 17 of Exhibit B.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07 herein.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 herein if:
  1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
  2. there is no corresponding adjustment with respect to any other item of Work; and
  3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order in accordance with Article 17 of Exhibit B. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05 herein, and shall not exceed 20% of the original Contract amount.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows in the order of precedence listed below:

1. where the Work involved is covered by unit prices contained in the Contract Documents (fixed lump sum cost), by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03 herein); or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, by the actual cost of labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the WORK, and an additional amount to be agreed upon but not to exceed twenty (20) percent of the actual cost of the WORK to cover the cost of general overhead, profit and applicable taxes, etc.; by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
3. ~~where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2 herein, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01 herein) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C herein).~~

C. ~~Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:~~

1. N/A a mutually acceptable fixed fee; or
2. N/A if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
  - a. ~~for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;~~
  - b. ~~for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;~~
  - c. ~~where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;~~
  - d. ~~no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;~~
  - e. ~~the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and~~
  - f. ~~when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.~~

## 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order in accordance with Article 17 of Exhibit B. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05 herein.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12 herein.

## 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A herein. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, but not subcontractors hired by Contractor, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7 herein, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C herein.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.



## ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

### 13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### 13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### 13.03 *Tests and Inspections*

- A. Except for final inspection by Engineer, all inspections and tests are the responsibility of the Contractor in accordance with the Technical Specifications. ~~shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.~~
- B. ~~N/A Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~
  - 1. ~~for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;~~
  - 2. ~~that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and~~
  - 3. ~~as otherwise specifically provided in the Contract Documents.~~
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.



- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefore as provided in Paragraph 10.05 herein.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed ~~an increase in the Contract Price or~~ an extension of the Contract Times, ~~or both~~, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the ~~amount or~~ extent thereof, Contractor may make a Claim therefore as provided in Paragraph 10.05 herein.

#### 13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, including the Technical Specifications, Owner may order Contractor, and any subcontractor of Contractor, to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims,

costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within ~~one~~ two years after the date of Substantial Completion (~~or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents~~) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall in accordance with Article 41 of Exhibit B promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
  2. correct such defective Work; or
  3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting there from.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

#### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner at its sole option may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05 herein. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

#### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A herein, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05 herein. Such claims, costs, losses and damages will include but not

be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

### 14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### 14.02 *Progress Payments*

#### A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as provided in Article 6.02 of the C-520 Agreement. stipulated in the Agreement.

#### B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
  - a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07 herein, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2 herein. Engineer may also refuse to recommend any such payment or,



because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09 herein; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A herein.

*C. Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

*D. Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or
  - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 herein, and subject to interest as provided in the Agreement.



#### 14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

#### 14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or

which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A herein through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 herein will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. ~~No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.~~

#### 14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies. Nothing herein shall limit the rights of the Owner to further warranty inspection within the two year period provided under Article 41 of Exhibit B.

#### 14.07 *Final Payment*

##### A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12 herein), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:

- a. all documentation called for in the Contract Documents, ~~including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;~~
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and
  - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

*B. Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09 herein. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

*C. Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, including any retainage withheld by Owner, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

*14.08 Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully

completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06 herein and Article 41 of Exhibit B, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

#### 15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05 and such claim is approved by the Engineer.

#### 15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of applicable Laws or Regulations of any public body having jurisdiction;
3. Contractor's repeated disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
  2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B herein, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will not be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C herein, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A herein, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;



2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
  4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03 herein.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 herein are not intended to preclude Contractor from making a Claim under Paragraph 10.05 herein for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

### ARTICLE 16 – DISPUTE RESOLUTION

#### 16.01 *Methods and Procedures*

- A. ~~Dispute Resolution shall be in accordance with Article 33 of Exhibit B. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.~~



- B. ~~Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.~~
- C. ~~If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:~~
- ~~1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or~~
  - ~~2. agrees with the other party to submit the Claim to another dispute resolution process; or~~
  - ~~3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.~~

## ARTICLE 17 – MISCELLANEOUS

### 17.01 ~~Giving Notice Load Restrictions~~

- A. The CONTRACTOR shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the WORK. A special permit will not relieve the CONTRACTOR of liability for damage that may result from moving material or equipment.
- A. ~~N/A Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:~~
- ~~1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or~~
  - ~~2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.~~

### 17.02 ~~Computation of Times Project Publicity~~

- A. The OWNER shall be the sole provider of information about the WORK to area residents, utility companies, and County, State and Federal Agencies, and individuals from the media. The OWNER must approve any contacts by the CONTRACTOR with these groups. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 ~~Cumulative Remedies Drug and Alcohol Policy~~

- A. The CONTRACTOR agrees to advise its employees and the employees of its SUB-CONTRACTORS and agents that it is the policy of the OWNER that (1) the manufacture,

dispensation, or sale, offer for sale, purchase, use, transfer, or possession of illegal drugs or alcohol on the AML job site is prohibited; (2) employees, while on the OWNER's premises, are prohibited from being under the influence of drug or alcohol ("Under the Influence" means that the employee is affected by drug or alcohol in any detectable manner); (3) entry onto the AML job sites constitutes consent to an inspection of the employee and his or her vehicle as personal effects while entering or leaving premises; (4) any employee who is found in violation of the Policy or who refuses to permit an inspection may be removed or barred from the Navajo Nation at the discretion of the OWNER. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

- B. Regarding employees that work on the OWNER's premises, the Contractor agrees to implement a Drug and Alcohol Policy no less stringent than the Navajo Nation's policy.

#### 17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

#### ~~17.05 *Controlling Law*~~

- A. ~~This Contract is to be governed by the law of the state in which the Project is located.~~

#### ~~17.06 *Headings*~~

- A. ~~Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.~~

**Engineers Joint Documents Committee  
Design and Construction Related Documents  
Instructions and License Agreement**

**Instructions**

**Before you use any EJCDC document:**

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2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
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4. Also note the instruction in the License Agreement about the EJCDC copyright.

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2. Use **EJCDC Design and Construction Related Documents** in printed form for bona fide contract documents.
3. Copy **EJCDC Design and Construction Related Documents** into any machine readable or printed form for backup or modification purposes in support of your use of **EJCDC Design and Construction Related Documents**.

**You agree that you will:**

- 1) Reproduce and include EJCDC's copyright notice on any printed or machine-readable copy, modification, or portion merged into another document or program. All proprietary rights in **EJCDC Design and Construction Related Documents** are and shall remain the property of EJCDC.
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You may not use, copy, modify, or transfer **EJCDC Design and Construction Related Documents**, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in this license. Reproduction of **EJCDC Design and Construction Related Documents** in printed or machine-readable format for resale or educational purposes is expressly prohibited.

If you transfer possession of any copy, modification or merged portion of **EJCDC Design and Construction Related Documents** to another party, your license is automatically terminated.

**Term:**

The license is effective until terminated. You may terminate it at any time by destroying **EJCDC Design and Construction Related Documents** altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in

this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy **EJCDC Design and Construction Related Documents** along with all copies, modifications and merged portions in any form.

**Limited Warranty:**

EJCDC warrants the CDs and diskettes on which **EJCDC Design and Construction Related Documents** is furnished to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in **EJCDC Design and Construction Related Documents** will meet your requirements or that the operation of **EJCDC Design and Construction Related Documents** will be uninterrupted or error free.

**Limitations of Remedies:**

EJCDC's entire liability and your exclusive remedy shall be:

1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

**General:**

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq.  
General Counsel  
National Society of Professional Engineers  
1420 King Street  
Alexandria, VA 22314

Phone: (703) 684-2845  
Fax: (703) 836-4875  
e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

## **EXHIBIT B**

# **NAVAJO NATION SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION CONTRACTS**

NAVAJO NATION SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION CONTRACTS- as modified for EJCDC AML Projects  
 This document is EXHIBIT B to the EJCDC C-520 ©2004 " SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND  
 CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)" entered into between the Navajo Nation and  
 \_\_\_\_\_ (the "Primary Contract") for the

**CHACOAN I AML RECLAMATION PROJECT**

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**NAVAJO NATION SUPPLEMENTAL GENERAL CONDITIONS**  
**FOR CONSTRUCTION CONTRACTS - EJCDC (NNSGCCC-EJCDC)**

- 1.0 IDENTIFICATION OF THE PARTIES; PROJECT.** This Contract is entered into by and between the Navajo Nation and \_\_\_\_\_. In the Primary Contract and all Exhibits the Navajo Nation is referred to either as "Navajo Nation" or "Owner" and \_\_\_\_\_ is referred to as "Contractor." The Navajo Nation and Contractor are herein jointly referred to as "Parties." The Contractor's authorized Representative and the Navajo Nation's authorized Representative are named in the Primary Contract. The Project that is the subject of this Contract is the "**Chacoan I AML Reclamation Project**" hereinafter referred to as "the Project." *[IF TWO OR MORE BUSINESS ENTITIES ARE AWARDED THIS CONTRACT, EACH BUSINESS ENTITY MUST BE SEPARATELY IDENTIFIED, AND EACH MUST EXECUTE THIS CONTRACT, SEE ARTICLE 6 HEREIN]*
- 2.0 BUSINESS UNIT NUMBER(S) AND AMOUNT(S) TO ENCUMBER:** Business Unit No. \_\_\_\_\_, amount to encumber is \$ \_\_\_\_\_; Business Unit No. \_\_\_\_\_, amount to encumber is \$ \_\_\_\_\_ *[MUST ALSO BE SHOWN ON THE FRONT PAGE OF THE PRIMARY CONTRACT]*.
- 3.0 AMOUNT OF CONTRACT NOT TO EXCEED:** \_\_\_\_\_ dollars (\$ \_\_\_\_\_), which amount is the Original Contract Amount *[MUST ALSO BE SHOWN ON THE FRONT PAGE OF THE PRIMARY CONTRACT]*. THE ORIGINAL CONTRACT AMOUNT SHOWN HEREIN SHALL NOT EXCEED THE CONTRACTOR'S BID SUBMITTED IN ACCORDANCE WITH 12 N.N.C. §331, AND ACCEPTED BY THE NAVAJO NATION FOR THE PROJECT ("ACCEPTED BID"), unless the Navajo Nation agrees to include in the Original Contract Amount any reasonable costs that will be incurred on account of the Contractor's compliance with this Contract.
- 4.0 CONTRACT NUMBER.** This Contract shall be assigned a Contract Number by the Navajo Nation Division of Finance, which number shall be shown on the front page of the Primary Contract. Reference to said Contract Number shall be indicated on all invoices submitted to the Navajo Nation for payment, and reference to the Project and the Business Unit Number for each payment shall be on all invoices submitted by the Contractor to the Navajo Nation.
- 5.0 EFFECTIVE DATE; TERM.** The effective beginning and ending date of this Contract are as shown on the first page of the Primary Contract. This Contract shall expire on the ending date shown on the first page of the Primary Contract, unless earlier terminated, or the effective duration of this Contract is extended by a Modification duly approved by the Parties in accordance with Article 17.0 herein. AN EXACT DATE MUST BE SPECIFIED FOR THE ENDING DATE OF THE CONTRACT; THIS CONTRACT SHALL NOT BE CONSIDERED "OPEN-ENDED" WITH REGARDS TO ANY PAYMENTS OR EXPIRATION DATE.
- 6.0 IDENTIFICATION OF CONTRACTOR AND ANCILLARY FIRMS.**
- 6.1 Contractor and ancillary firms must execute contract.** If two or more business entities will be performing services under this Contract, and the award of this Contract is based wholly or partially on the licensing or other relevant qualifications of any one of said firms (regardless if an ancillary firm is merely subcontracting with the primary firm who submitted a Bid), then ALL such business entities:
- (1) must have jointly submitted a Bid for the Project that is the subject of this Contract; and,
  - (2) must have signed the Submittal Letter accompanying their Bid; and,
  - (3) must have been evaluated and ranked jointly, with the licensing and other relevant qualifications of all entities considered jointly; and,



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(4) must have been jointly selected for this Contract as a team, based on the relevant qualifications of each separate entity (primary firm and ancillary firm(s) together); and,

(5) must execute this Contract and shall be jointly and severally bound by the terms contained herein.

**6.2 Contractor entities and persons.** THE FOLLOWING NAMED SINGLE BUSINESS ENTITY, OR TWO OR MORE BUSINESS ENTITIES, HAS/HAVE SUBMITTED A SINGLE BID FOR CONSIDERATION FOR A CONTRACT AWARD FOR THE PROJECT, AND SHALL EXECUTE THIS CONTRACT:

(1) \_\_\_\_\_  
 name of business entity address of business entity  
 \_\_\_\_\_  
 individual with business entity individual's title  
 \_\_\_\_\_  
 individual's/business entity's role in the Project

this individual has signature authority  
 to legally bind the business entity:  
 yes / no

(2) \_\_\_\_\_  
 name of business entity address of business entity  
 \_\_\_\_\_  
 individual with business entity individual's title  
 \_\_\_\_\_  
 individual's/business entity's role in the Project

this individual has signature authority  
 to legally bind the business entity:  
 yes / no

(3) \_\_\_\_\_  
 name of business entity address of business entity  
 \_\_\_\_\_  
 individual with business entity individual's title  
 \_\_\_\_\_  
 individual's/business entity's role in the Project

this individual has signature authority  
 to legally bind the business entity:  
 yes / no

**6.3 Filing of business documents.** All documents regarding the creation and establishment of the Contractor as a single business entity (or each entity if a team) in accordance with applicable state law (foreign corporation) or Navajo Nation law (domestic corporation), which documents may be a corporate charter, operating agreement, by-laws, joint venture agreement, teaming agreement, LLC, etc., shall be submitted to the Navajo Nation's Business Regulatory Department ("NNBRD") prior to the award of this Contract. Said submission requirements apply whether or not the Contractor (or any entity of a team) has obtained a Priority One or Priority Two Certification as a Navajo-owned entity under 5 N.N.C. §204 A.1. or §204 A.2., or intends to apply for such certification [SEE ARTICLE 10.2 HEREIN, NNBRD REGISTRATION REQUIREMENTS].

**6.4 Conditions of the Contract.** All requested information and requirements set forth in this Article 6 are an express condition precedent to the award of this Contract by the Navajo Nation, except as provided for in Article 11.2 herein (ineligibility or unavailability of ancillary firm(s) prior to the Nation's execution of Contract).

NAVAJO NATION SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION CONTRACTS- as modified for EJCDC AML Projects  
 This document is EXHIBIT B to the EJCDC C-520 ©2004 "SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)" entered into between the Navajo Nation and \_\_\_\_\_ (the "Primary Contract") for the

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**7.0 DOCUMENTS CONSTITUTING THE CONTRACT.** The following:

- 7.1 the EJCDC Document C-520 ©2004 "SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE) AS MODIFIED FOR THE CHACOAN I AML RECLAMATION PROJECT" with signature execution page (hereinafter referred to as the "Primary Contract")
- 7.2 Exhibit A the EJCDC Document C-700 ©2002 "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT AS MODIFIED FOR THE \_\_\_\_\_ PROJECT"
- 7.3 Exhibit B this "Navajo Nation Supplemental General Conditions for Construction Contracts – EJCDC"
- 7.4 Exhibit C "Technical Specifications, Maps and Drawings"
- 7.5 Exhibit D "AML Contractor Information Form for participation in the Applicant/Violator System (AVS)"
- 7.6 Exhibit E "Navajo Nation Certification Regarding Debarment and Suspension"

are to be considered collectively as one agreement/contract and the term "Contract" whenever used herein shall be deemed to include all such documents and all provisions therein.

**8.0 PRIMARY WORK LOCATION.** In the performance of work or provision of services pursuant to this Contract the Contractor is authorized to travel at Contractor's sole expense. The work to be performed and/or services to be provided shall be primarily within the \_\_\_\_\_ Chapter of the Navajo Nation, state of \_\_\_\_\_.

**9.0 AVAILABILITY OF FUNDS.**

- 9.1 **Appropriations required.** Pursuant to 2 N.N.C. §223 A, the obligation of the Navajo Nation to pay Contractor the entire Original Contract Amount, or any portion thereof as invoiced, or any amounts under any and all change orders, amendments, or modifications to this Contract, shall be contingent upon the availability of funds, from whatever source, at the time payment to the Contractor is due. Any available funds must be appropriated or allocated specifically for the Project which is the subject of this Contract.
- 9.2 **Subsequent fiscal periods.** Pursuant to 12 N.N.C. §350 D, if funds adequate to support continuation of performance under this Contract are not appropriated or otherwise become unavailable during any fiscal period(s) subsequent to that period in which this Contract is entered into, then this Contract may be cancelled at the sole discretion of the Navajo Nation, but no sooner than fourteen (14) business days following the Navajo Nation's notification to Contractor of cancellation.
- 9.3 **Payment upon cancellation.** In the event of such cancellation, Contractor shall be reimbursed only for the reasonable value of any non-recurring costs incurred on account of work performed or services provided under this Contract up to the date of notification of cancellation, whether or not invoice(s), billing(s), or payment application(s) have been received by the Navajo Nation for such work or services prior to the date of cancellation, except for costs amortized in the price of such work or services.

**10.0 LICENSING & REGISTRATION REQUIREMENTS.**

- 10.1 **State license required.** As an express condition of the award of this Contract, AT LEAST ONE OF THE CONTRACTOR'S INDIVIDUAL OWNERS, CO-OWNERS, PRINCIPALS, PARTNERS, MANAGERS, TEAM MEMBERS, OFFICERS, EMPLOYEES, OR SUBCONTRACTORS, AS IDENTIFIED IN ARTICLE 6.2 HEREIN, SHALL PROVIDE A CURRENT AND VALID LICENSE FROM AN APPROPRIATE STATE LICENSING BOARD OR AGENCY FOR THE TYPE OF WORK TO BE PERFORMED AND SERVICES TO BE PROVIDED BY THE CONTRACTOR, WHICH LICENSE IS CUSTOMARILY MAINTAINED IN THE CONTRACTOR'S INDUSTRY (a valid license held by an individual with an ancillary firm shall be acceptable, so long as the provisions of Article 6 herein are satisfied). Each entity or individual listed in Article 6.2 herein shall indicate its business name, business address, and state license number on the Primary Contract, or in an exhibit to the Primary

Contract. Said license must be issued by the state shown in Article 8.0 herein. For the entire duration of performance under this Contract, said license must be maintained as active and current and must remain directly associated with a signatory party to this Contract, and failure of such shall be deemed a material breach for which the Navajo Nation may terminate this Contract.

- 10.2 **Business registration required.** EACH ENTITY OR INDIVIDUAL IDENTIFIED IN ARTICLE 6.2 SHALL BE REGISTERED TO DO BUSINESS WITH AN APPROPRIATE STATE AGENCY, AS EITHER AS A DOMESTIC OR FOREIGN BUSINESS ENTITY WITHIN SUCH STATE, and each shall indicate its business name, business address, and state business registration number on the Primary Contract, or in an exhibit to the Primary Contract. Said registration must be issued by the state shown in Article 8.0 herein. For the entire duration of performance under this Contract, said registration must be maintained as active and current and must remain directly associated with a signatory party to this Contract, and failure of such shall be deemed a material breach for which the Navajo Nation may terminate this Contract. EACH MUST ALSO COMPLY WITH THE REGISTERED AGENT AND BUSINESS REGISTRATION REQUIREMENTS OF THE NNBRD AND BE DULY APPROVED TO ENGAGE IN BUSINESS ACTIVITY WITHIN THE NAVAJO NATION (see 5 N.N.C. §3170, §3171, §3166).

- 11.0 **RIGHT TO REFUSE CONTRACT.** The Navajo Nation reserves its right to refuse to execute this Contract if the Director of the \_\_\_\_\_ issues a written determination that any of the following 11.1 – 11.7 has occurred prior to the Nation's execution of this Contract:

- 11.1 **faulty procurement;** a document, procedure, decision, action, or other event pertaining to the procurement of this Contract, or to any related pre-procurement activities, is in violation of any applicable Navajo Nation, federal, or state laws or regulations governing said procurement; or
- 11.2 **ancillary firm(s);** an ancillary firm is ineligible for the award of this Contract or is unavailable to perform on the Project, for any reason; in such case, the Navajo Nation may, in its discretion, either (1) reject the selected Bid containing the ancillary firm's qualifications and refuse to execute this Contract; or (2) decide not to reject the Bid and consider only the license and relevant qualifications of the Contractor standing alone; or (3) decide not to reject the Bid and permit another equally/more qualified firm to perform those Contract services that would have been performed by the ineligible or unavailable firm; or
- 11.3 **lack of funding availability;** funding for the Scope of Work, as specifically described in the Invitation to Bid ("ITB") or any addenda, has become wholly or partially unavailable; in which case the ITB for this Project shall be cancelled in accordance with Section XIII(B) of the Navajo Nation Procurement Rules and Regulations, and this Contract shall not be executed until completion of a new procurement process for this Project; or
- 11.4 **change to SOW or other requirements;** there has been a change to the Scope of Work or any other mandatory requirement, as specifically described in the ITB or any addenda; in which case additional procedures under Section XIII(A) of the Navajo Nation Procurement Rules and Regulations shall be required and this Contract shall not be executed until the completion of such procedures; or
- 11.5 **change to Budget/MFP;** there has been a revision (whether increase or decrease) of the Maximum Feasible Price that was originally established by the Navajo Nation prior to the initiation of the procurement process for this Contract; in which case additional procedures under Section XIII(A) of the Navajo Nation Procurement Rules and Regulations shall be required and this Contract shall not be executed until the completion of such procedures; or
- 11.6 **protest filed;** a protest has been timely filed in accordance with 12 N.N.C. §360(A), unless a determination has been made to proceed with a Contract award pursuant to 12 N.N.C. §360(F); or
- 11.7 **other reasons cited in Regulations;** any of the following pertains to this procurement:
- (1) inadequate or ambiguous specifications were cited in the ITB;
  - (2) the services contemplated under this Contract are no longer required;

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- (3) the ITB did not provide for consideration of all factors of cost to the Navajo Nation
- (4) all Bids received indicate that the needs of the Navajo Nation can be satisfied by a less expensive service differing from that described in the ITB;
- (5) all Bids received exceed the Maximum Feasible Price;
- (6) the selected Bid was collusive, contained fraudulent statements or information, contained any material misrepresentation, or was submitted in bad faith;
- (7) cancellation of the ITB and refusal to enter into this Contract is in the best interest of the Navajo Nation.

**12.0 LIABILITY INSURANCE.** The Contractor shall, at its sole expense, procure and maintain adequate and sufficient insurance for all of Contractor's potential liabilities, in accordance with this Article 12.0, relating to any claims by any party for any injury to persons or damage to property arising out of or connected with any work performed or services provided under this Contract by the Contractor; such insurance shall remain in effect for the duration of performance under this Contract up to and including the date and time of issuance of a Certificate of Occupancy for the Project or the until effective date and time of the Contractor's warranty for the Project, whichever occurs last.

**12.1 Minimum Insurance Coverages.** Contractor shall obtain and maintain minimum coverages shown as follows:

(a) **Commercial General Liability – ISO CG 0001 Form or equivalent.** Coverages shall include:

- Premises and Operations
- Personal/Advertising Injury
- Products/Completed Operations
- Liability assumed under an Insured Contract (including defense costs assumed under contract)
- Broad Form Property Damage
- Independent Engineers/Consultants

(b) **Automobile Liability** including all:

- Contractor-Owned Vehicles
- Non-owned Vehicles
- Rented/Hired Vehicles
- Personal Injury Protection (where applicable)

(c) **Workers' Compensation:**

- Statutory Benefits (Coverage A)
- Employers Liability (Coverage B)

(d) **Professional Liability** - Errors and Omissions Liability (where applicable). Contractor, or its subcontractors as appropriate, shall maintain Professional Liability (Errors and Omissions) insurance covering wrongful acts, errors and/or omissions for damage sustained by reason of or in the course of performance under this Contract.

It is agreed between the Nation and the Contractor that this Contract ☐ does ☐ does not involve the Contractor providing professional services. If it has been agreed that the Contractor is not providing professional services, professional liability insurance is not required.

**12.2 Limits required.** Contractor shall carry the limits of liability shown below ("state Law" means limits shall be in accordance with laws and regulations of the state wherein this Contract shall be primarily performed):

<b>COMMERCIAL GENERAL LIABILITY</b>	
GENERAL AGGREGATE	\$ 2,000,000
PRODUCTS/COMPLETED OPERATIONS AGGREGATE	\$ 2,000,000

NAVAJO NATION SUPPLEMENTAL GENERAL CONDITIONS FOR **CONSTRUCTION** CONTRACTS- as modified for EJCDC AML Projects  
 This document is EXHIBIT B to the EJCDC C-520 ©2004 " SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND  
 CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)" entered into between the Navajo Nation and  
 \_\_\_\_\_ (the "Primary Contract") for the

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OCCURRENCE BASIS/ PER EACH OCCURRENCE LIMIT	\$ 1,000,000
PERSONAL/ADVERTISING INJURY	\$ 1,000,000
FIRE DAMAGE (ANY ONE FIRE)	\$ 50,000
MEDICAL PAYMENTS (ANY ONE PERSON)	\$ 5,000
<b>AUTOMOBILE LIABILITY</b>	
BODILY INJURY/PROPERTY DAMAGE (EACH ACCIDENT)	\$ 1,000,000
PERSONAL INJURY PROTECTION (IF APPLICABLE)	BY STATE LAW
<b>WORKERS' COMPENSATION</b>	
COVERAGE A (WORKERS' COMPENSATION)	BY STATE LAW
COVERAGE B (EMPLOYERS LIABILITY)	\$ 500,000
<b>PROFESSIONAL LIABILITY (ERRORS AND OMISSIONS)</b>	
OCCURRENCE BASIS/PER EACH OCCURRENCE LIMIT	\$ 1,000,000
AGGREGATE MINIMUM	\$ 2,000,000

- 12.3 **Claims-made basis.** IN THE EVENT CONTRACTOR'S LIABILITY INSURANCE REQUIRED BY THIS CONTRACT IS WRITTEN ON A CLAIMS-MADE BASIS, THE CONTRACTOR SHALL WARRANT THAT ANY RETROACTIVE DATE UNDER THE POLICY SHALL PRECEDE THE EFFECTIVE DATE OF THIS CONTRACT, AND EITHER CONTINUOUS COVERAGE WILL BE MAINTAINED OR AN EXTENDED DISCOVERY PERIOD WILL BE EXERCISED FOR A PERIOD OF TWO (2) CALENDAR YEARS BEGINNING AS OF THE DATE PERFORMANCE IS COMPLETED.
- 12.4 **Primary coverage basis.** For payment of any claims, Contractor's insurance coverage shall be on a primary, non-contributory basis with other coverages and/or self-insurance carried by the Navajo Nation or other sources.
- 12.5 **Required language.** The Contractor's General Liability and Umbrella Liability policy shall be endorsed to include the following language: "THE NAVAJO NATION, ITS ELECTED OFFICIALS, EMPLOYEES, AGENTS, AND VOLUNTEERS ARE NAMED AS AN ADDITIONAL INSURED WITH RESPECT TO LIABILITY ARISING OUT OF THE ACTIVITIES PERFORMED BY THE INSURED [THE CONTRACTOR] PURSUANT TO A CONTRACT WITH THE NAVAJO NATION." (ISO Forms CG 2010 and CG 20 37 "Additional Insured-Owners, Lessees or Engineers-Completed Operations" 2004 Editions or equivalent).
- 12.6 **Waiver of subrogation.** All Contractor's policies shall contain a waiver of subrogation in favor of the Navajo Nation, its divisions, departments, offices, agencies, boards, commissions, committees, enterprises and its employees, officers, officials, and agents for losses arising from work performed or services provided by the Contractor pursuant to a Contract with the Navajo Nation.
- 12.7 **Separation of Insureds.** Contractor's policy shall include a "Separation of Insureds" clause (Cross Liability).
- 12.8 **Insurer rating.** The Contractor's insurance policy shall be issued by a licensed or approved insurer with an "A.M. Best" rating of not less than A- VII. The Navajo Nation in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.
- 12.9 **Certificates of insurance.** The Contractor shall provide to the Navajo Nation certificates of insurance as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Each insurance policy required by this Contract must be in effect upon, or prior to, commencement of performance under this Contract and shall remain in effect until such time as all of its obligations under this Contract or any subsequent modifications have been fully and satisfactorily completed. Insurance certificates shall be sent to the Navajo Nation Department of Risk Management, P.O. Box 1690, Window Rock, Arizona, 26515. The Contract Number and a description of the work performed or services provided thereunder shall be indicated on such certificates.
- 12.10 **Subcontractors.** Contractor's subcontractors shall be included as insureds under Contractor's policy, or Contractor shall provide separate certificates and endorsements for each of its subcontractors holding separate policies, which policies shall meet the minimum policy amounts shown herein.



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- 12.11 **Notification of change required.** The insurance policy required herein shall provide the required coverage and shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty (30) calendar days prior written notice has been given to the Navajo Nation. Such notice shall be sent directly to the address shown in Article 12.10 herein and shall be sent by certified mail, return receipt requested.
- 12.12 **Approval of modifications.** Any modifications of the insurance requirements set forth herein shall be approved by the Navajo Nation Risk Management Program, whose decision shall be final. Such modification shall not require a formal Contract modification, but may be approved by administrative action of the Risk Management Program. Contractor may request, for itself or its subcontractors, that the insurance requirements shown herein be modified, provided that such request include a justification for the modification with supporting documentation and be delivered in writing to the Risk Management Program prior to contract execution or modification. Any modifications approved shall on a case-by-case basis and shall not affect the insurance requirements of other subcontractors for whom modifications have not been approved. ALL MODIFICATIONS SHALL BE APPROVED BY THE NAVAJO NATION RISK MANAGEMENT PROGRAM PRIOR TO COMMENCEMENT OF ANY PERFORMANCE UNDER THIS CONTRACT.
- 12.13 **Navajo Nation disclaimers.** The insurance requirements and coverages set forth herein are minimum requirements only and in no way limit the indemnity covenants contained in this Contract. The Navajo Nation in no way warrants that the minimum limits herein are sufficient to protect Contractor or its subcontractors from any liabilities arising from any work performed or services provided under this Contract, and Contractor and its subcontractors are free to purchase additional insurance. By requiring such minimum insurance, the Navajo Nation shall not be deemed to have assessed any risks that may be applicable to Contractor under the Contract. Contractor shall assess all risks and may maintain higher limits and/or broader coverages. Contractor is not relieved of any liability or other obligations assumed or pursuant to this Contract due to failure to obtain or maintain insurance in sufficient amounts, duration, or types.
- 12.14 **No sovereign immunity waiver.** The Parties acknowledge and agree that the Navajo Nation is relying on, and does not waive or intend to waive by any provision of this Contract, the monetary limitations and other rights, immunities, and protections provided under 1 N.N.C. §§551 et. seq., as from time to time amended, or otherwise available to the Navajo Nation or its elected officials, employees, agents, and volunteers.
- 12.15 **Mutual cooperation.** The Navajo Nation and Contractor shall cooperate in good faith in the collection of any insurance proceeds which may be payable in the event of any loss, including the execution and delivery of any proof of loss or other actions required to effect recovery.
- 12.16 **Contractor's Insurance.** THE CONTRACTOR, AND EACH ENTITY OF A TEAM, SHALL MAINTAIN INSURANCE AS REQUIRED HEREIN, FOR THE SPECIFIC TYPE OF WORK TO BE PERFORMED AND SERVICES TO BE PROVIDED BY SUCH ENTITY OR INDIVIDUAL.
- 12.17 **Insurance documentation required.** THE NATION'S REPRESENTATIVE MUST RECEIVE WRITTEN DOCUMENTATION OF ALL REQUIRED INSURANCE PRIOR TO ISSUANCE OF A NOTICE TO PROCEED FOR THE PROJECT, AND CONTRACTOR SHALL NOT COMMENCE ANY WORK OR SERVICES UNDER THIS CONTRACT UNLESS AND UNTIL SUCH DOCUMENTATION HAS BEEN SUBMITTED TO THE NAVAJO NATION.

**13.0 BONDING REQUIREMENTS.**

- 13.1 **Performance Bond.** CONTRACTOR SHALL PROVIDE TO THE NAVAJO NATION A PERFORMANCE BOND UNDERWRITTEN AND EXECUTED BY A SURETY COMPANY THAT GUARANTEES THE CONTRACTOR'S COMPLETE AND SATISFACTORY PERFORMANCE UNDER THE CONTRACT. The Performance Bond must be one-hundred percent (100%) of the Original Contract Amount, unless otherwise provided for in Article 13.3 herein, and shall remain effective for two (2) years after substantial completion of the Work.
- 13.2 **Payment Bond.** CONTRACTOR SHALL PROVIDE TO THE NAVAJO NATION A PAYMENT BOND UNDERWRITTEN AND EXECUTED BY A LICENSED SURETY COMPANY THAT WILL PROTECT ALL PERSONS, SUBCONTRACTORS, OR OTHER ENTITIES SUPPLYING LABOR AND MATERIAL TO CONTRACTOR OR ITS



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SUBCONTRACTORS FOR PERFORMANCE UNDER THIS CONTRACT. The Payment Bond must be one-hundred percent (100%) of the Original Contract Amount, unless otherwise provided for in Article 13.3 herein. The Payment Bond must be provided in addition to the Performance Bond required in Article 13.1 herein.

**13.3 Lesser Bond amounts; substitutes.** The Owner, with the concurrence of the Navajo Nation Controller or his/her designee, may allow acceptance of a Performance Bond or a Payment Bond, or both, that is fifty percent (50%) of the Original Contract Amount, so long as either (1) the Navajo Nation withholds at least a fifty percent (50%) Retainage in accordance with Article 22.0 herein; or, (2) the Contractor provides an irrevocable Letter of Credit that is at least fifty percent (50%) of the Original Contract Amount. The fifty percent (50%) amount of the Original Contract Amount may be covered by a combination of Retainage and an irrevocable Letter of Credit, BUT IN NO CASE SHALL A PERFORMANCE BOND OR PAYMENT BOND EACH BE IN AN AMOUNT LESS THAN FIFTY PERCENT (50%) OF THE ORIGINAL CONTRACT AMOUNT.

**13.4 Bonding documentation required.** The Owner must receive written documentation of all required bonds prior to the issuance of a Notice to Proceed for the Project, and Contractor shall not commence any work or services under this Contract until such documentation is received by the Navajo Nation.

**14.0 OTHER INSURANCE.**

**14.1 Builder's Risk insurance.** The Contractor shall obtain, on behalf of the Navajo Nation, a "Builder's Risk" insurance policy for all aspects of the Project; such insurance coverage shall be in amount adequate to cover any potential loss, relating to the Project or any portion thereof, that may occur prior to the effective date and time of the Navajo Nation's property insurance coverage for the Project. At the sole discretion of the Navajo Nation, the Original Contract Amount may be increased to accommodate the cost of Builder's Risk insurance if such cost was not included in the Original Contract Amount.

**14.2 Navajo Nation's property insurance.** The Navajo Nation shall provide and maintain its usual property insurance coverage for all Navajo Nation-owned property, which coverage shall include the Project property. THE CONTRACTOR ACKNOWLEDGES THAT THE NAVAJO NATION'S PROPERTY INSURANCE SHALL NOT BECOME EFFECTIVE FOR THE PROJECT, OR ANY PORTION THEREOF, UNLESS AND UNTIL A CERTIFICATE OF OCCUPANCY IS ISSUED FOR THE PROJECT.

**15.0 NOTICE TO PROCEED REQUIRED.** THE CONTRACTOR SHALL NOT COMMENCE PERFORMANCE OF ANY WORK OR THE PROVISION OF ANY SERVICES UNDER THIS CONTRACT UNTIL THE ENGINEER ISSUES A FORMAL "NOTICE TO PROCEED" FOR THE PROJECT; NOTWITHSTANDING, CONTRACTOR SHALL NOT COMMENCE ANY WORK UNDER THIS CONTRACT UNTIL THE EFFECTIVE DATE OF ALL INSURANCE REQUIRED BY ARTICLE 12.0 HEREIN.

**16.0 PAYMENTS.** For the Project, Contractor shall be paid a sum not to exceed the **Original Contract Amount**. CONTRACTOR EXPRESSLY AGREES THAT THE ORIGINAL CONTRACT AMOUNT CONSTITUTES COMPLETE AND ADEQUATE COMPENSATION/CONSIDERATION/PAYMENT FOR ANY AND ALL EXPENSES NECESSARY OR CONVENIENT FOR CONTRACTOR TO FULLY AND SATISFACTORILY PERFORM IN ACCORDANCE WITH ALL DUTIES, RESPONSIBILITIES, AND PROVISIONS OF THE CONTRACT, INCLUDING, BUT NOT LIMITED TO:

- (a) all applicable taxes, permit fees, licensing or registration fees; and,
- (b) all insurance costs; and,
- (c) all pre-contract costs or expenses that are incurred before the finalization and execution of this Contract that are not included in the Original Contract Amount; and,
- (d) all expenses for Contractor to be in full compliance with all applicable laws or regulations of the Navajo Nation and any other jurisdiction; and,
- (e) all employee or subcontractor expenses, including any related to (a)-(d) above.

Notwithstanding (a)-(e) above, payment over and above the Original Contract Amount may be approved by the

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Navajo Nation, so long as the Nation's Representative determines in writing that all such costs or expenses are allowable, reasonable, and necessary for completion of the Project, and all payments are in accordance with the provisions of Article 17.0 herein.

**17.0 AMENDMENTS; CHANGE ORDERS, MODIFICATIONS.**

- 17.1 **Written modification required.** Any revisions, amendments, addendums, alterations, change orders, modifications, increases in payment over and above the Original Contract Amount, which shall not exceed 20% of the Original Contract Amount, or changes whatsoever to any provision of the Contract shall be made only by a duly approved written agreement, deemed a MODIFICATION, which shall be duly authorized and executed by the Parties.
- 17.2 **Navajo Nation may order changes.** Upon prior written notice to the Contractor of not less than thirty (30) calendar days, the Navajo Nation may unilaterally order any change in the work within the scope of this Contract. Additional payment to the Contractor for such change, if any, shall be in accordance with the applicable provisions contained in Exhibit A.
- 17.3 **Prior approval required.** All Modifications must be reviewed by the Navajo Nation's representative and determined in his/her discretion to be in strict accordance with the design, specifications, and scope of work for the project; all Modifications must be approved in writing by the Nation's Representative prior to execution by the Navajo Nation.
- 17.4 **Modifications strictly limited.** Contractor expressly acknowledges that one of the primary responsibilities of the Owner is to strictly limit any payments over and above the Original Contract Amount and therefore the Owner, in his/her discretion, may authorize or refuse such payments; notwithstanding, a Modification may be approved if the terms of such Modification are consistent with Article 17.3 herein and with the relevant provisions of the Primary Contract and Exhibit A.

**18.0 RISK OF EXCEEDING EXPENSES.** Contractor assumes all risks associated with, and is solely responsible for, any and all applicable taxes, permit fees, licensing or registration fees, insurance or any other expenses necessary or convenient for the Contractor to satisfactorily complete all of its duties under this Contract, or to perform in compliance with all applicable laws or regulations of the Navajo Nation or any other jurisdiction, if such expenses exceed the Original Contract Amount and are not paid by the Navajo Nation. Expenses that exceed the Original Contract Amount may be paid by the Navajo Nation only in accordance with Article 17.0 herein.

**19.0 TAXES.** Contractor acknowledges and agrees that all work performed and services provided within the territorial jurisdiction of the Navajo Nation is subject to the five percent (5%) Navajo Sales Tax (24 N.N.C. §601 *et seq.*).

- 19.1 **Identification of taxable activity.** The Contractor shall separately indicate, on each invoice or payment application submitted to the Navajo Nation, any and all of its work performed or services provided within the Navajo Nation pursuant to this Contract, and shall itemize the Navajo Sales Tax.
- 19.2 **Withholding.** The Navajo Nation shall withhold from each payment five percent (5%) of each invoice amount for work performed and services provided within the Navajo Nation under this Contract, and shall transfer such five percent (5%) amount to the Office of the Navajo Tax Commission (ONTC) on behalf of the Contractor. The Contractor shall indicate on its quarterly tax return filed with the ONTC that the Navajo Sales Tax has been withheld and paid. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO MAKE CERTAIN THAT ALL WITHHOLDING APPLIES ONLY TO THAT WORK PERFORMED AND SERVICES PROVIDED UNDER THIS CONTRACT, OR PORTION THEREOF, THAT IS SUBJECT TO THE NAVAJO SALES TAX.
- 19.3 **Filing and other payments.** The Contractor acknowledges that the Navajo Nation's withholding of tax in no way removes Contractor's responsibility for timely filing of tax returns and payment of interest, penalties, or any other amounts relating to Contractor's tax obligations under the Navajo Nation's or any other jurisdiction.

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**20.0 REQUESTS FOR INFORMATION.** When requested by the Navajo Nation, Contractor shall submit, within fourteen (14) calendar days of the Navajo Nation's notice to Contractor of such request, proper verification of invoices, pay applications, reports, documents or any other information related to the Project or any provision of this Contract, or related to the Contractor's duties under this Contract, including requested information related to any entity described in Article 23.0 herein.

**21.0 PROJECT SUPERVISION; AUTHORIZATION OF PAYMENTS.**

**21.1 Owner.** In the performance of work or provision of services under this Contract, the Contractor shall at all times be under the supervision and direction of the Owner/Engineer.

**21.2 Payment approval required.** No payment shall be authorized or remitted to the Contractor unless and until the Owner, or his/her successor or designee, approves in writing in advance the work performed or services provided under this Contract, and has given prior written approval of invoice(s), billing(s), or payment application(s) submitted to the Navajo Nation. All invoices must be supported by adequate verification, documentation, and itemization of all required Project deliverables received by the Navajo Nation.

**21.3 Joint supervision and approval.** Any cooperative or joint supervision, or joint approval authority involving person(s) other than the Owner, whether Navajo Nation staff or other person(s), shall be conducted through a duly approved and executed cooperative agreement that sets forth the extent of decision-making, supervision, and approval authority of the Owner and such other person(s).

**22.0 RETAINAGE.**

**22.1 Percentage withheld.** Contractor agrees that the Navajo Nation shall withhold ten percent (10%) of the payment due under each invoice submitted to the Navajo Nation, as Retainage. The amount of Retainage withheld may be fifty percent (50%) of each invoice, in accordance with Article 13.3 herein.

**22.2 Approval required for release.** Prior to the release of any Retainage, THE OWNER MUST MAKE A WRITTEN DETERMINATION THAT THE CONTRACTOR IS ENTITLED TO PAYMENT OF ALL OR A PORTION OF RETAINAGE, in accordance with the full or partial completion of its duties under this Contract.

**22.3 Substantial completion required.** IN NO CASE SHALL A RETAINAGE, OR ANY PORTION THEREOF, BE RELEASED UNTIL A VALID CERTIFICATE OF SUBSTANTIAL COMPLETION HAS BEEN DULY ISSUED FOR THE PROJECT.

**22.4 Legal release required.** IN NO CASE SHALL A RETAINAGE, OR ANY PORTION THEREOF, BE RELEASED UNTIL THE CONTRACTOR SUBMITS TO THE NAVAJO NATION A "RELEASE OF ALL CLAIMS AND LIENS" DULY SIGNED BY THE CONTRACTOR AND NOTARIZED, AND ALSO SUBMITS TO THE NAVAJO NATION ALL SIMILAR LEGAL RELEASES RECEIVED FROM ALL SUBCONTRACTORS USED FOR THE PROJECT.

**23.0 DEBTS OWED; RIGHT TO OFFSET.** By execution of this Contract, the Contractor expressly represents to the Navajo Nation that the Contractor in its present form or in any other identifiable capacity as an individual, business, corporation, partnership, or other entity, has no outstanding money judgment against it in favor of the Navajo Nation as defined in 12 N.N.C. §1503 A, and further represents that there exists no delinquent accounts receivable debt which is due and owing to the Nation as defined in 12 N.N.C. §1503 A, from the Contractor or other such related individual or entity. The Contractor expressly agrees that, pursuant to 12 N.N.C. §1507, if the Contractor or other entity owes such debt to the Navajo Nation, the Nation may, upon thirty (30) calendar days prior notice to the Contractor, offset its financial claim against any amount owed to the Contractor for work performed or services provided under this Contract.

**24.0 INDEMNIFICATION.** Contractor agrees to hold harmless and indemnify the Navajo Nation and its divisions, departments, offices, agencies, boards, commissions, committees, enterprises, employees, officers, officials, and agents against any and all losses, costs, damages, claims, expenses, or other liabilities whatsoever, including but not limited to any accident or injury to any persons or property, arising out of or connected with any work performed

or services provided under this Contract, and any other related activities, by Contractor, except for accident or injury arising out of Contractor's performance of work or services that is determined to be professionally and adequately performed with the due competence and professional skill generally exercised in Contractor's industry and in accordance with industry standards set forth in relevant laws and regulations of the Navajo Nation, the Federal Government, or the state of primary performance under the Contract.

## 25.0 NAVAJO NATION OWNERSHIP OF PROJECT PROPERTY.

**25.1 Tangible property.** All raw or manufactured materials, supplies, or equipment purchased specifically for the purpose of incorporation into or use with the Project or any portion thereof, shall be considered the property of the Navajo Nation as of the date of purchase. Notwithstanding, the Contractor assumes all risks and liabilities associated with the acquisition, transportation, delivery, storage, use, disposal, or destruction of such materials, supplies, or equipment, whether occurring at the Project site or at any other location; and such risks and liabilities are assumed by the Contractor up to the effective date and time of the Navajo Nation's property insurance coverage for the Project.

**25.2 Intangible property.** All intangible and intellectual property or work product that is produced by the Contractor or any of its subcontractors as listed in Article 40.0 herein, which work product is embodied in any tangible medium such as notes, plans, or drawings, including the overall form as well as the arrangement and composition of spaces and elements in the medium, and is produced for purposes of fulfilling any duties under this Contract, shall be and remain the property of the Navajo Nation at all times, whether or not such product is completed or certified, and may be used by the Navajo Nation, except as follows:

(a) **Limited disclosure.** Said property shall not be distributed or disclosed to any party other than the Navajo Nation or its divisions, departments, offices, agencies, boards, commissions, committees, enterprises, employees, officers, officials, and agents, except (1) upon prior written consent of the Contractor; or (2) pursuant to a duly authorized and executed contract between the Navajo Nation and any other tribal, county, state or federal agency; or (3) pursuant to any applicable law requiring disclosure.

(b) **Right of reuse.** The Contractor acknowledges and agrees that the Navajo Nation may use said property, or any portion thereof, in connection with the Project that is the subject of this Contract, for purposes of completion, modification, restoration, or renovation of such Project, at the sole discretion of the Navajo Nation. Contractor agrees that such reuse shall be without any consideration, compensation or consent of Contractor, and Contractor expressly waives any claims with respect to such reuse. With regard to reuse of said property for any purpose not reasonably related to the Project, said property shall be considered Instruments of Service as provided for in the Primary Contract, and shall be subject to the restrictions on reuse as provided for therein.

## 26.0 COMPLIANCE WITH NAVAJO NATION LAWS.

**26.1 Financial responsibility.** At all times for the effective duration of this Contract, the Contractor shall be in compliance with all provisions of the Navajo Business and Procurement Act, at 12 N.N.C. §1501 *et seq.*

**26.2 Navajo Preference in hiring.** In the hiring of any employees (under an employer-employee relationship) who will perform primarily at the Project site, the Contractor shall comply with all provisions of the Navajo Preference in Employment Act, at 15 N.N.C. §601 *et seq.*

**26.3 Navajo Preference in subcontracting.** Contractor expressly acknowledges and agrees that it is deemed a "Prime Contractor" under 5 N.N.C. §202 K, and as such must comply with all applicable provisions of the Navajo Business Opportunity Act, at 5 N.N.C. §201 *et seq.*, and with all rules and regulations promulgated thereto. In accordance with 5 N.N.C. §205 F, the NNBRD shall have the authority to require the Contractor to comply with current minimum percentages for procurement and subcontract awards to Navajo-owned and controlled entities, firms and organizations, based upon availability and upon the qualifications of such entities to provide specific products and services necessary or appropriate for the Project.



- 26.4 **Other laws.** The Contractor shall comply with all other Navajo Nation laws and regulations and of the United States, now in force and effect or as hereafter may come into force and effect that pertain to the work to be performed or services to be provided under this Contract.
- 26.5 **Funding grants.** The Contractor shall comply with any and all applicable laws, regulations, policies, or guidance governing the procurement, administration, contract performance, payment procedures, reporting, or other matters relating to the Project or to Contractor's performance under this Contract.
- 26.6 **Non-compliance constitutes breach.** The terms and provisions of said laws and regulations are fully incorporated herein by reference, and any violation thereof shall constitute a breach of this Contract and provide just cause for the Navajo Nation's unilateral termination of this Contract.
- 26.7 **Permits and Permitting.** The Contractor shall comply with all requirements for permits and permitting including any required Navajo Nation water permits and payment of water user fees.

## 27.0 RIGHT TO SUSPEND OR TERMINATE.

- 27.1 **Generally.** The rights of the Parties to suspend or terminate this Contract shall be as provided for in the Primary Contract and Exhibit A. In addition, upon prior written notice to the Contractor of not less than thirty (30) calendar days, the Navajo Nation may unilaterally order a temporary stoppage of work on the Contract. Additional payment to the Contractor for such change, if any, shall be in accordance with Article 17 herein.
- 27.2 **Non-compliance or violation of laws.** In addition to the Navajo Nation's right of suspension and termination provided for in the Primary Contract, THE NAVAJO NATION MAY TERMINATE THIS CONTRACT FOR BREACH IF THE NATION'S REPRESENTATIVE DETERMINES IN WRITING THAT THE CONTRACTOR OR ANY OF ITS SUBCONTRACTORS HAS VIOLATED ANY APPLICABLE LAW OR REGULATION. For purposes of this Article, "violated" means an intentional or negligent failure to comply with any said law or regulation, or an intentional or negligent act that is inconsistent with any said law or regulation; "applicable law or regulation" means any Navajo Nation law or regulation, any federal law or regulation, or any state law or regulation that is applicable to this Contract, to its award or procurement, or to Contractor's performance under this Contract.
- 27.3 **Falsification, lack of documentation.** The Navajo Nation may terminate this Contract for breach if:
- (a) any statement or documentation regarding any licensing, business registration, insurance coverage, or debts owed, as described in Articles 10.0, 12.0, 13.0, and 23.0 herein is determined to be false; or
  - (b) Contractor has failed to submit in a timely manner any requested documentation pertaining to any licensing, business registration, insurance coverage, or debts owed, as described in Article 10.0, 12.0, 13.0, and 23.0 herein, and the Nation's Representative determines that the Navajo Nation is unable to issue a Notice to Proceed, or to otherwise proceed with the Project, in a timely manner.
- 27.4 **Financial responsibility, solvency.** The Navajo Nation may terminate this Contract for breach if:
- (a) any debt as described in Article 23.0 is discovered or arises subsequent to the execution of this Contract; or the required licensing, business registration, or insurance coverage has expired or has been suspended or revoked at any time during the performance of this Contract; or
  - (b) the Contractor becomes insolvent or its insolvency is imminent, or the Contractor files for bankruptcy under any chapter of federal law; or
  - (c) the provider of the Contractor's insurance is not solvent or its insolvency is imminent; or
  - (d) the Nation receives notice that the Contractor has failed to pay its subcontractors, employees, suppliers or other ancillary firm(s) for any work on this Project.
- 27.5 **Debarment, suspension.** The Navajo Nation may terminate this Contract if the Navajo Nation or any of its political subdivisions, enterprises, or other related entities, or if any federal or state governmental entity, has for

any reason debarred or suspended the Contractor or any of its subcontractors, or other entity owned or co-owned by any individual named in Article 6.2 herein. Such debarment or suspension shall be considered effective notwithstanding any appeal, and shall be effective unless and until conclusively resolved in favor of the Contractor or subcontractor.

- 27.6 **Failure of ancillary firm(s).** The Navajo Nation may terminate this Contract if any of the conditions described in this Article 27 affect or pertain to any of the ancillary firm(s) who are signatories to this Contract, or if any ancillary firm(s) become ineligible or unavailable to perform under this Contract for any reason. At its discretion, the Nation may decide not to terminate this Contract and to permit another equally qualified firm to perform those services under this Contract that would have been performed by the ineligible or unavailable firm. In such case, no work or services shall be performed by the substitute firm unless and until the Nation's Representative gives written authorization for such firm to perform.

- 28.0 **SUBMITTAL OF INVOICES & WORK PRODUCT.** Copies of all work product documents, reports, photographs, drawings, schematics, related correspondence, invoices, and other information or documents regarding the Project shall be provided to the Nation's Representative no later than thirty (30) calendar days following the expiration or termination of this Contract. Final invoice(s) shall be due no later than thirty (30) calendar days following the expiration or termination of this Contract.

## 29.0 RECORDS; AUDITS.

- 29.1 **Retention and audit period.** Pursuant to 12 N.N.C. §352, Contractor shall maintain books, records, documents or other materials related to performance under this Contract for a period of five (5) calendar years from the date of issuance of final payment under this Contract. Upon issuance of a Notice of Audit to Contractor, the Navajo Nation may audit such documents and records any time during the effective period of this Contract, up to the five (5) calendar year period following final payment.
- 29.2 **Permission for release.** Contractor agrees to have an authorized individual execute and have notarized a release authorizing the Navajo Nation to release the Contractor's ledgers, books, records, documents or other materials related to performance under this Contract, as such information may be required by a governmental agency under an agreement with the Navajo Nation for purposes of an audit by such agency of such documents and records. Contractor agrees that said executed release shall constitute permission for disclosure of information pursuant to 2 N.N.C. §85 A.5.d. and 2 N.N.C. §86 C.

- 30.0 **ISSUANCE OF NOTICES; MAILINGS.** Any notices or correspondence relating to this Contract sent by either Party to the other shall be mailed to the address shown on the front page of the Primary Contract, shall be mailed via certified U.S.P.O. mailing with return receipt requested, and shall be deemed issued or submitted to the receiving Party as of the date of such certified mailing.

- 31.0 **NAVAJO NATION JURISDICTION.** By voluntarily entering into and executing this Contract, the Contractor expressly consents to the full territorial, administrative, legislative, executive and judicial jurisdiction of the Navajo Nation, including but not limited to, the jurisdiction to regulate, adjudicate disputes, and to levy fines or enter judgments for injunctive relief and/or compensatory and punitive damages, in connection with all activities conducted by the Contractor within the Navajo Nation or which have a proximate (legal) effect on persons or property within the Navajo Nation. The Contractor hereby acknowledges and agrees that this Contract constitutes a voluntary consensual relationship between the Contractor and the government of the Navajo Nation.

- 32.0 **SOVEREIGN IMMUNITY.** Nothing herein shall be considered a waiver, express or implied, of the sovereign immunity of the Navajo Nation, except to the limited extent provided for in the Navajo Sovereign Immunity Act, as amended, at 1 N.N.C. §§551 et seq.



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- 33.0 DISPUTE RESOLUTION.** Any claim, dispute, or other matter in question arising out of or relating to this Contract shall be resolved by the negotiation and arbitration procedures set forth as follows:
- 33.1 Negotiation.** The Parties shall endeavor to resolve claims or disputes between them by informal good faith negotiation, which negotiation period shall not exceed thirty (30) calendar days, commencing as of the receipt by either Party of the other Party's written "Notice to Invoke Dispute Resolution Procedures."
- 33.2 Arbitration.** If the negotiation provided for in Article 33.1 herein does not result in resolution of the Parties' dispute within thirty (30) calendar days of commencement of negotiation, then, unless the Parties agree in writing to extend the time for negotiation, either Party may invoke arbitration according to the procedures referenced in the Navajo Sovereign Immunity Act, as amended, at 1 N.N.C. §554(J) and §554(K), and in the Navajo Nation Arbitration Act, as amended, at 7 N.N.C. §§1101 et seq. Arbitration shall be conducted under the Commercial Arbitration Rules of the American Arbitration Association, except as such rules are modified by the following:
- (a) unless otherwise agreed to in writing by the Parties, all arbitration procedures shall be held in Window Rock, Arizona; and
  - (b) the arbitration shall be conducted by a single arbitrator selected by the Navajo Nation, unless one of the Parties' claims exceeds \$1,000,000.00, exclusive of interest, costs, and fees; in such case the arbitration shall be conducted by a panel consisting of three (3) arbitrators, one of which shall be chosen by each Party, with the two arbitrators choosing the third; at least one arbitrator shall possess at least ten (10) years of experience in Indian Law; and
  - (c) a Notice of Intent to Invoke Arbitration shall be filed in strict compliance with the notice requirements of the Navajo Sovereign Immunity Act, at 1 N.N.C. §555; and
  - (d) whether as a result of an arbitration provided for herein or of any judicial action to enforce an arbitration award resulting from such arbitration, any award against the Navajo Nation shall be in strict conformance with the provisions of 1 N.N.C. §554(K) 1-6; and
  - (e) whether in the context of an arbitration provided for herein or any judicial action to enforce an arbitration award resulting from arbitration, Navajo Nation laws and regulations shall exclusively govern the interpretation of this Contract, the arbitration provisions herein, the arbitration procedures conducted pursuant thereto, and the application of all provisions of the Contract to the Contractor, except if no Navajo Nation law or regulation governs a particular issue in dispute the applicable laws of the state of primary performance under the Contract shall govern that particular issue only; and
  - (f) pursuant to 1 N.N.C. § 554(K) and 7 N.N.C. §1102, the appropriate Navajo Nation district court shall have exclusive jurisdiction to compel the Navajo Nation's participation in an arbitration, and shall have exclusive jurisdiction to enforce, modify, or vacate an arbitration award resulting from such arbitration; neither Party may recover from the other any attorney fees or costs.
- 33.3 Waiver of suit.** The negotiation and arbitration provisions herein shall constitute the sole and exclusive procedural remedy to any dispute or controversy arising from this Contract. Commencement of negotiation or arbitration shall be a complete defense to any suit, claim, action or proceeding in any federal, state, or tribal judicial or administrative tribunal, with respect to any dispute or controversy arising out of this Contract.
- 33.4 Post-termination; post-expiration.** Regarding any dispute arising from this Contract, the dispute resolution procedures set forth herein shall survive the termination or expiration of this Contract.
- 33.5 Challenges limited.** By entering into this Contract, the Contractor expressly covenants and agrees that it shall not contest or challenge the territorial, administrative, legislative, executive or judicial jurisdiction of the Navajo Nation on the basis that such jurisdiction is inconsistent with the status of the Navajo Nation as an Indian tribal Nation, or that the Navajo Nation government is not a government of general jurisdiction, or that the Navajo Nation government does not possess full police power (i.e., the power to legislate and regulate for the public's general health and welfare) over all lands, persons, activities, transactions, or occurrences within its territorial

boundaries, or on any other basis not generally applicable in a similar challenge to the jurisdiction of a state government.

- 34.0 **RIGHT TO ASSURANCE.** If at any time prior to completion of performance under this Contract, the Navajo Nation has reason to believe that Contractor does not intend or is unable to fully perform under this Contract, the Navajo Nation may demand in writing that Contractor submit written assurance of its intent to complete performance. Failure to provide assurance within fourteen (14) business days of issuance of such demand shall constitute a material breach.
- 35.0 **PRIVATE CONTRACTOR.** The Contractor shall perform and conduct all activities under this Contract as a private independent contractor and shall not be considered an employee of the Navajo Nation or receive any benefits to which the Navajo Nation's employees are entitled.
- 36.0 **NO THIRD PARTY BENEFICIARIES.** Notwithstanding any provision of Navajo Nation law, codified or uncoded, or any Navajo Nation common or fundamental law, no provision of this Contract shall be construed as conferring any rights to, and may not be invoked by or for the benefit of, any other person or entity that is not one of the signatory Parties hereto.
- 37.0 **ASSIGNMENT RESTRICTED.** The Contractor shall not in any manner whatsoever assign, convey, transfer, or sublet any rights to this Contract or any interest therein including any amendments or modifications thereto, any work product resulting from the work performed or services provided under this Contract including any amendments or modifications thereto, or any monetary claims against the Navajo Nation relating to this Contract or any amendments or modifications thereto, without the prior written consent of the Navajo Nation. Any attempted assignment without such prior consent shall be void; said consent may be granted, granted upon conditions, or withheld, at the Navajo Nation's sole discretion.
- 38.0 **CONTRACT DOCUMENTS & NNSGCCC GOVERN.** The Parties hereby acknowledge and agree that the written provisions contained in the Primary Contract, in this Navajo Nation Supplemental General Conditions, and any other exhibits or attachments, constitute the complete understanding of the Parties with respect to the subject matter of this Contract, and that there are no promises or representations between the Parties other than those set forth herein. Any conflict between any provision(s) contained in this Navajo Nation Supplemental General Conditions and any part of the Primary Contract or its exhibits or any other related documents or writings, shall be resolved by reference to and interpretation of the provision(s) contained in this Navajo Nation Supplemental General Conditions.
- 39.0 **SEVERABILITY.** If any provision of this Contract is determined by a court of competent jurisdiction, or by a ruling resulting from arbitration procedures provided for in Article 33.2 herein, to be invalid, illegal or incapable of being enforced under any rule of law, all other conditions and provisions of this Contract shall nevertheless remain in full force and effect. If any such a ruling affects the rights of either Party under this Contract in a materially adverse manner, the Parties may agree in writing to execute a Modification in accordance with Article 17.0 herein.
- 40.0 **PARTNERS, SUCCESSORS, SUBCONTRACTORS.** All provisions, conditions and covenants contained within the Contract documents identified in Article 7.0 herein shall extend to and be binding upon each of the Contractor's owners, partners, team members, successors, heirs, assigns, executors, administrators, employees, officials and agents, including all of the Contractor's subcontractors, and the Contractor expressly agrees that the term "Contractor" whenever used herein, or in any other Contract document, shall be deemed to include all such owners, partners, team members, successors, heirs, assigns, executors, administrators, employees, designees, consultants, officials, agents, and subcontractors.
- 41.0 **WARRANTY.**

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- 41.1 **Materials and Labor.** Contractor warrants to the Navajo Nation that all labor, materials, equipment and furnishings used in, or incorporated into, the Project will be of good quality, new, that the Work will be free from defects in design, materials and workmanship, and that all Work will conform with the requirements of the Construction Documents. If required by the Owner, the Contractor shall furnish satisfactory evidence of compliance with this warranty. The type, quality and quantum of such evidence, and whether such evidence is satisfactory, shall be within the sole discretion of the Owner. Any portion of the Work not conforming to these requirements, including substitutions not properly approved and authorized by the Navajo Nation, and including non-conformance relating to any materials, equipment, furnishings, labor, installation, or workmanship, may be considered defective.
- 41.2 **Repair or replacement.** Contractor agrees to repair, replace, re-perform, or pay the Navajo Nation the reasonable cost of such repair, replacement, or re-performance, any portion of the Work that the Navajo Nation deems in its sole discretion to be defective, so long as Navajo Nation submits to the Contractor a written notice of any defect within 2 calendar years following substantial completion of the Work. The choice among repair, replacement, re-performance, or payment shall be the Contractor's. Any steps taken by the Contractor to correct defects shall not act to extend the duration of this warranty beyond the 2-year period. All repairs, replacement, or re-performance by the Contractor shall be at no charge to the Navajo Nation and shall be commenced within 30 calendar days of the Contractor's receipt of notification of the defect, which period shall be extended for delays outside the Contractor's control. Navajo Nation must provide access to the Contractor during its normal business hours, Monday through Friday, 8 a.m. to 5 p.m., to inspect the defect reported and, if necessary, to take corrective action.
- 41.3 **Navajo Nation's responsibility.** Failure of the Navajo Nation to perform reasonable regular maintenance and proper care of the finished Project shall void this warranty.
- 41.4 **Warranty of no claims.** Contractor warrants to the Navajo Nation that all Work will be free of liens, claims and security interests of any third parties, including but not limited to, those of subcontractors, material suppliers, and laborers.
- 42.0 **DEPARTMENT OF JUSTICE APPROVAL.** The statement below, with the appropriate signature, must be shown on the signature page of the Primary Contract in order for the arbitration provisions herein to be valid and binding under Navajo Nation law (*signature below is not necessary*):

*This Agreement, together with its accompanying Exhibit(s), has been reviewed by the Navajo Nation Department of Justice, and with the amendments shown in the attached Additions and Deletions Report, has been determined to be in accordance with Navajo Nation Law:*

Asst. Attorney General, \_\_\_\_\_ Unit  
 Navajo Nation Department of Justice

\_\_\_\_\_  
 Date Signed

\*\*\*\*\* **END OF DOCUMENT** \*\*\*\*\*

# **EXHIBIT C**

**TECHINICAL SPECIFICATION,  
MAPS,  
DRAWNINGS,  
DIAGRAMS**

EXHIBIT C

**NAVAJO AML RECLAMATION PROGRAM**

**CHOCOAN I AML RECLAMATION PROJECT**

**TECHNICAL SPECIFICATIONS**

**MARCH 2014**

# **TECHNICAL SPECIFICATIONS**

<b>Section 1</b>	<b>General Information</b>
<b>Section 2</b>	<b>Drainage Control and Stream Protection</b>
<b>Section 3</b>	<b>Earthwork</b>
<b>Section 4</b>	<b>Re-vegetation</b>
<b>Section 5</b>	<b>Incidental Work</b>
<b>Section 6</b>	<b>Concrete Cloth</b>
<b>Section 7</b>	<b>Site Specific Details</b>
<b>Section 8</b>	<b>Health and Safety</b>
<b>Section 9</b>	<b>Cultural and Fish and Wildlife Resources Protection</b>
<b>Section 10</b>	<b>GeoTextile</b>

**Maps, Drawings, & Diagrams**



## SECTION 1: GENERAL INFORMATION

### 1.1 General Work Descriptions

Chocoans AML Reclamation Project consists of seven Project Areas: Little Water Mines (NA-0005, 0067, & 0068), New Comb Mine (NA-0047), Coal Mine Hill Fire (NA-0069), Peaks Mine (NA-0051), and Shillingburg Mine (NA-0036). The construction activities for the WORK described will commence, 05 May 2014, at the earliest. The scope of work will involve the maintenance work of previously reclaimed abandoned coal, reclamation of abandoned coal mines, the elimination of a coal fire, and procure coal mining equipment. The project areas are located within four (4) Navajo Nation Chapter boundaries: Sanostee, Newcomb, Coyote Canyon, and Nahodishgish, Chapters, Map No. 1. The work items will include the maintenance work on surface erosion, stabilizing subsidence of underground mine workings, closure of underground mine workings, and excavating/backfilling of an underground coal fire utilizing heavy equipment to perform earthwork. Also, an additional work item will include the recovery, restoration, and securing coal mining equipment. The terrain is what is common within the Navajo Nation: from the rolling plains of Newcomb and Sanostee in the east, to the mountainous foot hills or mesa of Nahodishgish and Coyote Canyon in the southwest. The geology is common to the formations that are associated with coal outcrops or where coal seams are close to the surface. The elevation ranges from 5,300 to 7,000 feet.

#### A. The following are the **PAYABLE ITEMS of WORK:**

1. Earthwork: Estimated at **52,746 bank cubic yards.**
2. Re-vegetation: Estimated at **20 acres.**
3. Gabion work: Estimated at **622 cubic yards.**
4. Coal Fire Excavation: Estimated at **45,000 bank cubic yards**
5. Concrete Cloth: Estimated at **780 feet.**
6. Rock Mulch: Estimated at **5,085 cubic yards.**
7. Concrete Grout Mix: Estimated at **162 cubic yards.**
8. Pipe Work: Estimated at **820 feet.**
9. Coal Cart Procurement: **3 each.**

#### NOTES:

- The following WORK shall be considered incidental to this PROJECT: mobilization, ACCESS ROAD improvement and/or demolishing, demobilization, cleanup, site grading to establish specific grades and contours for the reclaimed surfaces, obtaining water,

drainage grading to establish specific drainage patterns, and other WORK or responsibilities besides the PAYABLE WORK ITEMS, such as dust suppression, providing personnel protection equipment, training, and other measures for workmen safety, which are required to get the RECLAMATION WORK completed to the satisfaction of the OWNER. **There is no payment for the incidental WORK.** The CONTRACTOR shall include cost for these incidental WORK items with cost for PAYABLE WORK ITEMS.

- Payment will be based on estimated percentage of WORK completed on a site-by-site basis and the WORK quantities will be apportioned on a site-specific basis.
- Payment for PAYABLE WORK ITEMS will be done on FIXED COST basis. No WORK measurement will be done for payment purpose.
- The CONTRACTOR shall provide an enclosed walk through access control trailer and/or room with minimum dimensions of 20 ft. (L) x 10 ft. (W) and a 5,000 watt generator for usage by the OWNER's construction monitoring staff.
- The CONTRACTOR shall follow the backfill sequence (please refer to Section 7).
- For all sites: provide adequate drainage and erosion protection for the reclaimed site; properly grade and provide terraces on long slopes; leave the reclaimed surface rough to minimize erosion potential (including access roads disturbed by construction work); clean up the sites after RECLAMATION WORK; and demobilization.
- Volume calculations shown in these TECHNICAL SPECIFICATIONS, MAPS/DRAWINGS are estimates only and it is expressly declared the OWNER does not guarantee the accuracy of the information or that level of WORK encountered is the same in character, location and elevation as shown on the MAPS and DRAWINGS. It shall be the responsibility of the PROPOSER to make such investigations and calculations as necessary to verify the WORK quantities before submitting their proposal.
- The WORK to be accomplished under this CONTRACT will require close coordination between the CONTRACTOR, PROJECT MANAGER, PROJECT ENGINEER, and DEPARTMENT ENGINEER.
- Applicable occupational health safety for the reclaimed areas shall be strictly followed (please refer to Section 8).
- One project area might be deleted from the project, prior to actual construction starting date.

## **1.2 Location of Sites and Site Access**

Locations of sites are shown on Map No. 1: Location Maps. Accesses to the sites are via dirt roads, which originate from rural roads or highways shown on the location map (Map No. 2). Improvements to the access roads may be necessary before mobilization of the construction equipment to the sites. The PROPOSERS should note locations, conditions, and distances of access roads for travel and/or improvement, during the mandatory pre-proposal site tour. Distances between sites may be approximated from the location map.

### **1.3 Site Specific Details**

- A. Details of work items will be found in Section 7 of this TECHNICAL SPECIFICATIONS.
- B. It is the intent of these Specifications that the site-specific scope of WORK be as described in section 7. The General Technical Specifications, sections 1 through 6, and 8 through 10, outline WORK broadly applicable to all abandoned mine reclamation situations and that may not be required at the site in this project. Where there is conflict between section 7 and the General Technical Specification (section 1-6 and 8-10), Section 7 shall govern.

### **1.4 Submittal**

- A. Submittal requested in the TECHNICAL SPECIFICATIONS shall be delivered to the PROJECT ENGINEER.
- B. The CONTRACTOR shall submit, within fifteen (15) CALENDAR DAYS after execution of the CONTRACT, a schedule of WORK for the performance of the WORK, including routine workdays and hours, holidays observed by the Navajo Nation, and days that the PROJECT will remain idle. The schedule shall also indicate WORK schedules for SUB-CONTRACTORS and their estimated start and completion days. Allowance in the schedule shall be made for routine delays due to weather or other site conditions as they occur. The PROJECT ENGINEER will review, recommend modifications and approve the said schedule and the WORK sequence. The CONTRACTOR'S pace of WORK shall not cause any undue pressure on the OWNER'S PROJECT monitoring activities. The CONTRACTOR shall allow sufficient time for verification of the final contours and drainages prior to starting the next sequence of WORK and/or PROJECT. Any significant deviation from the schedule shall be submitted in writing to the PROJECT MANAGER as the WORK progresses with proper justification. The OWNER'S estimated maximum CONTRACT TIME for this PROJECT is **180 CALENDAR DAYS**.
- C. The SUPERINTENDENT shall submit to the PROJECT MANAGER daily logs (to be furnished by the OWNER) indicating the following: 1) weather conditions, 2) EQUIPMENT used, 3) WORK completed, including estimated percentage of coal refuse moved, 4) delays, 5) EQUIPMENT downtime, 6) volume of water use for dust suppression, 7) injuries, 8) visitors, and 9) concerns and recommendations. Both the SUPERINTENDENT and the PROJECT MANAGER will acknowledge the actual daily accomplishments by signing off on each daily log. The report shall be submitted to the OWNER on a weekly basis.

## 1.5 Conditions and Restrictions

- A. The Chocoans AML Reclamation Project area contains one underground coal fire. During the excavation of the coal fire potential hazardous site conditions could occur, such as highwalls, pits, burning coal refuse piles, etc., which will require proper planning to meet safety working conditions. The WORK will be limited to items specifically identified in Section 7.
- B. Due to the nature of WORK at these sites, the CONTRACTOR shall be required to participate in the entire pre-proposal site tour and meeting prior to submitting a proposal for the project. Proposals of CONTRACTORS not participating in the required pre-proposal meeting will be disqualified. The CONTRACTOR shall acknowledge in the proposal that the site conditions have been examined and that the measurements and evaluations necessary to plan and bid the WORK have been made.
- C. WORK shall be performed in accordance with the TECHNICAL SPECIFICATIONS, as well as stipulations of the Navajo Fish and Wildlife and Historic Preservation Departments in Section 9. The PROJECT MANAGER shall be consulted for clarifications on the stipulations provided by these departments. The CONTRACTOR shall also abide by all other applicable laws of the Navajo Nation.
- D. Due to the hazards associated with abandoned mines, all WORK on or near the underground fire area shall be conducted under the supervision of the contractor's superintended familiar with safety operations. No smoking, open flames or welding shall be permitted within two hundred feet of any project boundary. No person shall be permitted to enter a mine opening unless the atmosphere of the opening is tested; the roof is adequately supported and tested.
- E. Contractor shall be aware that underlying mine workings may exist in the areas to be disturbed by the CONTRACTOR. The location, extent, and condition of the underground workings at each mine site are not well known. Any voids or openings excavated or discovered shall be brought to the immediate attention of the OWNER.
- F. Contractor shall provide an adequate supply of water for dust suppression of haul roads, all earthworks, all coal refuse handling, and demolition where dust will cause a public nuisance or as directed by OWNER. CONTRACTOR will pay the cost of water and dust suppression.
- G. No materials shall be placed in or be situated such that they may enter any stream, tributary, or drainage channel.
- H. WORK shall be conducted with minimum interference to public/private roads, local residents and their dwellings and livestock. The CONTRACTOR's personnel must respect local traffic and maintain appropriate speed limits on local roads and be responsible for any accidents. Egress and access shall be maintained at all times.

- I. Existing utilities, benchmarks, trees, vegetation and landscaping MATERIALS near and outside the PROJECT boundaries shall be protected.
- J. Where required, the CONTRACTOR shall provide and maintain EQUIPMENT tire-high safety berms on sloping haul roads to prevent EQUIPMENT rolling off the roads. If the WORK involves working around unprotected hazardous mine features, such as, shafts, open adits, pits, unstable structures, water bodies, dangerous highwalls, natural cliffs and the like, the CONTRACTOR shall be responsible for the safety of its workers and others during construction and during nonworking hours. Fencing of these hazards may be required as a safety precaution.
- K. The CONTRACTOR shall provide such detours, barricades, warning signs, flares, flashing light signals and flagmen, as appropriate, to ensure the safety of the general public, as well as employees and authorized visitors, when construction WORK is in progress or when public roads are being used for material handling and movement.
- L. The reclaimed sites will be inspected with the CONTRACTOR two (2) years after PROJECT completion/final inspection. Any damages or imperfections noticed in the WORK, which can be attributed to faulty workmanship or MATERIAL defects shall be promptly corrected by the CONTRACTOR, at their own costs.

## **1.6 Quality Assurance**

The CONTRACTOR shall assure that WORK has been performed in compliance with the SPECIFICATIONS and guidelines as described herein. The PROJECT MANAGER, in consultation with the PROJECT ENGINEER, shall inspect and accept, or reject the WORK as the WORK progresses.

## **1.7 Delivery, Storage and Handling**

- A. The CONTRACTOR shall be responsible for the delivery, storage, and handling of all items and MATERIALS used in performing the WORK.
- B. The CONTRACTOR shall be responsible for all MATERIALS used in conjunction with the WORK until said WORK is accepted and approved by the PROJECT MANAGER (in consultation with the PROJECT ENGINEER) and shall warrant all MATERIALS as required by TECHNICAL SPECIFICATIONS, Section 1.6 *Quality Assurance*.

## **1.8 Execution**

- A. Prior to commencement of the WORK, the CONTRACTOR will be in compliance with all applicable Navajo Nation laws.

- B. The CONTRACTOR will obtain and provide to the OWNER proof of licenses, permits, bonds, insurance, and all other such items as may be required by the CONTRACT documents prior to the execution of the WORK.
- C. The CONTRACTOR will obtain and provide to the OWNER proof that the project Superintendent has attended and completed 40 hour Hazardous Waste Health and Safety Training Course for Hazardous Waste Workers. Requirements established in 29 CFR 19100120 (e) (8) shall be followed.



## **SECTION 2 DRAINAGE CONTROL & STREAM PROTECTION**

### **2.1 GENERAL**

#### **A. WORK INCLUDED**

1. Drainage control shall be required for a number of applications in the WORK, backfilling subsidence openings, and site grading/earthwork. This section covers the WORK necessary for construction of permanent and temporary drainage control including ditches, water bars, road crossings, stream crossings and energy dissipaters.
2. This item also consists of WORK to be performed for protection of the aquatic environment while performing any WORK on site. The specific goal of the item is to limit additional sedimentation of aquatic environment during construction activities and while vegetation is reestablishing. Streams of primary concern are those identified by Navajo Environmental Protection Agency. Streams of concern in the project area are specified in Section 7: Specific Site Requirements. For streams of primary concern, any increase in turbidity must be limited to no more than 10 Nephelometric Turbidity Units (NTU) above background conditions when they range from 0 – 100. If background NTU is greater than 100, then maximum allowable increase in turbidity cannot exceed 10 percent. The CONTRACTOR can expect site inspections by Navajo EPA, Storm Water Section.
3. The Contractor shall prepare a PE certified Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the Clean Water Act (40CFR122.26(b)(14)). The plan shall include temporary erosion and sediment control measures in accordance with the National Pollution Discharge and Elimination System requirements.
4. All installations shall abide by the manufacture's recommended installation procedures. Examples of the procedures shall be forwarded to the OWNER for review.
5. Gabions - Galvanized Work Descriptions shall consist of furnishing, assembling, and filing woven wire mesh gabions with rock as specified in the technical specification to the dimensions, lines and grades shown on the plans, or as determined by the engineer. These specifications are in accordance with ASTM A975-97 and include gabions as manufactured by Maccaferri Gabions, Inc.

#### **B. PROTECTION**

1. CONTRACTOR shall conduct the WORK in a manner to minimize disturbance of existing trees and vegetation.
2. CONTRACTOR shall conduct the WORK in a manner not to increase surface erosion due to alteration of natural drainage patterns.

## C. SUBMITTALS

1. CONTRACTOR shall submit with the Notice to Proceed the following documentation requirements: the schedule and plan for implementing drainage control measures and for utilizing riprap, gabion mattress, or a combination of systems in accordance with these Specifications and Drawings. If a combination of systems is planned, specific locations for each item shall be identified. Also included shall be specifications of riprap or gabion mattress fill material if supplied as import, and specifications for gabion mattress to be used.
2. Contractor will follow the National Pollution Discharge and Elimination System requirements and submit an application to USEPA, Notice of Intent. Upon the 2-year warranty inspection the contractor will also submit the Notice of Termination, if there are no problems related to erosions and drainage.
3. The CONTRACTOR shall submit with the submittals required following the Notice to Proceed a description of and location of stream protection measures to be used at each site.
4. CONTRACTOR shall submit with the submittals required following the Notice to Proceed the location of borrow areas intended for riprap unless otherwise specified in Section 7: Specific Site Requirements, or the Drawings.
5. Detailed specifications for materials and installation shall be provided if either culverts or bridges are proposed for use.

## 2.2 PRODUCTS

### A. DEFINITIONS

The term Random Fill, Topsoil, and Coal Refuse shall be as defined in Section 3: Site Grading/Earthwork.

### A. RIPRAP

1. Riprap shall be rock that is dense, sound, and resistant to abrasion and shall be free from cracks, seams, and other defects that would tend to unduly increase its destruction by water and frost actions. The rock shall be solid, angular or sub angular fragment of quarry stone. Round, riverbed-type rock is not acceptable. Neither breadth nor thickness of a single stone shall be less than one-third its length. The unit weight of stone shall be no less than 155 pounds per cubic foot. Rocks susceptible to solution and disintegration upon contact with standing or flowing water shall not be used as riprap.
2. Riprap shall be reasonably well-graded with rock diameters specified below, or as specified in Section 7 or on the Drawings:

<u>Rock Size</u>	<u>Percent Finer by Weight</u>
2 inch	15 percent ( $D_{15}$ )
12 inch	50 percent ( $D_{50}$ )
15 inch	100 percent ( $D_{100}$ )

The thickness of the riprap should be at least as large as the largest diameter stone in the riprap.

## B. GABIONS- GALVANIZED

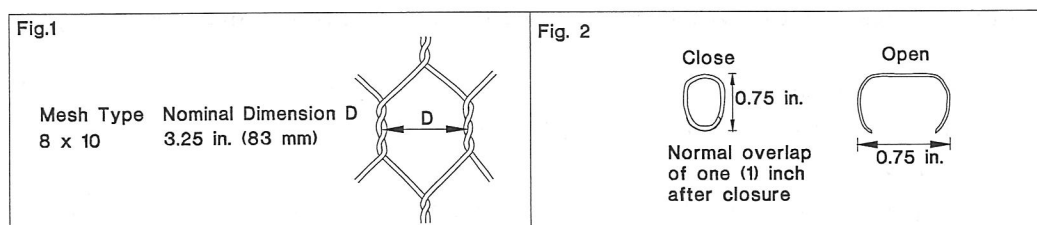
### 1. Woven mesh gabions

- a. Wire: All tests on the wire mesh must be performed prior to manufacturing the mesh.
  - Tensile strength: both the wire used for the manufacture of gabions and the lacing wire, shall have a tensile strength of 54,000 to 70,000 psi (38-48 kg/mm<sup>2</sup>), in accordance with ASTM A641-97.
  - Elongation: the test must be carried out on a sample at least 12 inch. (30 cm) long. Elongation shall not be less than 12%, in accordance with ASTM A370-92.
  - Zinc coating: minimum quantities of zinc coating to the wire shall be such that, when the wire is wrapped six turns around a mandrel having four times the diameter of the wire, it does not flake or crack when ribbing it with the bare fingers, in accordance with ASTM A641-97.
- b. Galvanized (zinc coated) woven wire mesh gabions (8 x 10 mesh type):
  - Wire mesh: Diameter – 0.120 inches (3.05 mm)
  - Selvedge Wire: Diameter – 0.153 inches (3.90 mm)
  - Mesh Opening: Nominal Dimension  $D = 3.25$  inches, as per Fig 1
- c. Galvanized (zinc coated) lacing wire and internal stiffeners:
  - Lacing wire: Diameter – 0.087 inches (2.20 mm)
  - Stiffeners Wire: Diameter – 0.087 inches (2.20 mm)
- d. Spenax Fasteners (Overlapping Fasteners):
  - Overlapping fasteners may be used in lieu of lacing wire for basket assembly and installation. The spacing of the fasteners during all phases of assembly and installation shall be in accordance with spacing based on 1,400 lbs. pull apart resistance for galvanized mesh, with a nominal spacing of 4 inches (100 mm), and not to exceed 6 inches (150 mm).

- Galvanized Fasteners: =diameter = 0.120 inch (3.05 mm), according to ASTM A313, Type 302, class I. Tensile strength: 230,000 to 273,000 psi (162 – 192 kg/mm2 in accordance with ASTM A764-93.
- Proper installation of rings: A properly formed Spenax fastener shall have a nominal overlap of one (1) inch after closure (Fig.2).

## 2. Tolerance

- Wire: Zinc coating, in accordance with ASTM A641-97, Class III soft temper coating.
- Gabion sizes: plus or minus 5% on the length, width, and height.
- Mesh opening: Tolerance on the hexagonal, double twisted wire mesh opening shall not exceed plus or minus 10% on the nominal dimension D values (see Fig 1):



## 3. Fabrication

- Gabions shall be manufactured with all components mechanically connected at the production facility. The front, base, back and lid of the gabions shall be woven into a single unit. The ends and Diaphragms shall be factory connected to the base. The lid may be a separate piece made of the same type of mesh as the basket. All perimeter edges of the mesh forming the basket and top, or lid, shall be salvaged with wire having a larger diameter.
- The Gabion is divided into cells by means of diaphragms positioned at approximately 3ft centers. The Diaphragms shall be secured in position to the base so that no additional lacing is necessary at the jobsite.

## 4. Rock

The rock for gabions shall be hard, angular to sub-angular, durable and of such quality that they shall not disintegrate on exposure to water or weathering during the life of the structure. Round, riverbed-type rock is not acceptable. Gabion rocks shall range between 4inches (0.10 m) and 8 inches (0.20 m). The range in sizes may allow for a variation of 5% oversize and/or 5% undersize rock, provide it is not placed on the gabion-exposed surface. The size shall be such that a minimum of three layers of rock must be achieved when filling the gabions.

### C. GABION MATTRESS

1. Gabion mattress shall be a wide, flat, rectangular basket manufactured in accordance with ASTM A641 from heavily galvanized steel wire mesh of triple twist hexagonal weave. The wire shall also have a PVC coating in addition to the zinc coating. Each unit is subdivided lengthwise into compartments by diaphragms. The lids shall be laced to the unit after it is filled with stone. Maccaferri Reno type of mattress or approved equal shall be used.
2. The gabion mattress unit shall have the following minimum dimensions:
  - Mesh openings: type 6 x 8 (actual mesh opening is 2 ½ inch x 3 ¼ inch)
  - Length: 9 feet
  - Width: 6 feet
  - Thickness: 9 inches (minimum)
3. The stone fill shall be angular, durable rock, imported or obtained on site. Round, riverbed-type rock is not allowed. Acceptable rock shall be of igneous origin, sandstone or limestone, as available. Shale, claystone or other friable rocks will not be allowed. Rocks shall be nominally three to six inches in diameter. Alternative gradations shall be only at the OWNER's approval.

### D. GRAVEL FILTER

Materials used for the underlining gravel filter for riprap and culvert shall be clean gravel composed of hard, durable stone and shall be free of sand, silt or clay. The maximum particle size shall be no greater than 2 inches. Alternative gradations shall be only at the OWNER's approval.

### E. FILTER BLANKET

Fabric used in the lining of drainage channels shall consist of Mirafi 500X or equivalent.

### F. FABRIC CHECK DAM

Fabric check dams shall consist of Mirafi 140N, UV resistant fabric or equivalent supported with 6 inch x 6 inch mesh (or smaller) fence anchored into the stream bottom with steel posts.

### G. SILT FENCE

Silt fences shall consist of Mirafi 500X, UV resistant fabric or equivalent supported with steel fence posts and/or 6 inch mesh fence.

### H. GRAVEL

Gravel shall be cleaned, hard, durable stone and shall be free of sand, silt or clay. The minimum particle size shall be 1 inch. Maximum particle size be 1.5 inch.

## I. WATER BARS

Water bars shall be elongated mounds of compacted soil constructed at an angle with respect to the slope of the terrain so that runoff is conveyed away from disturbed areas thereby alleviating rill and gully erosion.

## 2.3 EXECUTION

### A. GENERAL

1. All earthworks associated with construction of drainage control shall be in accordance with Section 3: Site Grading/Earthwork.
2. Wherever possible the CONTRACTOR shall install permanent drainage prior to the initiation of earthwork to minimize the need for temporary drainages.
3. Two types of stream protection structures shall be used: in-stream check dams and silt fences between construction areas and streams.
4. All installation of materials shall be in accordance with the manufacture's recommendations and requirements.

### B. TEMPORARY DRAINAGE DITCHES

1. Prior to the initiation of earthwork, the CONTRACTOR shall develop temporary drainage control in the form of swales or ditches up gradient of WORK areas to minimize erosion during construction. Such drainage will be constructed with minimum disturbance to existing vegetation, and upon completion of work shall be graded to blend with surrounding contours and revegetated per *Section 4: Revegetation*.
2. On inclined surfaces, temporary access roads shall be cut or crowned to slope in toward the hillside at a grade of not less than 2 percent. At the intersection of the inside edge of the access road with the slope, a shallow ditch shall be formed. Water bars shall be installed across the access road and roadside ditch. If the WORK is scheduled during wet weather, a catch basin and culvert shall be constructed at the base of the access road as directed by OWNER.

### C. FABRIC CHECK DAMS

1. Stream fabric check dams, when approved by OWNER, shall consist of at least three sets of dams constructed immediately downstream from temporary stream crossings and major



construction activities adjacent to streams. Spacing of the fabric dams shall be designated by CONTRACTOR's Storm water Pollution Prevention Plan. The bottom of the fabric of the dam shall be anchored with rock. For added stability, the top of the dam can be anchored onto a pole laid horizontally across the stream. Holes should be cut approximately 6 inches long with a knife at the approximate normal water level to allow flow of water through the dam. Fabric check dams shall be placed with the approval of the OWNER at locations on the watercourse that maximize sediment settling between dams.

2. CONTRACTOR shall install dams before any other WORK begins on site including access improvement. CONTRACTOR shall inspect dams at least every other day and after every storm and clean them when necessary to the approval of the OWNER. Sediments pulled from behind the dams shall be disposed of in a designated fill area and not on the streambank. Fabric shall be replaced when necessary to maintain the integrity of the dam.

#### D. SILT FENCES

1. Silt fence fabric shall be supported either on minimum 6 inch mesh hog wire fence anchored with steel posts spaced no more than six feet apart or with steel fence posts alone spaced no more than three feet apart. At least 12 inches of the lower edge of the fabric shall be securely anchored with rocks or buried with soil material. The fabric shall be attached with at least four wire ties to the posts. In situations where the silt fence will be in use past the construction season, the wire fence backing shall be used. In all cases, guy wire shall be used to support the fabric top. The height of the silt fence shall be no more than three feet high. About 9 to 12 inches of the fabric shall be draped over the top of the wire fence and fastened to fence posts with wire. On slopes of disturbed areas, distances between lengths of silt fences shall not exceed 100 feet. With the approval of the OWNER, silt fences may be positioned to take advantage of natural drainage at sites in order to minimize the length of the fence.
2. At the discretion of the OWNER, the fences shall be maintained in accordance to the CONTRACTOR's Storm Water Pollution Plan. The CONTRACTOR shall maintain fences until final demobilization from the project area. After demobilization, the OWNER will be responsible for maintenance and removal.

#### E. TEMPORARY DRAINAGE CROSSINGS

1. Temporary crossings shall be designated on a site-specific basis depending on stream classification, time of year intended for use, the frequency and duration of use, discharge of stream and number of vehicles to cross. The design of such crossings shall at all times be subject to the approval of the OWNER.
2. In the drainage, the preferred crossing shall consist of the placement of 6 to 9 inch nominal size clean rock in the channel to facilitate equipment access. The clean gravel shall be placed only to the extent necessary to provide a stable base for equipment crossing. Alternative temporary crossings shall be made only with the approval of the OWNER.

These may include the construction of temporary bridges and culverts. In areas where access improvement is not required, stream crossings shall be made only with the approval of the OWNER.

3. All crossings will be installed after required dams and fences are in place and in accordance with Section 2, Part 2.3, C and D. Temporary bridge and culvert crossings must be removed as soon as possible after the construction activity is completed. Gravel crossings shall be left in place.

#### F. CULVERT CREEK CROSSING

1. The WORK shall be completed in association with Section 5 part 5.4: Access Improvement. The details and size of the typical culvert crossing is shown in the Drawings.
2. CONTRACTOR shall prepare the culvert crossing section of streambed by removing all debris and all rock fragments larger than 4 inches. CMP culvert, or approved equivalent, of the specified diameter shall be used.
3. Culvert shall be 24 inch, 16 gauge Armco/Contech CMP with an AASHTO M-36 coating or equivalent. Filter cloth shall be Typar 3401 or equivalent. Chain-link fencing material shall be 9 gauge or heavier and have a maximum mesh opening of 2 inches.
4. A set of at least 3 uniformly spaced fabric check dams shall be installed downstream of the Crossing as specified in Section 2, Part 2.3, C, 1.
5. After the culvert is removed, the channel and sideslopes shall be regarded to original condition and prepared for revegetation.

#### G. PERMANENT DRAINAGE CONTROL

1. Ditches shall be constructed at the locations and to the dimensions shown on the Drawings or specified in Section 7.
2. Where ditches cross areas of coal refuse, the bottom and sides shall be covered with a minimum of 24 inches of compacted soil. All excess coal refuse shall be excavated and transported accordingly to allow these dimensions.
3. Place riprap or gabion mattress in the locations and to the dimensions shown on the Drawings or specified in Section 7.

#### H. FILTER BLANKET PLACEMENT

The filter blanket shall be placed in the incised channel commencing at the downstream end and working upstream using care not to stretch or tear the material. At least a foot of

the fabric shall be keyed into the sideslopes near the top of the channel and covered with soil. In channels where widths of fabric material are less than the channel itself, the fabric must be overlapped in the channel bottom at least two feet. In addition, end lengths of the fabric shall also be overlapped at least two feet. Care shall be exercised in the placement of gravel or riprap on the surface of the fabric to prevent tearing.

#### I. GRAVEL FILTER

Gravel filter shall be placed beneath all riprap and gabion materials as directed by the OWNER. The gravel shall be placed in one operation using methods which will not cause segregation of particle sizes. The surface of the finished layer should be reasonable even and free from mounds and windrows. The gravel need not be compacted in place, but shall be placed in such a manner as will result in uniform layers of material for riprap of the specified thickness.

#### J. RIPRAP PLACEMENT

1. Before riprap is placed, the surface to be covered shall be fully compacted and graded to the required slopes as shown on the Drawings. Cut-off trenches shall be excavated to the dimensions shown on the Drawings.
2. Filter blanket and/or gravel filter shall be placed to the dimensions shown on the Drawings.
3. Riprap shall be placed directly in the locations and to the contours shown on the Drawings. Riprap should typically be placed by end dumping to prevent segregation by sizes. It should be dumped from a vertical height of no more than 5 feet and should never be pushed downhill with a dozer or conveyed down a chute as these operations cause segregation of particles.

#### K. GABION INSTALLATION

##### 1. Assembly

Gabions are supplied folded flat and packaged in bundles. Larger units may be supplied in rolls. The units are assembled individually by erecting the sides, ends, and diaphragms, ensuring that all panels are in the correct position, and the tops of all sides are satisfactorily aligned. The four corners shall be connected first, followed by the internal diaphragms to the outside walls. All connections should use lacing wire or fasteners as previously described in Section 2.C.1.d.

##### 2. Installation

After initial assembly, the gabion baskets are carried to their final position and are securely joined together along the vertical and top edges of their contact surfaces using the same procedure(s) described Section 2.K.1. Whenever a structure requires more than one layer, the upper empty baskets shall also be connected to the top of the lower along the front and

back edges of the contact surface using the same connecting procedure(s) described in Section 2.K.1.

#### 4. Filling

- a. Baskets shall be filled with rock as specified in Section 2.C.4. During the filling operation some manual stone placement is required to minimize voids. The exposed faces of vertical structures may be carefully hand placed to give a neat, flat, and compact appearance.
- b. The cells shall be filled with rock as specified in section 2.C.4. That is, at no time shall any cell be filled to a depth exceeding 1 foot (0.30 m) higher than the adjoining cell. It is also recommended to slightly overfill the baskets to allow for settlement of the rock. Behind gabion walls, compact the backfill materials simultaneously to the same level as the filled gabions.

#### 5. Internal Connecting Wires

- a. Internal connecting wires should be used when a structure requires layers of gabions to be stacked on top of one another. Internal Connecting Wires shall connect the exposed face of a cell to the opposite side of the cell. An exposed face is any side of a gabion cell that will be exposed or unsupported after the structure is completed. Lacing wire or prefabricated internal connecting wires may be used.
- b. 3 Feet High Gabions shall be filled in three layers, 1-foot at a time. Connecting wires shall be installed after the placement in each layer, that is, at 1-foot high and 2 feet high.
- c. 1.5 Feet High Gabions do not require connecting wires unless the baskets are used to build vertical structures. In some cases, these units shall be filled in two layers, 9 inches at a time. Connecting wires shall be installed after the placement of the first layer, which is at a 9 inches high.

#### 6. Lid Closing

Once the gabion baskets are completely full, the lids are pulled tight until the perimeter edges of the basket. The lid must then be tightly laced and/or fastened along all edges, ends and tops of diaphragm(s) in the same manner as described in section 2.K.1.

#### 7. Mesh cutting and folding

Where shown on the drawing or otherwise directed by the engineer, the basket mesh shall be cut, folded and fastened together to suit existing site conditions. The mesh must be cleanly cut, and surplus mesh either folded back or overlapped so that it can be securely fastened together with lacing wire or fasteners in the manner described in Section 2.K.1. Any reshaped gabions shall be assembled, installed, filled and closed as specified in the previous sections.

## L. GABION MATTRESS INSTALLATION

1. Before gabion mattress is placed, the surface to be covered shall be excavated to the required mattress thickness. The surface shall then be fully compacted and graded to the required slope. Cut-off trenches shall be excavated the full width of the ditch to the dimensions shown in the Drawings. Filter blanket shall be laid down under the gravel filter in areas to be covered by the gabion mattress.
2. Filter blanket and gravel filter shall be placed to the dimensions shown on the Drawings.
3. The gabion mattress units shall be assembled in the field by lacing both ends and diaphragms to the unit sides binding wire at no less than 12 inch intervals. The assembled units shall be placed along the ditch and laced to each other with binding wire. The cells shall be filled with three to six inch nominal angular stone and the lids wired shut to form the furnished structure.
4. The OWNER shall inspect the gabion mattress installation at the following times:
  - After gabion mattress assembly and the units are all wired together
  - After stone placement in the cells
  - After placement of the lid on top of the filled cells
5. The upstream and downstream sections immediately adjacent to the gabion mattress shall be graded to blend the channel sections into the gabion mattress such that a uniform flow of water is maintained.

## M. WATER BARS

1. CONTRACTOR shall construct water bars on temporary access roads, in water courses, and at such other locations as shown on the Drawings or as directed by the OWNER.
2. Water bars shall be constructed at angle of 135 degrees to the gradient in order to deflect surface runoff toward catchments and drainage or to otherwise reduce the velocity of runoff below the erosion threshold.
3. Water bars shall consist of gravel-filled trenches excavated to a depth of 12 inches and a minimum width of 18 inches. The trenches shall be backfilled 4 to 6 inches above adjacent site grade. The surface of water bars on access roads shall be as directed by the OWNER.
4. Unless otherwise specified, water bars shall be spaced at intervals of not more than 500 feet on slopes that are flatter than 15:1 (horizontal:vertical) and 300 feet on slopes between 15:1 and 10:1. On steeper slopes, the spacing of water bars shall be as directed by the OWNER.

## **SECTION 3: EARTHWORK**

### **3.1 General Work Included**

This section covers the WORK necessary for general earthwork and site grading. The principle items of WORK include, but are not limited to, stripping and storage of vegetation; excavation and filling of sub-soils; removal and transportation of coal refuse to fill areas; regrading of coal refuse piles in place; stripping, stockpiling and placement of topsoil.

### **3.2 Materials Definitions**

#### **A. VEGETATION**

Naturally occurring plant growth including: trees, shrubs, grasses, weeds, sagebrush, etc.

#### **B. TOPSOIL**

Mineral soils, with organic matter, free of large roots, rocks, debris, and large weeds, obtained from the areas and to the maximum depths specified on the Drawings and Site Specific Requirements.

#### **C. SUBSOIL**

Mineral soils, free of organic matter and excessive amounts of construction debris and rubble, naturally or artificially (fill) occurring between topsoil and bedrock, including rocks and boulders.

#### **D. COAL REFUSE**

Materials produced in the process of coal mining, generally found on the site in gob piles and spread over sub-soils and fill in thin veneers. The coal refuse typically consists of coal overburden materials, coal and coal fines, burned coal (scoria and "red-dog"), and intermixed sub-soils. Material size ranges from silts and sands to rock not greater than 18 inches in diameter.

#### **E. RANDOM FILL**

Artificially placed materials; consisting of coal refuse, excavated sub-soils, and unclassified materials. Material for use as random fill shall be free of wood, roots, weeds, construction debris, and other combustible non-coal materials. Random fill shall not contain material sizes or gradations, which preclude compaction.

#### **F. UNCLASSIFIED EXCAVATION**

As described by these Specifications, excavation is unclassified and includes in-situ soils as well as buried rubble and construction debris. It is not the intent of these Specifications to require the excavation of bedrock. Should bedrock be encountered, the OWNER shall be immediately notified so that field adjustments to the reclamation contours as described in the site-specific scope of work can be made.



**G. SOIL/ROCK FILL**

Are locally available material, consisting of organic-free rock and coarse soils. The OWNER shall designate materials for use as soil/rock fill on site.

**3.3 Typical Excavation and Backfilling Sequence**

The excavation and backfill sequence will follow the order that the execution of earthwork is stated in follow section 3.5 unless otherwise specified in the site specific section 7.

**3.4 Safety Precautions and Other Conditions and Restrictions**

- A. The CONTRACTOR shall be responsible for all safety precautions appropriate to working in areas with potential physical hazards and/or unstable terrain, such as highwalls, steep mine waste pile slopes, mesa cliffs, areas prone to subsidence and/or collapse, slick sandstone bedrock, and rough/steep Access roads. If necessary, such known areas should be flagged by the CONTRACTOR prior to the commencement of WORK. Personnel will be informed of safety procedures for equipment usage and general Work in these areas. The CONTRACTOR shall adhere to all applicable safety regulations including Navajo OSHA regulations. Also please refer to Section 8 for compliance with the OWNER's Health Physics/Safety Officer guidelines.
- B. Only designated areas and access roads will be utilized during the construction work. Contractor will not disturb previously reclaimed areas by NAMLRP. Any access road improvement work where archaeological resources are present shall be coordinated with the Navajo Nation's Archaeologist and PROJECT MANAGER. These will be identified prior to any construction activities.
- C. Personnel will work only in designated WORK areas and not explore other possible abandoned mine areas under any circumstances.
- D. It is recommended that the CONTRACTOR shall utilize an excavator with a minimum of 25-30 feet reach while excavating the designated coal refuse piles at the edge/slope of a mesa for safety purposes.
- E. During all earthwork activities, the CONTRACTOR shall provide an adequate water supply system for dust control. The CONTRACTOR shall obtain a water-use permit from the Navajo Nation's Water Resource Management Department prior to use of any water wells, ponds, etc. belonging to the Navajo Nation. A copy shall be forwarded to the OWNER as proof in accordance with the GENERAL CONDITIONS.
- F. CONTRACTOR shall conduct grading and earthwork operations in a fashion to minimize erosion during and after construction. This shall include limiting disturbance of existing vegetation, working equipment parallel to contours, use of temporary drainage control where appropriate, and other practices as directed by the OWNER. Stream channels shall be

protected in accordance with CONTRACTOR'S Stormwater Pollution Prevention Plan and/or Section 2: Drainage Control & Stream Protection. Drainage irrigation ditches shall be kept clear.

### 3.5 Execution

The intent of this WORK is to develop the reclaimed contours as specified in *Section 7* and to establish favorable drainage conditions and erosion protection at all sites. Random fill shall be placed directly to meet the specified reclamation surface contours. Lines and grades as defined on the Drawings are subject to modification, dependent on the field conditions encountered. Unless identifies on the Drawings or Specifications, the lower limit of excavation shall be the top of competent bedrock. The steepest allowable slope of reclaimed areas shall be 3:1; unless otherwise stated in these Specifications or shown on the Drawings and/or Diagrams. Site grading shall be performed to provide a reclamation area, which blends well with natural conditions in adjacent areas.

#### A. STRIP VEGETATION

WORK shall consist of removing vegetation, roots, and surficial debris from areas of reclamation as directed by the PROJECT MANAGER. The resulting debris shall be re-administered to the reclaimed area as a source of mulch and seeds. However, in no case may combustible materials be buried or otherwise placed in coal refuse.

#### B. DRAINAGE GRADING

1. At the location of the borrow area, the CONTRACTOR shall grade the existing topography to allow surface water to drain freely away from area. Efforts shall be made to minimize the extent of this grading and limit the disturbance of existing vegetation.
2. Regraded surfaces for waste dump reclamation, burial of coal refuse, and reshaping of drainage channels shall be sloped to drain freely and shall include water bars, intermediate benches, and other such devices as shown on the Drawings to control precipitation runoff and prevent erosion.

#### C. STRIP REFUSE TO MINERALS SOILS

In the areas designated on the Drawings, CONTRACTOR shall strip existing coal refuse to sufficient depth to expose natural soils. Refuse from these areas shall be utilized as fill for site grading. Stripping depths shown are approximate only, and all refuse present shall be removed from the area. After refuse removal, soils within the stripped area shall be regarded to approximate the reclamation contours shown on the Drawings. CONTRACTOR shall not be required to import fill to the stripped area to create the contours shown.

#### D. EXCAVATION

CONTRACTOR shall excavate to the lines and grades shown on the Drawings or as directed by the PROJECT MANAGER. Excavated materials, conforming to the definition of random fill, including subsoils, coal refuse, and unclassified materials, shall be placed directly as fill in designated fill areas. Concrete and other inert materials may be buried at depth greater than 36 inches with the approval of the OWNER. CONTRACTOR shall be responsible for all surveying necessary to perform the WORK. CONTRACTOR shall confirm that the survey base used is consistent with the plans provided by the OWNER.

#### E. FILL

Where fill is required, CONTRACTOR shall use excavated materials acceptable as either random fill or soil/rock fill. Rocks and boulders greater than 12 inches in diameter shall be removed for use as riprap, buried in fill in accordance with grading tolerances below, or left on finished grade either singly or in groupings to blend with natural surroundings. Non toxic and non hazards construction debris may be incorporated in the fill providing such materials are properly broken down and placed in such a manner that no open voids exist. The placement of debris in the fill shall be subject to the approval of the OWNER. The distribution of materials throughout a fill shall be such that there shall be no lenses, pockets, streaks or layers of materials differing substantially in texture and gradation from the surrounding material in the fill. Fill materials to be compacted with hauled or self-propelled compactors shall be placed and spread in horizontal lifts not exceeding 24 inches loose measure. Fill materials to be compacted by hand-guided or hand-operated equipment shall be placed and spread in horizontal lifts not exceeding 12 inches loose measure.

#### F. FILL COMPACTION

Each lift of material placed as fill shall be compacted by a minimum three (3) passes of a compactor exerting a minimum pressure of one hundred (100) pounds per square inch or as specified in *Section 7: Specific Site Requirements*. Water shall be used as necessary in the compaction operation for dust control and to achieve the required compaction.

#### G. GRADING TOLERANCES

1. The reclaimed surface shall be constructed to produce the contours shown on the Drawings within a tolerance of plus or minus one foot. Where field conditions warrant a modification in the grading plan, top of subgrade shall be as directed by the OWNER. The top two feet of the subgrade shall consist only of clean subsoils or coal refuse which have been cleaned of cobbles and boulders exceeding twelve (12) inches in diameter.
2. Abrupt changes in grade shall be rounded to provide a pleasant visual effect.
3. Depressed areas shall be graded to prevent ponding or standing water.

#### H. SCARIFICATION

Scarification or discing shall be completed when the veneer of coal refuse is generally less than 6 inches thick. Scarification shall be accomplished with a tractor or bulldozer-hauled scarifier or disc-harrow. Where inaccessibility precludes the use of hauled equipment, scarification shall be completed manually with hoes and mattocks.

#### **I. TOPSOIL PLACEMENT**

1. Areas to be covered with topsoil shall be scarified to a minimum depth of 4 inches.
  - a. Following completion of grading and earthwork to the contours required by these specifications, designated disturbed areas shall be covered with topsoil placed to a minimum thickness of 12 inches unless otherwise directed by the OWNER. On slopes of 3:1 or flatter, topsoil materials shall be compacted in the same manner as fill material. On slopes steeper than 3:1, the topsoil surface shall be stabilized by means of erosion control blanket, vegetation, riprap, or as otherwise directed by the OWNER. The topsoil shall be obtained only from the borrow areas shown and to the maximum depths specified on the Drawings.

#### **J. DEBRIS BURIAL**

Non hazardous and non toxic construction debris may be incorporated in fill providing such materials are properly broken down and placed in such a manner that no open voids exist. The placement of debris in fill shall at all times be subject to the approval of the OWNER.

### **3.6 Submittal**

Before beginning construction, an updated list of equipment to be used specifically for the WORK shall be inspected, documented, and approved by the PROJECT MANAGER prior to initiation of the WORK. Also, the CONTRACTOR shall submit a proposed construction schedule for the PROJECT and receive the OWNER's approval.

## SECTION 4: REVEGETATION

### 4.1 Description

This Section covers seedbed preparation, application of seeds, and mulching on the designated Project Areas. The total area to be revegetated is **20 acres**.

### 4.2 General

- A. Areas to be re-vegetated are discussed in the site specifics and will occur only in areas that have topsoil material applied and/or borrow areas.
- B. The CONTRACTOR shall take necessary precautions to avoid disturbance of surrounding native areas, including trees (as far as practicable), and to minimize travel on undisturbed soils. This includes the use of multiple access routes to the project area.
- C. On slopes accessible to machinery, all operations will be conducted along the contour as far as practicable. On level sites, all equipment operations will be conducted perpendicular to the prevailing wind direction when wind erosion potential is considered to be high.

### 4.3 Materials Specifications

- A. Seed: All seeds and seed mix will conform to the OWNER's SPECIFICATIONS. Unless exception is granted by the PROJECT ENGINEER, seed will be thoroughly premixed in the required proportions and delivered to the WORK site in bags or containers clearly tagged showing the name and address of the supplier, the net weight of each species of seed in the mix, the percent of weed seed content, and the guaranteed percentage of purity and germination for each species furnished. The CONTRACTOR shall give the tags to the PROJECT MANAGER. The CONTRACTOR will furnish a signed statement, to the PROJECT MANAGER, certifying that the seed furnished is from a lot that has been tested by a recognized laboratory for seed testing within nine months prior to the date of delivery to the WORK site. The CONTRACTOR shall make a concerted effort to obtain all components of the seed mixture. Seed sources may require greater than six weeks notice to obtain specific species. More than one source may be required to furnish all seed varieties. If all sources have been exhausted, or if available seed of a given species is of unacceptable quality, that species may be deleted or another species substituted. Any changes in the seed mixture upon written initiation by the CONTRACTOR shall require the written approval of the OWNER prior to execution. All seed mixes shall be fresh, clean, new crop and shall be of the following compositions by weight. Seeding rate given is for drill seeding. The rate shall be doubled for broadcast seeding. The CONTRACTOR is required to supply the following seed mixture as given below. A list of suppliers of the seed mix can be made available to the CONTRACTOR, upon request.

Species Common Name, (Scientific Name)	Planting Rate (PLS #'s per Acre)
Alkali Sacaton, ( <i>Sporobolus airoides</i> )	1.0
Blue Grama, ( <i>Bouteloua gracilis</i> )	3.0
Winterfat, ( <i>Ceratoides lanata</i> )	2.0
Four Winged Saltbush, ( <i>Atriplex canescens</i> )	3.5
Greasewood, ( <i>Sarcobatus vermiculatus</i> )	2.0
Indian Ricegrass, ( <i>Oryzopsis hymenoides</i> )	6.0
Plains Bristlegrass, ( <i>Setaria macrostachya</i> )	2.0
Sand Dropseed, ( <i>Sporobolus cryptandrus</i> )	0.5
Side-oats Grama, ( <i>Bouteloua curtipendula</i> )	5.0
Total	25.0

B. Mulch: Mulch shall consist of hay or straw mulch, pest-free or weed free to the extent possible. Approximately 30 percent by weight of the mulch material shall be ten inches (10") in length or longer. Rotted, caked, decayed or moldy material will not be accepted. Mulch shall consist of native hay or straw free of noxious weeds or any foreign material detrimental to plant life.

C. Erosion Control Netting: Erosion control netting, if used, will be approved by the OWNER. If stored on-site, netting must be stored out of direct sunlight.

#### **4.4 Delivery, Storage and Handling**

The CONTRACTOR shall deliver the seed in original containers with analysis labels attached showing components of seed mixture, including purity, germination, inert matter, weed and other seed, percentage of pure live seed (PLS), year of production, net weight, date of packaging and location of packaging. Seed must be stored under dark, cool, and dry conditions. Damaged packages are not acceptable. Hydromulch, fertilizer, and soil stabilizers shall be properly stored in accordance with the manufacturer's recommendations and protected from weather. All materials shall be delivered to the site in unopened containers, and all containers shall remain tightly closed until used.

#### **4.5 Notice/Submittal**

The CONTRACTOR shall give the PROJECT MANAGER at least two (2) WORKING DAYS notice of the time and location of starting his revegetation and shall continue to advise as to the schedule of operations. Material submittal is required on seed-mix, mulch, and erosion control netting. OWNER's written approval is required prior to use of these materials. The CONTRACTOR shall submit the names of one or more suppliers for the above materials and submit a written description of the WORK indicating the equipment to be used to perform the WORK in this section. The CONTRACTOR shall submit during construction and prior to payment, empty container labels, tags, and receipts for verification of materials being used.



## **4.6 Execution and Procedure**

### **A. SITE PREPARATION**

1. CONTRACTOR shall remove and bury all foreign materials and debris visible in the topsoil. Tree stumps, large shrubs, and boulders shall be removed and disposed of, if necessary.
2. Top soiled areas to be revegetated shall be disked to a depth of 6-9 inches. Ripping, if required, shall be repeated until the topsoil area is loose and friable.
3. Debris and foreign materials collected during demolition and clean-up shall be removed from the site. Large boulders may be left on finished grade surfaces either singly or in groups to blend with the natural surroundings and provide future animal habitats.

### **B. SEEDBED PREPARATION**

1. In all areas, the seedbed shall be adequately loosened four to six inches (4" to 6") deep. Chiseling, disking, harrowing or cultipacking may be required. WORK shall be done on the contour where practicable. Seedbed preparation shall be suspended when soil and/or moisture conditions are not suitable for the preparation of a satisfactory seedbed as determined by the PROJECT MANAGER.
2. Disking will be used for seedbed preparation on all accessible areas. Disking shall be done on the contour, perpendicular to the slope. Offset disc implements are preferred for use and will be towed behind a rubber-tired tractor at a speed, which maximizes disking.
3. Harrowing may be used in place of or in addition to disking as a seedbed preparation technique.
4. Harrowing shall be used to break surface clods and smooth the seedbed. Harrowing shall be done on the contour, perpendicular to the slope. A spring tooth harrow implement shall be preferred over a spike tooth implement. Harrowing shall be completed immediately prior to seeding. Harrowing shall be accomplished by pulling the implement over the site to be treated at a speed, which maximizes the harrowing action.

### **C. SEEDING**

1. The designated seed mixture type shall be sown uniformly on the prepared areas. Seeding shall not be done if the ground is frozen or muddy. Some areas, such as rock outcrops, etc., within the WORK limits may not be designated to be seeded. Seeding shall not be performed when the wind velocity exceeds fifteen (15) miles per hour. The CONTRACTOR may use any of the following methods of seeding:

2. Drill Seeding: In all areas, seeding shall be performed with a grassland drill with depth bands and seedbox agitator and equipped with either packing wheels or a cultipacker. The drill shall be capable of properly handling the seed being planted on all slopes designated for this method. Seed shall be drilled across the slope, where practicable. The distance between drilled furrows shall not be more than twelve (12) inches. Seed shall be planted one-quarter inch ( $1/4$  ") to one-half inch ( $1/2$  ") deep.
3. Broadcast Seeding: Any or all of the following methods for broadcast seeding may be used at the CONTRACTOR's option. Regardless of the method used, broadcast seed shall be covered about one-quarter ( $1/4$  ") to one-half ( $1/2$  ") inch deep by flexible-twine harrowing or a similar method acceptable to the PROJECT MANAGER. One to two operations may be required to obtain adequate covering as specified by the PROJECT MANAGER.
4. Pneumatic Seeding: All materials shall be applied by blower type equipment using air pressure and adjustable disseminating device whereby dry seed shall be applied in prescribed quantities uniformly onto the specified areas.
5. Seeding with Machine or Hand-Operated Spreader: Seeding shall be performed using hand operated or machine spreaders or seeders whereby dry seed shall be applied in prescribed quantities uniformly on specified areas.
6. Required seeding rate is 25 PLS pounds per acre. For broadcast seeding, the rate shall be doubled.

#### D. MULCHING

Hay or straw mulch shall be applied uniformly at the rate of two (2) tons per acre over seeded areas. Hydromulch, if used, shall be applied at the rate of one and a half ( $1\frac{1}{2}$ ) tons per acre. Mulch shall be applied to the designated areas immediately after seeding and no later than 24 hours after seeding has been performed. Mulching shall not be done when the wind velocity exceeds fifteen (15) miles per hour.

#### E. STABILIZING MULCH

Mulch crimper, disking or a biodegradable netting shall be used on all revegetated areas to stabilize or anchor the mulch into the soil after hay or straw mulch has been applied. The crimper shall be equipped with scrapers to keep the blades clean. Spacing of crimper blades shall not exceed nine (9) inches. On small areas crimping may be achieved by hand with a suitable tool, such as a spade, on 18" centers. Biodegradable netting should perform its duty a minimum of 1 year and should be properly tacked with staples or as specified by the manufacturer. Eighty percent (80%) of the mulch must be properly anchored or stabilized in place; otherwise, the loss of mulch will be resultant of high wind actions. The CONTRACTOR shall then use netting with anchors to enclose the mulch. The CONTRACTOR shall not use stones or boulders to weight down the netting.

#### F. MAINTENANCE

1. The CONTRACTOR shall apply water to all seeded areas within 24 hours of seeding. The amount of water apply will be the amount necessary to moisten approximately 1 inch of top the soil.
2. The CONTRACTOR shall maintain the seeded and mulched areas until all WORK on the entire CONTRACT has been completed and accepted. Maintenance shall consist of repairing damaged areas due to erosion, wind, fire or other causes. These eroded areas shall be repaired prior to reseeding. The condition and grade of seedbed, and/or re-established as directed by the PROJECT MANAGER.

## **SECTION 5: INCIDENTAL WORK**

### **5.1 General**

The WORK listed below shall be considered incidental to this project: mobilization, access road improvement and its elimination at the completion of project work, demobilization, clean-up, site grading, drainage grading to re-establish specific drainage patterns, cleaning of construction equipment by flushing with water before demobilization, leaving the surface of the reclaimed areas rough to minimize erosion and catch runoff to aid vegetative growth, clear and grubbing and other works or responsibilities besides the PAYABLE WORK ITEMS, such as dust suppression, provision of personnel protection, training, and other measures for workmen safety, which are required to get the RECLAMATION WORK completed to the satisfaction of the OWNER. There is no payment for the incidental WORK. The CONTRACTOR shall include the cost for these incidental WORK items with the cost for PAYABLE WORK ITEMS.

### **5.2 Mobilization**

#### **A. GENERAL:**

1. This Section covers the CONTRACTOR's operations for:
  - a. Movement of personnel, equipment, operation supplies, and incidentals to the various PROJECT sites;
  - b. Establishment of temporary offices, access control trailer, and other necessary facilities at a location which; has received cultural resources clearance; is flat and readily accessible; does not interfere with local traffic; outside the project boundaries; and is approved by the PROJECT MANAGER in consultation with the OWNER's HEALTH PHYSICIST/SAFETY OFFICER;
  - c. Preparatory Work at the construction site without disturbing off limit areas;
  - d. Demobilization of the CONTRACTOR's equipment and all other facilities, final PROJECT clean-up, and for all other Work for which payment is not otherwise provided for under the Contract.
2. The temporary facilities may include, but not be limited to the following:
  - a. Workshops, temporary office, enclosed access control trailer, storage yards for equipment including spare parts, fuels, oil, tires, mulch, etc.;
  - b. Sanitation and communication facilities (cellular phone), first aid facilities;
  - c. The CONTRACTOR's temporary electrical power system;

- d. Other items such as drinking water, compressed air, etc., not specifically listed but required for the functioning of construction activities;
- e. The CONTRACTOR may also establish and maintain, for its own convenience, other trailers, parking areas and other maintenance facilities for use during construction at designated areas.

## **B. EXECUTION:**

Upon receipt of the NOTICE TO PROCEED, the CONTRACTOR shall, within 15 CALENDAR DAYS, furnish, mobilize, move in, and install such temporary works, equipment and construction yard as are necessary for the successful completion of the Work. The CONTRACTOR shall provide the PROJECT MANAGER with a finalized schedule for the proposed WORK in calendar form. The CONTRACTOR shall also operate and maintain such temporary works, equipment and construction facilities throughout the period of construction. All applicable temporary works, such as sanitation facilities shall fully comply with any applicable rules and regulations. Clearing and grubbing operations necessary for temporary work, if any, shall also be included as mobilization. The cost for these facilities will be borne by the CONTRACTOR.

### **5.3 Demobilization**

Upon completion of the WORK under this Contract, the CONTRACTOR shall remove all temporary works, equipment and construction yard. The CONTRACTOR shall remove from the Work site all rubbish, unused materials, and shall fill and dress all holes and cavities made for convenience, and leave all areas in good order and condition, subject to the approval of the PROJECT MANAGER. Demobilization of the equipment before the pre-final inspection and acceptance of the Work by the OWNER may be allowed with the express written permission of the OWNER. However, no payment will be allowed for remobilization to finish up any remaining work.

### **5.4 Access Road Improvement**

#### **A. GENERAL:**

This Work item is to develop and maintain site access or improve existing site Access roads. Improvement is limited to the extent required to complete the Work at each project site and only at approved locations. The Work shall include temporary site access to reach sites of construction, and maintenance of existing, permanent roads that must be used for movement of EQUIPMENT, MATERIALS and personnel. The CONTRACTOR shall minimize disturbance resulting from site access improvements. In areas in which a passable road did not previously exist, the CONTRACTOR shall reclaim/eliminate the access improvement in accordance with this section upon completion of the Work. Existing, permanent roads shall be left in as good a condition as prior to the Work. Any restrictions imposed by the Navajo

Nation's Historic Preservation Department relating to access improvement must be adhered to. To avoid any impact to any cultural resources present in the vicinity of the Access roads, the Access roads shall not exceed twice their existing width without written authorization/approval by the OWNER.

**B. MATERIALS:**

1. The CONTRACTOR may utilize local resistant materials or import road base material, if needed, to maintain access and minimize damage to the environment. If wet weather conditions prevail, OWNER may require the CONTRACTOR to stockpile road base material at the Work sites in order to maintain the schedule.
2. The CONTRACTOR may choose to temporarily place corrugated steel pipes or other conveyance structures in the access improvement with the permission of the OWNER, so long as these structures do not interfere with drainage.

**D. EXECUTION:**

1. The CONTRACTOR shall discuss with the PROJECT MANAGER his plan for ACCESS ROAD improvements to be performed at each site and not deviate from this plan without the approval of the OWNER. Access improvement shall not interfere with or impede the drainage of the land. Where temporary site access crosses perennial or intermittent streams, the CONTRACTOR shall maintain the drainage by providing a temporary crossing. Upon completion of the Work, the CONTRACTOR shall restore drainage to approximate original condition (elimination of the side berms from stockpiled road base), subject to the OWNER's acceptance and approval.
2. Temporary access improvements shall be constructed in a manner that will minimize disturbance to existing vegetation and minimize potential erosion.
3. When no longer required by the CONTRACTOR, improved Access roads will be reclaimed in the following manner: all roads within the project boundaries will be ripped; roads outside the project boundaries and leading to the project areas and existing passable access shall be left in or returned to approximate original condition and/or completely eliminated depending on the TECHNICAL SPECIFICATIONS; access previously impassable, shall be reclaimed to blend with surrounding contours, providing erosion protection, the surfaces scarified/ripped, and blocked off with boulders and/or berms. ACCESS ROAD elimination will require multiple passes of heavy equipment performing the ripping. Any Access roads not previously approved for use by the CONTRACTOR shall be reclaimed according to the TECHNICAL SPECIFICATIONS at the CONTRACTOR's expense.

**D. CONDITIONS AND RESTRICTIONS:**



1. Temporary access improvement Work shall be performed in a manner that will minimize destruction to existing vegetation and minimize potential erosion. Berms built adjacent to the Access roads during the upgrading will be eliminated during the demobilization. The CONTRACTOR shall use only existing Access roads, to be shown by the PROJECT MANAGER, which have received clearances from the Navajo Historic Preservation Department and the Navajo Fish and Wildlife Department.
2. The CONTRACTOR shall minimize disturbances resulting from site access improvements. Existing permanent roads shall be left in condition at least as good as prior to the Work.

## **5.5 Site Grading/Drainage**

- A. Site grading is an integral part of the total reclamation work. The intent of this Work is to develop proper post reclamation contours to establish favorable positive drainage conditions and erosion protection at all sites. Random cut and fill may be used for this purpose. The graded slopes of the reclaimed surfaces shall allow positive drainage. The reclaimed slopes, including those for highwalls, shall not be steeper than be 3H : 1V unless otherwise permitted by the PROJECT ENGINEER. Site grading shall be performed to provide a reclaimed area, which blends well with the natural conditions in adjacent areas. All reclaimed/disturbed surfaces shall be roughened and/or scarified with 6-inch deep indentations or furrows perpendicular to the slopes and 2-3 feet apart to help erosion control and catch small amounts of water. This will include the Access roads disturbed by construction and/or equipment. Volume of earthwork for site grading is part of the total earthwork. Efforts shall be made to minimize the extent of this grading and limit the disturbance of existing vegetation. Abrupt changes in grade shall be rounded to provide a pleasant visual effect and to allow surface water to drain freely away from the reclaimed areas. Earthen berms, terraces, and other structures shall be constructed, as needed, to prevent future erosion by wind and water and improve drainage. Large rocks/boulders shall be collected to form small mounds to provide animal habitat at places designated by the PROJECT MANAGER.
- B. The reclamation work shall ensure diversion of runoff from outside the reclaimed areas, as well as proper drainage from the reclaimed areas without ponding and leaching/erosion of buried mine waste piles. It shall be easily compacted with the available equipment or a small compactor. The material will be free from debris, roots and trash. This material shall be used mainly to construct the drainage diversion berms. If the CONTRACTOR constructs temporary drainage channels in the form of swales or ditches, up-gradient of work areas to minimize erosion during construction, such drainage will be constructed with minimum disturbance to the existing vegetation, and upon completion of Work shall be contoured to blend with the surrounding and then revegetated at CONTRACTOR's cost.

## **5.6 Final Clean-up of Reclaimed Areas**

At the conclusion of the reclamation work, the CONTRACTOR shall clean-up the entire project areas of any trash, debris, diesel/oil spills, scrap metals, and any other unwanted material to the

satisfaction of the OWNER. The reclaimed areas shall have an aesthetically acceptable look which blends well with the surrounding.

### **5.7 Construction Debris Burial**

Construction debris may be incorporated in the fill provided that such materials are properly broken down and placed in such a manner that no open voids exist. The CONTRACTOR shall provide the OWNER with a list of items being proposed for on-site burial. The placement of debris in the fill shall be subject to the prior written approval of the PROJECT MANAGER. Burning of debris is not allowed. This is incidental WORK.

### **5.8 Dust Suppression**

Dust suppression shall be provided at all times during the construction hours to prevent dust originating at the loading and unloading points of coal refuse piles/cover material or on the haul road, and to minimize airborne particles. The dust levels at the PROJECT will be monitored by the OWNER's representatives to assure that the levels do not exceed EPA and the OWNER's air quality levels. Haul roads shall be damp at all times to reduce the dust levels of traveling EQUIPMENT and vehicles. A minimum 2,000 gallon capacity, double spraying water wagon, with a rotating fire hose mounted to the driver's cab, is strongly recommended for spraying water on the haul roads and all dust generation points.

### **5.9 Solid Waste Handling**

Solid waste handling will be paid under one line item, which will be label as **Solid Waste Handling**. All other activities pertaining to solid waste will be considered incidental work. These activities include but not limited to compacting, transporting, consolidating, uncovering, etc. of solid waste. Refer to *section 7* to determine the extent of solid waste work.

### **5.10 Safety**

All applicable health and safety rules, regulations and guidelines, i.e. Navajo OSHA and the OWNER's Construction Safety Plan, etc. shall be followed, please refer to Section 8.

## SECTION 6: CONCRETE CLOTH

### 6.1 Introduction

A. Milliken Concrete Cloth (CC) is a flexible, cement impregnated three-dimensional fiber matrix that hardens when hydrated to form a thin, durable, and water proof concrete layer. CC allows concrete construction without the need for delivery trucks or mixing equipment. Simply position the Concrete Cloth and just add water. The material can be hydrated either by spraying or by being fully immersed in water. Once set, the fibers reinforce the concrete, preventing crack propagation. CC is available in three thicknesses:

- CC5, 5 mm or .2 inches,
- CC8, 8 mm or .3 inches,
- CC13, 13 mm or .5 inches.
- CC is suitable for use in a wide range of applications ranging from artwork to civil engineering applications where cast-in-place concrete, shotcrete, other concrete lining products and riprap might be typically used.

**Table 6.1** below is intended to help a user select the thickness needed.

Application	CC5	CC8	CC13	Thickness Selection Criteria
Ditch, Channel, Streambank, & Swale Lining	○	●	○	CC8 for water velocities up to 25 ft/sec, areas expecting foot traffic with medium to stiff supporting soils, and moderate grit and gravel abrasion expected; CC13 for more extreme conditions.
Slope Protection, or Protection of Exposed Erodible Rock Faces	○	●	○	CC5 for steep slopes with no foot traffic or stiff supporting soils or rock exist; CC8 for slopes expected to take foot traffic; CC13 for greater durability or to take heavier traffic; CC can be used with soil nails and soil anchors.
Shoreline Protection	○	●	○	CC8 is capable of handling some wave attack while CC13 should be considered for severe conditions and those instances where blowing sand may effectively sandblast the CC during high winds.
Secondary Containment Liner Protection	○	○	○	Consider soil support conditions and whether CC will be needed to resist potential puncture loads. As a general rule CC8 is used when foot traffic is anticipated and CC13 is used when occasional vehicle traffic is anticipated.
Pipe Protection	○	○	○	All thicknesses may be used depending upon protection requirements.

Corrugated Metal Pipe (CMP) Invert Repairs		○	●	CC8 for low water velocities and low volume of grit and gravel abrasion; CC13 for more extreme conditions.
Dust and Vegetation Suppression	●	○	○	CC5 for helicopter landing pads with anchors and relatively stiff soil support. CC5 to stop vegetation from growing under stairways and under fences. CC8 and CC13 should be used for more severe conditions.
Mud Slab, Mud Mat, or Subfooting	○	○	○	For temporary applications where the goal is simply to stay out of the mud, CC5 is most commonly used. CC8 and CC13 are used where requirements are more rigorous.
Utility Line Protection or Cable Covering	○	○	●	All thicknesses may be used depending upon protection requirements.
Sandbag or Gabion Reinforcement	○	●	●	All thicknesses may be used depending upon protection requirements.
Sidewalk, Walkway, Flooring, or Temporary Roadway		○	●	Consider soil support conditions and whether CC will be needed to resist puncture loads. As a general rule CC8 is for foot traffic and CC13 for occasional vehicle traffic. A CBR of 10 or more is needed for significant traffic.
Retaining Wall Swales and Toe Protection	○	●		See Ditch, Channel, Streambank, and Swale Lining above
Scour Protection around piers, culvert inlets & outlets		○	●	All thickness may be used depending upon protection requirements, scour susceptibility of soils, and hydraulic conditions.
Boat Ramps		○	●	Typically the forces exerted by propeller wash require CC13.

Note: ● = Primary Recommendations; ○ = Recommended in some cases.

## 6.2 Materials – Concrete Cloth

### A. Density:

The dry density of Concrete Cloth before hydration is 93.6 pounds per cubic foot (1500 kg/m<sup>3</sup>). Upon complete hydration, the density increases 30-35% to a range of about 122-126 pounds per cubic foot (1950-2025 kg/m<sup>3</sup>).

### B. Setting:

- Initial Set – 2 hours
- Final Set - CC will achieve 70-80% strength at 24 hours after hydration.

C. Method of hydration:

Spray the fiber surface multiple times until the CC is saturated. The wet CC will first darken and then become lighter as it absorbs the water. CC is saturated when water pools on the surface or runs off. See the hydration guide for more information.

D. Reaction to Fire:

CC has achieved Euroclass B certification: BS EN 13501-1:2007+A1:2009, B-s1, d0  
Concrete Cloth is MSHA fire tested and approved.

E. Strength:

Very high early strength is a fundamental characteristic of CC. Typical strengths and physical characteristics are as follows:

1. Compressive testing based on ATSM C673 – 07
  - 10 day compressive failure stress (Psi) 5800
  - 10 day compressive Young's modulus (Psi) 217,600
2. Bending tests based on BS EN 12667:2006
  - 10 day bending failure stress (Psi) 693
  - 10 day bending Young's modulus (Psi) 26,100
3. Abrasion resistance (DIN 52108)
  - Similar to wear resistant ceramic – Max .10 gm/cm<sup>2</sup>
4. MOHS hardness 6-5
5. CBR Puncture Resistance EN ISO 12236: 2007 (CC8 & CC13 only)
  - Min. Push-through force 605 lb/f
  - Max. Deflection at Peak 1.5"
6. Standard Test Method for Impact Resistance of Pipeline Coatings
  - ASTM G13 (CC13 only) – Passed
7. Moisture vapor transmission rate
  - PVC thickness 0.017"

- PVC MVTR range 0.836 – 0.926 g.mm/(m<sup>2</sup>.day)

8. CC Static Head <9.8ft

### 6.3 Concrete Cloth Fastening

#### A. Fastening Using Screws:

Attaching CC to steel using screws can be accomplished with a simple hand drill, adding a washer if greater connection strength is needed.

#### B. Fastening to Concrete:

When attaching CC to concrete, adhesives or concrete anchors have both been used successfully.

#### C. Fastening Using Adhesive:

When attaching CC to steel with an adhesive, a single bead is adequate but if the adhesive is also intended to act as a sealant to reduce the amount of water passage between the steel and the CC a snake line should be weighted down or mechanically fixed during hydration.

#### D. Fastening with Soil Anchors:

Soil anchors can be used to stabilize a steep slope while CC provides erosion protection. Soil anchors easily punch through soft un-hydrated CC. Soil anchors can be load tested in place to provide assurance that any uplift force or load required is provided. Soil anchor caps bear on the CC transferring load from CC to the anchor.

#### E. Fastening CC to CC:

Hog rings have also been used to attach adjacent rolls/strips of CC.

#### F. Fastening a Lap Joint:

The most common lap joint is made using screws every 12 to 18 inches after the CC is overlapped 4 inches.

#### G. Fastening a Lap Joint:

Adhesives can also be used in a 4 inch lap joint. Lap joint connections may be fastened using both adhesive and screws for best performance.

#### H. Fastening and Sealing a Lap Joint:



Adhesives or sealants laid in a swirl pattern may be used to limit the amount of water passage at the overlap.

I. Fastening with Pins/Spikes:

Pins, long spikes have also been used to join pieces of CC to one another and to attach the CC to the underlying soil.

J. Paint and Coating CC:

CC can be painted or stained to improve the aesthetics. Artists have used different paint systems. Coatings can be applied to make CC impermeable and to provide color.

## 6.4 CC Hydration Guide

A. Hydration Instructions:

Concrete Cloth (CC) is a flexible cement impregnated fabric that hardens after hydration to form a durable, fire resistant and water proof concrete layer. Follow the instructions below to correctly hydrate Concrete Cloth once installed.

SPRAY THE FIBER SURFACE WITH WATER UNTIL IT FEELS WET TO THE TOUCH FOR SEVERAL MINUTES AFTER SPRAYING, OR UNTIL WATER POOLS ON THE SURFACE OR RUNS OFF.

Respray again after 1 hour when:

- Installing CC5 (required), and recommended if installing CC8 or CC13.
- Installing on a steep or vertical slope
- Installing in warm and/or arid climates

Notes:

- Concrete Cloth cannot be over hydrated and an excess of water is recommended.
- Minimum ration of water: CC is 1:2 by weight.
- Do no jet high pressure water directly onto the surface as this may wash a channel in the material.
- CC can be hydrated with saline or non-saline water.
- Concrete Cloth will hydrate and set underwater.
- Concrete Cloth has a working time of 1-2 hours after hydration. Do not move Concrete Cloth once it has begun to set.
- Working time will be reduced in hot climates.
- Concrete Cloth will set hard in 24 hours but will continue to gain strength for years.
- If Concrete Cloth is not fully saturated, the set may be delayed and strength reduced. If the set is delayed, rewet with a large excess of water.

B. Low Temperature (<40°F or 5°C):

- If the ground surface temperature is between 32°F (0°C) and 40°F (5°C) and rising. Concrete Cloth should be covered with plastic sheeting immediately after hydration. Concrete Cloth may exhibit a delayed set at very low temperatures.
- If the surface temperature is expected to fall below 32°F (0°C) in the 8 hours following hydration, spraying the material with warm water (>60°F or 15°C) mixed with an accelerant, following by covering with plastic sheeting, may be suitable. Contact Milliken & Company for more information.
- It is not recommended to install Concrete Cloth if the ground surface temperature is likely to fall below 25°F (-4°C) within 24 hours of initial hydration.
- It is not recommended to install Concrete Cloth on frozen ground as the ground may move significantly when it thaws, creating voids underneath the set Concrete Cloth.

C. Storage:

Concrete Cloth should be stored in dry conditions away from direct sunlight and in the manufacturers sealed packaging. If store correctly, Concrete Cloth has a recommended shelf life of 24 months. If stored longer, Concrete Cloth may remain usable in many instances.

## **SECTION 7: SITE SPECIFIC DETAILS**

### **7.1 Location of Sites, Site Access, and General Site Description**

#### **A. LOCATION OF SITES AND SITE ACCESS:**

1. The locations and access roads of the seven (7) project areas under the Chocoan AML Reclamation Project areas are shown on Map 1 and the associating Quadrangle Maps (Map No. 2-6). During the MANDATORY SITE TOUR, the Contractors are advised to take notes of the site locations, i.e. locations of nearest highways or paved roads (relative to mile post) at which the dirt roads leading to the various sites begin, distances from paved roads to the AML sites, conditions of the dirt roads leading to the sites, length of access road improvements, etc.
2. The access roads identified during the pre-proposal tour will be used throughout the life of the project. These access roads have been cleared for environmental requirements. Contractors must use only these access roads.
3. General direction to the project sites is as follows:
  - a. For Little Water Mines (NA-0005, 0067, & 0068), the nearest highway is HWY 491. From the highway travel to the east on secondary roads for approximately 2 miles to Hogback Ridge. The mines are located on the west face of the uplift. Refer to the available 7.5" quadrangle map, Mines (Map No. 2).
  - b. For Newcomb Mine Site NA-0047, use HWY 491 near Newcomb Chapter. The site is located approximately 2 miles east of the highway at mile post 57. Refer to the available 7.5" quadrangle map, Tse Bonito School (Map No. 3).
  - c. For Coal Mine Hill Coal Fire (NA-0069), the nearest highways are Navajo Route 9 and State HWY 491 in northwestern New Mexican. From the intersection of these two highways, travel east on Route 9 approximately two (6) miles to Coal Mine Road. Turn south on Coal Mine Road and continue on the dirt road for approximately five miles. Refer to the available 7.5" quadrangle map, Big Rock Hill NW (Map No. 4).
  - d. For Twin Peaks Mine NA-0051, use N-9 near Standing Rock Chapter. At mile post 29 on N-9 turn north onto a dirt road, the site is located approximately 0.5 miles off the highway. Refer to the available 7.5" quadrangle map, Standing Rock (Map No. 5).
  - e. For Shillingburg Mine NA-0036, use N-9 near Nahodishgish Chapter. Turn south toward Nahodishgish Chapter and continue pass the chapter. The mine site is approximately 3 miles south of N-9. Refer to the available 7.5" quadrangle map, Fruitland (Map No. 6).

## B. GENERAL SITE DESCRIPTION:

The project areas are located in the Northern, Fort Defiance, and Eastern Agency on the Navajo Nation, refer to Map No. 1. The project areas contain a coal fire, underground mine openings, underground mine subsidence, and surface erosions. Coal Mine Hill Coal Fire (NA-0069) has an underground coal fire (coal outcrop seams.) Project areas NA-0067, NA-0005, NA-0068, NA-0047, and NA-0031 have physical and environmental hazards that will be addressed next. The locations of the project areas vary from relatively flat clay or sandy soils to high mesas with clay and sandstone outcrops. Some access roads are very rough with tight turns while others are graded and maintained. Overall, the access roads are useable with manageable obstacles.

### 7.2 Condition and Restrictions

- A. The CONTRACTOR shall use only approved Access Roads during mobilization and demobilization. If Access Roads are not specifically shown on the site maps, the PROJECT MANAGER will show the CONTRACTOR which roads to use. This is necessary to restrict ground disturbance only to the AML areas. Only areas designated within the access roads will be allowed for upgrading.
- B. No coal refuse material will be allowed in any drainage related construction work such as berms, terraces or ditches. All coal refuse will also be cleaned out of the drainage patterns; refer to permanent drainage ditches in *Section 2*. Precautions should be taken while backfilling the mine features with rocky mine waste to ensure that proper compaction is performed, thus reducing any long term settling within the backfilled areas.
- C. The CONTRACTOR is encouraged to double check quantities of work items before submitting the proposal.
- D. The objective at all project areas requires burying coal refuse below a layer of subsoil and topsoil materials, this includes labeled refuse piles on the map and non-labeled locations. Capping coal refuse will eliminate transport of coal refuse into arroyos and washes, while improving aesthetics, and eliminating hazards at project areas. The main objective at Coal Mine Hill Coal Fire is to extinguish the coal outcrop fire by excavating down to the coal seams. It is uncertain whether the coal fire is limited to the specified surface area designated on the maps or the dimensions specified in the written part of this specification. The objectives mentioned above will be accomplished regardless of changes in dimensions or quantities of the project areas.
- E. There are no actual proposed final contour maps available with this specification, however with the written site specifics, approximated/proposed contour designs, the current contour drawings, and the scheduled mandatory pre-proposal tour, NAMLRP will convey to the contractor the desired final contours. Each written site specific describes in detail where the approximate location of the final drainage will route. This will be the aim of the contractor

in developing final contours. All fill and backfill will have a slope of five horizontal to one vertical or flatter.

- F. It is the intent of these Specifications that site-specific scope of WORK be as described in this section. General Technical Specifications, sections 1 through 6, and section 8 through 10, outline WORK broadly applicable to all abandoned mine reclamation situations and that may not be required at the site in this project. Where there is conflict between section 7 and the General Technical Specification (section 1-6 and 8-10), Section 7 shall govern.

### **7.3 Site-Specific Scopes of WORK summaries are described below:**

#### **A. NA-0067, Littlewater Mine North:**

1. The project area consists of one mine opening (adit) for underground mine, associated coal refuse, and erosions problems. The mine feature will be closed, using expansive concrete grout mix. The coal refuse shall be stabilized in a containment cell. A culvert shall be installed to allow air quality monitoring of the coal bed. Lastly the erosion problems shall be controlled by developing a retention pond. The existing condition of the project area is demonstrated on *Drawing No.1*.
2. The Contractor shall apply Best Management Practices (BMP) according to the contractor's storm water pollution prevention plan (SWPPP). This scope of work should involve the management and control of storm water discharge entering and leaving the project area, including minimizing transportation of sediment.
3. Proper safety precautions shall be implemented while working near the mine opening. A site-specific health and safety plan will be required for this part of the work. A one foot diameter culvert shall be installed as demonstrated in *Diagram No.4*. The length of the culvert needed is estimated at eighty feet (**80 ft.**). The concrete plug shall be covered with earth and a layer of rock to armor the exterior, as drawn on *Diagram No.4*.
4. The subsidence shall be excavated to expose a solid perimeter of the opening. The estimated volume of material to be excavated is twenty seven cubic yards (**27 yd<sup>3</sup>**). Once a solid (competent material) perimeter is exposed, the mine opening shall be prepared into conical shape, allowing the plug to stabilize. The 80 foot pipe shall be installed at this point. Next, using random fill or coal refuse, a back stop shall be constructed for the placement of concrete plug. The expansive grout mix will be placed in the mine opening, to seal and plug the mine opening completely, refer *Diagram No. 4*. The estimated volume of expansive grout mix is twenty cubic yards (**27 yd<sup>3</sup>**).
5. The cement grout mix is commonly available from local concrete batch plants, but the expansive grout agent might not be readily available. For this reason the Owner will pay at the unit cost provided by the Contractor in the Cost Proposal. Contractor may choose to use the agent to generate expansive grout or may choose not to use it. Using the expansive grout mix will allow the Contractor to fully seal and plug the mine opening at the added

cost of the agent. Where if Contractor decides not to use the agent, he will be faced with more grout mix needed (adding cost) and the challenge of fully sealing/plugging the mine opening.

6. Once the grout is cured (not less than 72 hours), subsoil materials will be used to cover the mine opening first. Next a geotextile (type II woven) shall be anchor and put in place as drawn on *Diagram No. 4*. Last, local sandstone rocks shall be used to armor the entire slope of the mine opening area. This is where the culvert will exit with the cap/lock system exposed. The final contour shall be rocky with a single ridge (over the former mine opening) and two associating drainages, refer to *Diagram No. 4*. Final layer, rock mulch (cover) is estimated at forty five cubic yards (**45 yd<sup>3</sup>**).
7. As drawn on *Drawing No. 2*, a coal gob (coal refuse) containment cell shall be constructed in a low lying area where erosion will not impact the cell. All available topsoil shall be stored prior to construction. Only subsoil material shall be used to construct the cell. Class II non-woven geotextile lining shall be used as drawn on *Diagram No. 2*. The final layer, topsoil shall be replaced on top of the geotextile at a 4" - 12" lifts. The total volume of coal gob to be excavated, transported, and contained is estimated at one thousand five hundred cubic (**1500 yd<sup>3</sup>**).
8. A retention pond shall be developed by constructing a berm to divert surface water flows 100 feet long (**100 yd<sup>3</sup>**) and an earth dam to retain sediments 200 feet long (**2,220 yd<sup>3</sup>**). The locations of these structures are drawn on *Drawing No. 2*. Refer to *Diagram Nos. 1 & 9* for details on berm and earth dam construction. Both of these structures will be armored with class II woven geotextile lining and rock combination as demonstrated on diagrams. The total amount of rock armor (cover) for the two structures is estimated at four hundred seventy cubic yards (**470 yd<sup>3</sup>**).
9. The Contractor shall have the optimum moisture content for the sub-soils used to construct all earth work to achieve best compaction feasible. Contractor shall achieve enough compaction to ensure that there are no settlements in the future. The Contractor is subject to a two year inspection.
10. Once the retention pond work is completed a gabion drop structure shall be developed, requiring thirty-one cubic yards (**31 yd<sup>3</sup>**) of rocks. The location of this structure is presented on *Drawing No. 2*. The design and measurements of the gabion structure are demonstrated on *Diagram No. 6*. During the construction of the drop structure proper techniques specified by the manufacturer will be followed such as those specified in *Section 2* by Maccaferri. The outlined specified for *GABION* and *GABION MATTRESS* in *Section 2* should be followed.
  - a. Contractor shall excavate a trench perpendicular to the drainage channel at the specified location on *Drawing No 2*. The trench and drainage channel shall be excavated such that the slopes are 3 horizontal to 1 vertical and stockpiled. The



length and width of the trench will depend on the dimensions specified in *Diagram No. 6*.

- b. Contractor shall install the geotextile lining as specified by the manufactory in *Section 2 & 10* and *Diagram No. 6*. This part of the work shall be inspected as completed and prior to proceeding with further construction activities. The proper installation of the geotextile is important for the overall integrity of the drop structures.
  - c. Once the excavation work is complete the gabion work shall begin. Positioning the gabion baskets, combining the gabion basket, filling the basket with imported rocks, and closing the basket shall be done according to the manufacturer's recommendations.
  - d. After the gabion work is complete, all excavated areas will be backfilled and compacted according to the *Fill and Fill Compaction* process specified in *Section 3*. The upstream side of the drop structure shall be backfill as specified on *Diagram 6*, which requires a slope of 5 horizontal to 1 vertical or less. The backfill near the gabion structure shall be compacted with an upright compactor (tamper). The material accumulated during the initial excavation will be used. The excavation and backfill work will be considered incidental to the work.
11. Construct a rip rap (with locally available rock) channel from the gabion structure outlet to an area down gradient where the surface water will sheet flow out. The estimated distance is 50 feet and estimate earth work is fifty cubic yards (**50 yd<sup>3</sup>**). The rock work is estimated at thirty cubic yards (**30 yd<sup>3</sup>**). Refer to *Diagram No. 8*.
  12. Revegetate all areas where soil material was replaced. Include access and haul roads developed during construction. The total estimated area to revegetate is two acres (**2 ac.**)
  13. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP.

B. NA-0005, Littlewater Mine:

1. The project area consists of one mine opening (adit) for underground mine, associated coal refuse, and erosions problems. The mine feature will be closed, using expansive concrete grout mix. The coal refuse shall be stabilized in a containment cell. Lastly the erosion problems shall be controlled by developing two retention ponds. The existing condition of the project area is demonstrated on *Drawing No.3*.
2. The Contractor shall apply BMP according to the contractor's SWPPP. The upgraded access road to the project area shall also be included in the SWPPP.

3. Proper safety precautions shall be implemented while working near the mine openings. A site-specific health and safety plan will be required for this part of the work. The concrete plug shall be covered with earth and a layer of rock to armor the exterior, as drawn on *Diagram No. 4*.
4. The mine opening shall be excavated to expose a solid perimeter of the opening. The estimated volume of material to be excavated is twenty seven cubic yards (**27 yd<sup>3</sup>**). Once a solid (competent material) perimeter is exposed, the mine opening shall be prepared into conical shape; this will allow the plug to stabilize. Next, using random fill or coal refuse, a back stop shall be constructed for the placement of concrete plug. The expansive grout mix will be placed in the mine opening, to seal and plug the mine opening completely, refer *Diagram No. 4*. The estimated volume of expansive grout mix is twenty seven cubic yards (**27 yd<sup>3</sup>**).
5. The cement grout mix is commonly available from local concrete batch plants, but the expansive grout agent might not be readily available. For this reason the Owner will pay at the unit cost provided by the Contractor in the Cost Proposal. Contractor may choose to use the agent to generate expansive grout or may choose not to use it. Using the expansive grout mix will allow the Contractor to fully seal and plug the mine opening at the added cost of the agent. Where if Contractor decides not to use the agent he will be faced with more grout mix needed (adding cost) and the challenge of fully sealing/plugging the mine opening.
6. Once the grout is cured (not less than 72 hours), subsoil materials will be used to cover the mine opening first. Next a geotextile (type II woven) shall be anchor and put in place as drawn on *Diagram No. 4*. Last, local sandstone rocks shall be used to armor the entire slope of the mine opening area. The final contour shall be rocky with a single ridge (over the former mine opening) and two associating drainages, refer to *Diagram No. 4*. Final layer, rock mulch (cover) is estimated at forty five cubic yards (**45 yd<sup>3</sup>**).
7. As drawn on *Drawing No. 4*, a coal gob (coal refuse) containment cell shall be constructed in a low lying area where erosion will not impact the cell. All available topsoil shall be stored prior to construction. Only subsoil material shall be used to construct the cell. Class II non-woven geotextile lining shall be used as drawn on *Diagram No. 2*. The final layer, topsoil shall be replaced on top of the geotextile at a 4" - 12" lifts. The total volume of coal gob to be excavated, transported, and contained is estimated at three hundred fifty cubic yards (**350 yd<sup>3</sup>**).
8. Two retention ponds shall be developed by constructing two earth dams: one, 100 feet long or one thousand one hundred ten cubic yards (**1,110 yd<sup>3</sup>**); and two, 80 feet long or eight hundred ninety cubic yards (**890 yd<sup>3</sup>**). Refer to *Drawing No. 4* for structure locations. Refer to *Diagram No. 1* earth dam construction. Both of these structures will be armored with class II woven geotextile lining and rock combination as demonstrated on diagrams.

The total amount of rock armor (cover) for the two structures is estimated at three hundred seventy cubic yards (**370 yd<sup>3</sup>**).

9. The Contractor shall have the optimum moisture content for the subsoils used to construct all earth work to achieve best compaction feasible. Contractor shall achieve enough compaction to ensure that there are no settlements in the future. The Contractor is subject to a two year inspection.
10. All gabion work will follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. Four gabion structures shall be constructed, following *Diagram 6*. Two of these structures will be inlets and the other two will be outlets. These structures will work as inlets and outlets for concrete cloth channel. For structure locations refer to *Drawing No. 4*. The total estimated volume of gabion work is one hundred twenty four cubic yards (**124 yd<sup>3</sup>**).
11. Construct two concrete cloth (refer to *section 6* and *Diagram 3*) channels from the inlet gabion structures to outlet gabion structures. The system shall convey water overflow from the retention pond to an area down gradient where the surface water will sheet flow out. The total estimated distance for both channels is estimated at **200 feet** and the total estimate earth work is two hundred cubic yards (**200 yd<sup>3</sup>**). Refer to *Drawing No. 6* location and direction of the channel.
12. The concrete cloth shall be connected and constructed with following:
  - a. Shingle overlap four inches in the downstream direction;
  - b. Stainless steel screws at overlap twelve inches spacing; and
  - c. Minimum twelve inch long pegs at twelve inch spacing installed through the overlap in the bottom section of the ditch.
13. Revegetate all areas where soil material was replaced. Include access and haul roads developed during construction. The total estimated area to revegetate is two acres (**2 ac.**)
14. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP.

C. NA-0068, Littlewater Mine South:

1. The project area consists of three mine openings (adit) for underground mine, associated coal refuse, and erosion problems. The mine feature will be closed, using expansive concrete grout mix. The coal refuse shall be stabilized in a containment cell. At one of the mine opening a culvert shall be installed to allow air quality monitoring of the coal bed.

Lastly, the erosion problems shall be controlled by developing three retention ponds. The existing condition of the project area is demonstrated on *Drawing No.5*.

2. The Contractor shall apply BMP according to the contractor's SWPPP. The upgraded access road to the project area shall also be included in the SWPPP.
3. Proper safety precautions shall be implemented while working near the mine openings. A site-specific health and safety plan shall be required for this part of the work. At one of the mine openings, selected by the Engineer, a one foot diameter culvert shall be installed as demonstrated in *Diagram No. 4*. The length of the culvert needed is estimated at eighty feet (**80 ft.**) The concrete plug shall be covered with earth and a layer of rock to armor the exterior, as drawn on *Diagram No.4*.
4. All three mine openings shall be excavated to expose a solid perimeter of the opening. The estimated volume of material to be excavated is eighty one cubic yards (**81 yd<sup>3</sup>**) for all three portals. Once solid (competent material) perimeters are exposed, the mine openings shall be prepared into conical shape; this will allow the plug to stabilize. The 80 foot pipe shall be installed during this part of the work. Next, using random fill or coal refuse, a back stop shall be constructed for the placement of concrete plug. The expansive grout mix will be placed in the mine openings, to seal and plug the mine opening completely, refer *Diagram No. 4*. The estimated volume of expansive grout mix is eighty one cubic yards (**81 yd<sup>3</sup>**).
5. Once the grout is cured (not less than 72 hours), subsoil materials will be used to cover the mine openings first. Next a geotextile (type II woven) shall be anchor and put in place as drawn on *Diagram No. 4*. Last, local sandstone rocks shall be used to armor the entire slope of the mine opening area. This is where the culvert will exit with the cap and lock system exposed (at only one closure). The final contours shall be rocky with a single ridge (over the former mine openings) and two associating drainages, refer to *Diagram No. 4*. Final layer, rock mulch (cover) is estimated at one hundred thirty five cubic yards (**135 yd<sup>3</sup>**) for all three portals.
6. As drawn on *Drawing No. 6*, a coal gob (coal refuse) containment cell shall be constructed in a low lying area where erosion will not impact the cell. All available topsoil shall be stored prior to construction. Only subsoil material shall be used to construct the cell. Class II non-woven geotextile lining shall be used as drawn on *Diagram No. 2*. The final layer, topsoil shall be replaced on top of the geotextile at a 4" - 12" lifts. The total volume of coal gob to be excavated, transported, and contained is estimated at one thousand nine hundred cubic yards (**1,900 yd<sup>3</sup>**).
7. Three retention ponds shall be developed by constructing three earth dams: one, 100 feet long (**1,110 yd<sup>3</sup>**); two, 150 feet long (**1,670 yd<sup>3</sup>**); and three, 250 feet long (**2,780 yd<sup>3</sup>**). Refer to *Drawing No. 6* for structure locations. Refer to *Diagram No. 1* earth dam construction. These structures will be armored with class II woven geotextile lining and

rock combination as demonstrated on diagrams. The total amount of rock armor (cover) for the three structures is estimated at one thousand twenty cubic yards (**1,020 yd<sup>3</sup>**).

8. The Contractor shall have the optimum moisture content for the subsoils used to construct all earth work to achieve best compaction feasible. Contractor shall achieve enough compaction to ensure that there are no settlements in the future. The Contractor is subject to a two year inspection.
9. All gabion work shall follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. Four gabion structures shall be constructed, following *Diagram 6*. Two of these structures will work as inlet and outlet for concrete cloth channel. The other two will be overflow outlets for the earth dams. For structure locations refer to *Drawing No. 6*. The total estimated volume of gabion work is one hundred twenty four cubic yards (**124 yd<sup>3</sup>**).
10. Construct one concrete cloth (refer to *section 6* and *Diagram 3*) channel from the inlet gabion structures to outlet gabion structures. This shall be constructed with the southern 250 feet earth dam. The system shall convey water overflow from the retention pond to an area down gradient where the surface water will sheet flow out. The total estimated distance of channel is estimated at **100 feet** and the total estimate earth work is one hundred cubic yards (**100 yd<sup>3</sup>**). Refer to *Drawing No. 6* location and direction of the channel.
11. All concrete cloth work will follow what was specified and required in the site specific scope of work for NA-0005 Little Water. Also, refer to *Section 6* and *Diagram 3*.
12. Construct two rip rap (with locally available rock) channel from the gabion structure outlet to an area down gradient where the surface water will sheet flow out. This shall be constructed at the two northern earth dams with lengths 100 and 150 feet. The estimated distance is 200 feet and estimate earth work is two hundred cubic yards (**200 yd<sup>3</sup>**). The rock work is estimated at one hundred twenty cubic yards (**120 yd<sup>3</sup>**). Refer to *Diagram No. 8*.
13. The existing cistern tank shall be excavated, broken up into six inch pieces (with hydraulic jack hammer), and contained in place. Grade the surface to match the surrounding terrain. Total estimated earthwork is sixty four cubic yards (**64 yd<sup>3</sup>**).
14. Revegetate all areas where soil material was replaced. Include access and haul roads developed during construction. The total estimated area to revegetate is four acres (**4 ac.**)
15. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP.

D. NA-0047, New Comb Mine:

1. The project area consists of a reclaimed abandoned coal mine site where coal refuse, a pit and highwalls have already been eliminated. One drainage channel within the project area is continuing to erode at rates greater than initially designed. To stabilize the channel and prevent further erosion, more effort will be put into slowing down and impeding the surface water runoff. An earth dam, gabion inlet structure, and concrete cloth channel will be constructed. Refer to *Drawing No. 7&8* and *Diagram No. 3&7*.
2. The Contractor will apply BMP according to the contractor's SWPPP.
3. A retention pond shall be developed by constructing an earth dam, 140 feet long (**1,560 yd<sup>3</sup>**). Refer to *Drawing No. 8* for structure locations. Refer to *Diagram No. 1* for earth dam construction. The structure shall be armored with class II woven geotextile lining and rock combination as demonstrated on diagrams. The total amount of rock armor (cover) for the three structures is estimated at two hundred eighty five cubic yards (**285 yd<sup>3</sup>**).
4. The Contractor shall have the optimum moisture content for the subsoils used to construct all earth work to achieve best compaction feasible. Contractor shall achieve enough compaction to ensure that there are no settlements in the future. The Contractor is subject to a two year inspection.
5. All gabion work shall follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. A gabion structure shall be constructed, following *Diagram 6*. The gabion structure will work as inlet for concrete cloth channel and will be combined with the existing gabion structure down gradient. For structure locations refer to *Drawing No. 8*. The total estimated volume of gabion work is thirty one cubic yards (**31 yd<sup>3</sup>**).
6. Construct one concrete cloth (refer to *section 6* and *Diagram 3*) channel from the inlet gabion structures to outlet gabion (existing) structures. The system shall convey water overflow from the retention pond to an existing gabion structure down gradient. The total estimated distance of channel is estimated at **160 feet** and the total estimate earth work is one hundred sixty cubic yards (**160 yd<sup>3</sup>**). Refer to *Drawing No. 8* location and direction of the channel.
7. All concrete cloth work will follow what was specified and required in the site specific scope of work for NA-0005 Little Water. Also, refer to *Section 6* and *Diagram 3*.
8. Revegetate all areas where soil material was replaced. Include access and haul roads developed during construction. The total estimated area to revegetate is one acre (**1 ac.**)
9. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP.



E. NA-0069, Coal Mine Hill Coal Fire:

1. The project area consists of a subsurface coal fire located in the foot hills associated with Hard Ground Flats/Dalton Pass Mesas. The slopes are descending toward the north northeast direction. The project has dangerous features associated with it; such as subsidence located above the coal fires; refer to *Drawing 9*. The total area exposed to the fire is estimated at two acres (2 acres). The depth of the coal fire has not been determined. NAMLRP recommends the contractor to make an estimate of depth during the pre-proposal meeting for proposal cost.
2. The Contractor shall develop a technical health and safety plan for the overall project as specified in *section 8*. The specification also requires a site-specific health and safety plan for this particular site. Health and safety plans are required ten days prior to construction activities, for review and approval by the PROJECT MANAGER. The site-specific health and safety plan will cover the specific hazards associated with the coal fire ranging from physical hazards to environmental obstacles. The safety aspect of this part of the work will be closely evaluated during the contractor selection process.
3. The Contractor shall provide a water transport vehicle that will have a capacity of 6,500 gallons or more. The Contractor shall work with Navajo Water Code Program (part of Water Resources Depart.) to acquire adequate amount of water and to obtain a valid water permit.
4. The Contractor shall develop a storage system for water. The storage must have a capacity of 10,000 gallons or more. The system shall allow easy off loading and loading of water from large transport units to smaller water trucks. During subsurface coal fire excavation sufficient amount (not less than 4,000 gallons) of water should be available at all times.
5. The CONTRACTOR shall contact CHEMGUARD, 204 S. 6th Ave, Mansfield, Tx 76063, (817) 473-9964 • FAX (817) 473-0606 and inquire about CHEMWET Wetting Agent, CW. This wetting agent, when added to water makes water more effective against fire. An agent with the same or exceeding CHEMWET specifications shall be used during Coal Fire Excavation Work. The CONTRACTOR shall provide the manufactory's application and product specification to the PROJECT MANAGER 10 days prior to implementing the agent at the Coal Fire Excavation Work. The Contractor shall provide the METHOD OF APPLICATION PLAN to the PROJECT MANAGER before applying the agent. The METHOD OF APPLICATION PLAN must meet or exceed the manufactory's specifications and requirements.
6. The Contractor will apply BMP according to the contractor's SWPPP. The upgraded access road to the project area shall also be included in the SWPPP.
7. The Contractor shall save all existing topsoil and stock pile it northeast of the proposed excavation. After the topsoil is saved, the contractor will maintain accessibility to the

topsoil material for fill later in the project. The topsoil storage shall be protected from rain runoff or extreme rain storm events. The accessibility or storage of the topsoil should not interfere with the other phases of the project. Refer to *Drawing 9 for Top Soil Storage*.

8. The scope of work requires excavation of overburden materials and burning coal refuse. Ample amounts of water (minimum rate 25 gallons per cubic yard) will be added during the excavation process to extinguish the fire. The water shall have a wetting agent, added as specified above (E, 5). Three objectives shall be accomplished during the excavation process of this project area: (1) The overburden material shall be excavated enough to expose non-burning coal seams; (2) the areas determine to contain the coal fire will be backfill with saturated soil material not containing any coal (fuel); and (3) backfill the excavation with the excavated and cooled overburden/random materials stockpiled adjacent to the excavation. The mixture containing coal refuse and random material will be thoroughly processed with water prior to backfilling. All backfill operations specified in this section will be done in accordance to *Section 3.5*.
9. A series of excavation and transportation activities (parts a-c below) will be conducted to remove overburden material and expose the location of the coal fire below. During the excavation activities described in parts a, b, & c, large rock boulders will be salvaged and stockpiled in the area designated in *Drawing 9* as *rock stockpile*. The minimum diameter of these boulders will measure not less than three feet. The boulders will be used once the final contouring is complete to act as rock mulch and erosion control devices.
  - a. Clear and grub the entire area that will be excavated and disturbed within the project area. The topsoil material is estimated at eight thousand cubic yards (**8,000 yd<sup>3</sup>**). The topsoil will then be transported to the area labeled as *topsoil stockpile* in *Drawing 9*. Large organic/vegetative materials (trees and shrubs) will also be salvaged with the topsoil, but stockpiled separately in the same area.
  - b. The area assumed to contain the coal fire will be excavated, which is labeled as *Coal Fire Excavation Area* on *Drawing No. 9*. The random material excavated will be transported or moved not less than 200 feet to the north and some to the east as shown on *Drawing 9, overburden stockpile area*. The excavation will be conducted downhill to allow maximum production. Of the two areas identified as *Coal Fire Excavation Area*, the upper or western section will be excavated first. This is to eliminate the coal fire as quickly as possible. This sequence will allow excavated overburden material from the subsidence area to be moved northeast. The estimated volume of *Coal Fire Excavation* is forty-five thousands cubic yards (**45,000 yd<sup>3</sup>**). The area to be excavated shall be concentrated on the assumed fireline and subsidence areas. The depth of excavation will be dictated by the actual location(s) of the coal fire and the deepest section(s) of the excavation will be located over the coal fire. The slopes of the excavation shall be maintained at 1:1 or flatter. The contractor should consult, on a continuous basis, with the project engineer to determine the best locations for further excavation.

- c. After the excavations described in part b, the locations where the coal fires are located deeper in the slopes shall be determined. These areas shall be excavated to minimum depth of thirty feet, four feet wide, and five hundred twenty five feet accumulative length. The purpose of this trench type excavation shall be to cut off the fire (burning coal seams) from the non-burning coal seams. The estimated volume of this trench work is two thousand three hundred cubic yards (**2,300 yd<sup>3</sup>**). This excavated random and coal refuse material will be moved no less than twenty feet (20') away from the excavation. Again, the intent of this excavation is to locate the intersection of the non-burning coal seams and the burning coal seams. The actual amount of coal refuse moved will depend upon the excavation of non-burning coal seam. It is a condition of this technical specification that all burning coal refuse is excavated and non-burning coal seam is exposed. When the burning coal is exposed ample amounts of water/agent mixture shall be applied to reduce fire hazards.
10. At this point if the coal fire is extinguished and cooled enough, an air monitoring system for the coal bed shall be installed. A perforated metal pipe shall be installed along the face of the exposed coal seam five hundred feet. One non-perforated will be connected perpendicular to perforated metal pipe, which will exit to the surface after all backfill process is completed. All pipes shall be 1 foot in diameter. The pipe exposed to the surface shall have a cap and locking system to access the air from the coal seam below. Refer to *Diagram No.11*. This work will only be implemented if the Project Engineer is confident that the coal fire has been eliminated. Total pipe work is estimated at five hundred eighty feet (**580 ft.**)
11. Use clean (no coal or rocks) materials available adjacent to the excavation for backfill of all excavated areas (former coal fire.) The Contractor shall screen clean material, if the available material contains rocks greater than 4 inches. The clean material will contain at the minimum ten percent (10%) moisture or the specified twenty five (25) gallon of water for each one cubic yard (1 yd<sup>3</sup>) of material. The estimated area to be backfilled will be approximately forty feet wide, five hundred twenty five feet (525') long, and ten feet (10') in depth. The clean material to be used for backfill is estimated at eight thousand cubic yards (**8,000 yd<sup>3</sup>**). The purpose of using the clean material first prior to the backfilling of the random material is to seal the excavated hot areas.
12. Once the clean material backfill process is complete, the backfill of the random materials excavated in parts b & c, shall be initiated. The backfilling process will be in accordance to the backfilling practices outlined in *Section 3* under *Fill* and *Fill Compaction*. The objective of backfill process is to fill the excavated areas while reducing slopes within the project area. Particular attention to the new contours and establishment of surface drainage patterns shall be discussed with the Project Engineer prior to backfilling. Not all of the overburden removed in parts b & c will be used as backfill. Random material immediately available to the northeast shall also be used to construct earth dams. The backfill of random materials excavated early, will not completely backfill because the contractor may use a cut and fill method to reduce slopes and to construct earth dams.

13. The mix containing coal refuse and subsoil shall be placed as the first layers of backfill. The final lift of this backfill shall be scarified to ensure that the two different types of backfills interlock. The *topsoil material* stockpiled during (part a) operation will be placed as a cap on the former burned area. The final contour of the project area should resemble a shallow slope toward the north with two earth dams, as drawn on *Drawing 10 and Diagram 10*.
14. Two retention ponds shall be developed by constructing two earth dams: one, 386 feet long (**4,290 yd<sup>3</sup>**); and two, 478 feet long (**5,310 yd<sup>3</sup>**). Refer to *Drawing No. 10* for structure locations. Refer to *Diagram No. 1* earth dam construction. Both of these structures will be armored with class II woven geotextile lining and rock combination as demonstrated on diagrams. The total amount of rock armor (cover) for the two structures is estimated at one thousand seven hundred fifty cubic yards (**1,750 yd<sup>3</sup>**).
15. Close to the completion of the final contours, the Contractor and Project Engineer shall designate a location to install the four gabion structures and associating concrete cloth channels. The system shall convey water overflow from the retention ponds to an area down gradient where the surface water will flow in the existing drainage. The total estimated distance of channel is estimated at **200 feet** and the total estimate earth work is two hundred cubic yards (**200 yd<sup>3</sup>**). Refer to *Drawing No. 10* for location and direction of the gabions and channels. The total estimated gabion work is one hundred sixty six cubic yards, **166 yd<sup>3</sup>**. Refer to *Diagram 6, 7 & 10* gabion design and application.
16. All gabion work shall follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. Gabion structure shall be constructed, following *Diagram 6, 7, & 10*. The 24X24 gabion structures (2 each) shall work as inlet for concrete cloth channel and shall be combined with 18X18 gabion (2 each) structures down gradient. For structure locations refer to *Drawing No. 10*. The total estimated volume of gabion work is one hundred sixty six cubic yards (**166 yd<sup>3</sup>**).
17. All concrete cloth work will follow what was specified and required in the site specific scope of work for NA-0005 Little Water. Also, refer to *Section 6* and *Diagram 3*.
18. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP. The designated disturbed areas of the project area will be revegetated, seven acres (**7 ac.**)

F. NA-0051, Twin Peaks Mine:

1. The project area consists of a reclaimed abandoned coal mine site where coal refuse, a pit and highwalls have already been eliminated. The former pit area continues to have no top soils, so during this maintenance work a sediment retainage structure (earth dam) shall be developed. The surface water overflow shall be managed, by the installation of a gabion

structure. Also, the existing earth and overflow structure will be modified to increase water storage. Refer to *Drawing No. 11 & 12* and *Diagram No. 6 & 10*.

2. The Contractor will apply BMP according to the contractor's SWPPP.
3. The scope of work for this project area requires the construction of an earth dam four hundred fifty feet (450 ft) long. The design dimensions and measurements of the dam are specified in *Diagram No. 1*. The estimated earthwork for the dam is four thousand cubic yards (4,000 yd<sup>3</sup>). The location of the dam is identified on *Drawing No. 12*. Prior to constructing the earth dam the surface areas of the proposed location of the dam will be cleared and grubbed. After completing the dam the topsoil material will be replaced and scarified. Backfilling will be conducted with proper moisture content and compaction. The *Fill and Fill Compaction* process specified in *Section 3* should be followed.
4. The drop structure will be constructed in the path of the current erosion, refer to *Drawing No. 12*. Gabion work shall follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. A gabion structure shall be constructed, following *Diagram 6 & 10*. The gabion structure will work as an overflow device for the earth dam. For structure locations refer to *Drawing No. 10*. The total estimated volume of gabion work is thirty one cubic yards (31 yd<sup>3</sup>).
5. A layer of gabion cubes shall be added to the existing gabion structure. This will increase the sediment retention capacity for the existing earth dam. The total additional gabion work is estimated at one cubic yard (1 yd<sup>3</sup>).
6. The project area shall be cleaned of all construction debris and returned to its natural setting.
7. Revegetate all areas where soil material was replaced. Include access and haul roads developed during construction. The total estimated area to revegetate is one acre (1 ac.)

G. NA-0036, Shillingburg-Mine

1. The project area consists of a reclaimed abandoned coal mine site where coal refuse, underground workings, and highwalls were already reclaimed. The underground working (subsidence) is exposed by erosions. During this maintenance work the mine opening will be closed and sediment settlement ponds will be constructed. Also, a culvert shall be installed to allow air quality monitoring of the coal bed. Refer to *Drawing No. 13 & 14*.
2. The Contractor will apply BMP according to the contractor's SWPPP.
3. Proper safety precautions shall be implemented while working near the mine openings. A site-specific health and safety plan shall be required for this part of the work. A one foot diameter culvert shall be installed as demonstrated in *Diagram No. 4*. The length of the



culvert needed is estimated at eighty feet (**80 ft.**). The concrete plug shall be covered with earth and a layer of rock to armor the exterior, as drawn on *Diagram No. 4*.

4. The mine opening shall be excavated to expose a solid perimeter of the opening. The estimated volume of material to be excavated is twenty seven cubic yards (**27 yd<sup>3</sup>**). Once a solid (competent material) perimeter is exposed, the mine opening shall be prepared into conical shape; this will allow the plug to stabilize. The 80 foot pipe shall be installed at this point. Next, using random fill or coal refuse, a back stop shall be constructed for the placement of concrete plug. The expansive concrete grout mix will be placed in the mine opening, to seal and plug the mine opening completely, refer *Diagram No. 4*. The estimated volume of expansive concrete grout mix is twenty seven cubic yards (**27 yd<sup>3</sup>**).
5. Once the grout is cured (not less than 72 hours), subsoil materials will be used to cover the mine opening first. Next a geotextile (type II woven) shall be anchored and put in place as drawn on *Diagram No. 4*. Last, local sandstone rocks shall be used to armor the entire slope of the mine opening area. This is where the culvert will exit with the cap/lock system exposed. The final contour shall be rocky with a single ridge (over the former mine opening) and two associating drainages, refer to *Diagram No. 4*. Final layer, rock mulch (cover) is estimated at forty five cubic yards (**45 yd<sup>3</sup>**).
7. Two retention ponds shall be developed by constructing two earth dams: one, 200 feet long (**2,200 yd<sup>3</sup>**); and two, 180 feet long (**2,000 yd<sup>3</sup>**). Refer to *Drawing No. 14* for structure locations. Refer to *Diagram Nos. 1* earth dam construction. Both of these structures will be armored with class II woven geotextile lining and rock combination as demonstrated on diagrams. The total amount of rock armor (cover) for the two structures is estimated at seven hundred seventy cubic yards (**770 yd<sup>3</sup>**).
8. The Contractor shall have the optimum moisture content for the subsoils used to construct all earth work to achieve best compaction feasible. Contractor shall achieve enough compaction to ensure that there are no settlements in the future. The Contractor is subject to a two year inspection.
9. All gabion work will follow what was specified and required in the site specific scope of work for NA-0067 Little Water North. Also, refer to *Section 2*. Three gabion structures shall be constructed, following *Diagrams 6, 7, & 10*. Two of these structures will work as inlets and outlets for concrete cloth channel at the west dam. In combination they will be an overflow device. For structure locations refer to *Drawing No. 14*. The third gabion will serve an overflow device for the dam on the east; refer to *Diagrams 6 & 10*. The total estimated volume of gabion work is one hundred fourteen cubic yards (**114 yd<sup>3</sup>**).
10. Construct one concrete cloth (refer to *section 6* and *Diagram 3*) channel from the gabion inlet structure to gabion outlet structure. This shall be constructed with the western 200 feet earth dam. The system shall convey water overflow from the retention pond to an area down gradient where the surface water will sheet flow out. The total estimated distance of



channel is **120 feet** and the total estimate earth work is one hundred twenty cubic yards (**120 yd<sup>3</sup>**). Refer to *Drawing No. 14* location and direction of the channel.

11. All concrete cloth work will follow what was specified and required in the site specific scope of work for NA-0005 Little Water. Also, refer to *Section 6* and *Diagram 3*.
12. Clean the project area up; ensure there is no solid waste left on-site. Access road, if used will be upgraded for safety concerns for the worker and equipment. The road will be scarified and water bars installed to minimize erosions. The stability of the access roads shall be considered in the SWPPP. The designated disturbed areas of the project area Shall be revegetated, three acres (**3 ac.**)

H. NA-0016, Tohatchi Mines:

1. The Contractor shall work with the Project Manager to carry out the procurement of mining equipments from the Tohatchi Mines.
2. The Contractor with assistance from the Project Manager will gain access to abandoned underground mining carts. Proper acknowledgement and communication shall be conducted with the local residences.
3. Three of the most easily repairable (feasible) carts shall be collected. The carts will be refurbished and put on display at all three AML offices in Window Rock, Shiprock, and Tuba City.
4. The underground mining carts shall be installed permanently with concrete foundations, rail ties, and rails. The ties shall be bolted to the concrete foundation and the rails nailed/bolted. The cart wheels shall be welded to the rails. The carts shall be located under the direction of the Program Managers.

#### 7.4 Site-Specific Quantities of Payable Work Items

<u>Item</u>	<u>Description</u>	<u>Unit</u>	<u>Estimated Quantity</u>
100	Earth Work		
	NA-0067	CYD	3,897
	NA-0005	CYD	2,577
	NA-0068	CYD	7,905
	NA-0047	CYD	1,720
	NA-0069	CYD	28,100
	NA-0051	CYD	4,000
	NA-0036	CYD	4,547
200	Revegetation:		
	NA-0067	Acres	2
	NA-0005	Acres	2
	NA-0068	Acres	4
	NA-0047	Acre	1
	NA-0069	Acres	7
	NA-0051	Acre	1
	NA-0036	Arcres	3
300	Gabion Work		
	NA-0067	CYD	31
	NA-0005	CYD	124
	NA-0068	CYD	124
	NA-0047	CYD	31
	NA-0069	CYD	166
	NA-0051	CYD	32
	NA-0036	CYD	114
400	Coal Fire Excavation		
	NA-0069	CYD	45,000
500	Concrete Cloth		
	NA-0005	FT	200
	NA-0068	FT	100

		NA-0047	FT	160
		NA-0069	FT	200
		NA-0036	FT	120
600	Rock Mulch			
		NA-0067	CYD	545
		NA-0005	CYD	415
		NA-0068	CYD	1,275
		NA-0047	CYD	285
		NA-0069	CYD	1,750
		NA-0036	CYD	815
700	Concrete Grout Mix			
		NA-0067	CYD	27
		NA-0005	CYD	27
		NA-0068	CYD	81
		NA-0036	CYD	27
800	Pipe Work			
		NA-0067	FT	80
		NA-0068	FT	80
		NA-0069	FT	580
		NA-0036	FT	80
900	Underground Mining Cart			
		NA-0016	each	3

## **Section 8.0 HEALTH and SAFETY**

### **8.1 HEALTH and SAFETY Considerations**

- A. The following is a list of general items to be complied with on the project.

### **8.2 PROACTIVE SAFETY**

- A. The CONTRACTOR must submit a Health and Safety Plan to NAMLRP upon receipt of the Notice To Proceed along with other submittals as specified in General Conditions, Article 2.03, NOTICE TO PROCEED, page 7 of 65.
  - 1. The CONTRACTOR is also required to submit all Standard Operating Procedures (SOP) as required for Project Areas specified in Section 7, Site Specific Details. The SOP must be submitted with other submittals for NOTICE TO PROCEED. The SOP must be approved by NAMLRP.
- B. The CONTRACTOR is required to abide by their Construction Health and Safety plans.
- C. The CONTRACTOR'S Superintendent will be familiar with the CONTRACTOR'S Construction Health and Safety Plan and will be the designated person responsible for the health and safety of the workers. Qualification for the CONTRACTOR'S Superintendent will be reviewed and must be accepted by NAMLRP. The Superintendents qualification will be submitted as required in the General Conditions, Section 10, NOTICE TO PROCEED, GC-10. The CONTRACTOR will select another qualified individual, who will have an equivalent qualification as the Superintendent to be responsible for the health and safety of the workers on site when the superintendent is not available.
- D. The CONTRACTOR will have a Superintendent readily available to address concerns and issues immediately. If the CONTRACTOR is an owner/operator and issues or concerns arise that affect the safety of personnel and/or equipment, the work will cease and shut down. The work will not resume until all issues and concerns are addressed and accepted by the Health Physicist/Safety Officer or Project Engineer.
- E. It is the CONTRACTOR'S Superintendent responsibility to train the employees, ensure the work is being performed in a safe manner, report and document all accidents, injuries, near misses and other incidents to the Health Physicist or Project Engineer.
- F. The Drugs and Alcohol policy will be strictly enforced and subjected to disciplinary actions.
- G. No visitors will be allowed onto the project area without prior approval from the owner.
- H. Horseplay will not be allowed or tolerated.

### **8.3 SITE ACCESS TRAINING REQUIREMENTS**

- A. Prior to initiating construction activities a Health and Safety training will be conducted by the Health Physicist/Safety Officer for all personnel. The training will be documented by a sign in sheet. No person will be allowed to enter or work on job site without receiving this training.
- 1. It is the CONTRACTOR'S Superintendent responsibility to provide training and ensuring that the construction personnel understand the Site Specific Standard Operating Procedures (SOP). These SOP are required for Project Areas specified in Section 7, Site Specific Details. SOP is for the protection of the CONTRACTOR'S employees and NAMLRP personnel. This training will also be documented.
- B. The CONTRACTOR will conduct weekly safety meetings. The safety meetings will be documented and must include the date, safety topics, problems, concerns and resolutions. Signatures from all attendees and the person conducting the safety meeting are required for documentation. The attached Safety Meeting Sign-In Sheet will be used.
- C. The CONTRACTOR will develop an emergency accident and a medical evacuation plan and have it posted on site. The plan will also have emergency contact numbers. All personnel on site will be orientated and informed of the procedures and will be documented.
- D. The CONTRACTOR'S Superintendent and Key personnel must be CPR and First Aid certified.
- E. NAMLRP recommends the CONTRACTOR'S Superintendent and Key personnel attend a 40 hours Hazardous Waste Operation and Emergency Response (HazWoper) training.

#### 8.4 GENERAL SAFETY REQUIREMENTS

- A. The following minimum Personal Protection Equipment (PPE) safety equipment must be worn by all personnel on the job site: Safety glasses, hearing protection, sturdy leather above the ankle boots, hard hats, and orange reflective safety vest. The minimum safety equipment must be worn at all times by all personnel. Additional PPE will be required depending on the time, type of work being performed and the Standard Operating Procedure for Site Specific Protocol.
- B. Two 20 pound class ABC rated ANSUL type-portable fire extinguishers shall be on site at all times and must be placed where it is readily available to the work area. Each Equipment and vehicles must have a minimum of one (1)-10 pound class ABC rated fire extinguisher on board.
- C. The CONTRACTOR will provide portable restrooms for the employees. One portable restrooms toilet will be set up to accommodate no more than nine (9) people in a normal forty (40) hour work week. The portable toilets will be serviced more often if required. Servicing of the portable toilets will be recorded and documentation maintained.

- D. The CONTRACTOR will provide washing facilities and potable drinking water in a sanitary environment. The drinking water will have disposable drinking cups.
- E. A minimum of two (2), 2000 gallon water trucks will be kept on site at all times during the excavation of the coal fire. One water truck is to be utilized for dust suppression and the second fully loaded water truck must be on stand by in case of emergencies. Water must be available for both dust suppression and compaction.
- F. No employee will approach or work within 20 feet of any coal fire opening or hot areas. The CONTRACTOR will only use equipment approved by NAMLRP for the purpose of spreading and extinguishing the burning coal. A spotter, thoroughly orientated by the superintendent of the hazards will be designated to ensure that no one approaches the coal fire or hot area.
- G. Spraying water into the hot opening/burn areas shall be done from a distance of 20 feet to prevent the potential for steam burns or hot water burns. During water application, the job will be done up wind from the source of coal fire to prevent inhalation of steam, ash, dust, or vapors.
- H. The CONTRACTOR'S superintendent or NAMLRP Project Manager will conduct a daily work area inspection and give pre-work safety talks with all employees prior to the beginning of each shift and will be documented. The inspection will include all equipment and tools being used. Any problems/concerns will be corrected immediately and documented.
- I. During any work that could generate or generates flying debris, a ANSI approved Safety glasses, face shields or goggles will be worn at all times. This includes dust storms.

#### 8.6 ACCIDENT REPORTING

- A. All accidents or injuries, including minor injuries, near misses, and close calls, must be immediately reported to NAMLRP'S Health Physicist/Safety Officer, who will conduct an investigation with the CONTRACTOR'S Site Safety Representative. The investigation will delineate how the accident/incident occurred. A corrective action plan will be developed to prevent further recurrence. A safety meeting will be conducted before work is resumed. This safety meeting will ensure that all personnel understand the corrective action plan and to report all resolutions. All investigations will be documented.

#### 8.7 FIRST AID

- A. The CONTRACTOR will provide a First Aid Kit that meets MSHA and OSHA requirements. The First Aide Kit must be maintained in a sanitary condition at the work sites. Each First Aid Kit will be sufficient to accommodate a minimum of ten (10) people.



## 8.8 EQUIPMENT OPERATION

- A. The CONTRACTOR will submit an equipment list to NAMLRP. NAMLRP will inspect the equipment for safety deficiencies and must approve and accept the equipment prior to being used on the project. NAMLRP will provide a copy of the inspection form. The equipment must be in fair or good operating condition. The contractor will install all missing equipment and parts required on the inspection form. All lights, horns, brakes, wipers, back-up/motion alarms and other safety equipment items must be fully operational at all times.
- B. Equipment operators will wear seatbelts at all times when operating all equipment/machinery.
- C. While in the project area, the heavy equipment has the right-of-way. Off the project site, the local residents or public have the right-of-way.
- D. Safe parking procedures (chock blocks, lowering attachments to the ground to achieve zero potential energy, etc.) shall be used at all times.
- E. All machinery not being utilized, being serviced, and those that are parked shall be secured with zero potential energy. The CONTRACTOR is responsible for implementing and providing training for Lock out/Tag out procedures.
- F. All equipment will be routinely inspected to ensure they are in safe working condition. These inspections will be done without notification by the Department's Health Physicist/Safety Officer.

## 8.9 WARNING SIGNS AND POSTING

- A. CONTRACTOR will post appropriate warning signs in the construction areas, access and public roads near construction zones/areas. Warning signs must be Construction standard type. The signs will be posted where it is visible for 500 feet and not less than ¼ mile adjacent to the construction zone. NAMLRP recommends the speed limit of 20 miles per hour (mph) in the construction area.

## 8.10 ATTACHMENTS

- A. NAMLRP Equipment Inspection Form
- B. NAMLRP Weekly Safety Meeting Sign In Sheet

## **SECTION 9: CULTURAL AND FISH & WILDLIFE RESOURCES PROTECTION**

Projects will have no impact on the cultural, fish & wildlife, archaeological and paleontological resources if certain general stipulations are complied with. The PROJECT MANAGER will advise, following appropriate consultations, the CONTRACTOR about the presence of these resources, if any.

### **9.1 Stipulations for the Protection of Cultural Resources:**

- A. All RECLAMATION activities will be restricted to within the boundaries of the PROJECT areas.
- B. Archaeological sites located within the project boundaries will be clearly identified to the CONTRACTOR. A minimum twenty-five (25) feet radius will be identified restricting any type of visitation by equipment and/or personnel. Sites will be announced during the mandatory pre-proposal site tour on restrictions.
- C. All vehicular traffic shall be restricted to the existing road ways within and outside of the PROJECT areas except during on site actual RECLAMATION activities at the mine sites themselves.
- D. Should previously unrecorded cultural resources (i.e. archaeological deposits, human remains, or locations reportedly associated with Native American religious/traditional beliefs or practices) be identified all operations in the immediate vicinity of the discovery must cease and the Navajo Nation Historic Preservation Department must be notified at 928-871-7132.

### **9.2 Stipulations for the Protection of Fish and Wildlife:**

- A. All unnecessary damage to habitat will be avoided; RECLAMATION activities should be restricted to areas previously disturbed by mining activities and to approve borrow areas.
- B. Only existing access roads will be used to prevent impact to threatened and endangered species.
- C. Construction WORK will not degrade surface or groundwater quality.
- D. Re-seeding with native plants seed mixture is recommended in areas that are to be reclaimed and access roads, to allow native plants to get re-established quickly and to prevent excessive erosion.
- E. All unnecessary damage to habitat should be avoided; WORK activities should be restricted to areas previously disturbed by mining activities and shown on the MAPS.

## SECTION 10: GEOTEXTILE

### 10.1 Material Specification

#### A. Scope

This specification covers the quality of geotextiles.

#### B. General requirements

Fibers (threads and yarns) used in the manufacture of geotextile shall consist of synthetic polymers composed of a minimum of 85 percent by weight polypropylenes, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidenechlorides. They shall be formed into a stable network of filaments or yarns retaining dimensional stability relative to each other. The geotextile shall be free of defects and conform to the physical requirements in tables 4-1 and 4-2. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet light.

Thread used for factory or field sewing shall be of contrasting color to the fabric and made of high strength polypropylene, polyester, or polyamide thread. Thread shall be as resistant to ultraviolet light as the geotextile being sewn.

#### C. Classification

Geotextiles shall be classified based on the method used to place the threads or yarns forming the fabric. The geotextiles will be grouped into woven and nonwoven types.

***Woven***—Fabrics formed by the uniform and regular interweaving of the threads or yarns in two directions. Woven fabrics shall be manufactured from monofilament yarn formed into a uniform pattern with distinct and measurable openings, retaining their position relative to each other. The edges of fabric shall be selvaged or otherwise finished to prevent the outer yarn from unraveling.

***Nonwoven***—Fabrics formed by a random placement of threads in a mat and bonded by heat bonding, resin-bonding, or needle punching. Nonwoven fabrics shall be manufactured from individual fibers formed into a random pattern with distinct, but variable small openings, retaining their position relative to each other when bonded by needle punching, heat, or resin bonding. The use of nonwovens other than the needle punched geotextiles is somewhat restricted (see note c of table 4-2).

#### D. Sampling and testing

The geotextile shall meet the specified requirements (table 4-1 or 4-2) for the product style shown on the label. Product properties as listed in the latest edition of the "Specifiers Guide," Geotechnical Fabrics Report, (Industrial Fabrics Association International, 1801 County Road BW, Roseville, MN 55113-4061) and that represent minimum average roll values, are acceptable documentation that the product style meets the requirements of these specifications. For products that do not appear in the above directory or do not have

minimum average roll values listed, typical test data from the identified production run of the geotextile will be required for each of the specified tests (tables 4-1 or 4-2) as covered under clause AGAR 452.236-76.

#### E. Shipping and storage

The geotextile shall be shipped/transported in rolls wrapped with a cover for protection from moisture, dust, dirt, debris, and ultraviolet light. The cover shall be maintained undisturbed to the maximum extent possible before placement.

Each roll of geotextile shall be labeled or tagged to clearly identify the brand, class, and the individual production run in accordance with ASTM D 4873.

**Table 10-1** Requirements for woven geotextiles

Property	Test method	Class I	Class II & III	Class IV
Tensile strength (pounds) <sup>a</sup>	ASTM D 4632 grab test	200 minimum in any principal direction	120 minimum in any principal direction	180 minimum in any principal direction
Elongation at failure (percent) <sup>a</sup>	ASTM D 4632 grab test	<50	<50	<50
Puncture (pounds) <sup>a</sup>	ASTM D 4833	90 minimum	60 minimum	60 minimum
Ultraviolet light (% residual tensile 150-hr exposure strength)	ASTM D 4355	70 minimum	70 minimum	70 minimum
Apparent opening size (AOS)	ASTM D 4751	As specified, but no smaller than 0.212 mm (#70) <sup>b</sup>	As specified, but no smaller than 0.212 mm (#70) <sup>b</sup>	As specified, but no smaller than 0.212 mm (#70) <sup>b</sup>
Percent open area (percent)	CWO-02215-86	4.0 minimum	4.0 minimum	1.0 minimum
Permittivity sec <sup>-1</sup>	ASTM D 4491	0.10 minimum	0.10 minimum	0.10 minimum
<sup>a</sup> Minimum average roll value (weakest principal direction). <sup>b</sup> U.S. standard sieve size. Note: CWO is a USACE reference.				

**Table 10–2 Requirements for nonwoven geotextiles**

Property	Test method	Class I	Class II	Class III	Class IV <sup>c</sup>
Tensile strength (lb) <sup>a</sup>	ASTM D 4632 grab test	180 minimum	120 minimum	90 minimum	115 minimum
Elongation at failure(%) <sup>a</sup>	ASTM D 4632	≥□50	≥□50	≥□50	≥□50
Puncture (pounds)	ASTM D 4833	80 minimum	60 minimum	40 minimum	40 minimum
Ultraviolet light(% residual tensile strength)	ASTM D 4355 150-hr exposure	70 minimum	70 minimum	70 minimum	70 minimum
Apparent opening size (AOS)	ASTM D 4751	As specified max. #40 <sup>b</sup>	As specified max. #40 <sup>b</sup>	As specified max. #40 <sup>b</sup>	As specified max. #40 <sup>b</sup>
Permittivity sec <sup>-1</sup>	ASTM D 4491	0.70 minimum	0.70 minimum	0.70 minimum	0.10 minimum

<sup>a</sup> Minimum average roll value (weakest principal direction).

<sup>b</sup> U.S. standard sieve size.

<sup>c</sup> Heat-bonded or resin-bonded geotextile may be used for classes III and IV. They are particularly well suited to class IV. Needle-punched geotextiles are required for all other classes.

## 10.2 Construction Specification—Geotextile

### A Scope

This work consists of furnishing all material, equipment, and labor necessary for the installation of geotextiles.

### B Quality

Geotextiles shall conform to the requirements of Material Specification 4.1 and this specification.

### C Storage

Before use, the geotextile shall be stored in a clean, dry location out of direct sunlight, not subject to extremes of either hot or cold temperatures, and with the manufacturer's protective cover undisturbed. Receiving, storage, and handling at the job site shall be in accordance with the requirements listed in ASTM D 4873.

### D Surface preparation

The surface on which the geotextile is to be placed shall be graded to the neat lines and grades as shown on the drawings. It shall be reasonably smooth and free of loose rock and clods, holes, depressions, projections, muddy conditions, and standing or flowing water (unless otherwise specified in section 6 of this specification).

### E Placement

Before the geotextile is placed, the soil surface will be reviewed for quality assurance of the design and construction. The geotextile shall be placed on the approved prepared surface at the locations and in accordance with the details shown on the drawings and specified in section 6 of

this specification. It shall be unrolled along the placement area and loosely laid, without stretching, in such a manner that it conforms to the surface irregularities when material or gabions are placed on or against it. The geotextile may be folded and overlapped to permit proper placement in designated area(s).

**Method 1**—The geotextile shall be joined by machine sewing using thread material meeting the chemical requirements for the geotextile fibers or yarn. The sewn overlap shall be 6 inches, and the sewing shall consist of two parallel stitched rows at a spacing of about 1 inch and shall not cross (except for any required re-stitching). The stitching shall be a lock-type stitch. Each row of stitching shall be located a minimum of 2 inches from the geotextile edge. The seam type and sewing machine to be used shall produce a seam strength, in the specified geotextile, that provides a minimum of 90 percent of the tensile strength in the weakest principal direction of the geotextile being used, when tested in accordance with ASTM D 4884. The seams may be factory or field sewn. The geotextile shall be temporarily secured during placement of overlying material to prevent slippage, folding, wrinkling, or other displacement of the geotextile. Unless otherwise specified, methods of securing shall not cause punctures, tears, or other openings to be formed in the geotextile.

**Method 2**—The geotextile shall be joined by overlapping a minimum of 18 inches (unless otherwise specified) and secured against the underlying foundation material. Securing pins, approved and provided by the geotextile manufacturer, shall be placed along the edge of the panel or roll material to adequately hold it in place during installation. Pins shall be steel or fiberglass formed as a U, L, or T shape or contains "ears" to prevent total penetration through the geotextile. Steel washers shall be provided on all, but the U-shaped pins. The upstream or upslope geotextile shall overlap the abutting downslope geotextile. At vertical laps, securing pins shall be inserted through the bottom layers along a line through approximately the mid-point of the overlap. At horizontal laps and across slope laps, securing shall be inserted through the bottom layer only. Securing pins shall be placed along a line about 2 inches in from the edge of the placed geotextile at intervals not to exceed 12 feet unless otherwise specified. Additional pins shall be installed as necessary and where appropriate to prevent any undue slippage or movement of the geotextile. The use of securing pins will be held to the minimum necessary. Pins are to remain in place unless otherwise specified. Should the geotextile be torn or punctured, or the overlaps or sewn joint disturbed, as evidenced by visible geotextile damage, subgrade pumping, intrusion, or grade distortion, the backfill around the damaged or displaced area shall be removed and restored to the original approved condition. The repair shall consist of a patch of the same type of geotextile being used and overlaying the existing geotextile. When the geotextile seams are required to be sewn, the overlay patch shall extend a minimum of 1 foot beyond the edge of any damaged area and joined by sewing as required for the original geotextile except that the sewing shall be a minimum of 6 inches from the edge of the damaged geotextile. Geotextile panels joined by overlap shall have the patch extend a minimum of 2 feet from the edge of any damaged area. Geotextile shall be placed in accordance with the following applicable specification according to the use indicated in section 6:



*Slope protection*—The geotextile shall not be placed until it can be anchored and protected with the specified covering within 48 hours or protected from exposure to ultraviolet light. In no case shall material be dropped on uncovered geotextile from a height of more than 3 feet.

*Subsurface drains*—The geotextile shall not be placed until drainfill or other material can be used to provide cover within the same working day. Drainfill material shall be placed in a manner that prevents damage to the geotextile. In no case shall material be dropped on uncovered geotextile from a height of more than 5 feet.

*Road stabilization*—The geotextile shall be unrolled in a direction parallel to the roadway centerline in a loose manner permitting conformation to the surface irregularities when the roadway fill material is placed on its surface. In no case shall material be dropped on uncovered geotextile from a height of more than 5 feet. Unless otherwise specified, the minimum overlap of geotextile panels joined without sewing shall be 24 inches. The geotextile may be temporarily secured with pins recommended or provided by the manufacturer, but they shall be removed before the permanent covering material is placed.

**F. Measurement and payment**

Work above shall be considered incidental to this project.

**END OF SECTION**

## **EXHIBIT D**

# **APPLICANT VIOLATOR SYSTEM FORMS**

## AML CONTRACTOR INFORMATION FORM

**You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining to determine if you are eligible to receive an AML contract. This requirement applies to contractors and their sub-contractors and is found under OSM's regulations at 30 CFR 874.16.**

## Part A: General Information

Business Name: \_\_\_\_\_ Tax Payer ID No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
Fax No.: \_\_\_\_\_ E-mail address: \_\_\_\_\_

## Part B: Legal Structure

( ) Corporation      ( ) Sole Proprietorship      ( ) Partnership      ( ) LLC  
( ) Other (please specify) \_\_\_\_\_

### Part C: Certifying and updating information in the Applicant/Violator System (AVS).

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

I, \_\_\_\_\_, have the express authority to certify that:  
(print name)

1. \_\_\_\_\_ Information on the **attached** Entity Organizational Family Tree (OFT) from AVS is accurate, complete, and up-to-date. If you select this option, you **must** attach an Entity OFT from AVS to this form. Sign and date below and do not complete Part D.
2. \_\_\_\_\_ Part of the information on the **attached** Entity OFT from AVS is missing or incorrect and must be updated. If you select this option, you **must** attach an Entity OFT from AVS to this form. Use Part D to provide the missing or corrected information. Sign and date below and complete Part D.
3. \_\_\_\_\_ Our business currently has no information in AVS. If you select this option, you must provide all information required in Part D. Sign and date below and complete Part D.

Date	Signature	Title

**IMPORTANT! In order to certify in Part C to the accuracy of existing information in AVS, you must obtain a copy of your business' Entity OFT. To obtain an Entity OFT, contact the AVS Office, toll-free, at 800-643-9748.**

# **EXHIBIT E**

## **NAVAJO NATION CERTIFICATION DEBARMENT and SUSPENSION**

**NAVAJO NATION CERTIFICATION**  
**Regarding Debarment and Suspension**

Applicant acknowledges that to the best of his/her knowledge that their company and principal participants on this contract:

1. Are not debarred, suspended, or otherwise slated for debarment, ineligible and/or excluded from participation on Federal, State, and Tribal Government contracts etc.
2. Are not presently nor have been under criminal indictment or civilly charged by a governmental entity (Federal, State, and Tribal Government) for fraud, forgery, falsification, theft, bribery, destruction of records, receiving stolen property and other criminal offenses in the administration of a government contract.
3. Have not been terminated for cause or convenience by a governmental entity in the administration of a government contract (Federal, State, and Tribal Government).
4. If the Navajo Nation determines that the Certificate provided herein is not true, it will be grounds for the Nation to terminate the contract and pursue other legal remedies.

Applicants Address

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Name & Signature of Applicant

---

Type or Print Name

---

Signature / Date

# **NOTICE OF AWARD**

**EJCDC**

**C-510**



# Notice of Award

Date: \_\_\_\_\_

Project: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Contract No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Engineer's Project No.: \_\_\_\_\_

Bidder: \_\_\_\_\_

Bidder's Address: *[send Notice of Award Certified Mail, Return Receipt Requested]*

You are notified that your Bid dated \_\_\_\_\_ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for \_\_\_\_\_

*[Indicate total Work, alternates, or sections of Work awarded.]*

The Contract Price of your Contract is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

*[Insert appropriate data if unit prices are used. Change language for cost-plus contracts.]*

\_\_\_\_\_ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

\_\_\_\_\_ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

1. Deliver to the Owner [\_\_\_\_\_] fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
3. Other conditions precedent:  
\_\_\_\_\_

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner

By: \_\_\_\_\_

Authorized Signature

Title

Copy to Engineer

**NOTICE TO PROCEED**

**EJCDC**

**C-550**

## Notice to Proceed

Date: \_\_\_\_\_

Project: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner's Contract No.: \_\_\_\_\_

Contract: \_\_\_\_\_

Engineer's Project No.: \_\_\_\_\_

Contractor: \_\_\_\_\_

Contractor's Address: *[send Certified Mail, Return Receipt Requested]*

You are notified that the Contract Times under the above Contract will commence to run on \_\_\_\_\_. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is \_\_\_\_\_, and the date of readiness for final payment is \_\_\_\_\_ [(or) the number of days to achieve Substantial Completion is \_\_\_\_\_, and the number of days to achieve readiness for final payment is \_\_\_\_\_].

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:

\_\_\_\_\_ *[add other requirements]*.

Owner

Given by:

Authorized Signature

Title

Date

Copy to Engineer

# **PERFORMANCE BOND**

**EJCDC**

**C-610**

## PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

### CONTRACT

Effective Date of Agreement:

Amount:

Description (*Name and Location*):

### BOND

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal

\_\_\_\_\_  
Surety's Name and Corporate Seal

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*

Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
  - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
  - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
  - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
    1. Surety in accordance with the terms of the Contract; or
    2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
  - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
  - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
  - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
  - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
    1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
    2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:



- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
- 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
- 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### 11. Definitions.

- 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – *(Name, Address and Telephone)*

Surety Agency or Broker:

Owner's Representative *(Engineer or other party)*:

**PAYMENT BOND,**

**EJCDC**

**C-615**

## PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

### CONTRACT

Effective Date of Agreement:

Amount:

Description (*Name and Location*):

### BOND

Bond Number:

Date (*Not earlier than Effective Date of Agreement*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Provide execution by additional parties, such as joint venturers, if necessary.*

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
  - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
  - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
  - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
  - 4.2 Claimants who do not have a direct contract with Contractor:
    1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
    2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
    3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. Reserved.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### 15. Definitions

15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name, Address, and Telephone*)

Surety Agency or Broker:

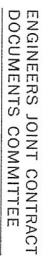
Owner's Representative (*Engineer or other*):

**CONTRACTOR'S APPLICATION  
for  
PAYMENT**

**EJCDC**

**C-620**





1

To (Owner):		From (Contractor):	Via (Engineer):
Project:		Contract:	
Owner's Contract No.:		Contractor's Project No.:	Engineer's Project No.:

## Change Order Summary

<b>Approved Change Orders</b>			
<b>Number</b>	<b>Additions</b>	<b>Deductions</b>	
			1. ORIGINAL CONTRACT PRICE..... \$ _____
			2. Net change by Change Orders..... \$ _____
			3. Current Contract Price (Line 1 ± 2)..... \$ _____
			4. TOTAL COMPLETED AND STORED TO DATE (Column F on Progress Estimate)..... \$ _____
			5. RETAINAGE:
		a.	X         _____ Work Completed..... \$ _____
		b.	X         _____ Stored Material..... \$ _____
		c.	Total Retainage (Line 5a + Line 5b)..... \$ _____
		6.	AMOUNT ELIGIBLE TO DATE (line 4 - Line 5c)..... \$ _____
		7.	LESS PREVIOUS PAYMENTS (line 6 from prior Application)..... \$ _____
TOTALS		8.	AMOUNT DUE THIS APPLICATION..... \$ _____
NET CHANGE BY CHANGE ORDERS		9.	BALANCE TO FINISH, PLUS RETAINAGE

The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

<p><b>Contractor's Certification</b></p> <p>The undersigned Contractor certifies that to the best of its knowledge: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.</p>	
By: _____	Date: _____

Payment of: \$ _____ (Line 8 or other - attach explanation of the other amount)	is recommended by: _____ (Engineer) _____ (Date)
Payment of: \$ _____ (Line 8 or other - attach explanation of the other amount)	_____ (Date)
is approved by: _____ (Owner)	_____ (Date)
Approved by: _____ Funding Agency (if applicable)	_____ (Date)

**CERTIFICATE  
of  
SUBSTANTIAL COMPLETION**

**EJCDC**

**C-625**

# Certificate of Substantial Completion

Project:

Owner:

Owner's Contract No.:

Contract:

Engineer's Project No.:

**This [tentative] [definitive] Certificate of Substantial Completion applies to:**

☐ All Work under the Contract Documents:      ☐ The following specified portions of the Work:

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\_\_\_\_\_  
Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:**

☐ Amended Responsibilities

☐ Not Amended

Owner's Amended Responsibilities:

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Contractor's Amended Responsibilities:

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The following documents are attached to and made part of this Certificate:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

\_\_\_\_\_  
Executed by Engineer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Accepted by Contractor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Accepted by Owner

\_\_\_\_\_  
Date

# **PREVAILING WAGE SCALE**

# THE NAVAJO NATION



BEN SHELLY PRESIDENT  
REX LEE JIM VICE PRESIDENT

February 13, 2014

AD14-386

Joni Nofchissey, Environmental Specialist  
**NAVAJO AML RECLAMATION PROGRAM**  
Post Office Box 3605  
Shiprock, New Mexico 87420

**RE: CHACOAN I AML RECLAMATION PROJECT**

Dear Ms. Nofchissey:

The Office of Navajo Labor Relations (ONLR) received your request for prevailing wage rates for the above reference project. Please find attached the ONLR wage rates which are applicable to the mining construction project.

**Pursuant to the NPEA Section 607(B)(1) "...In all cases where construction is contemplated for which prevailing wage rates have not been set, the contract letting entity shall submit to ONLR a written request for a project prevailing wage scale. Such request shall be submitted not less than 60 days prior to the scheduled date for bid solicitation and shall include detailed information on the anticipated construction classifications, nature' of the project and completion plans..."**

The ONLR respectfully requests that Navajo AML Reclamation Program to review the requirements of the Navajo Preference in Employment Act (NPEA) before any work begins. If a Pre-Construction Conference is scheduled, the Shiprock ONLR Office (505) 368-1142 is to be notified and a representative will explain the applicable laws to the general contractor and sub-contractors, where necessary.

Should you have any questions, contact our office at (928) 871-6800. Thank You.

Sincerely,

A handwritten signature in black ink, reading "Michael Armijo".

Michael Armijo, CEA  
OFFICE OF NAVAJO LABOR RELATIONS

**ATTACHMENTS**



OFFICE OF NAVAJO LABOR RELATIONS  
PREVAILING WAGE



Wage Decision Number: ONLR14-0229H

Date Issued: February 13, 2014

## MINING CONSTRUCTION

**Mining Construction** includes the construction, demolition, rehabilitation of abandon mine land site.

### CHACOAN I AML RECLAMATION PROJECT NAVAJO AML RECLAMATION PROGRAM

Effective January 1, 2014

Trade Classifications:	Hourly Rate:
Boilermaker	\$ 25.87
Carpenter	\$ 21.96
Cement Mason	\$ 19.25
Electrician	\$ 21.71
Grouting Technician	\$ 20.15
Insulator	\$ 19.31
Ironworker	\$ 24.63
Laborer	\$ 16.50
Millwright	\$ 20.82
Painter	\$ 17.03
Pipefitter/Pipe Layer	\$ 21.39
Sheet Metal Worker	\$ 20.91
Welder	\$ 32.15
Rig time will be determined between Employer and Employee(s) at time of need.	
Welder's Helper	\$ 21.15
Truck Drivers:	Hourly Rate:
Water (1,000-4,000 Gallons)	\$ 17.77
Water (4,000-10,000 Gallons)	\$ 18.02
Belly	\$ 18.23
Dump	\$ 18.15
Truck/Trailer	\$ 18.00

Equipment Operators:	Hourly Rate:
Backhoe	\$ 20.75
Boom	\$ 25.96
Bulldozer	\$ 20.59
Crane	\$ 21.71
Forklift	\$ 18.83
Front End Loader	\$ 20.50
Motor Grader	\$ 21.75
Scraper	\$ 20.70
Track Hoe	\$ 21.00
Tractor	\$ 18.85
Trencher	\$ 20.75

The rates listed above are required minimum ONLR Prevailing Wage Rates. Contractors may pay rates above these rates. The ONLR Director will add wage rates for unlisted classifications needed for work only after review and approval. Overtime is one and one - half time the basic rate for hours worked over forty hours in one week. Foremen will receive an additional \$2.50 per hour. **Where federal funds are involved, the Davis-Bacon rates apply.** Other exceptions may apply in accordance with the *Navajo Preference in Employment Act (NPEA)*, Section 7(E). Apprentices must be enrolled in a recognized apprenticeship program as required by Section 7(A)(6) of the NPEA. The appropriate apprenticeship program as outlined by the NPEA Section 7(E)(7) will govern wage rates for such apprentices. These wages apply only to the **CHACOAN I AML RECLAMATION** construction projects.

APPROVED:

  
Reynold R. Lee, Director

2.13.14  
Date

cc: Angela Gettler, Labor Compliance Officer, Shiprock ONLR Office

REVISED 1/2014marmijo