SAN JUAN COUNTY NEW MEXICO SINCE 1887

PROJECT MANUAL

BID # 13-14-02
NMDOT Control No. F100180

CONTRACT DOCUMENTS
for
REPLACEMENT OF BRIDGE NO. 8105 CARRYING SAN JUAN COUNTY ROAD 7150 OVER GALLEGOS WASH

January 2014

ENGINEER OF RECORD:

URS

URS CORPORATION
ONE PARK SQUARE
6501 AMERICAS PARKWAY NE
SUITE 900
ALBUQUERQUE, NM 87110

San Juan County Purchasing
Office of Central Purchasing
213 South Oliver Drive
Aztec, New Mexico 87410
(505) 334-4551

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INVITATION FOR BIDS
BID NO. 13-14-02
NMDOT CN F100180

Bidders are invited to submit sealed bids for the Replacement of Bridge No. 8105 carrying San Juan County Road 7150 over Gallegos Wash.

The nature of the work is bridge replacement, abutment protection and minor roadway approaches.

Bids to complete this work will be received by San Juan County, New Mexico, Office of Central Purchasing, at 213 South Oliver Drive, Aztec, New Mexico, 87410, until **3:00 p.m. (local time), March 13, 2014** at which time and place all bids will be publicly opened and tabulated. Bids received after 3:00 pm shall not be accepted.

The Bid and Contract Documents may be obtained on the San Juan County Website. When utilizing the County's website, please complete the Acknowledgement Form that is posted within the Project Manual so you can be listed as a Plan Holder, and will automatically receive addendums, if issued. You are reminded that you are solely responsible for checking the County's website for updates. **Please feel free to visit our Website, www.sjcounty.net, Under 'Quick Links', choose 'Current Bids/Proposals.' Hard copies of the project will NOT be provided.**

A **Pre-Bid Conference** will be held at **10:00 a.m., (local time) on February 26, 2014** at the Central Purchasing Office Conference Room, 213 South Oliver Drive, Aztec, NM, 87410. A tour of the project site will follow if requested by Contractors.

Attention is called to the fact that contract goals for this project have been assigned as follows: 3.0% Disadvantaged Enterprise (DBE) goal.

Bid Security in the amount of 5% of the total Bid shall accompany each Bid in accordance with instruction to bidders. All bidders shall hold their bids for Sixty (60) days after actual date of bid opening.

Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Bidding Documents must be paid on this project if the bid amount exceeds $60,000, and that the Contractor must insure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin. You are hereby advised that wherever differences exist between the minimum wage rate shown under Wage Decision of the New Department of Workforce Solutions- Public Works Bureau, Decision No. SJ-14-0042 A, and those shown under the U.S. Department of Labor Wage Decision No. NM140049 dated January 3, 2014, and any modifications thereto noted in the contract assembly, the higher wage rates shall govern. Bidders are reminded that all contractors and their subcontractors must submit certified weekly payroll records biweekly to San Juan County.

NOTICE OF REGISTRATION REQUIREMENT. Bidders are reminded that in order to be considered for bid award, all contractors (including their subcontractors if at a specific cost threshold) must be registered under the *Labor Enforcement Fund* with the New Mexico Department of Workforce Solutions on the date bids are unconditionally accepted for consideration for bid award and must remain actively registered in order to perform work under this solicitation. The Contractor selected for award of a contract shall provide documentation to verify compliance with this paragraph prior to execution of a contract.

Bidders may obtain additional information on the requirements of the Labor Enforcement Fund program at www.dws.state.nm.us (Public Works - Public Works Projects – Additional Forms - Labor Enforcement Fund Form) or by calling (505) 841-4405.

The County reserves the right to reject any or all Bids and to waive informalities or irregularities in the Bidding.

LEGAL NOTICE: Publish: Sunday, February 16, 2014
Sunday, February 23, 2014
Sunday, March 2, 2014

Farmington Daily Times
Albuquerque Journal

BIDDING REQUIREMENTS

ARTICLE 1 – DEFINED TERMS 13-14-02

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered is Office of Central Purchasing, 213 South Oliver Drive, Aztec, New Mexico, 87410, (505) 334-4552.

B. *Scope* – Contractor performing this work shall furnish all material, labor, tools, expendable equipment, utility and transportation services and all incidental items necessary to perform and complete in a workmanlike manner, the Work required for the Replacement of Bridge No. 8105 Carrying San Juan County Road 7150 Over Gallegos Wash. Work will consist of the replacement of Bridge No. 8105 over Gallegos Wash on County Road 7150, roadway reconstruction, guardrail construction, grading, channel protection, earthwork, base course, plant mix bituminous pavement, drainage culverts, guard rail, concrete curb & gutter, waterline relocation, seeding, signing & striping, erosion control and construction traffic control. Bridge reconstruction includes drilled shafts, reinforcing steel, concrete placement, erection of precast, pre-stressed concrete girders, elastomeric bearings, strip seal expansion joints, metal railing, permanent anti-graffiti protective coating, and preformed closed cell foam bridge joint seals.

1.02 The Contract Documents contain the provisions required for the construction of the project. Information obtained from an officer, agent, employee of San Juan County, or any other person, shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 The Bid and Contract Documents may be obtained on the San Juan County Website. When utilizing the County's website, please complete the Acknowledgement Form that is posted within the Project Manual so you can be listed as a Plan Holder, and will automatically receive addendums, if issued. You are reminded that you are solely responsible for checking the County's website for updates. The Website is www.sjcounty.net, under 'Quicklinks,' choose 'Current Bids/Proposals.' **Hard copies of the project will NOT be provided.**

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

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ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, within __5__ days of Owner's request, Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below.

A. Bidders shall submit along with its bid a properly executed Contractor's Qualification Statement on Bidder Qualification Form provided. The Owner or their designated agent(s), may make any such investigation as deemed necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish the Owner or their designated agent(s) all such data and information for this purpose as the Owner or their designated agent(s) deem necessary.

B. Each Bidder shall provide a list of three similar projects which have been completed in the past ten years; the list should include the name of the project, owner and date of completion. Documentation shall be provided along with the bid to verify compliance with this paragraph.

C. Each Contractor who submits a bid including their sub-contractors at a specific cost threshold of $11,000.00, must be actively registered under the Labor Enforcement Fund with the New Mexico Department of Work Force Solutions on the date bids are unconditionally accepted for consideration for bid award and must remain actively registered in order to perform the work under this solicitation. The Contractor selected for award of a contract shall provide documentation to verify compliance with this paragraph prior to execution of a contract.

D. A current Certificate of Insurance must be furnished by the successful bidder in accordance with the supplementary conditions of this contract.

E. Bidders must possess appropriate contractor license or other satisfactory classification as required and regulated by Construction Industries Division, 2550 Cerrillos Road, Santa Fe, NM, 87505, (505) 476-4700.

3.02 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 *Subsurface and Physical Conditions*

A. The Supplementary Conditions identify:

1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.

2. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site.

B. Additional Supplementary Conditions identify:

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Geotechnical Engineering Report, Bridge Replacement Bridge No. 8105, County Road 7150, San Juan County, New Mexico dated January 19, 2010, and Geotechnical Engineering Study LRFD Charts and LPile Parameters, Bridge No. 8105, County Road 7150, San Juan County, New Mexico dated July 2, 2012.

C. Copies of reports and drawings referenced in Paragraph 4.01.A will be made available by Engineer to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.02 *Underground Facilities*

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 *Hazardous Environmental Condition*

A. The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.

B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.05 Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.

4.06 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;

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B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work; Bidder will not be entitled to additional compensation or any extension of the contract time for failure to do so;

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;

D. carefully study 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) that have been identified in Paragraph 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 the Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";

E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding 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 Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;

F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and

I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

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4.07 *The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.*

ARTICLE 5 – PRE-BID CONFERENCE

5.01 A Pre-Bid Conference will be held at 10:00 a.m. local time on February 26, 2014 at the Office of Central Purchasing, 213 South Oliver Drive, Aztec, NM 87410. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 – SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

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ARTICLE 7 – INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

7.03 All questions pertaining to this Bid shall be submitted in writing no later than 7 days prior to Bid opening and shall be directed to:

Mr. Pete Hinckley, PE
URS Corporation
6501 Americas Parkway, Suite 900
Albuquerque, NM 87110
(505) 855-7409
Fax (505) 855-7555
peter.hinckley@urs.com

Copy To: Kathleen Begay, Purchasing Coordinator
San Juan County
213 S. Oliver Drive
Aztec, NM 87410
(505) 334-4556
Fax (505) 334-4561
kbegay@sjcounty.net

ARTICLE 8 – BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five (5%) percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the form attached) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 If a bid bond is submitted, it shall be issued by a surety company authorized by the State of New Mexico to issue such bonds, and shall be submitted on EJCDC document No. C-430 provided. The attorney executing the bid bond on behalf of the surety company shall affix to the bond a certified and current copy of his or her Power of Attorney.

8.03 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

8.04 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

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ARTICLE 9 – CONTRACT TIMES

9.01 Bidder agrees that the Work will be substantially complete within 270 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 300 calendar days after the date when the Contract Times commence to run.

ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Bidder agrees to pay as liquidated damages, the following sum for each consecutive calendar day thereafter that the work remains uncompleted.

$500.00/CALENDAR DAY

ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or "or-equal" materials and equipment approved by Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or "or-equal" item. No item of material or equipment will be considered by Engineer as a substitute or "or-equal" for the duplex alternatives pump control panel. Each such request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS

12.01 Each Contractor who submits a bid shall list on the form provided the name of each sub-contractor proposed to perform project work in excess of $11,000.00 (**Section 13-4-34 NMSA 1978**) along with the Contractor's address, the nature of the work to be performed by the sub-contractor, an experience statement with pertinent information regarding similar projects and other evidence of qualification for each sub-contractor, individual or entity if requested by Owner or other relevant information. **In addition, the Contractor shall also include on this form the New Mexico Department of Work Force Solutions Registration / Certification number for those proposed sub-contractor's whose bid amounts are $60,000.00 and above.** The Contractor shall only list one (1) sub-contractor for each category of work. The completed list shall be submitted along with the Contractor's sealed bid. Any bids submitted which fails to comply with this paragraph will be deemed a non-responsive bid and will not be accepted.

When a bidder enters into a contract and therefore becomes the Contractor, the Owner will promptly inform the Contractor whether or not the Owner, after due investigation, has reasonable objection to any proposed sub-contractor. Failure of the Owner to inform the Contractor promptly of its objections to any proposed sub-contractor shall not constitute notice of no reasonable objection. If Owner or Engineer, after due investigation, has reasonable objection to any proposed sub-contractor, the Owner may request apparent successful bidder to submit a

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substitute, in which case apparent successful bidder shall submit an acceptable substitute, bidder's bid price will be increased or decreased by the difference in cost occasion by such substitution and Owner may consider such price adjustment in evaluating bids and making the contract award.

12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

12.03 In compliance with Public Works Section 13-4-36 C and D, NMSA 1978, substitution of sub-contractor, no Contractor whose bid is accepted shall permit any sub-contract to be voluntarily assigned, transferred or allowed to be performed by anyone other than the original sub-contractor listed in the original bid without the consent of the Owner.

12.04 No Contractor whose bid is accepted other than in the Performance Change Order causing changes or deviations from the original contract shall sublet or subcontract any portion of the work in excess of the listing threshold as to which his original bid did not designate a sub-contractor unless:

A. The Contractor fails to receive a bid from a category of work. Under such circumstances, the Contractor may subcontract. The Contractor shall designate on the bid listing that no bid was received or;

B. The Contractor fails to receive more than one bid for a category of work. Under such circumstances, the Contractor may subcontract. The Contractor shall state on the listing form that only one sub-contractor's bid was received, together with the name of the sub-contractor. This designation shall not occur more than one time on the sub-contractor list.

12.05 Contractors shall not be required to employ any sub-contractor against whom a Contractor has reasonable objection.

12.06 Per Article 4, Section 13-4-13.1 of NMSA 1978, in order to submit a bid valued at more than $60,000.00, the Contractor, serving as prime Contractor or not shall be registered with the Department of Labor. Registration forms can be located at www.dws.state.nm.us.

ARTICLE 13 – PREPARATION OF BID

13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from the Issuing Office.

13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each Bid item listed therein.

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13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.

13.08 All names shall be printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.

13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS

14.01 *Unit Price*

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.

B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the word.

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ARTICLE 15 – SUBMITTAL OF BID

15.01 Bids shall be made on the Bid Proposal form that is included in the bidding documents and may be separated from the documents unless otherwise noted in these specifications.

15.02 All Bids must be received no later than March 13, 2014 at 3:00 pm by the Office of Central Purchasing, 213 S. Oliver Dr., Aztec, NM 87410, and shall be enclosed in a sealed plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. Bids that are delivered after that date and time will not be accepted and will be returned to the sender unopened. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside as noted below:

Deliver Bids to:	San Juan County Office of Central Purchasing 213 S. Oliver Drive Aztec, NM 87410
Mailed Bids should read:	(Bidder's Names and Address) Attn: Sealed Bid Enclosed Bid No. 13-14-02 Replacement of Bridge No. 8105 Carrying San Juan County Road 7150 Over Gallegos Wash

15.03 Failure to follow these instructions may result in disqualification of the bid. Any bid forwarded by mail or delivery service which is opened by mistake prematurely as a result of the failure of the Bidder to enclose a sealed bid within a separate mailing envelope may be subject to disqualification.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. An amended bid must be complete, as it will be substituted for the earlier bid(s), and must be clearly identified as an amendment to the bid. No reference to the amount of the original bid(s) shall be made in any amended bid. Any such reference in an amended bid may disqualify that bid.

16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 – OPENING OF BIDS

17.01 Bids will be opened at 3:00 pm on March 13. 2014 in the San Juan County Central Purchasing Conference Room and, unless obviously non-responsive, read aloud publicly. An abstract of the

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amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, a contract may be offered to the lowest responsible bidder submitting an acceptable offer for the work (and applicable Options or Alternatives which are selected), taking into account the resident preference set forth below, so long as the lowest bid is within the amount of funds designated to finance the contract. If the lowest responsive bidder has otherwise qualified, but submitted a bid that was up to 10% in excess of the amount of funds designated to finance the Contract, the lowest bidder may negotiate with the County for a lower total bid. Such negotiation shall not be permitted if the lowest bid was more than 10% over budgeted funds. N.M.S.A. 1978 §13-1-105 (Repl. 1992).

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The Owner shall have the right to accept Alternates in the order specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

19.07 New Mexico Department of Work Force Solutions: Labor Enforcement Funds Certification. In order to be considered for bid award, all Contractor's (including their sub-contractors if at a specific cost threshold) must be registered with the Department of Labor Enforcement Fund with the New Mexico Department of Work Force Solutions on the date bids are unconditionally accepted for consideration for bid award and must remain actively registered in order to perform work under this solicitation. The Contractor selected for award of a contract shall provide documentation to verify compliance with this paragraph prior to execution of a contract. Contractor's may obtain additional information on the requirements of the Labor Enforcement Fund Program at *www.dws.state.nm.us* (Public Works – Public Works Projects – Additional Forms – Labor Enforcement Fund Form) or by calling 1(505)841-4405.

ARTICLE 20 – CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

21.02 Upon return of the signed Notice of Award, signed Agreement, and Insurance and Bonds, a Notice to Proceed will be presented to the Contractor for signature, setting the time frame for substantial completion. Until such time that the Notice to Proceed has been issued by the County, the Contractor should refrain from performing any work on the project.

ARTICLE 22 – NOTICES

22.01 The New Mexico Procurement Code, N.M.S.A. 1978 §13-1-28 through 13-1-199 (Repl. 1997) (as amended), imposes civil and criminal penalties for it violation. In addition, the New Mexico criminal code, N.M.S.A. 1978, §30-1-1 et seq. (Repl. 1994) (as amended), imposes criminal penalties for illegal bribes, gratuities, and kickbacks. Bidders should carefully consider the consequences of their behavior during the pendency of this solicitation, and should seek the advice of legal counsel when in doubt.

22.02 Certification of Bidder regarding Equal Employment Opportunity. Contractors and their Subcontractors shall comply with this section if applicable and required in the performance of

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their work. However, bidders are not required to submit a completed certificate with their bid submission.

22.03 Termination. In addition to the grounds for termination set forth elsewhere in the Bid Documents or in the Contract Documents, any contract awarded as a result of the Invitation for Bids may be terminated if sufficient appropriations or authorizations do not exist. The County's decision concerning whether sufficient appropriations or authorizations exist will be final.

22.04 Right to Discontinue Procurement. The County reserves the right to waive minor irregularities in a bid. The County also reserves the right to waive mandatory requirement(s) so long as all responding bidders fail to meet the mandatory requirement(s) and the failure to do so does not otherwise materially affect the procurement. The County reserves the right to cancel this Request For Bids at any time, and to reject any or all bids, or otherwise to proceed in the best interests of the County. This Request For Bids in no manner obligates the County or any of its agencies to the eventual sale or lease of any product or service, whether explicitly described or implied herein, until confirmed by a written contract and/or Purchase Order.

22.05 Ownership of Plans; The Contractor awarded the contract acknowledges that the reports, plans, specifications, field data, field notes, laboratory test data, calculations, estimates and other similar documents shall not be reproduced, copied or duplicated without the express written authorization of the County.

22.06 Notice of Extended Payment Provision. This contract allows the owner to make payment within 45 days after submission of an undisputed request for payment.

ARTICLE 23 – WAGE RATE DETERMINATION

23.01 Wage Rates: Wage Rates are required on this project if the **bid amount exceeds $60,000**. Employees of any Contractor or subcontractor participating in the work shall be paid not less than the higher amount of the minimum wage rates of the State of New Mexico as published by the State Labor and Industrial Commission and the wage rates identified in the U.S. Department of Labor Wage Decision No. NM 10-54 dated September 16, 2011. The Contractor must insure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin. A copy of the U.S. Department of Labor Wage Decision No. NM 10-54 and a copy of the Wage Decision of the New Mexico Department of Workforce Solutions – Public Works Bureau, Decision No. SJ-11-1168A has been issued for the project and has been included in bid specifications. Bidders are reminded that all Contractors and their subcontractors must submit certified weekly payroll records biweekly to San Juan County Finance Department, 100 S. Oliver Drive, Aztec, NM 87410, subject to the terms of the New Mexico Public Works Minimum Wage Act.

ARTICLE 24 – CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

24.01 Instructions: This certification is required pursuant to Executive Order 11246, entitled Equal Opportunity, as amended by Executive Order 11375, and as supplemented in DOL regulations (41 CPR Part 60). The implementing rules and regulations provide that any bidder or

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prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the Equal Opportunity Clause; and if so, whether it has filed all compliance reports due under applicable instructions.

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

1. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, age, national origin or disability. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, sex, age, national origin or disability. Such action shall include, but not limited to, the following: employment, upgrading demotion or transfer, recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selecting for training including apprenticeship.

2. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices as provided setting forth provisions of this nondiscrimination clause.

3. The Contractor agrees that, in all solicitation or advertisement for employment placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to their race, creed, color, sex, age, national origin or disability.

4. The Contractor agrees to send to each labor union or representative of workers with which the Contractor has had collective bargaining agreements or other contracts or understandings, a notice advising the labor union or worker's representative of the Contractors' commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

5. The Contractor agrees to comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor, and all subsequently issued rules, regulations or relevant orders, relating to equal employment opportunity.

6. The Contractor agrees to furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to Contractor's books, records, and account by the contracting agency and the Secretary of Labor for purpose of investigation to ascertain compliance with such rules, regulations, and orders.

7. In the event the Contractor's non-compliance with the nondiscrimination clauses of the contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contract in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rules, regulations, or order of the Secretary of Labor, or as otherwise provided by law.

8. The Contractor agrees to include the provisions of paragraphs (1) through (8) in every subcontract or purchase related to the work of the contract unless exempted by rules, regulations,

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or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, or that such provisions will be binding upon each Contractor or vendor. The Contractor agrees to take such action with respect to any subcontract or purchase order as the contracting agency may direct as means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event litigation with a Contractor or vendor as result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

ARTICLE 25 – COMPLIANCE WITH FEDERAL REGULATIONS

The Contractor agrees to comply with any Federal Statutes or Regulations which are applicable to this project including, but not limited to the following:

All labor standards including those relating to the payment of wages, working conditions, Copeland Anti-Kickback Act (18 USC 874), equal employment, and in particular:

[1] The provisions of Title 29 of the Office of the Secretary of Labor of the United States Government, Part 3, entitles "Contractors and Contractors on Public Work Financed in whole or in part by loans or grants from the United States" (29 CFR Part 3);

[2]The provision of 29 CFR Part 5 entitled "Labor Standard Provision Applicable to Contracts Governing Federally Financed and Assisted Construction" as well as the "National Labor Standard Provision Applicable to Non-construction Contracts subject to Contract Work Hours and Safety Standards Act".

[3] Those concerning relocations and related payments to all persons displaced as a result of the project as provided in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 USC 4601 et seq;

[4] The provisions of 29 CFR Part 1926 OSHA Standards for the Construction Industry and Part 1910 OSHA Standards for General Industry as applicable to the General Contractor and Subcontractors.

[5] The National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq);

[6] The Clean Air Act, as amended (42 USC 11857-1858 a);

[7] The Federal Water Pollution Control Act, as amended (33 USC 1251-1376);

[8] The National Historic Preservation Act of 1966 (16 USC 470 et seq);

[9]The Wild and Scenic Rivers Act (16 USC 1271-1281);

[10] The Endangered Species Act of 1973 (16 USC 1531 et seq);

[11] The Historical and Archaeological Data Preservation Act as amended (16 USC 469 et seq);

[12]Regulations pertaining to the design, construction, and alteration of buildings to accommodate the physically handicapped;

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[13] The National Flood Insurance Program;

[14]State Energy conservation Plan issued in compliance with the Energy Policy and conservation Act (P.L. 94-164).

ARTICLE 26 – SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION

In order to protect the lives and health of employees under the contractor and subcontractor, the contractor and subcontractor shall comply with Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USCV 327-330) as supplemented by DOL regulations (29 CPR Part 5).

ARTICLE 27 – SAN JUAN COUNTY SAFETY & COMPLIANCE CONTRACTOR SAFETY VERIFICATION PROGRAM

The Contractor awarded a contract under this solicitation will be required to comply with the County's Safety & Compliance Contractor Safety Verification Program. To ensure safe work practices, the County's Safety and Compliance Manager will work closely with the Contractor and his Sub Contractors durmg construction, and will require completion of the Assessment Questionnaire.

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AGREEMENT FORMS

SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION

In order to protect the lives and health of employees under the contractor and subcontractor, the contractor and subcontractor shall comply with Section 103 and 107 of the Contract Work Hours and Safety Standards Act (40 USCV 327-330) as supplemented by DOL regulations (29 CPR Part 5). The contractor will also follow all applicable regulations as outlined by the San Juan County Safety & Compliance Contractor Safety Verification Program as outlined as follows:

SAN JUAN COUNTY
NEW MEXICO
SINCE 1887

Safety & Compliance Verification Program

County Policy Statement

Contractors and subcontractors must comply with all applicable federal, state and county laws, ordinances, and guidelines for the health and safety of employees when performing construction work for San Juan County. The San Juan County Safety and Compliance Contractor Safety Verification Program will require contractors and subcontractors to demonstrate the initiation, maintenance, and supervision of all safety precautions and programs in connection with a construction project. The personal safety and health of contractors' and subcontractors' employees is of primary importance, and the prevention of occupationally induced injuries and illnesses is of such consequence that it will be given precedence over operating productivity whenever necessary.

OCT - 3 2011

San Juan County Executive Officer

Safety and Compliance Manager

APPROVED AS TO FORM
SAN JUAN COUNTY ATTORNEY

BY:

STANDARD PRACTICE INSTRUCTION

DATE: _____

SUBJECT: Contractor Safety Verification Program

REGULATORY STANDARD: All applicable Federal, State and Local Safety and Health regulatory requirements including but not limited to: OSHA - 29 CFR.

BASIS: It is the responsibility of the host General Contractor to ensure the safety of all workers conducting business on the site. When a General Contractor arranges to have employees of another employer (sub-contractors) perform work that involves activities that may put personnel at risk, the General Contractor must inform the sub-contractor that the workplace contains specific hazards and that the work to be done is permitted only if all workers have the proper training, equipment and work conditions to accomplish the task(s) in a safe manner.

GENERAL: The Contractor will ensure that safe work practices are used by Contractor personnel to provide for the control of hazards during operations such as lockout / tagout, confined space entry, welding, trenching, walking/working surfaces or piping, and general safety within our facilities. At the request of the County, the Contractor shall provide information regarding the Contractor's safety performance and programs to ensure that occupational safety and health policies have been established and are being followed.

RESPONSIBILITY: The Contractor shall be responsible for complying with this program, and the Safety and Compliance Manager will monitor the Contractor's compliance.

Contents of the Contractor Safety Verification Program

1. **Written Program.**
2. **Statement of Policy.**
3. **Routine Contractor Compliance Inspections.**
4. **Contractor Safety Meetings.**
5. **Specific Safety Standards Requiring Contractor Safety Compliance.**
6. **Contractor Training Compliance.**
7. **Contractor Safety Questionnaire.**

San Juan County Contractor Safety Verification Program

1. Written Program. San Juan County may review and evaluate this standard practice instruction:

- On an annual basis
- When changes occur to 29 CFR that prompt revision of this document
- When facility operational changes occur that require a revision of this document
- When there is an accident or close-call that relates to this area of safety
- When changes occur to related document that prompts a revision of this document; and/or
- Anytime the procedures fail

Effective implementation of this program requires support from all levels of Contractor management. This written program will be communicated to all personnel.

2. Statement of Policy. This policy is designed to establish a process to assist Contractors to accomplish desired job tasks without compromising the safety and health of employees at the designated site. The Contractor must assure that all employees and sub-contractors: 1) are trained to perform the job safely, 2) can recognize the hazards related to the job, and 3) are knowledgeable of other applicable provisions of Federal, State and Local safety and health regulatory requirements.

2.1 Initiation of work. Prior to the initiation of the Contractors' work at the site all contract employers will be informed of the applicable provisions of the facility emergency action plan and all other required information as required by relevant Federal, State and Local safety and health regulations.

3. Contractor Disclosure. As a means to assist contract employees to follow the safety rules of the facility, including safe work practices required by relevant regulations and policies, the following criteria and information relating to the Contractor may be reviewed by the Safety Compliance Manager.

3.1 Information relating to the Contractor's safety performance and programs;

3.2 Methods of informing the contractor, sub-contractors, architect / engineer and San Juan County personnel of known potential hazards related to the Contractor's work and applicable provisions of the facility emergency action plan;

3.3 Safe work practices to control the entrance, presence and exit of any persons in covered process areas, or other areas where known hazards exist;

3.4 Evaluation of Contractor performance in complying with specific safety standards;

3.5 Contract employee injury and illness logs related to safety standards (see section 8);

3.6 A list of unique hazards presented by Contractors' work or potential hazards generated by the Contractor in the workplace that are reported to San Juan County, such as: use of hazardous chemicals, excessive noise or dust generation, etc.

4. Routine Contractor Compliance Inspections. Routine Contractor compliance inspections will be conducted periodically when contractors are on site. The inspection will be made to insure working conditions conform to the best management practices regarding Contractor safety compliance.

4.1 Inspection team composition. The Contractor inspection team may be comprised of representatives of San Juan County and the Contractor.

4.2 Inspection Intervals. The Safety and Compliance Manager will coordinate inspection dates and times with all assigned inspection team members. The team may conduct inspections on a monthly basis or more frequently as needed while work is in progress.

4.3 Inspection report. The Safety and Compliance Manager will develop a Contractor safety report based on the inspection items noted during the inspection. **Imminent danger situations will be immediately addressed with the personnel responsible for correcting deficiencies and documented on the inspection report**. The following items will be accomplished:

4.3.1 The report will be distributed immediately to personnel responsible for correcting deficiencies noted during the inspection. A copy will also be given to the County Contract Administrator (the person designated by the County to administer the Contract for the project).

4.3.2 The report will be distributed to all supervisors and key management personnel affected by the Contractor's operation. Supervisors will brief the results to all employees under their control. A copy of the report will be posted in a conspicuous place for review.

4.3.3 The Safety and Compliance Manager will develop a report of deficiencies noted to determine jobs/areas that have high incidence Contractor non-compliance. These areas will be emphasized during future inspections and meetings.

4.3.4 Any deficiencies noted shall be immediately corrected by the Contractor. Corrective actions will be tracked to completion.

5. Contractor Safety Meetings.

5.1 Contractor meeting agendas. The General Contractor may develop agendas serving various topics of importance to the Contractor Safety Verification Program.

5.2 Contractor meeting schedules. Contractor safety meetings will be conducted at least once a month or on an "as needed" basis, and when operational changes to equipment, facilities, or the job occurs that impact the Contractor Safety Verification Program.

5.3 Administration update meetings. Contractor safety topics will be included in the agenda of selected staff meetings. The Safety and Compliance Manager will keep the County Contract Administrator informed of Contractor safety performance developments should issues arise.

6. Specific Safety Standards Requiring Contractor Safety Compliance. The following standards will be reviewed if the Contractor engages in activities that could fall under the jurisdiction of the specific standard:

APPLICABLE OHSA STANDARDS: Below are listed a sampling of OSHA Standards that require Contractor Safety Compliance in specific areas. The Contractor must determine any other standards that relate to specific safety conditions for the project. Please check the appropriate standards that will apply to the job:

____ 29 CFR 1910.119	Process Safety
____ 29 CFR 1910.120	HAZWOPER
____ 29 CFR 1910.Subpart E	PPE
____ 29 CFR 1910.146	Confined Space
____ 29 CFR 1910.147	Lockout Tagout
____ 29 CFR 1910.178	Powered Industrial Trucks
____ 29 CFR 1910.252	Welding Safety
____ 29 CFR 1910.1200	HAZCOM
____ 29 CFR 1926 Subpart M	Fall Protection
____ 29 CFR 1926 Subpart N	Cranes, Derricks and Hoist
____ 29 CFR 1926 Subpart Q	Concrete and Masonry
____ 29 CFR 1926 Subpart R	Steel Erection
____ 29 CFR 1926 Subpart P	Excavations
____ 29 CFR 1926 Subpart L	Scaffolding
____ 29 CFR 1926 Subpart G	Signs, signals, barricades
____ List additional standards	_____

7. Contractor Training Compliance. All Contractors will ensure that their employees are properly trained about known fire, explosion and / or toxic hazards, uncontrolled energy, confined spaces, and **any other hazard(s) related to their jobs**.

7.1 Contractors used by San Juan County are required to provide training to their employees in the work practices necessary for their specific job. Additionally, San Juan County, in coordination with the Contractor, may conduct job hazard analyses to identify, and evaluate and control processes involving highly hazardous chemicals.

7.2 Whenever there are outside contractors present, coordination with the General Contractor is mandatory. For example, the General Contractor will inform the subcontractor (and vice versa) when equipment cannot be touched, re-energized or restarted.

7.3 Safe working practices on site remain the responsibility of the General Contractor. Proper understanding and practice of working safely can be determined by observation, interviews with employees (contractors, sub-contractors, or contract employees), and OSHA reports. Any reports generated as a result of an incident shall be provided to the Safety and Compliance Manager.

7.4 Contractors used by San Juan County must:

7.4.1 Ensure that their employees are trained in safe work practices needed to perform the job.

7.4.2 Ensure their employees are instructed in the known potential fire, explosion, or toxic release hazards related to the job and the applicable provisions of the facility emergency action plan.

7.4.3 Document that their employees have received the required training.

7.4.4 Ensure that their employees follow the project safety rules and work practices.

7.4.5 Advise San Juan County of unique hazards presented by the Contractor's work.

8. Contractor Safety Questionnaire. The following questionnaire will be used to provide an initial assessment of the scope of a Contractors Safety Program (see next page).

PURPOSE: The purpose of this questionnaire is to provide San Juan County with necessary information about the Contractor's safety program. All items must be completed.

Company Name: _____

Address: _____

Safety Director: _____ Phone #: _____
(Person responsible for safety) FAX #: _____
Email: _____

1. Accident/Injury Experience

Using last year's OSHA 300 Log or Worker's Compensation Documentation, fill in the following:

A. Number of recordable injuries/illnesses _____

B. Number of restricted work days _____

C. Number of lost work days _____

D. Number of fatalities _____

E. Employee hours worked last year _____

F. Number of injuries/illnesses requiring hospitalization _____

2. Safety Program

A. Does your company have a written safety program?
Yes _____ No _____

Is the program revised/updated annually?
Yes _____ No _____

B. Does your written program contain a statement that your company abides by all federal (OSHA), state and local rules and regulations relating to safe work practices?
Yes _____ No _____

C. Do you have a new hire orientation program pertaining to safety training?
Yes _____ No _____

D. Does it include any training on the following? (If your company has a handbook, please submit a copy). Mark all that apply

Head Protection ____
Eye Protection ____
Hearing Protection ____
Respiratory Protection ____
Emergency Procedures ____
Hazardous Substances ____
Trench and Evacuation ____
Barricades ____

Safety Belts & Lifelines or Fall Protection___
Scaffolding ___
Housekeeping ___
Fire Protection ___
Hand Protection ___
Confined Space Entry ___
Electrical Safety ___
Rigging and Crane Safety ___
Hand and Power ____
Tool Safety ___
Others ____

E. Do you have a foreman safety training program?
Yes _____ No _____

F. Do you conduct regular safety meetings?
Yes _____ No _____
How often? _____

G. Are records of the training kept on site?
Yes _____ No _____

H. Do you generate accident investigation reports?
Yes _____ No _____

I. Do you perform project safety inspections?
Yes _____ No _____

Who conducts them? Name _____

Job Title _____

How often? _____

3. Lockout/Tagout

A. Does the work that you are contracting for involve any "Lockout/Tagout" situations?
Yes _____ No _____

If yes, please submit a copy of your written Lockout/Tagout procedures.

4. Hazard Communication

A. Does the work that you are contracting for, involve the use of any "Hazardous Substances"?
Yes_____ No _____

If yes, please submit a copy of your written hazard communication program and material safety data sheets for any hazardous substance that you will be using in your work.

5. Confined Spaces

   A. Does the job involve working in a "Confined Space"?
      Yes _____ No _____

   B. If yes, include your work plan, copies of training certification for the list of employees, entry permit and who will be in the permit-required confined space.

6. Elevated Work and Fall Protection

   A. Does the work that you are contracting for involve any "Elevated Work"?
      Yes _____ No _____

      If yes, please submit a copy of your fall protection and elevated work policy and procedures.

7. Powered Industrial Vehicles

   A. Does the work that you are contracting for, involve the use of any powered industrial vehicles? (i.e., fork trucks, highlifts, etc.)
      Yes _____ No _____

   B. Have designated people been trained and certified on such?
      Yes _____ No _____

   C. Are all certified drivers current on their recertification?
      Yes _____ No _____

9. Key Personnel

   List the key on-site people for this project.

Name: _____
Title: _____
Projects 1._____
2._____
3._____

Name: _____
Title: _____
Projects 1._____
2._____
3._____

Recommendations: _____

Comments: _____

_____

_____

_____

_____

For use by San Juan County

Approved *Yes ____ No____

I certify that I have conducted a review of the information contained in this questionnaire.

* Further detail on attachment: Yes __ No__

Name: _____ Signature: _____

Title: _____ Date: _____ Time: _____

ASSESSMENT QUESTIONNAIRE RETENTION INFORMATION

Permanent Retention File: _____ Location: _____

Date Filed: _____ Filed By: _____

STATEMENT OF BIDDER'S QUALIFICATIONS
BID 13-14-02

All questions must be answered, and the date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information he desires.

1. Name of Bidder and New Mexico Contractor's Number.
   _____

2. Permanent main office address.
   _____

3. When organized. _____

4. If a corporation, where incorporated. _____

5. How many years have you been engaged in the contracting business under your present firm or trade name. _____

6. Contracts on hand. (Schedule these, showing amount of each contract and the approximate anticipated dates of completion.)
   _____
   _____
   _____

7. General character of work performed by your company
   _____

8. Have you ever failed to complete any work awarded to you? If so, where and why?
   _____
   _____

9. Have you ever defaulted on a contract? If so, where and why? _____
   _____
   _____

10. List the more important projects (at least three) recently completed by your company, stating the approximate cost for each and the month and year completed.
    _____
    _____
    _____

11. List your major equipment available for this contract.
    _____
    _____

12. Experience in construction work similar in scope to this project completed within the past three years.
    _____
    _____

13. Background and experience of the principal members of your organization, including the officers.

_____

_____

_____

14. Credit available: $_____

15. Give bank reference: _____

16. Upon request, the contractor shall fill out a detailed financial statement and furnish any other information that may be required to San Juan County.

_____

The undersigned hereby authorizes any person, firm, or corporation to furnish any information requested by San Juan County in verification of the recitals comprising this Statement of Bidder's Qualifications.

DATED this _____ day of _____, 2014.

_____
Name of Bidder

By: _____

Title: _____

STATE OF _____)
) ss:
COUNTY OF _____)

_____, being duly sworn, deposes and says that he is _____ of _____ _____ and that the and answers to the foregoing questions and all statements therein contained are true and correct.

SUBSCRIBED AND SWORN to before me this ____ day of _____, 2014.

_____
Notary Public

My Commission Expires:

_____

BID BOND

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

BIDDER *(Name and Address)*:

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

OWNER *(Name and Address)*:

BID

Bid Due Date:

Description *(Project Name and Include Location)*:

BOND

Bond Number:

Date *(Not earlier than Bid due date)*:

Penal sum _____ $ _____

(Words) (Figures)

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

BIDDER	**SURETY**
_____ (Seal)	_____ (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: _____	By: _____
Signature	Signature (Attach Power of Attorney)
_____	_____
Print Name	Print Name
_____	_____
Title	Title
Attest: _____	Attest: _____
Signature	Signature
_____	_____
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SUGGESTED FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE) FUNDING AGENCY EDITION

THIS AGREEMENT is by and between _____ ("Owner") and

_____ ("Contractor").

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, 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:

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:

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by URS Corporation (Engineer), who 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 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within 270 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 300 days after the date when the Contract Times commence to run.

NOTE(S) TO USER

When it is customary to have just one Contract Time – For Substantial Completion, the last three words of the heading, the letter "s" on Times and the text following the first usage of the term General Conditions should be deleted in this paragraph and the last sentence should be deleted from Paragraph 4.03. If such deletions are made, it may require a change in GC 1.01.A.15 and GC 12.02-12.05.

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4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence of this Agreement 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 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 for completion and readiness for final payment until the Work is completed and ready for final payment.

NOTE(S) TO USER

Where failure to reach a Milestone on time is of such consequence that the assessment of liquidated damages for failure to reach one or more Milestones on time is to be provided, appropriate amending or supplementing language should be inserted here.

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:

_____ ($_____)
(words) (figure)

All specific cash allowances are included in the above price and have been computed 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 estimated quantity of that item as indicated in this paragraph 5.01.B:

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. Unit prices have been computed as provided in Paragraph 11.03 of the General Conditions.

UNIT PRICE WORK

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price

ESTIMATED TOTAL OF ALL UNIT PRICE WORK $ _____ $(_____)
(use words) (figure)

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

NOTE(S) TO USER

If adjustment prices for variations from stipulated Base Bid quantities have been agreed to, insert appropriate provisions. See BF-4.

Depending upon the particular Bid Form used, use A-5.01.A alone, A-5.01.A and A-5.01.B together, A-5.01.B alone, or A-5.01.C alone, deleting those not used and renumbering accordingly. If A-5.01.C is used, Contractor's Bid is attached as an exhibit and listed in A-9.

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 28th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 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 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:

   a. 100 percent of Work completed; and

   b. 100 percent of cost of materials and equipment not incorporated in the Work.

2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions.

6.03 *Final Payment*

A. Upon receipt of the final Application for Payment accompanied by Engineer's recommendation of payment in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay Contractor as provided in Paragraph 14.07 of the General Conditions as recommended by Engineer as provided in said Paragraph 14.07, including but not limited to liquidated damages.

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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 maximum legal rate.

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 does not consider that any 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.

E. 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.

F. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

G. 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.

H. 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 consist of the following:

1. This Agreement (pages 1 to 7, 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).

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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: _____.

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. _____.

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 Order(s).

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 and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. 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.

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10.03 *Successors and Assigns*

A. 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. 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 *Other Provisions*

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IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in four copies. One counterpart each has been delivered to Owner, Contractor, Engineer, and Agency. All portions of the Contract Documents have been signed, initialed, or identified by Owner and Contractor or identified by Engineer on their behalf.

NOTE(S) TO USER

See I-21 and correlate procedures for format and signing between the two documents.

This Agreement is dated _____. This Agreement shall not be effective unless and until Agency's designated representative concurs.

OWNER:	CONTRACTOR
_____	_____
By: _____	By: _____
Title: _____	Title: _____
[CORPORATE SEAL]	[CORPORATE SEAL]
Attest: _____	Attest: _____
Title: _____	Title: _____
Address for giving notices:	Address for giving notices:
_____	_____
_____	_____
_____	_____
	Agent for service of process:
	_____
	(If Contractor is a corporation or a partnership, attach evidence of authority to sign.)

Agency Concurrence:

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency: _____	By: _____
Date: _____	Title: _____

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NOTICE OF AWARD

OWNER: COUNTY OF SAN JUAN
213 S. Oliver Drive
Aztec, NM 87410

DATE: TBD

PROJECT NO: BID 13-14-02

CONTRACTOR:

PROJECT: Replacement of Bridge No. 8105 Carrying San Juan County Road 7150 Over Gallegos Wash

The Owner has considered the bid submitted by you for the above described work in response to its advertisement for bids dated TBD and instruction to bidders.

You are hereby notified that your bid has been accepted for the above described project in the amount shown:

Lump Sum Base Bid Amount:
Gross Receipt Taxes:
Total Bid Amount:

You are required by the contract documents to execute the agreement and furnish the required certificate of insurance, performance bond, and material & labor bond **within ten (10) calendar days** from date of this notice to you.

If you fail to execute said agreement **within ten (10) calendar days** from the date of this notice, said owner will be entitled to consider all your rights arising out of the owners acceptance of your bid as abandoned. The owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the owner.

CONTRACTOR:
CONSTRUCTION COMPANY

BY: _____

TITLE: _____

DATE: _____

OWNER:
COUNTY OF SAN JUAN

BY: _____
DIANA BAKER,
PROCUREMENT MANAGER

RETURN SIGNED COPY TO SAN JUAN COUNTY
OFFICE OF CENTRAL PURCHASING

SAN JUAN COUNTY
NEW MEXICO
SINCE 1887

NOTICE TO PROCEED

OWNER: COUNTY OF SAN JUAN
213 S. Oliver Drive
Aztec, NM 87410

DATE: TBD

PROJECT NO: BID 13-14-02

CONTRACTOR:

PROJECT: Replacement of Bridge No. 8105 Carrying San Juan County Road 7150 Over Gallegos Wash

The Contractor is hereby notified to commence work in accordance with the agreement dated **TBD**, and the Contractor is required to complete the above referenced project on or before **TBD** .

An acknowledgement copy of this Notice to Proceed must be returned to the Owner.

CONTRACTOR:
CONSTRUCTION COMPANY

BY: _____

TITLE: _____

DATE: _____

OWNER:
COUNTY OF SAN JUAN

BY: _____
DIANA BAKER,
PROCUREMENT MANAGER

RETURN SIGNED COPY TO SAN JUAN COUNTY
OFFICE OF CENTRAL PURCHASING

DRAFT

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Performance Bond

CONTRACTOR:
(Name, legal status and address)

« »« »
« »

SURETY:
(Name, legal status and principal place of business)

« »« »
« »

OWNER:
(Name, legal status and address)

« »« »
« »

CONSTRUCTION CONTRACT
Date: « »
Amount: $ « »
Description:
(Name and location)
« »

BOND
Date:
(Not earlier than Construction Contract Date)
« »
Amount: $ « »
Modifications to this Bond: [« »] None [« »] See Section 16

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:	« »« »	Name and Title:	« »« »

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or **BROKER:**

« »

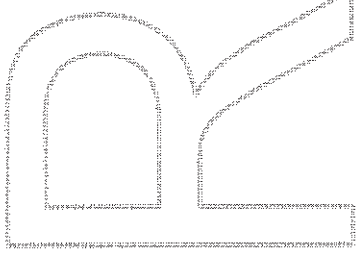
OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

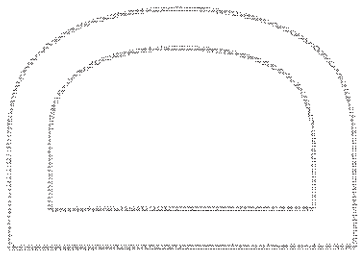
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ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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





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User Notes:
(846083429)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

.1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

.2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

.3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 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 the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

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User Notes: (846083429)

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

.2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and

.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction 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 the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 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 a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the 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.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

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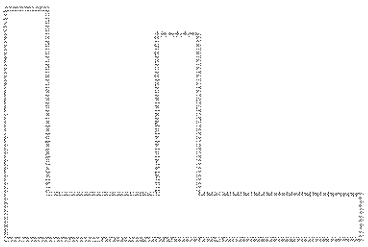
§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

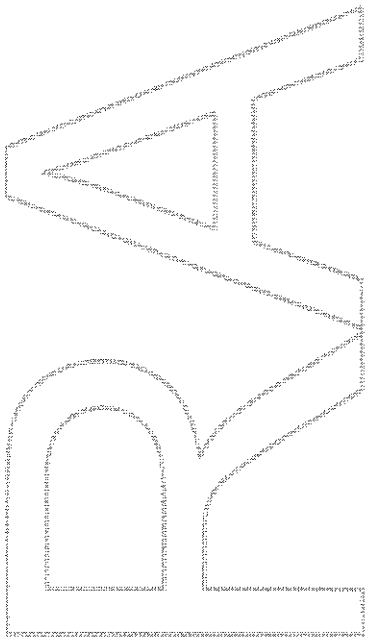
§ 16 Modifications to this bond are as follows:

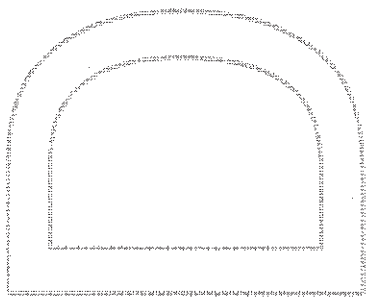
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(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		SURETY	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:	« »« »	Name and Title:	« »« »
Address:	« »	Address:	« »







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User Notes: (846083429)

DRAFT

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Payment Bond

CONTRACTOR:
(Name, legal status and address)

« »« »
« »

SURETY:
(Name, legal status and principal place of business)

« »« »
« »

OWNER:
(Name, legal status and address)

« »« »
« »

CONSTRUCTION CONTRACT
Date: « »
Amount: $ « »
Description:
(Name and location)

« »

BOND
Date:
(Not earlier than Construction Contract Date)
« »
Amount: $ « »
Modifications to this Bond: [« »] None [« »] See Section 18

CONTRACTOR AS PRINCIPAL
Company: *(Corporate Seal)*

Signature: _____
Name and Title: « »« »

SURETY
Company: *(Corporate Seal)*

Signature: _____
Name and Title: « »« »

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)
AGENT or **BROKER:**

« »
« »
« »

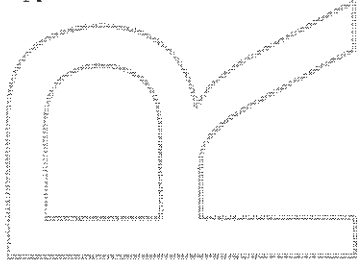
OWNER'S REPRESENTATIVE:
(Architect, Engineer or other party:)

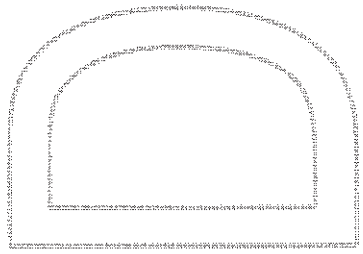
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ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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





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User Notes: (1802915408)

§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

.2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

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User Notes:
(1802915408)

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, 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 Construction 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.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. 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 Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the 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.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

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§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

« »

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:	« »« »	Name and Title:	« »« »
Address:	« »	Address:	« »

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User Notes: (1802915408)

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:

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:

Contractor's Amended Responsibilities:

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

Stored Material Summary

Contractor's Application

For (contract):	Application Number:
Application Period:	Application Date:

A	B	C	D		E		F		G
			Stored Previously		Stored this Month		Incorporated in Work		
Invoice No.	Shop Drawing Transmittal No.	Materials Description	Date (Month/Year)	Amount ($)	Amount ($)	Subtotal	Date (Month/Year)	Amount ($)	Materials Remaining in Storage ($) (D + E - F)
		Totals							

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CHANGE ORDER PROCEDURES

PART 1 GENERAL

1.1 REQUIREMENTS INCLUDED

A. Promptly implement Change Order procedures.
   1. Provide full written data required to evaluate changes.
   2. Maintain detailed records of work performed.
   3. Provide full documentation to the designated San Juan County Representative upon request.

B. Designate in writing the member of Contractor's organization:
   1. Who is authorized to accept changes in the Work?
   2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work?

C. Owner will designate in writing the person who is authorized to execute Change Orders on behalf of San Juan County.

1.2 RELATED REQUIREMENTS

A. Agreement: The amounts of established unit prices.
B. Conditions of the Contract:
   1. Methods of determining cost or credit to Owner resulting from changes in Work.
   2. Contractor's claims for additional costs.
C. Section 00810: Modifications to General Conditions.
D. Section 01152: Applications for Payment.
E. Section 01310: Construction Schedules.
F. Section 01630: Substitutions.
G. Section 01720: Project Record Documents.

1.3 DEFINITIONS

Change Order: See General Conditions.

1.4 PRELIMINARY PROCEDURES

A. Owner or San Juan County Representative may initiate changes by submitting a Proposal Request to Contractor. Request will include:
   1. Detailed description of the Change, Products, and location of the change in the Project.
   2. Supplementary or revised Drawings and Specifications.
   3. The projected time span for making the change, and a specific statement if overtime work is authorized.
   4. A specific period of time during which the requested price will be considered valid.
   5. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress.

B. Contractor may initiate changes by submitting a written notice to San Juan County Representative, containing:

1. Description of the proposed changes.
2. Statement of the reason for making the changes.
3. Statement of the effect on the Contract Sum and the Contract Time.
4. Statement of the effect on the work of separate contractors.
5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.5 CONSTRUCTION CHANGE AUTHORIZATION

A. In lieu of Proposal Request, San Juan County Representative may issue a construction change authorization for Contractor to proceed with a change for subsequent inclusion in a Change Order.

B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Contract Sum and any change in Contract Time.

C. Owner or San Juan County Representative will sign and date the Construction Change Authorization as authorization for the Contractor to proceed with the changes.

Contractor may sign and date the Construction Change Authorization to indicate agreement with the terms therein.

1.6 DOCUMENTATION OF PROPOSALS AND CLAIMS

A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow San Juan County Representative to evaluate the quotation.
   1. CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION AND COST PROPOSALS WITHIN 10 DAYS OF RECEIPT OF ANY PROPOSAL REQUEST, CONSTRUCTION CHANGE AUTHORIZATION. IF WRITTEN DOCUMENTATION IS NOT RECEIVED BY SAN JUAN COUNTY REPRESENTATIVE WITHIN 10 DAYS, NO EXTRA CHARGES OR INCREASES IN CONTRACT TIME WILL BE ALLOWED.
   2. Contractor shall submit breakdown of costs on enclosed form.

B. Unless specified otherwise, provide data to support time and cost computations:
   1. Additional labor required, and associated labor burden.
   2. Additional equipment required.
   3. Additional products required.
      a. Recommended source of purchase and unit cost.
      b. Quantities required.
   4. Additional taxes, insurance, and bonds.
   5. Credit for work deleted from Contract, similarly documented.
   6. Justification for any change in Contract Time.
   7. Use copies of form at end of this section.
   8. Each Sub-Contractor and the General Contractor shall submit breakdown on form provided.

C. Support each claim for additional costs and for work performed, with documentation as required for a lump-sum proposal, plus additional information:
   1. Name of the Owner's designated representative who ordered the work and date of the order.

2. Dates and times work was performed, and by whom.
3. Time record, summary of hours worked, and hourly rates paid.
4. Receipts and invoices for:
   a. Equipment used, listing dates and times of use.
   b. Products used, listing of quantities.
   c. Subcontracts.

D. Document requests for substitutions for Products as specified in Section 01630.

1.7 PREPARATION OF CHANGE ORDERS

A. San Juan County Representative will prepare each Change Order.
B. Form: Change Order (provided in Agreement Forms).
C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.8 LUMP SUM/FIXED PRICE CHANGE ORDER

A. Content of Change Orders will be based on, either:
   1. San Juan County Representative's Proposal Request and Contractor's responsive Proposal as mutually agreed between Owner and Contractor.
   2. Contractor's Proposal for a change, as recommended by San Juan County Representative.
B. Owner or San Juan County Representative will sign and date the Change Order as authorized for the Contractor to proceed with the changes.
C. Contractor may sign and date the Change Order to indicate agreement with the terms therein.

1.9 UNIT PRICE CHANGE ORDER

A. Content of Change Orders will be based on, either:
   1. San Juan County Representative's definition of the scope of the required changes.
   2. Contractor's Proposal for a change, as recommended by San Juan County Representative.
   3. Survey of completed work.
B. The amounts of the unit prices to be:
   1. Those stated in the Agreement.
   2. Those mutually agreed upon between Owner and contractor.
C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
   1. Owner or San Juan County Representative will sign and date the Change Order as authorization for Contractor to proceed with the changes.
   2. Contractor may sign and date the Change Order to indicate agreement with the terms therein.
D. When quantities of the items cannot be determined prior to start of the work:
   1. San Juan County Representative or Owner will issue a construction change authorization directing Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.

2. At completion of the change, San Juan County Representative will determine the cost of such work based on the unit prices and quantities used.
3. San Juan County Representative will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
4. Owner or San Juan County Representative and Contractor will sign and date the
5. Change Order to indicate their agreement with the terms therein.

1.10 ALLOWABLE COSTS

With each proposal for a change in the amount of the Contract, the Contractor shall submit separately a breakdown itemized to include material quantities and unit prices, labor and labor burden costs, equipment costs, additional insurance costs, additional bonding costs, additional overhe

CHANGE ORDER

OWNER:	San Juan County	**DATE:**	_____
PROJECT:	BID 13-14-02 Replacement of Bridge No. 8105 Carrying San Juan County Road 7150 Over Gallegos Wash	**PROJECT NO.**	_____
CONTRACTOR:	_____	**CHANGE ORDER NO.**	_____

1. In accordance with the specifications of the agreement dated _____ between Owner and Contractor, the Contractor is hereby authorized and directed as follows (*provide description of change order*):

2. Cost of the change is computed in the following table. Positive values shall be used in the "Quantity" column to represent quantity increases; negative numbers shall be used to represent quantity decreases. A positive "TOTAL" value indicates an increase in the contract value; a negative "TOTAL" value indicates a decrease in the contract value.

Item No.	Description	Quantity	Unit Cost	Cost
		TOTAL		$

3. The justification for this change is stated as follows (*provide justification*):

4. Change in agreement time: Increase of _____ calendar days.
   Decrease of _____ calendar days.

5. This change will result in the following adjustment of

(project) cost:	$_____	(before NMGRT)
NM Gross Receipts Tax	$_____	
This change order	$_____	(total change order amount)
Original Project Amount w/NMGRT	$_____	
Previous Change Orders	$_____	
Revised Amount w/NMGRT	$_____	

All other forms and conditions of the contract remain unchanged.

Approved for Owner:

_____
Name

_____
Title

_____
Date

Accepted for Contractor:

_____
Name

_____
Title

_____
Date

Other Approval (if deemed necessary by Owner):

_____
Name

_____
Title

_____
Date

Approved as to Form
San Juan County Attorney _____

SECTION 00800

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract EJCDC- C710, 2002 Edition and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 2
PRELIMINARY MATTERS
PARAGRAPH 2.06
DESIGNATION OF AUTHORIZED REPRESENTATIVES

Subparagraph B. is hereby added:

B. The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall serve as a liaison between the Owner and the Contractor, and who shall be referred to herein as the "Owner's Representative." The "Owner's Representative" is a person designated by the Owner to oversee the project on behalf of the Owner. The Owner's Representative referred to in the Contract Documents shall have authority to bind the Owner only with respect to matters of design or aesthetics. The Owner's Representative shall have no authority to bind the Owner to contracts, approve Change Orders, agree to Substantial Completion, or other contractual matters. The Engineer shall have no authority to bind the Owner with respect to any matter which requires the Owner's approval or authorization. The term "Owner" means the Owner or a person who has been delegated authority to execute contracts on behalf of the governing body of the Owner.

ARTICLE 5
BONDS AND INSURANCE
PARAGRAPH 5.01
PERFORMANCE, PAYMENT, AND OTHER BONDS

Section 5.01 should be deleted in its entirety and replaced with the following Section 5.01, Paragraphs A, B, and C:

A. The Contractor shall furnish bonds concerning faithful performance of the Contract and payments of obligations arising hereunder. Bonds may be obtained through the Contractor's usual source and the cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum. The Contractor shall deliver the performance and payment bonds to the Owner not later than ten (10) days after the bid is awarded to the Contractor, or, if the Work is to be commenced prior thereto in response to a letter of intent, the Contractor shall, prior to the commencement of the Work, submit evidence satisfactory to the Owner that such bond will be furnished. The bonds shall be affixed with the certified and current copy of the Power of Attorney of the person executing the Bond on behalf of the Surety, and shall be written on AIA A312 (most current edition). Each Surety must be U.S. Treasury listed, licensed in New Mexico and have an A.M. Best rating of A minus VII or better.

B. **Subcontractor shall provide to the General Contractor a Performance and Payment Bond on a New Mexico public works project if the Subcontractor's Contract for work to be performed on the project is one hundred twenty five thousand dollars ($125,000) or more pursuant to NMSA 1978, § 13-1-148.1 (2007).** The bonds shall be affixed with the certified and current copy of the Power of Attorney of the person executing the Bond on behalf of the Surety, and shall be written on AIA A312 (most current edition). Each Surety must be U.S. Treasury listed, licensed in New Mexico and have an A.M. Best rating of A minus VII or better.

C. In the event that a change order is executed that increases the Contract Sum by 25% or more, the performance and payment bonds shall be revised to an amount to equal one hundred percent (100%) of the revised Contract Sum. The revised bonds shall be affixed with the certified and current copy of the Power of Attorney of the person executing the Bond on behalf of the Surety, and shall be written on AIA A312 (most current edition).

ARTICLE 5
BONDS AND INSURANCE
PARAGRAPH 5.04
CONTRACTOR'S INSURANCE

Section 5.04 is hereby amended by inserting the following paragraphs C, D, E, and F:

C. Liability insurance shall include all major divisions of coverage and be on a comprehensive through completed operations basis including:

.1 Premises and Operation (including X, C, and U coverages as applicable).
.2 Independent Contractors' Protective.
.3 Products and Completed Operations.
.4 Personal Injury Liability with Employment Exclusions deleted.
.5 Broad Form Property Damage including Completed Operations.
.6 Owned, non-owned, and hired motor vehicles, liability symbol 1.

D. The insurance shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverage, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment. The Owner shall be named as an additional insured by endorsement to the Contractor's General Liability and Automobile Liability policies.

E. If any of the foregoing insurance coverage is required to remain in force after final payment, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief. If the insurance is written on the Comprehensive General Liability policy form, the form ("Certificate of Insurance") shall be ACORD Form 25. **The certificate shall show the Owner as an additional insured.**

F. Consistent with the New Mexico Tort Claims Act, the insurance shall be written for not less than the limits of liability specified in the following Clauses, or required by law, whichever coverage is greater:

.1 Worker's Compensation:

a) State: Statutory

b) Employees Liability:
$1,000,000 per accident
$1,000,000 Disease, Policy Limit
$1,000,000 Disease, Each Employee

.2 Comprehensive or Commercial General Liability (including Premise-Operations; Independent Contractor's Protective; Products and Completed Operations; Broad Form Property Damage):

a) Bodily Injury and Property Damage:

$1,000,000, combined single limit each Occurrence
$2,000,000, general aggregate (if applicable)

b) Products and Completed Operation to be maintained for two years after final payment.

.3 Contractual Liability: Bodily Injury and Property Damage: $1,000,000, combined single limit each occurrence.

.4 Personal Injury, with Employment Exclusion deleted: $1,000,000, aggregate.

.5 Business Auto Liability (including owned, non-owned, and hired vehicles): Bodily Injury and Property Damage: $1,000,000, each occurrence.

.6 If the General Liability coverage is provided by a Commercial Liability policy, the:

a) General Aggregate shall be not less than $2,000,000 and it shall pertain to this project only.

b) The Fire Damage Limit shall be not less than $50,000 on any one fire.

c) The Medical Expense Limit shall be not less than $5,000 on any one person.

ARTICLE 5
BONDS AND INSURANCE
PARAGRAPH 5.06
PROPERTY INSURANCE

All subparagraphs of Section 5.06 shall be deleted in their entirety and shall be replaced with the following Subparagraphs:

A. The CONTRACTOR shall secure, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property written on a builder's risk "All Risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of all subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are the beneficiaries of such insurance, during the CONTRACT TIME until work is accepted by Owner. This policy shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project. The policy shall also contain Completed Operations coverage, which coverage shall survive the acceptance of the work for a period of not less than two (2) years.

B. Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, theft, earthquake, flood, windstorm, falsework, smoke, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any legal requirements, and shall cover reasonable compensation for Engineer's and Contractor's services and expenses required as a result of such insured loss.

C. If the property insurance requires deductibles, the CONTRACTOR shall pay costs not covered because of such deductibles.

ARTICLE 5
BONDS AND INSURANCE
PARAGRAPH 5.08

RECEIPT AND APPLICATION OF INSURANCE PROCEEDS

Subparagraphs A and B in Section 5.08 shall be deleted in their entirety and the following subparagraphs A and B shall be substituted in their place:

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 interest may appear, subject to the requirements of any applicable mortgage clause of Paragraph 5.08B. 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. 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.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.02
LABOR, WORKING HOURS

Add the following paragraph to Section 6.02:

C. Wage rates are required on this Project if the bid amount exceeds $60,000. Employees of any Contractor or Subcontractor participating in the work shall be paid not less than the minimum wage rates of the State of New Mexico as published by the State Labor and Industrial Commission.

.1 Pursuant to Section 13-4-11(A) NMSA 1978, the Contractor and subcontractors shall pay all mechanics and laborers employed on the site of the project unconditionally and not less often than once a week and without subsequent unlawful deduction or rebate on any account, the full amounts accrued at time of payment computed at wage rates not less than those stated in the minimum wage rates issued for the project.

.2 Contractor shall comply fully with the requirements set forth in the Public Works Minimum Wage Act Policy Manual, 11 NMAC 1.1 et seq., and the Wage Decision Packet issued by the State of New Mexico Department of Workforce Solutions.

3 The General Contractor, Subcontractors and all tier Subcontractors must be registered with the Labor and Industrial Division in accordance with Public Works Minimum Wage Act, Section 13-4-13.1 NMSA 1978.

.4 **Contractor and all Subcontractors shall comply with the requirements listed in the Project Manual.**

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.04
PROGRESS SCHEDULE

Add the following paragraphs B, C and D to Section 6.04:

B. The Owner may require the Contractor to take such measures or adopt such methods as may be necessary in the Owner's opinion to obtain and maintain satisfactory progress when, in the Owner's judgment, the Work is not proceeding in accordance with the approved progress schedule or otherwise at a reasonable rate to achieve Substantial Completion within the time frame set by the Contract Documents. The Contractor shall not receive any additional compensation if the Owner imposes such a requirement. The failure of the Owner to require such measures pursuant to this Subparagraph shall not relieve the Contractor of his obligation to secure the rate of progress necessary to complete the Work within the time required of the Contract Documents.

C. In the event that the Contractor fails or, in the judgment of the Owner or Enginer fails to complete a critical portion of Work on time or to complete a contractual milestone or completion date as evidenced by the latest update of the Project Construction Schedule Report, the Owner shall have the right to impose any or all of the following options:

.1 Require the Contractor to substantiate his capability to "get back on schedule within ten (10) working days".

.2 Require the Contractor to increase his work force, work overtime, and/or extra shifts, and do whatever else is required by the Owner until Contractor gets back on schedule as established by the Project Construction Schedule Report (including any updates thereto), such measures being at no extra cost to Owner.

.3 Withhold progress payment, or portions thereof, until such time as the Contractor returns to the approved schedule.

.4 Require the Contractor, Owner, or Engineer to contact the factory, plant or distribution center whose production or delivery schedule may be critical to the scheduled completion of a portion of the contract work, and expedite same, at no expense to the Owner. If costs are incurred in executing the requirements of this Subparagraph, whether by the Owner, or Engineer, the Contract Sum shall be decreased by the cost occasioned by such action and an appropriate Change Order shall be issued.

D. The Contractor shall furnish such manpower, materials, facilities, and equipment and shall work such hours, including night shifts, overtime operations, and Sundays and/or Holidays, as may be necessary to ensure the progress and completion of both the Work and the Project as reflected by the currently updated Project Construction Schedule (as may be modified and approved from time to time). If either the Work or the Project actually in place falls behind, impacting the Substantial or Final Completion date of the project, as reflected by the currently updated Project Construction Schedule, the Contractor agrees that s/he will, as necessary, take some or all of the following actions at no additional cost to the Owner or Engineer, as required to substantially remedy, in the judgment of the Owner, the timely execution of Work on the Project:

.1 Increase manpower in quantities and crafts as necessary;

.2 Increase the number of working hours per shift, shifts per working day, working days per week, the amount of equipment, or any combination of the foregoing; and/or

.3 Reschedule activities to achieve maximum practical concurrence of accomplishment; and

.4 The Owner may require the Contractor to submit a new schedule. If the revised schedule proposed is not satisfactory, the Owner may require revisions until it is determined to be satisfactory, in order to make up the difference in actual versus scheduled progress.

.5 Do whatever else is reasonably required by the Owner.

.6 Failure of the Contractor to substantially comply with the requirements of

Paragraph 8.4 shall be considered grounds for a determination by the Owner that the Contractor is in breach of this Contract by failing to prosecute the Work so as to ensure its completion and that of the Project within both the Contract Time and the updated Project Construction Schedule.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.06
CONCERNING SUBCONTRACTORS, SUPPLIERS, AND OTHERS

Paragraph D of Section 6.06 is amended by adding the following sentence: The Contractor shall, on a daily basis, coordinate and review each Subcontractor's work for compliance with Contract Documents.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.07
PATENT FEES AND ROYALTIES

Paragraph B from Section 6.07 is deleted in its entirety.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.09
LAWS & REGULATIONS

Add the following paragraph D to Paragraph 6.09 to read as follows:

D. The Contractor shall be licensed to execute the Work under applicable licensing statutes of the State of New Mexico and other applicable regulatory agencies. The Contractor and its subcontractors shall comply with Federal, State and County regulations when applicable. All labor and materials shall meet all applicable codes. The Contractor shall comply with San Juan County policies and procedures in secure areas. Construction personnel shall be subject to search and security clearance.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.09
PERMITS, FEES AND NOTICES

Add the following Subparagraphs E and F to Paragraph 6.09:

E. The Contractor shall be licensed to execute the Work of this Contract in accordance with applicable licensing statutes of the State of New Mexico and other applicable regulatory agencies. The Contractor and his/her Subcontractors shall also comply with Federal, State, tribal and local regulations, as applicable. The Contractor shall comply with the Owner's policies and procedures regarding secure areas. The Contractor and his/her Subcontractors and their respective employees may be subject to search-and-security clearance.

F Notice is given that the Procurement Code, Sections 13-1-21 through 13-1-1997 NMSA, imposes civil and criminal penalties for its violation. In addition, New Mexico criminal statutes impose felony penalties for illegal bribes, gratuities and kickbacks.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.12

RECORD DOCUMENTS

Add the following Subparagraph B to Paragraph 6.12:

B. The Contractor shall, at the end of every week, or at other mutually agreed intervals submit Daily Reports to the Owner (by facsimile or original), a report stating: labor forces on-site, areas worked, any potential schedule or coordination problems, material deliveries received, site visitors, and other relevant information required by the Owner.

ARTICLE 6
CONTRACTOR'S RESPONSIBILITIES
PARAGRAPH 6.13
SAFETY AND PROTECTION

Paragraph 6.13 is hereby amended with the addition of the following Subparagraphs:

G. All Contractors and subcontractors shall comply with the San Juan County Safety and Compliance Contractor Safety Verification Program, a copy of which is available from the San Juan County Safety and Compliance Manager.

H. Specific safety precautions and programs also include, but are not limited to, the following:

.1 Contractor shall provide a Project-specific Safety Plan
.2 Hard hats shall be worn at all times.
.3 Safety glasses with side shields shall be worn at all times.
.4 100 percent fall protection shall be employed when construction personnel are exposed to falls of 6-feet and greater.
.5 Contractor shall be responsible for developing a Fire Protection Program (i.e., Hot Work Permit Program).
.6 Contractor shall provide third-party inspections of cranes brought onto the Project site, prior to use.

I. Injury or Damage to Person or Property. If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not to exceed 21 days after discovery. The notice shall provide sufficient details to enable the other party to investigate the matter. However, nothing in this Subparagraph or in the Contract Documents shall be construed as waiving defenses available to the Owner under the common law or statutory doctrines of sovereign immunity. The Owner shall be responsible for Claims arising from personal injury or property damage only to the extent specifically required by the New Mexico Tort Claims Act N.M.S.A. 1978, Section 41-4-1 et seq. (as amended).

ARTICLE 10
CHANGES IN THE WORK; CLAIMS
PARAGRAPH 10.05
CLAIMS
B. NOTICE

Subparagraph B. is hereby deleted and replaced with the following Subparagraph:

B. Notice: Written notice stating the general nature of each Claim shall be delivered by the claimant to the Engineer

ARTICLE 12

CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES
PARAGRAPH 12.03
DELAYS

Paragraph B of Section 12.03 is deleted in its entirety.

The last sentence of Paragraph C of Section 12.03 is amended to state: "Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03C.

Subparagraph 1 of Section 12.03C is deleted.

Add the following paragraphs F, G, and H to Section 12.03:

F. Any claims for extension of time shall be made in writing to the Owner, Construction Manager and Engineer not more than twenty-one (21) days after commencement of the delay: otherwise it shall be waived. The Contractor shall provide the best estimate that can reasonably be developed at the time, of the probable effect of such delay on the progress of work at the time of notice.

G. Extensions of the contract completion time will be made for delays due to weather conditions only when such conditions are more severe and extended than those reflected by the ten-year average for the month as evidenced by the Climatological Data, U.S. Department of Commerce, for the project area, and only if a request for such an extension of time is received within twenty-one (21) days of the first date of each weather delay. The extension of contract completion time for weather conditions will occur only in the event that the weather in question affected critical activities on the most current Project Construction Schedule.

H. Any claims for extension of time shall be made in writing to the Owner, Construction Manager and Engineer not more than twenty-one (21) days after commencement of the delay: otherwise it shall be waived. The Contractor shall provide the best estimate that can reasonably be developed at the time, of the probable effect of such delay on the progress of work at the time of notice.

ARTICLE 13
TESTS AND INSPECTIONS
PARAGRAPH 13.06
CORRECTION & REMOVAL OF DEFECTIVE WORK

Add the following subparagraph C to Paragraph 13.06:

C. The Owner may, by notice in writing, require the Contractor to remove from the Work any employee the Owner deems incompetent, careless or otherwise objectionable.

ARTICLE 15
SUSPENSION OF WORK AND TERMINATION
PARAGRAPH 15.02
OWNER MAY TERMINATE FOR CAUSE

Add the following subparagraphs 5, and 6 to Section 15.02.A:

5. In addition to the grounds for termination set forth elsewhere in the Bid Documents or in the Contract Documents, any Contract awarded may be terminated if sufficient appropriations or authorizations exist. San Juan County's decision concerning whether sufficient appropriations or authorizations exist will be final.

6. This contract may also be terminated pursuant to Section 13-4-13 NMSA 1978 in the event that the Director of the Labor and Industrial Division of the New Mexico

Department of Labor finds that any laborer or mechanic employed on the site of the project has been, or is being paid as a result of a willful violation a rate of wages less than the rate of wages required by Section 13-4-11 NMSA 1978, provided written notice is given by Owner to the Contractor or subcontractor. A party receiving such notice shall have the right to appeal afforded by Section 13-4-13 NMSA 1978.

ARTICLE 16
DISPUTE RESOLUTION
PARAGRAPH 16.01
METHODS AND PROCEDURES

Section 16.01 is deleted in its entirety and is replaced with the following sections:

A. 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, or informally through use of other reasonable rules or procedures. The request for mediation shall be submitted in writing to the American Arbitration Association, the other party to the Contract, and the Engineer. Timely submission of the request shall stay the effect of Paragraph 10.05.E. A request for mediation shall be made within a reasonable time after the Claim has arisen, but in no event shall a request for mediation be made after the date when institution of or equitable proceedings based on a Claim would be barred by the applicable statute of limitations.

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 mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke the arbitration process described in Paragraph D of this Section; 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.

D. Claims Subject to Arbitration. If the parties agree, then they may arbitrate any Claim upon which the Engineer has given notice and rendered a decision as provided in Subparagraph 10.05. Any Claim which the parties agree to arbitrate shall be arbitrated in accordance with the New Mexico Uniform Arbitration Act, N.M.S.A. 1978, Section 44-7A-1 et seq. (2001). A single arbitrator shall be appointed to hear the arbitration, and shall be selected by agreement of the parties. If the parties cannot agree on an arbitrator, then the arbitrator shall be selected by the Chief Judge of the Eleventh Judicial District Court, State of New Mexico. Notice of a request for arbitration shall be filed in writing with the other party of this agreement, and a copy shall be filed with the Engineer. The request shall be made within a reasonable time, but in no event shall the request for arbitration be made after the date when institution of legal or equitable proceedings based on such claims or controversies would be barred by the applicable statute of limitations.

ARTICLE 17
MISCELLANEOUS
PARAGRAPH 17.05
CONTROLLING LAW

Section 17.05 shall be deleted in its entirety and replaced with the following Section 17.05:

17.05 The Contract shall be governed by the laws of the State of New Mexico, and any action to enforce terms and conditions herein shall be brought only in the courts having jurisdiction in San Juan County, New Mexico.

ARTICLE 17
MISCELLANEOUS
PARAGRAPH 17.07
CLAIMS FOR CONSEQUENTIAL DAMAGES

Add the following subparagraph 17.07:

17.07 Claims for Consequential Damages. The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. The mutual waiver includes:

A. damages incurred by the Owner for rental expense, loss of use, income, profit, financing, business and reputation, and for loss of a management or employee productivity or of the services of such person; and

B. damages incurred by the Contractor for principal office expense including compensation of personnel stationed there, loss of financing, business and reputation, and for loss of profit. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 15. Nothing contained in this Subparagraph shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. However, nothing in this paragraph or in the Contract Documents shall be construed as waiving defenses available to the Owner under the common law or statutory doctrines of sovereign immunity. The Owner shall be responsible for Claims arising from personal injury or property damage only to the extent specifically required by the New Mexico Tort Claims Act N.M.S.A. 1978, Section 41-4-1 et seq. (as amended).

END OF SECTION

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 Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT FUNDING AGENCY EDITION

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

ACEC
American Council of Engineering Companies

National Society of Professional Engineers
Professional Engineers in Private Practice

ASCE American Society of Civil Engineers

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General Contractors of America

and the

Construction Specification Institute

Knowledge for Creating and Sustaining the Built Environment

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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Funding Agency Edition No. C-521 (2002 Edition). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001, 2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800, 2002 Edition).

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GENERAL CONDITIONS

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. *Agency* – The Federal or state agency named as such in the Agreement.

3. *Agreement* – The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

4. Application for Payment – The form acceptable to Engineer 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.

5. *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.

6. *Bid* – The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

7. *Bidder* – The individual or entity who submits a Bid directly to Owner.

8. *Bidding Documents* – The Bidding Requirements and the proposed Contract Documents (including all Addenda).

9. *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.

10. *Change Order* – A document recommended by Engineer which is signed by Contractor and Owner and Agency 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.

11. *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.

12. *Contract* – The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

13. *Contract Documents* – Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

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14. *Contract Price* – The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

15. *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.

16. *Contractor* – The individual or entity with whom Owner has entered into the Agreement.

17. *Cost of the Work* – See Paragraph 11.01.A for definition.

18. *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.

19. *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.

20. *Engineer* – The individual or entity named as such in the Agreement.

21. *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.

22. *General Requirements* – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition* – The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *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.

25. *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.

26. *Liens* – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *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.

28. *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.

29. *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.

30. *Owner* – The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

31. *PCBs* – Polychlorinated biphenyls.

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32. *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.

33. *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.

34. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

35. *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.

36. *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.

37. *Related Entity* – An officer, director, partner, employee, agent, consultant, or subcontractor.

38. *Resident Project Representative* – The authorized representative of Engineer who may be assigned to the Site or any part thereof.

39. *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.

40. *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.

41. *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.

42. *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.

43. *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.

44. *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.

45. *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.

46. *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.

47. *Successful Bidder* – The Bidder submitting a responsive Bid to whom Owner makes an award.

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48. *Supplementary Conditions* – That part of the Contract Documents which amends or supplements these General Conditions.

49. *Supplier* – A manufacturer, fabricator, supplier, distributor, materialman, 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 any Subcontractor.

50. *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.

51. Unit Price Work – Work to be paid for on the basis of unit prices.

52. *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.

53. *Work Change Directive* – A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and Agency upon recommendation of the 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 following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following 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 requirements of and information in the Contract Documents and conformance with the design concept of the completed 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.

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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 which 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 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 required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. 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.

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2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

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;

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*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, Agency, 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.

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 may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage

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as being required to produce the intended 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.

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 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, or Engineer, or any of their Related Entities, 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 may discover 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 any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, 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) 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 knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. 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, code, or instruction (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).

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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.

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 Engineer's consultants, including electronic media editions; or

2. reuse any of 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 adaption by Engineer.

B. The prohibition 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. Copies of data furnished by Owner or Engineer to Contractor or 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. 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,

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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. 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 identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, 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 Related Entities 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 at or contiguous to the Site 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

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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, 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; 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.

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.

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, Owner and Engineer, and any of their Related Entities 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.

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; 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,

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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, 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:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, 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 Related Entities 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

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

C. 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. 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.

E. 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 to Contractor written notice: (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. 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. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, 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, 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.

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ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, 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. 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 current 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 must be accompanied by a certified copy of the agent's authority to act.

C. 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. 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 deliver to Owner, with copies to each additional insured 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 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.

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims 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. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

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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, 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, 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 completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. 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);

6. 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

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

   a. 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. 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.

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5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (Contractor shall be responsible for any deductible or self-insured retention.). 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, partners, employees, agents, consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss 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 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. iuclude 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 additional insured to whom a certificate of insurance has been issued.

B. Contractor shall purchase and maintain such boiler and machinery 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, 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 an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with 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 additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. 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.

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5.07 *Waiver of Rights*

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 to be listed as insureds or additional insureds (and the officers, directors, 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 additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, 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 to be listed as insured or additional insured (and the officers, directors, 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 Contractor as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, 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. 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, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Contractor and made payable to Contractor as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Contractor 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.

B. Contractor 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 Contractor's exercise of this power. If such objection be made, Contractor 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, Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Contractor as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

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

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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 *Partial Utilization, Acknowledgment of Property Insurer*

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. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

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.

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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) 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. Adjustments in Contract Times may only be made by a Change Order.

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;

3) it has a proven record of performance and availability of responsive service; and

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.

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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, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that 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 procedure requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in 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) will 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 or not 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 or not 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;

4) and 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.

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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. 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 either a Change Order for a substitute or 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. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the 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), 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 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 anything in the Contract Documents 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.

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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 an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, 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. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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 shall pay all charges of utility owners for connections for providing permanent service to 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 Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to 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 primary responsibility to make certain

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that the Specifications and Drawings are in accordance with 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. 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.

6.10 *Taxes*

A. Contractor 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, 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.

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

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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. 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. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 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 , 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).

D. 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 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 emergeucies 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

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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.

6.17 *Shop Drawings and Samples*

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable 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 determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have 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.

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.

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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 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.

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 to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities 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;

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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. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, 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. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees 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. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, 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.

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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 via 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, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall 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 their work and will only cut or alter their 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, 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.

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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 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 actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's 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.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of 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 in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

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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 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. 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. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

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 and will not be changed without written consent of Owner and Engineer.

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. 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. 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.

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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.

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, 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.

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.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

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.

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 thereunder. 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 believe 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. 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.

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.

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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 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. 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 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.

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, subject to written approval by Agency 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. 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.

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.B.

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10.03 *Execution of Change Orders*

A. Owner and Contractor shall 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, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, 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; 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.

10.04 *Notification to Surety*

A. If notice 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) is required by the provisions of any bond to be given to a surety, 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, 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. 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 Time 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.

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E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in 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, 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 include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

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 at the Site. 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.

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

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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, 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, expressages, 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, expediters, 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 or specifically covered by Paragraph 11.01.A.4, 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 and 11.01.B.

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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.

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, 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 be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

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.

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.

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D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the Bid price of a particular item of Unit Price Work amounts to more than 5 percent of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent 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. 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.

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:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, 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, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

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

1. a mutually acceptable fixed fee; or

2. 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 Paragraph 12.01.C.2.a 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;

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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. 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.

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.

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. 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, 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, 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.B.

1. delays caused by or within the control of Contractor; or

D. Owner, Engineer and the Related Entities of each of them 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.

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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. All 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, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor 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. 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 said 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, it must, if requested by Engineer, be uncovered 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.

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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 therefor as provided in Paragraph 10.05.

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 therefor as provided in Paragraph 10.05.

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, Owner may order 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 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 year 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 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

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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 therefrom.

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 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 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. 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, 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.

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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. 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 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 on the Site 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;

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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, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to 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. that 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. 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; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

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.

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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. the Contractor's performance or furnishing of the Work is inconsistent with funding Agency requirements;

   d. there are other items entitling Owner to a set-off against the amount recommended; or

   e. 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 corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined 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.

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, Agency, Contractor, and Engineer shall make a prefinal 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.

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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 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 will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion 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 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, Agency, 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.

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), and other documents, Contractor may make application for final payment following the procedure for progress payments.

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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.7;

   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 or Owner's property might in any way be responsible 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. 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, 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. The remaining balance of any sum included in the final Application for Payment but held by OWNER for Work not fully completed and accepted will become due when the Work is fully completed and accepted.

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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, 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.

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 Laws or Regulations of any public body having jurisdiction;

3. Contractor's 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, 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 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

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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, 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, 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.

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 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 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.

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ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Owner and Contractor may mutually 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. 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 hall 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 their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

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*

A. 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*

A. 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.

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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.

ARTICLE 18 – FEDERAL REQUIREMENTS

18.01 *Agency Not a Party*

A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.

18.02 *Contract Approval*

A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before Owner submits the executed Contract Documents to Agency for approval.

B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

18.03 *Conflict of Interest*

A. Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.

B. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

18.04 *Gratuities*

A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.

B. In the event this Contract is terminated as provided in paragraph 18.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an

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amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

18.05 *Audit and Access to Records*

A. For all negotiated contracts and negotiated modifications (except those of $10,000 or less), Owner, Agency, the Comptroller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. Contractor shall maintain all required records for three years after final payment is made and all other pending matters are closed.

18.06 *Small, Minority and Women's Businesses*

A. If Contractor intends to let any subcontracts for a portion of the work, Contractor shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) Contractor is encouraged to procure goods and services from labor surplus area firms.

18.07 *Anti-Kickback*

A. Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

18.08 *Clean Air and Pollution Control Acts*

A. If this Contract exceeds $100,000, Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401 *et seq.*) and the Federal Water Pollution Control Act as amended (33 USC 1251 *et seq.*). Contractor will report violations to the Agency and the Regional Office of the EPA.

18.09 *State Energy Policy*

A. Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

18.10 *Equal Opportunity Requirements*

A. If this Contract exceeds $10,000, Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

B. Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment

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Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

18.11 *Restrictions on Lobbying*

A. Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed $100,000 at any tier under a Federal loan that exceeds $150,000 or a Federal grant that exceeds $100,000. If applicable, Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC 1352. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

18.12 *Environmental Requirements*

A. When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:

1. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.

2. Floodplains – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.

3. Historic Preservation – Any excavation by Contractor that uncovers an historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).

4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

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EXHIBIT GC-A

Certificate of Owner's Attorney

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows:

I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

_____

Date: _____

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NMDOT CONTRACT DOCUMENTS FOR CONSTRUCTION

New Mexico DEPARTMENT OF
TRANSPORTATION
MOBILITY FOR EVERYONE

PS&E Section
PO Box 1149
Santa Fe, NM 87504-1149

CONTRACT DOCUMENTS FOR THE CONSTRUCTION OF

CN/Project No.: CN F100180/ Project No F100180

County: San Juan

Termini: Replacement of Bridge 8105 on CR 7150

Replacement of Bridge No. 8105
carrying
San Juan County Road 7150 Over Gallegos Wash
NMDOT CN F100180
NMDOT – Notices to Contractors

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ADVERTISEMENT FOR BIDS
BID NO. 13-14-02
NMDOT CN F100180

Bidders are invited to submit sealed bids for the Replacement of Bridge No. 8105 carrying San Juan County Road 7150 over Gallegos Wash.

The nature of the work is bridge replacement, abutment protection and minor roadway approaches.

Bids to complete this work will be received by San Juan County, New Mexico, Office of Central Purchasing, at 213 South Oliver Drive, Aztec, New Mexico, 87410, until **3:00 p.m. (local time), March 13, 2014** at which time and place all bids will be publicly opened and tabulated. Bids received after 3:00 pm shall not be accepted.

The Bid and Contract Documents may be obtained on the San Juan County Website. When utilizing the County's website, please complete the Acknowledgement Form that is posted within the Project Manual so you can be listed as a Plan Holder, and will automatically receive addendums, if issued. You are reminded that you are solely responsible for checking the County's website for updates. **Please feel free to visit our Website, www.sjcounty.net, Under 'Quick Links', choose 'Current Bids/Proposals.' Hard copies of the project will NOT be provided.**

A **Pre-Bid Conference** will be held at **10:00 a.m., (local time) on February 26, 2014** at the Central Purchasing Office Conference Room, 213 South Oliver Drive, Aztec, NM, 87410. A tour of the project site will follow if requested by Contractors.

Attention is called to the fact that contract goals for this project have been assigned as follows: 3.0% Disadvantaged Enterprise (DBE) goal.

Bid Security in the amount of 5% of the total Bid shall accompany each Bid in accordance with instruction to bidders. All bidders shall hold their bids for Sixty (60) days after actual date of bid opening.

Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Bidding Documents must be paid on this project if the bid amount exceeds $60,000, and that the Contractor must insure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin. You are hereby advised that wherever differences exist between the minimum wage rate shown under Wage Decision of the New Department of Workforce Solutions- Public Works Bureau, Decision No. SJ-14-0042 A, and those shown under the U.S. Department of Labor Wage Decision No. NM140049 dated January 3, 2014, and any modifications thereto noted in the contract assembly, the higher wage rates shall govern. Bidders are reminded that all contractors and their subcontractors must submit certified weekly payroll records biweekly to San Juan County.

NOTICE OF REGISTRATION REQUIREMENT. Bidders are reminded that in order to be considered for bid award, all contractors (including their subcontractors if at a specific cost threshold) must be registered under the *Labor Enforcement Fund* with the

New Mexico Department of Workforce Solutions on the date bids are unconditionally accepted for consideration for bid award and must remain actively registered in order to perform work under this solicitation. The Contractor selected for award of a contract shall provide documentation to verify compliance with this paragraph prior to execution of a contract.

Bidders may obtain additional information on the requirements of the Labor Enforcement Fund program at www.dws.state.nm.us (Public Works - Public Works Projects – Additional Forms - Labor Enforcement Fund Form) or by calling (505) 841-4405.

The County reserves the right to reject any or all Bids and to waive informalities or irregularities in the Bidding.

LEGAL NOTICE: Publish: Sunday, February 16, 2014 Albuquerque Journal
Sunday, February 23, 2014
Sunday, March 2, 2014

ADVERTISEMENT FOR BIDS
BID NO. 13-14-02
NMDOT CN F100180

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Attention is called to the fact that contract goals for this project have been assigned as follows: 3.0% Disadvantaged Enterprise (DBE) goal.

Bid Security in the amount of 5% of the total Bid shall accompany each Bid in accordance with instruction to bidders. All bidders shall hold their bids for Sixty (60) days after actual date of bid opening.

Attention is called to the fact that not less than the minimum salaries and wages as set forth in the Bidding Documents must be paid on this project if the bid amount exceeds $60,000, and that the Contractor must insure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin. You are hereby advised that wherever differences exist between the minimum wage rate shown under Wage Decision of the New Department of Workforce Solutions- Public Works Bureau, Decision No. SJ-14-0042 A, and those shown under the U.S. Department of Labor Wage Decision No. NM140049 dated January 3, 2014, and any modifications thereto noted in the contract assembly, the higher wage rates shall govern. Bidders are reminded that all contractors and their subcontractors must submit certified weekly payroll records biweekly to San Juan County.

NOTICE OF REGISTRATION REQUIREMENT. Bidders are reminded that in order to be considered for bid award, all contractors (including their subcontractors if at a specific cost threshold) must be registered under the *Labor Enforcement Fund* with the New Mexico Department of Workforce Solutions on the date bids are unconditionally accepted for consideration for bid award and must remain actively registered in order to perform work under this solicitation. The Contractor selected for award of a contract shall provide documentation to verify compliance with this paragraph prior to execution of a contract.

Bidders may obtain additional information on the requirements of the Labor Enforcement Fund program at www.dws.state.nm.us (Public Works - Public Works Projects – Additional Forms - Labor Enforcement Fund Form) or by calling (505) 841-4405.

The County reserves the right to reject any or all Bids and to waive informalities or irregularities in the Bidding.

LEGAL NOTICE: Publish: Sunday, February 16, 2014 Farmington Daily Times
Sunday, February 23, 2014
Sunday, March 2, 2014

NOTICE TO CONTRACTORS
CN F100180

August 15, 2013

COORDINATION OF UTILITY RELOCATIONS / INSTALLATIONS

WORK DESCRIPTION

The Highway / Bridge Contractor's work shall include coordination efforts with respective utility owners, including identifying and allocating schedule time required for utility facilities located within the project limits to be relocated by utility owners. This Notice to Contractor does not change the requirements as outlined in the Standard Specifications for Highway and Bridge Construction regarding utilities.

CONSTRUCTION REQUIREMENTS

The following utility facilities will be relocated or installed by utility owners concurrent with highway construction and will require close coordination between the utility's operations and the Highway Contractor's operations. The Highway Contractor shall make the necessary arrangements with the utility owner(s), and shall submit a schedule of highway work to be accomplished. This shall be officially acknowledged and verified by a representative of the utility owner, and a copy provided to the County's Project Manager. The schedule of work shall provide not less than the number of calendar days listed below for the utility owner to complete their work. The utility owner will provide construction staking and layout for the utility relocations and/or installations. After the staking and layout have been completed, and specific work areas are made available to the utility, the utility facility will be relocated within the listed calendar days.

OTHER REQUIREMENTS

Utilities shown on the highway project plans, which will not be relocated, shall require the Highway Contractor to take the necessary precautions to protect the utility from damage caused by highway construction operations. If any such utility is damaged, the Highway Contractor shall bear the cost of repair to the satisfaction of the utility owner. This applies specifically to the underground communications line crossing the roadway at approximately Sta. 112+15+/-.

Utility facilities known to be within the project limits, their work locations and schedule for relocation and/or installation are listed in the table below.

UTILITY OWNERS & RELOCATION / INSTALLATION SCHEDULES

UTILITY OWNER	CONTACT & TELEPHONE NO.	UTILITY WORK BY	WORK LOCATION	START DATE & CALENDAR DAYS
Sacred Wind Communications	Mr. Lynell Widner Telephone: 505-905-6077 Cell: 505-870-5109 E-mail: lwidner@sacred-wind.com	**Sacred Wind Communication**	Subsurface—Sta. 101+ to Sta. 107+ right. Aerial (interim during construction)— Sta. 107+ to Sta. 111+ right Bridge 2" Diam. Steel Conduit (Final)—Sta. 107+89 to Sta. 111+45, 18' right	Engineering, installation and relocation work of facilities will be accomplished concurrent with construction. Schedule and exact time frames of work will be coordinated with contractor at pre-construction meeting. Work will take approximately 21 days.

NOTICE TO CONTRACTORS

CN ESG4034 / AC-GRIP-(NH)-064-9(36)375
May 27, 2009

Monthly Asphalt Binder Price Adjustment Procedures

An adjustment will be made to the original Contract for asphalt binder if the industry monthly price index of asphalt binder fluctuates. Adjustment is not optional.

Items subject to adjustment are: Asphalt Binder (in HMA Complete and OGFC Complete)

Submit applicable mix designs, including percentage of asphalt binder, for inclusion in the price adjustment for the pay item listed above in the Contract.

For **increasing prices** (The monthly adjustment shall apply on those contracts whose monthly fluctuations have a (B / C) ratio greater than 1.1). Use Equation (1).

Equation (1): $A = (B - (1.1 \times C)) \times D$

For **decreasing prices** (The monthly adjustment shall apply on those contracts whose monthly fluctuations have a (B / C) ratio less than 0.9). Use Equation (2).

Equation (2): $A = (B - (0.9 \times C)) \times D$

Where:

A – Monthly adjustment to the Contract for asphalt binder

B – Average monthly price index per ton of asphalt binder (based on the published NM index price corresponding to the month the binder was actually placed on a project).

C – Base Price Index (average selling price per ton of asphalt binder at time of bid opening based on the published NM index price).

D – Tons of asphalt binder placed for the subject month.

Monthly Adjustment: The asphalt binder tonnage shall have an adjustment determined above by either Equations (1) or (2), as appropriate. All adjustments shall be based on the average monthly price index per ton of asphalt binder corresponding to the date (month) the binder was actually placed on a project.

For the purposes of making these calculations, the Department's State Materials Bureau will maintain a database of monthly price indexes. This index will be based on the average of the major suppliers in New Mexico. This index will be maintained by the NMDOT and published on the NMDOT Plan, Specifications & Estimates (PS&E) Bureau website. The published monthly base price index will be calculated using the following formula:

Price Index = Average of the reported average weekly selling prices using the last four reported weeks on or prior to the last day of a given month as published by the New Mexico price index.

A twenty-four month (24) month running summary of the published monthly price index will be sent, by Department e-mail, to each District Engineer, Assistant District Engineer, State Construction Bureau, the Albuquerque office of the Associated Contractors of New Mexico for distribution to their members, and other interested parties at the beginning of each week.

Quarterly Departmental (Internal) Validation Process

The Department internally will validate its price index on a quarterly basis against published regional market indices and trends. The Department will use the average weekly selling price for the Rocky Mountain region, as reported by the "Asphalt Weekly Monitor©," published by Poten and Partners, Inc., New York, New York for this validation process. The Department will adjust its index and/or revert to the information published by Poten and Partners, Inc to ensure the indexed price for asphalt binder represents the New Mexico market as accurately as possible.

NOTICE TO CONTRACTORS

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM
RACE-CONSCIOUS MEASURES
FORM No. A-644
July 21, 2010

CN F100180

This Project is subject to race-conscious measures. The established DBE Goal for this project is 3.0 %.

Within five (5) working days after the bid opening, ALL BIDDERS shall submit written confirmation from each DBE listed on their Form A-585, DBE A-1 that it is participating in the contract. All Bidders shall provide the required information as indicated on Form No. A-644.

These forms shall be submitted to Office of Equal Opportunity Programs (OEOP) located at Aspen Plaza, 1596 Pacheco Street, Suite 107, Santa Fe NM, 87505. OEOP can be contacted at Telephone No. 1-800.544.0936 or 505.827.1774 and FAX No. 505.827.1779. Forms will be accepted until 4:00 PM within five (5) working days after the bid opening.

FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL RENDER A BID NON-RESPONSIVE AND THE BID SHALL BE REJECTED.

Form No. A-644
Rev 7.21.2010

New Mexico Department of Transportation

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

Control No. F100180

DBE Name & Address	Line #	Item Description	Amount
		Total:	

*IF ANY FIRM LISTED ABOVE IS A MATERIAL SUPPLIER, BUT NOT THE MANUFACTURER, THE CONTRACTOR MAY CREDIT ONLY 60% OF THE EXPENDITURE TO THE SUPPLIER, FOR FINAL PAYMENT. THE PRIME CONTRACTOR MAY CERTIFY THAT FINAL PAYMENT WILL BE MADE TO DBE UPON HIS RECEIPT OF PAYMENT.

I affirm that I am an authorized representative of _____, hereinafter "DBE Firm".
Name of DBE Firm

_____
Signature of Authorized DBE Representative

_____
Printed Name of Authorized DBE Representative

Further, I affirm my participation in the contract for _____.
Name of Contractor

Subscribed and sworn to before me this _____ day of _____, 20_____.

Notary Seal

_____
Notary Public

My Commission expires: _____

SELECTED DBE (DBE) PROGRAM PROVISIONS
DISADVANTAGED BUSINESS PARTICIPATION IN USDOT ASSISTED CONTRACTS

June 11, 2009

Objective:

The purpose of the DBE Program is to implement the provisions of 49 CFR Part 26, other pertinent regulations, and source legislation. The objectives are: (a) To ensure nondiscrimination in the award and administration of USDOT assisted contracts in the USDOT's highway, transit, and airport financial assistance programs; (b) To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts; (c) To ensure that USDOT's DBE program is narrowly tailored in accordance with applicable law; (d) To ensure that only firms that fully meet the eligibility standards specified in 49 CFR Part 26 are permitted to participate as DBEs; (e) To help remove barriers to the participation of DBEs in USDOT-assisted contracts; (f) To assist the development of firms that can compete successfully in the marketplace outside the DBE program; and (g) To provide appropriate flexibility to recipients of Federal financial assistance in establishing and providing opportunities for DBEs; and (h) to comply with the New Mexico Procurement Code §13-1-28 through §13-1-199, NMSA 1978, as amended, and any applicable regulations thereto.

The New Mexico Department of Transportation (NMDOT) will strive to meet the annual State Goal for DBE participation in federal-aid construction and consultant design programs and activities in New Mexico. The long-range objective of the Department will be to establish a level playing field for DBE contractors to compete for federally assisted highway construction projects as prime contractors, subcontractors, design consultants, and other consultants. It is the intent of the NMDOT to provide opportunities to DBE firms so they can in time graduate from the DBE Program and perform as prime contractors and subcontractors without DBE Program assistance.

Statutory Aut: ·ity:

The following is a brief history of the Regulations, which implement the DBE Program.

USDOT Regulations (49 CFR Part 23 and 26) published in the Federal Register, Volume 45, No.63 dated March 31, 1980 established a requirement that all recipients of Federal-Aid highway program funds establish a Minority Business Enterprise (MBE) Program. The regulations were applicable both to Federal-Aid construction and to its non-construction activities. USDOT published further regulations in the Federal Register, Volume 48, No. 141 on July 21, 1983. This regulation implemented Section 105(f) of the Surface Transportation Assistance Act (STAA) of 1982, which provided that not less than a fixed percentage of the amounts authorized to be appropriated under the Act should be expended with small business concerns owned and controlled by socially and economically disadvantaged individuals. USDOT published regulations in the Federal Register, Volume 52, No. 203 on October 21, 1987 implementing Section 106(c) of the Surface Transportation and Uniform Relocation Assistance Act (STURAA) of 1987.

As a result of the decision by the United States Supreme Court in Adarand Constructors Inc. v. Pena, 513 U.S. 1108, 115 S.Ct. 896, 103 L.Ed.2d 781 (1995), and its progeny in federal district courts across the country, USDOT promulgated new regulations to meet the strict scrutiny test

for affirmative action programs announced in Adarand. These new regulations, 49 CFR Part 26, which were published in the Federal Register, February 2, 1999, 64 Fed. Reg. 5095 repeal the former regulations found at 49 CFR Part 23. These regulations are effective March 4, 1999, and require each primary recipient of specified federal-aid, including NMDOT, to develop and implement a DBE Program consistent with Part 26 by September, 1999, as a condition to receiving federal-aid funding. The regulations observe a national aspirational goal of 10% DBE participation in federal-aid public works construction; require primary recipients to establish yearly overall goals based on local availability of DBEs ready, willing and able to participate in public works construction; require primary recipients to use race-neutral means to achieve annual DBE participation goals, and mandate size limits on certified DBEs.

USDOT's legal authority for 49 CFR Part 23 (as amended) and Part 26, includes sundry Executive Orders, 23 U.S.C. 324,42 U.S.C. 2000d et seq., and 49 U.S.C. 1615, 47107, 47113, and 47123.

Policy Statement:

It is the policy of the New Mexico Department of Transportation on, acting through the NMDOT's OEOP, to encourage and support the DBE Program and its objectives to the maximum extent possible. This rule will be circulated throughout the NMDOT, Construction Organizations, DBE and non-DBE business communities that perform work with the NMDOT and other interested parties.

The NMDOT and all recipients of USDOT-assisted contracts will not discriminate on the basis of race, color, national origin or sex in the award and performance of any USDOT-assisted contract or in the administration of its DBE Program or the requirements of 49 CFR Part 26. The NMDOT and all recipients will further ensure that the NMDOT and/or all recipients of USDOT-assisted contracts will not discriminate in the development, implementation and administration of the DBE Program. Implementation of the DBE Program by the NMDOT is a legal obligation and failure to carry out its terms will be treated as a violation whereby sanctions may be imposed as provided for under 49 CFR Part 26. The DBE Program is accorded the same priority as compliance with all other legal obligations incurred by the NMDOT in its financial assistance agreements with USDOT.

No person will be excluded from participation in or denied the benefits of, or otherwise discriminated against in connection with the award and performance of any contract covered by this DBE Program or 49 CFR Part 26 on the basis of race, color, sex or national origin.

In administering the DBE Program, the NMDOT will not use criteria or methods that would have the effect of defeating or substantially impairing accomplishment of the objectives of the program with respect to individuals of a particular race, color, sex or national origin.

From time to time NMDOT will receive interpretations from USDOT, which will be binding on NMDOT, sub-recipients, and contractors.

Definitions:

AFFILIATION - has the same meaning the term has in the Small Business Administration (SBA) regulations, 13 CFR part 121, except as otherwise provided in 13 CFR part 121, concerns are affiliates of each other when either directly or indirectly one concern controls or has the power to control the other; or a third party or parties controls or has the power to control both; or an identity of interest between or among parties exists that affiliation may be found.

In determining whether affiliations exist, it is necessary to consider all appropriate factors, including common ownership, common management, and contractual relationships. Affiliates must be considered together in determining whether a concern meets small business size criteria and statutory cap on the participation of firms in the DBE program.

ALASKA NATIVE - a citizen of the United states who is a person of one fourth (1/4) degree or more Alaskan Indian (including Tsimshian Indians not enrolled in the Metlaktla Indian Community), Eskimo, or Aleut blood, or a combination of those bloodlines. The term includes, in the absence of proof of a minimum blood quantum, any citizen whom a Native village or Native group regards as an Alaska Native if their father or mother is regarded as an Alaska Native.

ALASKA NATIVE CORPORATION (ANC) - any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the state of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, et seq.).

COMMERCIALY USEFUL FUNCTION (CUF) - means that a DBE is responsible for execution of a distinct element of the work of a contract or subcontract and carries out its responsibilities by actually performing, managing and supervising the work involved, or provides professional services.

COMPLIANCE - means that a recipient has correctly implemented the requirements of this part.

CONTRACT - means a legally binding relationship obligating a seller to furnish supplies or services (including, but not limited to, construction and professional services) and the buyer to pay for them.

CONTRACT GOAL - means the percentage of DBE participation established by NMDOT, if required, for a USDOT- Assisted Contract.

CONTRACTOR - means one who participates, through a contract or subcontract (at any tier), in a USDOT-assisted highway, transit, or airport program.

DEPARTMENT - means the U.S. Department of Transportation, including the Office of the Secretary, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA).

DESIGN AND BUILD PROJECT DELIVERY SYSTEM - means a procurement process by which a using agency contracts with one firm who has responsibility for the design, construction and delivery of a project under a single contract with the using agency.

DESIGN CONSULTANT (OR OTHER CONSULTANTS) - means an individual, firm or

partnership that contracts with the NMDOT to provide services for engineering, surveying, environmental, hazardous materials, subsurface utility engineering, and other services which require a rigorous, logical, science based approach for data acquisition to be used in the development of NMDOT highway construction plans. Other consultants include providers of any other professional services funded with FHWA monies and FTA and FAA grant recipients receiving $250,000 or more in aggregate.

DISADVANTAGED BUSINESS ENTERPRISE OR DBE - means a for-profit small business concern that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and whose management and daily business operation are controlled by one or more of the socially and economically disadvantaged individuals who own it.

GOOD FAITH EFFORTS (GFE) - means efforts to achieve a DBE goal or other requirement of the DBE Program which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirements.

IMMEDIATE FAMILY MEMBER - means father, mother, husband, wife, son, daughter, brother, sister, grandmother, grandfather, grandson, granddaughter, mother-in-law or father-in-law.

INDIAN TRIBE - means any Indian tribe, band, nation, or other organized group or community of Indians, including any ANC, recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians, or are recognized as such by the state in which the tribe, band, nation, group, or community resides.

JOINT VENTURE - means an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.

LOSP - Liaison Outreach and Services Program - means a contractor who enters into Cooperative Agreements with chambers of commerce and trade associations to provide liaison services between the USDOT, its grantees, recipients, contractors, subcontractors and minority-owned and disadvantaged business enterprises.

NAICS - North American Industrial Classification System - replaces the Standard Industrial Classification Code (SIC) designation which best describes the primary business of a firm.

NATIVE HAWAIIAN - means any individual whose ancestors were natives, prior to 1778, of the area which now comprises the state of Hawaii.

NATIVE HAWAIIAN ORGANIZATION - means any community service organization serving Native Hawaiians in the state of Hawaii which is a not-for-profit organization chartered by the state of Hawaii, is controlled by Native Hawaiians, and whose business activities will principally benefit such Native Hawaiians.

NMDOT - means New Mexico Department of Transportation .

NONCOMPLIANCE - means that a recipient has not correctly implemented the requirements of 49 CFR Part 26.

OEOP - means Office of Equal Opportunity Programs.

OPERATING ADMINISTRATION (OA) - means any of the following parts of USDOT: the Federal Aviation Administration (FAA), Federal Highway Administration (FHWA), The Federal Transit Administration (FTA). The "Administrator" of any OA includes his or her designees.

OVER-CONCENTRATION - means a condition in which DBE firms are being utilized in certain types of work to the extent that non-DBEs are unduly burdened from participating in this same type of work.

PERSONAL NET WORTH - means the net value of the assets of an individual remaining after total liabilities are deducted. An individual's personal net worth does not include the individual's ownership interest in an applicant or participating DBE firm; or the individual's equity in his or her primary place of residence. An individual's personal net worth includes only his or her own share of assets held jointly or as community property with the individual's spouse.

PRIMARY INDUSTRY CLASSIFICATION - means the six digit NAICS designation which best describes the primary business of a firm. The NAICS code designations are described in the North American Industry Classification Manual.

PRIMARY RECIPIENT - means a recipient to which USDOT financial assistance is given and passes some or all of it on to another recipient

PRINCIPAL PLACE OF BUSINESS - means the business location where the individuals who manage the firm's day-to-day operations spend most working hours and where top management's business records are kept. If the offices from which management is directed and where business records are kept are in different locations, the recipient will determine the principal place of business for DBE program purposes.

PROCUREMENT CODE - means §13-1-28 through §13-1-199, NMSA 1978, as amended and any applicable regulations thereto.

PROCUREMENT CODE REGULATIONS - means 1 NMAC 5.2, as amended.

PROFESSIONAL SERVICES - means the services of architects, archeologists, engineers, surveyors, landscape architects, medical arts practitioners, scientists, management and systems analysts, certified public accountants, registered public accountants, lawyers, psychologists, planners, researchers, construction managers and other persons or businesses providing similar professional services, which may be designated as such by a determination issued by the state purchasing agent or a central purchasing office.

PROGRAM - means any undertaking on a recipient's part to use USDOT financial assistance, authorized by the laws to which this part applies.

PROPOSAL - means an offer compiled and developed by an offeror in response to a Request for Proposal.

RACE-CONSCIOUS MEASURE - means a program that is focused specifically on assisting

only DBEs, including women-owned DBEs.

RACE-NEUTRAL MEASURE - means a program that is, or can be, used to assist all small businesses. For purposes of this part, race-neutral includes gender-neutrality.

READY, WILLING AND ABLE - means, for the purpose of setting annual DBE goals, in the context of a DBE or non-DBE business, that it has the necessary license to perform work on USDOT-assisted contracts in its home state, is not currently suspended or debarred, and has demonstrated its interest in performing work on USDOT-assisted contracts by submitting a bid, proposal, or quotation as a prospective prime contractor, subcontractor, supplier, trucker, consultant, or other relevant business entity, on a New Mexico USDOT-assisted contract within the current or two (2) previous federal fiscal years, or such shorter duration as established by the NMDOT.

RECIPIENT - means any entity, public or private, to which USDOT financial assistance is extended, whether directly or through another recipient, through the programs of the FAA, FHWA or FTA or who has applied for such assistance.

REGULAR DEALER - means a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealer's own distribution equipment will be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis. Packagers, brokers, manufacturer's representatives, or other persons who arrange or expedite transactions are not regular dealers.

REQUEST FOR PROPOSALS (RFP) - means all documents, including those attached or incorporated by reference, used for soliciting proposals.

RESPONSIBLE BIDDER - means a bidder who submits a responsive bid and who has furnished, when required, information and data to prove that his financial resources, production or service facilities, personnel, service reputation and experience are adequate to make satisfactory delivery of the services, construction or items of tangible personal property described in the invitation for bids.

RESPONSIBLE OFFEROR - means an offeror who submits a responsive proposal and who has furnished, when required, information arid data to prove that his financial resources, production or service facilities, personnel, service reputation and experience are adequate to make satisfactory delivery of the services or items of tangible personal property described in the proposal.

RESPONSIVE BID - means a bid which conforms in all material respects to the requirements set forth in the invitation forbids. Material respects of a bid include but are not limited to price, quality, quantity or delivery requirements

RESPONSIVE OFFER - means an offer which conforms in all material respects to the requirements set forth in the request for proposals. Material respects of a request for a proposal include, but are not limited to, price quality, quantity, or delivery requirements.

SECRETARY - means the Secretary of the U.S. Department of Transportation or designee.

SERVICES - means the furnishing of labor, time or effort by a contractor not involving the delivery of a specific end product other than reports and other materials which are merely incidental to the required performance. "Services" includes the furnishing of insurance but does not include construction or the services of employees of a state agency or a local public body.

SET-ASIDE - means a contracting practice restricting eligibility for the competitive award of a contract solely to DBE firms.

SMALL BUSINESS ADMINISTRATION (SBA) - means the United States Small Business Administration.

SMALL BUSINESS CONCERN - means with respect to firms seeking to participate as DBEs in USDOT-assisted contracts, a small business concern as defined pursuant to section 3 of the Small Business Act and Small Business Administration Regulations implementing it (13 CFR Part 121) that also does not exceed the cap on average annual gross receipts specified in 49 CFR Part 26.65(b).

SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUAL - means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is –

An individual whom the NMDOT finds to be a socially and economically disadvantaged individual on a case-by-case basis.

Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged;

(a) "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;

(b) "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

(c) "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

(d) "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;

(e) "Subcontinent Asian Americans," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives islands, Nepal or Sri Lanka;

(f) Women; and

(g) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

SOFTWARE-The entire set of programs, procedures, and related documentation associated with a computer programs used for the purpose of reporting Contract/Labor compliance and diversity (DBE related data) information as designated by the Office of Equal Opportunity Programs (OEOP).

STATE GOAL - means the percentage of DBE participation in New Mexico USDOT Assisted contracts that the NMDOT expects absent the effects of discrimination. The NMDOT sets the state goal annually

TRIBALLY OWNED CONCERN - means any concern at least 51 percent owned by an Indian tribe as defined in this section.

UNIFIED CERTIFICATION PROGRAM (UCP) - means an entity that provides a one-stop shopping service to applicants seeking DBE certification. The entity must comply with all provisions of this rule concerning certification and nondiscrimination.

USDOT - means U.S. Department of Transportation.

USDOT-ASSISTED CONTRACT - means any contract between a recipient and a contractor (at any tier) funded in whole or in part with USDOT financial assistance, including letters of credit or loan guarantees, except a contract solely for the purchase of land.

Pre-Bid:

Pre-bid services and Requests for Proposals, to inform the certified Disadvantaged Business Enterprises of contract opportunities will include, but not be limited to, the following:

All certified DBE's will be placed on the NMDOT's regular and/or electronic mailing list to receive Invitations for Bid, Plan Holders List, Requests or Proposals and other NMDOT procurement mailings.

Plans, Specifications, and Invitations for Bid will be available for inspection by certified DBE firms at the OEOP and the PSE Bureau of the NMDOT.

Requests for Proposals (RFP's) will be available for inspection by certified DBE firms at the OEOP and the Contracts Unit of the NMDOT.

Award of Contract Procedures:

The NMDOT Award of Contract Procedures will include, but not be limited to, the following:

The NMDOT will include appropriate DBE contract provisions, or summaries thereof, in the Plans, Specifications, Invitations for Bids, and Requests for Proposals and Contract Proposals for all Federal-Aid contracts. Selected DBE - Program Provisions - DBE Participation in USDOT-Assisted Contracts will be included in appropriate contracts.

For all projects using race-neutral measures, the following DBE forms, as appropriate, are required to be submitted for award of contract:

(a) The Participating Contractor's and Consultant's Annual Profile Registration Form A-1012 is to be submitted to the OEOP annually

(b) The Notice to Construction Contractors Bidder's List of Quoters for the DBE Program BL-DBE is to be submitted by all construction bidders with the contract bid at the time of the bid letting

(c) The Design and Other Consultant Offeror's List- Form A-1013- is to be submitted by all consultants at the time of the proposal submittal

(d) A fully executed Certification of Consultant or Offeror for DBE Annual State Goal Form A-1014 is to be submitted at the time a proposal is submitted

In the event projects use race-conscious measures, the following DBE forms, as appropriate, are required to be submitted for award of contract:

(a) The Participating Contractor's and Consultant's Annual Profile Registration-Form A-1012- is to be submitted to the OEOP annually.

(b) The Notice to Construction Contractors Bidder's List of Quoters for the DBE Program BL-DBE- is to be submitted by all construction bidders with contract bid at the lime of the bid letting.

(c) The Design and Other Consultant Offeror's List Form A-1013 is to be submitted at the time the proposal is submittal.

(d) A fully executed Certification of Consultant or Offeror for DBE Annual State Goal Form A-1014 is to be submitted at the time a proposal is submitted.

(e) For construction projects, the apparent low bidder will complete and sign Form A-585A-DBE A-1 at the time of the Bid Opening. All listed DBE firm(s) must be certified by the NMDOT prior to submission of Form A-585DBE A-1.

(1) The construction contract will be awarded to the lowest qualified and responsible bidder who gives written assurance to meet the established DBE contract goal or who can satisfactorily demonstrate good faith efforts why it cannot do so. Failure to meet the goal or demonstrate good faith efforts will render the bid non-responsive.

(f) For design or other consultant proposals, all responsible offerors will complete and sign Form A-585B-DBE A-2 (Appendix L) and include it with other required documents of the offeror's "Proposal Package" upon successful negotiations for consulting services. All offeror's written assurance will be considered binding.

(1) The design or other consultant contract will be awarded to the best qualified and responsible offeror who gives this written assurance to meet the established DBE contract goal or who can satisfactorily demonstrate good faith efforts why it cannot do so. Failure to meet the goal or demonstrate good faith efforts will

render the consultants proposal non-responsive.

(2) The design consultant and other consultants will be selected in accordance with the requirements of NMSA 1978, § 13-1-115 and NMSA 13-1-120.

(g) The information required by Form A-585 DBE A-1 and form A-585B DBE A-2 must be complete and accurate in every detail and in final form at the time it is submitted to the NMDOT for approval. This form will be evaluated prior to the award of the contract. Failure to submit either document in proper form and accuracy will render the bid or proposal non-responsive. All bidders or offerors are required to list on Form A-585 DBE A-1 or Form A-585B-DBE A-2, the following information:

(1) The names of DBE subcontractors/subconsultants and suppliers that will participate in the contract;

(2) A description of the work that each DBE will perform;

(3) The dollar amount of the participation of each DBE firm listed; and

(4) Written documentation of the bidder's or offeror's commitment to use a DBE subcontractor/subconsultant/supplier whose participation it submits to meet the DBE contract goal;

(5) If the contract goal is not met, evidence of good faith efforts must be documented and submitted with appropriate Form A-585- DBE A-1 or Form A-585B A-2.

Good Faith Efforts (GFEs):

Good Faith Efforts. When race conscious measures are used and a project goal is established NMDOT will consider the quality, quantity, and intensity of the different kinds of efforts that the contractor or bidder or offeror has made. The efforts employed by the contractor or bidder or offeror should be those that one could reasonably expect a contractor or a bidder or offeror to make if they were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. On the other hand, NMDOT will count bona fide good faith effort making a determination to award a contract.

The following is a list of types of actions, which the NMDOT will consider as part of the bidder's or offeror's good faith efforts to obtain DBE participation. This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive, as other factors or types of efforts may be relevant in appropriate cases. This demonstration should include, but not be limited to, the following:

(a) Soliciting through all reasonable and available means (e.g. attendance at pre-bid, pre-proposal meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract The bidder or offeror must solicit this interest within sufficient time to allow DBEs to respond to the solicitation. The bidder or offeror must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

(b) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor or prime consultant might otherwise prefer to perform these work items with its own forces.

(c) Providing interested DBEs with adequate information about the construction plans, construction specifications, design scope of work and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(d) Negotiating in good faith with interested DBEs. It is the bidder's or offerors's responsibility to make a portion of the work available to DBE subcontractors, subconsultants and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors, subconsultants and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses and telephone numbers of DBEs that were considered, a description of the information provided regarding the construction plans and specifications for the work selected for subcontracting or requirements and design scope of work of the RFP and subconsulting; and evidence as to why additional agreements could not be reached for DBEs to perform the work. A bidder or offeror using good business judgment would consider a number of factors in negotiating with subcontractors including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's or offerors's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of the prime contractor or consultant to perform the work of a contract with its own organization does not relieve the bidder or offeror of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable. Excessive or unreasonable will be deemed 10% or more than any bid received for that item of work by a non DBE. Prime consultants will evaluate subconsultants on quality of submittal of subconsultant services. Prime consultants are not required to accept subconsultants offers of lower quality with respect to other subcounsultants offers.

(e) Prime contractors and consultants will not reject DBEs as being unqualified without sound reasons which will be based on a thorough investigation of their capabilities. The contractor's or consultant's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids or proposals in the contractor's or design consultant's efforts to meet the project goal.

(f) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient, contractor or consultant.

(g) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

(h) Effectively using the services of available minority/women community organizations; minority/women contractor's groups; local, state, and Federal minority/women business

assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

In determining whether a bidder or offeror has made good faith efforts, the NMDOT may take into account the performance of other bidders or offerors in meeting the contract. For example, when the apparent successful bidder or offeror fails to meet the contract goal, but others meet it, the NMDOT may reasonably raise the question of whether with additional reasonable efforts; the apparent successful bidder or offeror could have met the goal. If the apparent successful bidder or offeror fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders or offerors, the NMDOT may view this, in conjunction with other factors, as evidence of the apparent successful bidder or offeror having made good faith efforts.

If the NMDOT determines that the contractor or bidder or offeror has failed to meet the requirements outlined in paragraph 20.3.1, the NMDOT will, provide the contractor or bidder or offeror the opportunity for administrative reconsideration before awarding the contract or proposal. As part of this reconsideration, the following guidelines apply:

(a) The contractor or bidder or offeror will have the opportunity to provide written documentation or argument concerning the issue of whether the bidder or offeror met the DBE contract goal or made adequate good faith efforts to do so.

(b) The NMDOT's decision on reconsideration will be made by an official who did not take part in the original determination that the bidder or offeror failed to meet the DBE contract goal or make adequate good faith efforts to do so.

(c) The contractor or bidder or offeror will have the opportunity to meet in person with the NMDOT's reconsideration official to discuss the issue of whether it met the DBE contract goal or made adequate good faith efforts to do so.

(d) The NMDOT will send a written decision on the reconsideration, explaining the basis for finding that the contractor or bidder or offeror did or did not meet the DBE contract goal or make adequate good faith efforts to do so.

(e) The result of this reconsideration process is not administratively appealable to the USDOT.

If the NMDOT lets a master contract for "design-build" or "turnkey" contract or similar legally binding instrument, to a contractor or consultant, who in turn lets subsequent subcontracts for the work of the project, the NMDOT may establish a DBE contract goal for the project. The master contractor or consultant then establishes DBE contract goals, as appropriate, for the subcontracts it lets. The NMDOT will maintain oversight of the master contractor's or consultant's activities to ensure that they are conducted consistent with the requirements of the NMDOT's DBE Program and 49 CFR Parts 23 (as amended) and 26.

The NMDOT requires that the successful bidder or offeror, or subsequently the prime contractor or consultant, not terminate for convenience a DBE subcontractor or subconsultant listed in Form A-585A DBE A-1, or A-585B DBE A-2 or an approved substitute DBE firm, and then perform the work of the terminated subcontract with its own forces or those of an affiliate, without the NMDOT's prior written consent See the Termination / Substitution / Replacement of Listed DBE Firms for projects having Race conscious Measures in paragraph 27 of this

program.

(a) When a DBE subcontractor or subconsultant is terminated, or fails to complete its work on the contract for any reason, the NMDOT will require the prime contractor to make good faith efforts to find another DBE subcontractor or subconsultant to substitute for the original DBE. These good faith efforts will be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal established.

(b) The NMDOT will apply the requirements of this section to DBE contractors or bidders or offerors for prime contracts. In determining whether a DBE contractor or bidder or offeror for a prime contract has met a contract goal, NMDOT will count the work the DBE has committed to performing with its own forces as well as the work that it has committed to be performed by DBE subcontractors and DBE suppliers.

Counting DBE Participation Toward Goals:

When a DBE participates in a contract, only the value of the work actually performed by the DBE will be credited towards DBE project goals.

The entire amount of the portion of a construction contract or design or other consultant contract that is performed by the DBE's own forces will be credited. Included are the cost of supplies and materials obtained by the DBE for the work of the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor or subconsultant purchases or leases from the prime contractor or its affiliate).

Credit will be allowed for the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract. Credit will be allowed for fees considered reasonable and not excessive as compared with fees customarily allowed for similar services.

When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted only if the DBEs subcontractor or subconsultant is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward meeting the DBE project goal.

When a DBE performs as a participant in a joint venture, credit for a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces will be allowed.

Credit to a DBE contractor will be allowed only if the DBE is performing a commercially useful function on the contract.

A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful

function, an evaluation will be made of the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work and other relevant factors.

A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, an examination of similar transactions, particularly those in which DBEs do not participate will be performed.

If a DBE construction contractor does not perform or exercise responsibility for at least the percentage determined in the NMDOT's Standard Specifications for Highway and Bridge Construction of the total cost of its contract with its own forces, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that the DBE is not performing a commercially useful function.

If a DBE design consultant or other consultant does not perform or exercise responsibility for at least 30% of the total cost of it's contract with its own forces, or the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that the DBE is not performing a commercially useful function.

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. It may be determined that the firm is performing a commercially useful function given the type of work involved and normal industry practices.

Decisions concerning commercially useful function matters are not administratively appealable to USDOT.

To determine whether a DBE trucking firm is performing a commercially useful function, the NMDOT will evaluate the amount of work subcontracted, industry practices and other relevant factors.

The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of counting DBE participation.

The DBE must itself own and operate at least one fully licensed, insured and operational truck used on the contract The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures and operates using drivers it employs.

The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives

as a result of the lease arrangement. The DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE.

A lease arrangement or agreement will indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks will display the name and identification number of the DBE.

Prior to beginning work on a contract, the DBE must submit valid lease agreements to the NMDOT on leased trucks and written agreements with owner/operators. Whether the agreement is with an owner/operator or trucks hired from a trucking firm, the agreement must include the:

(a) Operator's Name;

(b) Social Security number;

(c) Federal Identification Number (FIN);

(d) Cab Card Number of the Truck;

(e) Description of the Truck and the Method of Payment

Credit for DBE Truck Owner/Operators:

An Owner/Operator must own one (1) fully operational truck and operate it himself/herself for hire. The individual must possess a Commercial Driver's License and the truck must have a warrant certificate to run for hire. If required, the firm must have the appropriate operating license and insurance. The individual must be an independent owner/operator and cannot be in an employee/employer relationship with a prime contractor.

Owner/Operator trucks may be utilized by the prime contractor to meet a DBE goal and must be covered by a fully executed written agreement.

For each owner/operator to be credited, the contractor or subcontractor must submit to the NMDOT an agreement that includes or has attached the following information:

(a) Operator or Owner/operator's name;

(b) Social Security Number;

(c) Copy of Vehicle registration receipts;

(d) Current Vehicle license numbers;

(e) Truck Numbers;

(f) Method of payment (hour, ton, load).

The prime contractor may count towards its DBE participation; the total dollar value paid to an owner/operator for the haul. Payments to owner/operators must be certified to by the prime contractor prior to finalizing the project or as work progresses, as required by the NMDOT. If required, the owner/operators must be shown on the prime contractor's certified payroll.

Termination/Substitution/Replacement of DBE Firms for Projects Having Race-Conscious Measures:

The NMDOT requires that the prime contractor or consultant not terminate for convenience a DBE subcontractor or subconsultant or an approved substitute DBE firm, and then perform the work of the terminated subcontract with its own forces or those of an affiliate, without a justification letter written to the NMDOT.

If a DBE subcontractor or subconsultant is terminated, or the DBE firm fails to complete its work on the contract for any reason, the NMDOT requires the prime contractor or consultant to make good faith efforts to find another certified DBE subcontractor or subconsultant to substitute for the original DBE firm. These good faith efforts will be documented and directed at finding another certified DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to count DBE participation.

If a DBE subcontractor or subconsultant is unwilling or unable to perform the work to meet the established goal for the prime contractor or consultant, the prime contractor or consultant will immediately notify the NMDOT's appropriate project manager in writing, and request to be relieved of meeting the established goal with the named DBE. The prime contractor or consultant Department will include with this request a justification and the efforts made to deal with the named DBE.

If the prime contractor's or consultant's request to be relieved is approved by the NMDOT, and a DBE contract goal shortfall exists, the prime contractor or consultant will immediately attempt to obtain sufficient DBE participation by subcontracting or subconsulting with other certified DBEs.

If the prime contractor or consultant is unable to replace the DBE with another or other certified DBE firms, the prime contractor or consultant will evaluate the remaining items of work and will document and submit the good faith efforts made to subcontract or subconsultant work with certified DBEs or to purchase materials or supplies from certified DBE suppliers for such remaining items. The NMDOT may allow a DBE contract goal waiver, adjust the DBE goal in accordance submitted and accepted good faith efforts, or assess construction contract liquidated damages or design contract liquidated damages as may be appropriate, depending on the individual project's overall circumstances.

Prompt Payment Mechanism to Subcontractors:

To ensure that all obligations under contracts awarded to DBEs are met, the NMDOT will review the construction contractor's or design consultant's and other consultant's DBE involvement efforts during the performance of the contract. Prime contractors or design consultants and other consultants will pay all subcontractors or subconsultants their respective subcontract amount by electronic transfer, if available, for NMDOT undisputed acceptable work within ten

(10) calendar days after the contractor or consultant receives payment for such work from the NMDOT. The construction contractor will be required to submit information as provided for in the supporting software system by indicating when payments made to DBEs and non-DBEs within ten (10) calendar days after the contractor receives payment for such work. A prime contractor, design consultant or other consultant will be required to fully document any alleged disputes with its subcontractors or subconsultants. The prime contractor, design consultant, or other consultant will ensure that all situations in which regularly scheduled payments are not made to subcontractors or subconsultants are reported to the NMDOT. If the prime contractor, design consultant, or other consultant is found to be in violation or fails to abide by the prompt payment mechanisms, the NMDOT will impose sanctions as stated under paragraph 30 Compliance Procedures. The prime contractor, design consultant, or other consultant will further be required to release retain age payments to the subcontractors or subconsultants within thirty (30) calendar days of satisfactory completion of the entire subcontractor's or sub consultant's work and final payment of such work by the NMDOT.

Record Keeping Requirements:

The prime contractor or consultant will keep such records as necessary to ensure compliance with its DBE utilization obligations.

As requested, the prime contractor or consultant will submit all subcontracts and other financial transaction documentation executed with DBEs in such form, manner and content as prescribed by the NMDOT.

All such records must be retained by the prime contractor or consultant for at least three (3) years after project acceptance by the FHWA following the completion of the contract. These records will be available for inspection by the NMDOT, the FHWA, the USDOT or other appropriately sanctioned New Mexico State Agencies or Federal Agencies or Departments.

The prime contractor's or design consultant's or other consultant's DBE liaison officer or designee will be responsible for ensuring DBE's complete Form A-644, Disadvantage Business Enterprise (DBE) Participation, and submit the form to the NMDOT, OEOP.

The NMDOT will conduct at a minimum an annual audit on selected construction and consultant projects to verify actual participation reported on Form A-644 Disadvantage Business Enterprise (DBE) Participation.

The NMDOT will maintain, provide data and monitor DBE participation through the following:

Any information related to the operation of NMDOT's DBE Program as directed by USDOT administration.

NMDOT will create and maintain a Participating Contractor or Consultant Annual Profile Registration list consisting of all firms bidding on prime construction and prime consultant design contracts and bidding on quoting as subcontractors and subconsultants, suppliers on USDOT-assisted projects. For every firm, the following information will be annually collected and maintained:

(a) Firm's name

(b) Firm's address (including phone, fax and e-mail)

(c) Race/Gender

(f) Firm's status as a DBE or non-DBE

(g) Age of firm

(h) The annual gross receipts of firm

(i) Primary NAICS Codes

(j) Secondary NAICS Codes

A Notice to Construction Contractors Bidders List of Quoter's and Design or Other Consultant Offeror's List of Quoters will be one method used in determining the availability of DBE and non-DBE firms; and therefore the relative availability of ready, willing and able DBEs, for the purpose of establishing and monitoring the NMDOT's state goal.

The NMDOT will require all construction bidders to submit Form BL-DBE-Bidders List of Quoters at the bid letting. Failure to submit this form will render the bidder non-responsive.

The NMDOT will require all design or other consultant offeror's to submit the Design or Other Consultant Offeror's List of Quoters Form. No A-1013 at the time of submittal of the offeror or other consultant proposal. Failure to submit this form will render the offeror's or other consultant's proposal non-responsive.

Compliance Procedures:

Whenever the NMDOT believes the construction contractor, design consultant or other consultant, or any subcontractor or supplier on a USDOT-assisted contract may not be operating in compliance with the terms, conditions or requirements of this DBE Program, including but not limited to, encouraging fronting, brokering or the circumstance of a DBE not performing a commercially useful function as defined, the NMDOT will conduct an investigation. If it is found that the construction contractor, design consultant or other consultant, any subcontractor or supplier is not in compliance with the DBE Program, the non-compliant party will be notified in writing by the NMDOT. A compliance conference to discuss the area(s) of non-compliance may be held between the NMDOT and the non-compliant party or parties. In the event that the non-compliant party or parties fails or refuses to perform in compliance with the DBE Program or these Selected DBE Program Provisions, a "Notice of Non-Compliance" will be transmitted. If the non-compliant party or parties corrects the deficiencies, the "Notice of Non-Compliance" will be rescinded and the party or parties will be notified as to compliance. If the deficiencies are not corrected, the NMDOT will initiate administrative action against the non-compliant party or parties, which may include but not be limited to;

(a) Termination of the contract.

(b) For construction, withholding an appropriate percentage of partial payments pursuant to Section 109 of the Standard Specifications for Highway and Bridge Construction. This appropriate percentage may be the amount of any proposed monetary sanction.

(c) Initiation of appropriate debarment or decertification proceedings.

(d) Referral of any unlawful actions to the appropriate enforcement agencies.

(e) Other actions as appropriate, at the discretion of the NMDOT.

Recipient/Contractor Assurances:

Each contract the NMDOT enters into with a construction contractor, design consultants, other consultants or recipient on a USDOT-assisted project will ensure that such contract and subcontracts Department will include the following assurance:

Recipient will not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT assisted contract or in the administration of its DBE Program or the requirements of 49 CFR part 26. The NMDOT will take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and the administration of DOT assisted contracts. The NMDOTs DBE Program, as required by 49 CFR Part 26 and as approved by DOT, is incorporated by reference in this agreement Implementation of this program a legal obligation and failure to carry out its terms will be treated as a violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the USDOT may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 et seq.).

The contractor/sub recipient or subcontractor will not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor will carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as recipient deems appropriate.

NOTICE TO CONTRACTORS

Incorporated in this contract are three Special Provisions on Equal Employment Opportunity designated as PR-1273 Supplements. These are: (1) Specific Equal Employment Opportunity Responsibilities (23 USC 140); (2) Notice of Requirements for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246); and (3) Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246). This notice is to clarify the responsibilities for review of compliance and enforcement for these separate special provision requirements.

The first of the special provisions cited above covers the requirements for the equal employment opportunity program under Title 23 for which the New Mexico Department of Transportation (NMDOT) is responsible. The NMDOT performs the necessary compliance review and enforcement of this special provision which is applicable to all contractors holding Federal-Aid highway contracts.

The latter two special provisions are for the specific equal opportunity requirements for Executive Order 11246 which is the sole responsibility of the Office of Federal Contract Compliance Program (OFCCP), Department of Labor. Review and enforcement under these special provisions is performed by OFCCP.

OFCCP has, under Paragraph 8 of the Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) recognized the Associated Contractors of New Mexico's Heavy Highway Affirmative Action Plan as meeting the provisions of that special provision and special provision (2) cited above. With this recognition, those contractors signatory to the ACNM Plan have been waived from individual review of OFCCP. However, OFCCP retains the right to review any such contractors whenever circumstances warrant. Also, contractors non-signatory to the ACNM Plan are subject to OFCCP review under EO 11246

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

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

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

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

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

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

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

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

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less then the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

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

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

SPECIAL PROVISION

SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES
(23 U.S.C. 140)

1. **GENERAL**

   a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract Provisions (Form PR-1273 and Supplements) and these Special Provisions which are imposed pursuant to Section 140 of Title 23, U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions. The initial measure of the Contractor's good faith efforts to comply with these Special Provisions shall be its efforts to meet the goals set forth in the "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)" for minority and female participation expressed in percentage terms for the Contractor's work force in each trade on this project.

   b. The contractor will work with the New Mexico Department of Transportation and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.

   c. The contractor and all his/her subcontractors holding subcontracts not including material suppliers, of $10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors an subcontractors.) The contractor will include these requirements in every subcontract of $10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. **Equal Employment Opportunity Policy**

   The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program:

   It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training.

3. **Equal Employment Opportunity Officer**

The contractor will designate and make known to the New Mexico Department of Transportation contracting officers an equal employment opportunity officer (hereinafter referred to as the EEO Officer) who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. **Dissemination of Policy**

a. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

1) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

2) All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

3) All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. In order to make the contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor will take the following actions:

1) Notices and posters setting forth the contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

2) The contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. **Recruitment**

a. When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority groups organizations. To meet this requirement, the contractor will, through his EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended).

c. The contractor will encourage his present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants will be discussed with employees.

6. **Personnel Actions**

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

7. **Training and Promotion**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event the Training Special Provision is provided under this contract, this subparagraph will be superseded as indicated in Attachment 2.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirement for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

8. **Unions**

If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the New Mexico Department of Transportation and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, or national origin, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the New Mexico Department of Transportation.

9. Subcontracting

a. The contractor's attention is called to the Special Provision on Minority Business Enterprise in Federal-Aid Highway Construction.

b. The contractor will use his best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports

a. The contractor will keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate:

1) the number of minority and non-minority group members and women employed in each work classification on the project,

2) the progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source for their work force),
3) the progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and
4) the progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. All such records must be retained for a period of 3 years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the New Mexico Department of Transportation and the Federal Highway Administration.

c. The contractors will submit an annual report to the New Mexico Department of Transportation each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391. If on-the-job training is being required by "Training Special Provisions", the contractor will be required to furnish form FHWA 1409.

Revised 6/27/06

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS* (EXECUTIVE ORDER 11246)

1. As used in these specifications:

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

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

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

   d. "Minority" includes:

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

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

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

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

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

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan.

Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a though p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

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

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

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

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

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

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

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

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources complied under 7 b above.

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

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

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

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

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

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

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

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

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

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

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

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

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

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

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

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

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

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

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

Revised 10/27/83

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY * (EXECUTIVE ORDER 11246)

1. The Offeror's or bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set for herein.

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

   Goals for female participation in each trade:
   6.9%

   Goals for minority participation for each trade:
   38.3% - (SMSA Counties: Bernalillo and Sandoval)

   45.9% - (Non SMSA Counties: Catron; Colfax; De Baca; Guadalupe; Lincoln, Los Alamos; McKinley; Mora; Rio Arriba; San Juan; San Miguel; Santa Fe; Socorro; Taos; Torrance; Valencia and Cibola)

   49% - (Non SMSA Counties: Chaves; Dona Ana; Eddy; Grant; Hidalgo; Luna; Otero and Sierra)

   19.5% - (Non SMSA Counties: Lea and Roosevelt)

   11% - (Non SMSA Counties: Curry, Harding, Quay and Union)

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

   The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in a 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall

make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" means the geographical area described in the solicitation from which this contract resulted.

*THIS NOTICE SHALL BE INCLUDED IN, AND SHALL BE A PART OF, ALL SOLICITATIONS FOR OFFERS AND BIDS ON ALL FEDERAL AND FEDERALLY ASSISTED CONTRUCTION CONTRACTS OR SUBCONTRACTS IN EXCESS OF $10,000 TO BE PERFORMED IN GEOGRAPHICAL AREAS DESIGNATED BY THE DIRECTOR OF OFCCP. EXECUTION OF THE CONTRACT BY THE SUCCESSFUL BIDDER AND ANY SUBSEQUENT SUBCONTRACTS WILL BE CONSIDERED THE CONTRACTOR'S AND SUBCONTRACTOR'S COMMITMENT TO THE EEO PROVISIONS CONTAINED IN THIS NOTICE.

NOTICE TO CONTRACTORS

November 26, 2013

Subcontractor Prompt Payment Provisions, Clarification of Good Cause and Prohibition of Cross-Project Offset

Pursuant to 49 CFR 26.29, as implemented by Section 108.1, paragraph 6 of the New Mexico Department of Transportation Standard Specifications and Notice to Contractors "Selected DBE(DBE) Program Provisions Disadvantaged Business Participation in USDOT Assisted Contracts, June 11, 2009, "Prompt Payment Mechanism to Subcontractors", Contractors SHALL pay Subcontractors and Suppliers for satisfactory performance of their contracts no later than seven (7) Days from receipt of each Progress Payment the Department makes to the Contractor. The Contractor SHALL ensure the Subcontractor or Supplier RECEIVES payment within the above-mentioned timeline.

A Subcontractor's or Supplier's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented and Accepted by the Department. When the Department makes an incremental Acceptance of a portion of the Work, the Work of a Subcontractor or Supplier covered by that Acceptance is deemed to be satisfactorily completed, triggering the Contractor's obligation to promptly pay for that portion of the Work.

The Contractor has the burden of proving compliance with these prompt payment provisions and SHALL do so through its timely B2GNow reporting obligation. The Department may recognize supporting documentation of such payment in one or more of the following forms: (1) proof of the timely deposit of funds into the Subcontractor's or Supplier's bank account, (2) proof of hand delivery of timely payment to the Subcontractor or Supplier, or (3) proof of mailing payment to the Subcontractor or Supplier, postmarked no less than three (3) Days prior to the expiration of the seven (7) Day period.

The ONLY good cause recognized by the Department to excuse a payment beyond the timing set in Section 108.1, paragraph 6, is a claim concerning the Subcontractor's or Supplier's Work. Within a project, the Contractor may only withhold a Subcontractor's or Supplier's payment for Work undisputed and Accepted by the Department upon proof of a claim between the Contractor and Subcontractor for the work at issue. Such proof must be submitted in accordance with Contract provisions, including but not limited to the Notice to Contractors, "Selected DBE (DBE) Program Provisions Disadvantage Business Participation in USDOT Assisted Contracts". The Contractor has the burden of proof to support the Contractor's assertion of good cause and must submit verifiable explanation and proof of the claim between the parties to the Project Manager within the same timeframe for prompt payment, seven (7) Days.

The Contractor is further advised that due to recent federal (FHWA) interpretations of 49 C.F.R Part 26, concerning prompt payment obligations to Subcontractors and Suppliers,

the Department can no longer Accept cross-project offsets as "good cause" excusing untimely payment for undisputed Accepted Work. As a result, the Contractor's contract with Subcontractors or Suppliers shall NOT contain any provision that allows the Contractor to withhold payment from the Subcontractor or Supplier as a result of the Subcontractor's or Supplier's performance on separate contract(s). Any such provision will be without effect, and shall NOT provide good cause excusing a failure to make prompt payment in accordance with the Contract.

This Notice does not alter the sole discretion of the Office of Equal Opportunity Programs to make good cause determinations concerning Contractor prompt payment matters.

NOTICE TO CONTRACTORS

October 23, 2013

Cooperation With Utilities

This work shall be considered incidental to the completion of the project and no separate measurement or payment will be made.

Contractors shall comply with their legal obligation to follow all of the NM One-Call provisions Chapter 62 Article 14 NMSA 1978 - Excavation Law. Those provisions can be located at:

http://www.nmprc.state.nm.us/transportation/pipeline/docs/Excavator%20Manual%202013-Eng_Web.pdf.

Specific to those provisions are the requirements for an excavator to preserve line location markings or provide an offset mark before obliterating a locate mark. Also included in those provisions are restrictions on the appropriate use of emergency line locates. Specifically, an emergency is defined as an excavation that must be performed due to circumstances beyond the control of the excavator (UFO) and that affects public health, safety or welfare. Additionally, an emergency locate request should not be used to circumvent poor job planning or economic consequences. Abuse of emergency location requests is a violation of the excavation law and is subject to significant administrative fines.

If a Contractor's activities destroys, obliterates, covers or in any way alters utility markings put in place by the NMDOT (or by a third party on behalf of the NMDOT), the Contractor shall ensure that those line markings are reestablished before they begin or any Sub-Contractor to them (including tiered Sub-Contractors) begins work in the affected area. The Contractor shall either re-mark the utility alignments or provide offset markings to the utility alignment that clearly define the utility alignment. The Contractor shall both photo-document the utility markings in their construction area prior to disturbing those markings and photo-document the remarked utility alignment or the offset markings to ensure accuracy to the original markings. Photos will clearly identify distances and/or recognizable features needed to ensure re-marks or offset marks are accurate.

If, as a result of failure by the Contractor or Sub-Contractor to accurately reestablish previously placed line markings damage occurs to any NMDOT-owned utility infrastructure (including but not limited to electrical service lines, DSL lines, and fiber optics communication lines, associated conduits/pull boxes/manholes, pull tapes and locate wires), the Contractor shall be responsible for all associated repair costs. All damaged infrastructure will be repaired as an emergency repair (within 24-hours), and shall be in accordance with NMDOT standards and specifications. In addition, any delays associated with the project schedule as a result of repairing such damage shall be absorbed by the Contractor not by the project.

Because utility clearance is directly associated with the Contractor's project activities, costs to repair any damage to NMDOT-owned utilities from failing to comply with the provisions of NM One Call can, and if necessary will, be recovered from the Contractor's project performance bond. Recoverable expenses shall also include any costs incurred by the Department while performing emergency line locates resulting from the Contractor's request of such locates, if those requests are not consistent with the definition established by NM One-call provisions.

NOTICE TO CONTRACTORS

September 17, 2013

Environmental Commitments

Environmental Commitments as shown in the plans shall conform to Supplemental Specifications for Division 100 General Provisions, Subsection 107.14 – Contractor's Responsibility for Environmental and Cultural Resource Protection.

NOTICE TO CONTRACTORS

August 15, 2013

Professional Services

Reference is made to Supplemental Specifications for Division 100 General Provisions, Subsection 101.4 – Terms and Definitions. The following has been added to the definition for Professional Service:

> A Professional Service provider is not considered a Subcontractor unless Work is performed within the Project limits.

NOTICE TO CONTRACTORS

July 11, 2013

NMDOT Chief Engineer

In accordance with Supplemental Specifications for Division 100 General Provisions, Subsection 102.7 – Examination Of Contract, Plans, Specifications, Special Provisions, And Site Work, paragraph 3, the contact information for the Chief Engineer is as follows:

Elias E. Archuleta (Acting Chief Engineer)
NMDOT
C/O Chief Engineer RM 203
1120 Cerrillos Road
Santa Fe, NM 87504
Elias.Archuleta@state.nm.us

Additionally, in accordance with Supplemental Specifications for Division 100 General Provisions, Subsection 102.7 – Examination Of Contract, Plans, Specifications, Special Provisions, And Site Work, paragraph 3, any and all request for Contract interpretations received by the Chief Engineer will be in the form of an Addendum or a Question/Answer format document. Distribution of the Question/answer format document will follow the same process as the distribution of Addendum. **The Question/Answer format document provided by the Department will not be included in the Contract and will not require acknowledgement of receipt.**

NOTICE TO CONTRACTORS

Work Zone Safety and Mobility Rules
October 13, 2011

In accordance with 23 CFR 630 Subpart J-Work Zone Safety and Mobility, the following Memorandum establishes requirements to be implemented and provides guidance for systematically addressing the safety and mobility impacts of work zones, and developing strategies to help manage these impacts on highway projects.

NEW MEXICO DEPARTMENT OF TRANSPORTATION

MEMORANDUM

Susana Martinez
Governor

Alvin C. Dominguez, P.E.
Cabinet Secretary

Commissioners

Pete Rahn
Chairman
District 3

Debra Hicks
Vice Chairman
District 2

Dr. Kenneth White
Secretary
District 1

Ronald Schmeits
Commissioner
District 4

Butch Mathews
Commissioner
District 5

Jackson Gibson
Commissioner
District 6

To: All Contractors working on NMDOT and federally supported projects for NMDOT

From: Alvin Dominguez PE, Cabinet Secretary NMDOT

Date: June 6, 2011

RE: Work Zone safety and Mobility Rules

NMDOT's policy is to plan, design, construct and maintain highways while providing for the safe and efficient movement of all modes of transportation through or around a temporary traffic control zone and to ensure safety of the workers (both NMDOT and contractor). The goal of this policy is to promote a commitment to implement the requirements of the Work Zone Safety and Mobility Policy (23 CFR 630 Subpart J) by:

1. Providing safe work zones for workers and motorists.
2. Reducing the number of crashes and deaths in work zones
3. Improve training for all project staff involved in plan development and construction administration related to work zones
4. Improve work zone procedures over time by using knowledge and observations gained from past work zones.
5. Develop and implement Transportation Management (TMP's) for work zones.

In order for NMDOT to implement this policy, NMDOT is reaching out to all contractors to communicate our policy for "Federal Highway Administration 23 CFR Part 630 Work Zone Safety and Mobility Rule" NMDOT's policy is in the form of design directive to comply with the rules. They are as follows

1. IDD-2009-2 Work Zone Traffic Control

http://nmshtd.state.nm.us/upload/images/Contracts_Unit/IDD-2009-02.pdf

2. IDD-2009-05- Temporary Traffic Control Devices Rule- Subpart - K

http://nmshtd.state.nm.us/upload/images/Contracts_Unit/IDD-2009-05.pdf

Strict compliance to NMDOT/MUTCD policies is required by all contractors working on NMDOT and Local Government projects. In addition to compliance of NMDOT/MUTCD polices, all contractors shall adhere to Section 618 "Traffic Control Management", Section 702 "Construction Traffic Control Devices" of the NMDOT Standard Specifications and all applicable Section 700's of the Contract Special Provisions for all NMDOT projects.

As the result of our design directives several key points are emphasized:

- "Truth in signing" program and policy
- Quality of traffic control devices to follow NMDOT quality standards
- Training and certification for traffic control Design Specialists, technicians, and supervisors
- Proper documentation and maintenance of the traffic control diary
- Improve worker visibility
- Adherence to NMDOT policy for positive protection devices
- Proper installation and maintenance of temporary traffic control devices during construction
- Positive protective barriers between workers and the motorized traveling public
- Safe entry/exit for work vehicles and equipment
- Use of uniformed law enforcement

NMDOT recognizes the importance of working with our contractors to provide safe work zones for workers and the traveling public. It is imperative that all contractors working on NMDOT and Local Government Projects fully understand the Work Zone Safety and Mobility Policy (23 CFR 630 Subpart J) in order to provide safe work zones through their construction projects for the traveling public and workers.

Your cooperation to implement these rules is required.

Primary Points of Contact on Compliance at NMDOT are as follows:

- State Traffic Engineer (Design Standards & Policies, technical Support)
- District Traffic Engineers (Maintenance & Construction Operations Support, Data Analysis, Work Zone Implementation)
- State Construction Engineer (Construction Support)

NOTICE TO CONTRACTORS

June 23, 2011

NMDOT Office of Inspector General

New Mexico Department of Transportation/Office of Inspector General. As specified in New Mexico State Transportation Commission Policy Number 30 (CP-30), dated June 2006, the Department's Office of Inspector General (OIG) has the authority to carry out all duties required to collect information, conduct audits, special studies and investigations. The duties are the same as those specified in federal law: Office of Inspector General, 23 USC §302 (the capability to carry out the duties required by law); 23 USC §112 (contracting for engineering and design services); 23 USC §106 (project approval); 23 USC 112 - Sec. 112, (letting of contracts); 23 USC 113 - Sec. 113 (prevailing rate of wage); 23 USC 114 - Sec. 114 (construction); 23 CFR 635 & 23 CFR 636 (design build); 23 CFR 637 (construction inspection approval). The duties of the Department's OIG also arise from the responsibility all state Departments of Transportation have for ensuring that all federal-aid projects are carried out in accordance with federal requirements. This responsibility was specifically clarified in 23 U .S.C. 106, as amended by Section 1904(a) of the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, Public Law 109-59).

Notice to Contractors

November 8, 2010

Equal Employment Opportunity (EEO) Software Programs

Federal-aid Projects

The prime contractor and all subcontractors working on federal-aid projects shall use the following EEO Software Programs to report specific EEO, Labor Compliance and Disadvantaged Business Enterprise (DBE) information as required by the contract and as specified by the NMDOT's Office of Equal Opportunity Programs. The two software programs are:

- B2Gnow software
- LCPtracker software

B2Gnow – (Business to Government Now), is a web-based software program used to collect, verify and manage payment information for prime contractors and subcontractors working on federal-aid projects. Additionally, the software is used to collect and report DBE participation and utilization on federal-aid projects.

LCPtracker – (Labor Compliance Program Tracker) – LCPtracker is a web-based software program used to collect, verify and manage prevailing wage certified payrolls and related labor compliance documentation for prime contractors and subcontractors on federal-aid projects.

Use of B2Gnow and LCPtracker software programs is required and shall be considered incidental to the contract. Failure of a contractor or subcontractor to use the required software programs to report specific EEO, Labor Compliance and DBE information may result in NMDOT withholding future progress payments until such time as compliance with this requirement is achieved. Weekly submission of hard copy certified payrolls remains mandatory.

Information on access to the software programs, log-on information, use of the programs, available training, user manuals, etc. can be obtained by contacting:

New Mexico Department of Transportation
Office of Equal Opportunity Programs
1596 Pacheco Street, Suite 107
Santa Fe, NM 87505
(505) 827-1774 or Toll Free (800) 544-0936

NOTICE TO CONTRACTORS

February 7, 2008

New Mexico Employees Health Coverage

1. For all contracts solicited and awarded on or after January 1, 2008: If the offeror has, or grows to, six (6) or more employees who work, or who are expected to work, an average of at least 20 hours per week over a six (6) month period during the term of the contract, offeror must agree to:

(a) have in place, and agree to maintain for the term of the contract, health insurance for those employees and offer that health insurance to those employees no later than July 1, 2008 if the expected annual value in the aggregate of any and all contracts between Contractor and the State exceed one million dollars or;

(b) have in place, and agree to maintain for the term of the contract, health insurance for those employees and offer that health insurance to those employees no later than July 1, 2009 if the expected annual value in the aggregate of any and all contracts between Contractor and the State exceed $500,000 dollars or

(c) have in place, and agree to maintain for the term of the contract, health insurance for those employees and offer that health insurance to those employees no later than July 1, 2010 if the expected annual value in the aggregate of any and all contracts between Contractor and the State exceed $250,000 dollars.

2. Offeror must agree to maintain a record of the number of employees who have (a) accepted health insurance; (b) declined health insurance due to other health insurance coverage already in place; or (c) declined health insurance for other reasons. These records are subject to review and audit by a representative of the state.

3. Offeror must agree to advise all employees of the availability of State publicly financed health care coverage programs by providing each employee with, as a minimum, the following web site link to additional information: http://insurenewmexico.state.nm.us/.

4. For Indefinite Quantity, Indefinite Delivery contracts (price agreements without specific limitations on quantity and providing for an indeterminate number of orders to be placed against it); these requirements shall apply the first day of the second month after the offeror reports combined sales (from state and, if applicable, from local public bodies if from a state price agreement) of $250,000, $500,000 or $1,000,000.

For all contracts exceeding one million dollars, the Awarded Contractor will be required to provide a letter stating that they currently offer, or that they will offer by July 1, 2008, health insurance to its New Mexico employees.

For all contracts exceeding $500,000 dollars, the Awarded Contractor will be required to provide a letter stating that they currently offer, or that they will offer by July 1, 2009, health insurance to its New Mexico employees.

For all contracts exceeding $250,000, the Awarded Contractor will be required to provide a letter stating that they currently offer, or that they will offer by July 1, 2010, health insurance to its New Mexico employees.

NOTICE TO CONTRACTORS
August 10, 2005

Planholders

YOU ARE HEREBY ADVISED OF THE FOLLOWING:
Section 102.7 of the Standard Specifications mandates that bidders inspect and become familiar with the plans and specifications for the work in advance of bidding. In order for a bidder to verify that it has complied with this mandate it must seek and obtain from the PS&E Section status as a "Planholder" for the project on which it intends to bid. To obtain such status, a bidder must do any one of the following: (1) Request a set of contract documents including the plans for the project on which the contractor anticipates bidding, or (2) Submit via Telefax (505.827.5290) written confirmation that the bidder has obtained a copy of the contract documents and plans from a source other than the PS&E Section. Under option (2), such written confirmation by Telefax must be received by the PS&E Section no later than the Wednesday preceding a Friday bid opening. Failure of a bidder to seek status as a "Planholder" in one of the two ways identified herein will render its bid non-responsive and its bid shall be rejected.

August 26, 2005

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NOTICE TO CONTRACTORS

SUBCONTRACTOR PAYMENT AND PERFORMANCE BONDS

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Senate Bill 814, passed during the New Mexico 47th Legislature, requires a payment and performance bond for all subcontractors with contracts of $50,000 or more on a public works building project. The New Mexico Department of Transportation interprets this provision to mean that such bonds are required for public works projects or portions thereof involving construction of "buildings" or similar habitable structures, not highway or bridge construction. Accordingly, please be advised that SB 814 shall not apply to this project.

NOTICE TO CONTRACTORS

December 9, 2005

Environmental and Archaeological Approvals for Pit Areas

The NMDOT, in consultation with the State Historic Preservation Officer (SHPO) has determined that any pit activity, excluding commercial pits, requires formal tribal consultation. This includes any additional pit clearances during construction, and may extend the approval time beyond 30 days if concerns are expressed by the affected tribes. Contact the NMDOT Environmental Section at (505)827-5224 for a list of relevant tribes.

Therefore, it is highly recommended that comprehensive environmental and archaeological approvals be obtained for any potential pit areas as early as possible.

If additional time beyond 30 days is required for environmental or archaeological approval and the Contractor's critical path is affected, the Contract time will be extended for that additional time. However, no payment of additional monetary compensation due to this delay will be considered.

NOTICE TO CONTRACTORS

22-July-2003

YOU ARE HEREBY ADVISED OF THE FOLLOWING:
The official name for the Department has been changed to **New Mexico Department Of Transportation**. Henceforth, all Special Provisions, drawings and construction documents shall apply to the revised name.

NOTICE TO CONTRACTORS

Borrow and Surfacing Status

August 15, 2007

Borrow and surfacing material may be obtained from any acceptable source where the materials conform to requirements indicated on the Plans and/or Specifications.

The New Mexico Department of Transportation is under no obligation to purchase excess stockpiled material from the Contractor that is not required for the completion of the project.

This project may be eligible for free use materials in accordance with 23 CFR 710.601 Federal Land Transfer. In order to accommodate the Federal Land Transfer, should the Contractor elect to pursue the free use material source(s), the Contractor shall contact the Department (Mary Pacheco at 505-827-3763) as soon as they have been identified as the Apparent Low Bidder. The Contractor shall be responsible for performing all necessary actions to achieve the Federal Land Transfer.

There is no assurance that a Federal Land Transfer will be granted.

A free use permit will <u>not</u> be considered valid to secure a federally funded NMDOT project. <u>Only</u> an FHWA/NMDOT approved Federal Land Transfer will be considered valid.

NOTICE TO CONTRACTORS

January 13, 1994

You are hereby advised that Form FHWA-1273, Required Contract Provisions - Federal Aid Construction Contracts is supplemented by the addition of the following:

"II. NONDISCRIMINATION

PREFERENCE EMPLOYMENT OF INDIAN TRIBES

Preference shall be given to members of the Indian Tribe in every aspect of employment including, without limitation of the foregoing, initial hiring, training, promotions, and in situations of termination and reductions in force.

This contract requirement is an expansion of the special provisions pertaining to the specific equal employment opportunity responsibilities for Contractors contained elsewhere in this contract and the provisions contained under FHWA-1273. It is the intent that preferential treatment will be given to Indians. The Contractor will be required to establish liaison for contact persons with local tribal employment offices. The tribal office will then assist contractors in providing Indians with skills and experience."

The above preferential clause will be interpreted to mean that the Contractor will be allowed to move in with his normal supervisory construction force and other specially experienced individuals. Indian preference in employment, training and promotions will be in effect for all other positions or classifications provided there are Indians available who can do the work required. Verification of the availability will be made with the local tribal office.

In addition to the Special Provision for submission of weekly payrolls, all contractors and subcontractors shall be required to submit one (1) additional certified copy of the project weekly payrolls to the state's project manager.

This Notice to Contractors will be deemed as supplemental to and not in conflict with 41 CFR 60-1.5(a)(6) which provides as follows.

"(6) Work on or near Indian Reservations---It shall not be a violation of the equal opportunity clause for a construction or nonconstruction contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation in connection with employment opportunities on or near an Indian reservation. The use of the word "near" would include all that area where a person seeking employment could reasonably be expected to commute to and from in the course of a work day. Contractors or Subcontractors extending such a preference shall not, however, discriminate among Indians on the basis of religion, sex, or tribal affiliation, and the use of such a preference shall not excuse a contractor from complying with the other requirements contained in this chapter. (Subsection 6, as added, effective February 17, 1977)."

NOTICE TO CONTRACTORS

September 14, 1994

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "Hotline" Monday through Friday, 8:00 A.M. to 5:00 P.M., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "Hotline" to report such activities.

The "Hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

NOTICE TO CONTRACTORS
LABOR REPORTING AND SUBMISSION OF WEEKLY PAYROLLS
June 1, 2012

The New Mexico Department of Workforce Solutions (DWS) mandates tracking construction project weekly payrolls and the process by which this reporting is accomplished by the Contractor. Knowledge of the DWS rules and procedures is attributed to the Contractor prior to its bid submission. The latest forms posted in the DWS website, http://www.dws.state.nm.us, must be used for submittals. All outdated forms submitted will be rejected and the contractor/subcontractors will be required to resubmit the current DWS forms.

NMDOT shall send the DWS "Notification of Award" (NOA), "Subcontractor List", "Statement of Intent to Pay Prevailing Wages" and "Affidavit of Wages Paid" forms to the Contractor together with the Preliminary Notice of Award. Additionally, the "Statement of Intent" form, "Affidavit of Wages Paid" form, and instructions are available directly from DWS.

Before any work starts, the Contractor shall fully and properly complete the DWS NOA and "Subcontractor List" forms. The Contractor shall submit the NOA and "Subcontractor List" forms to the Project Manager at the pre-construction conference. Failure to do so may delay the start of the Project. The Project Manager shall sign the NOA and fax or mail both the NOA and "Subcontractor List" forms to the DWS Public Works Bureau. The Project Manager shall place a copy of both the NOA and "Subcontractor List" forms in the Project EEO files and shall forward a copy of both to the NMDOT Office of Equal Opportunity Programs (OEOP), the District Engineer (for District Files) and the Prime Contractor.

The Contractor and each Subcontractor (at all tiers) shall complete one (1) original DWS "Statement of Intent to Pay Prevailing Wages" form and shall submit it to and obtain approval of it from DWS prior to starting any work on the job site. Three (3) copies of the approved form shall be submitted to the Project Manager at the pre-construction conference for the Contractor and each known Subcontractor. The Project Manager will place one of the copies of the "Statement of Intent to Pay Prevailing Wages" in the EEO section of the Project files and will forward the other copies to OEOP and the District Engineer. The Project Manager will ensure that the Contractor includes copies with each Subcontract submitted for approval. For subcontracts established later on in the Project, the DWS approved "Statement of Intent to Pay Prevailing Wages" form shall be submitted with the NMDOT "Request for Permission to Subcontract" forms. No subcontracts shall be approved without the submittal of the approved "Statement of Intent to Pay Prevailing Wages" forms along with the "Request for Permission to Subcontract" forms.

Once construction begins, the Contractor and all Subcontractors shall submit weekly payroll information as follows:

- On Federally funded and Federal-aid projects, the Contractor and all Subcontractors shall submit weekly payroll information into the LCPtracker software program.
- On 100% State funded projects, the Contractor and all Subcontractors shall submit one (1) certified hard copy of the Project weekly payroll to the Project Manager's office. Utilization of LCPtracker is not available for 100% State funded projects.

All payrolls for the Project shall be submitted no later than five (5) working days following the close of the second payroll period. When payrolls are required by DWS, the Contractor shall be responsible for submitting certified copies of payrolls for the Prime Contractor and all Subcontractors.

Prior to release of the final pay estimate, the Contractor and each Subcontractor (at all tiers) shall complete one (1) original DWS "Affidavit of Wages Paid" form and shall submit it to and obtain approval of it from DWS. The Contractor shall then submit a copy of its and all its Subcontractors' approved "Affidavit of Wages Paid" forms to the Project Manager.

Each Contractor and Subcontractor shall preserve its weekly payroll records for a period of four (4) years from the date of completion of the contract.

On state funded projects, the Rules and Regulations under the New Mexico Public Works Minimum Wage Act are, by this reference, made a part of this Contract. On Federally-funded projects, these provisions hereby supplement Paragraph V, Part 2 of the Required Contract Provisions on all Federal Aid Construction Contracts, FHWA-1273.

NOTICE TO CONTRACTORS

APPRENTICES/TRAINEES
(Program of Department of Labor)

April 14, 2003

YOU ARE HEREBY ADVISED OF THE FOLLOWING:

Before using apprentices/trainees of this project, the Contractor shall present to the Contracting Officer written evidence of registration of such employees. All apprentices shall be properly indentured and in compliance under registered apprenticeship standards and written apprenticeship agreements. All trainees must be properly enrolled in a bona fide training program approved for application on construction projects by the appropriate state and/or federal agency(ies). Written evidence of apprenticeship registration from the U.S. Department of Labor, Bureau of Apprenticeship and Training, Bank of America Building, 500 4th St., N.W., Suite 401, Albuquerque, New Mexico 87102, Telephone No. (505) 245-2155 is required for apprentices. Certification from the registered program Administrator showing enrollment status of trainees is required for trainees. If the apprentice/trainee is not registered in a bona fide apprenticeship/training program as mentioned above, the journeyman's wage rate for that particular classification in which he/she is working is applicable.

NOTICE TO CONTRACTORS

REQUIRED CONTRACT PROVISIONS
TITLE VI - CIVIL RIGHTS ACT

July 28, 2006

YOU ARE HEREBY ADVISED OF THE FOLLOWING:
The New Mexico Department of Transportation in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d- 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notified all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority and women business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, national origin or handicap in consideration for an award.

Reference is made to the Department's Title VI Plan, Appendix A and Title VI assurances.

For further information, contact the Office of Equal Opportunity Programs Bureau located at 1596 Pacheco St., Aspen Plaza Building, PO Box 1149, Santa Fe, New Mexico, 87504-1149, Telephone Number (505)827-1777.

NOTICE TO CONTRACTORS

April 6, 2009

HELP STOP FRAUD, WASTE & ABUSE

CALL

1-800-671-STOP
(1-800-671-7867)

The New Mexico Department of Transportation (NMDOT), Office of Inspector General (OIG), has established the above toll free "Hotline" which is in operation 7 days a week, 24 hours a day.

Anyone with knowledge of an instance of fraud, waste or abuse, or any similar illegal or unethical activity perpetrated by another contractor or employee, NMDOT employee, or other person, which may affect the cost, completion or correct and safe construction of any New Mexico highway project may use this number to report such activity.

The "Hotline" is part of the NMDOT'S continuing effort to ensure that once a project is completed the motoring public can be assured that they are traveling on a safe and sound roadway.

All information will be treated confidentially and caller anonymity will be respected.

The New Mexico Fraud Against Taxpayers Act:

The New Mexico Fraud Against Taxpayers Act, (44-9-12 NMSA 1978) has been in effect since July 1, 2007 and provides civil penalties for submitting a claim to a state agency based on false, fraudulent or misleading information. The Act also includes a financial incentive for parties with knowledge of such a claim to come forward.

NOTICE TO CONTRACTORS

AIR QUALITY PERMITS

November 8, 2011

YOU ARE HEREBY ADVISED OF THE FOLLOWING:
In accordance with 20 NMAC 2.72 of the Air Quality Control Regulations, an air Quality Permit is required for the operation of any asphalt plant or gravel crushing or screening facility prior to commencement of construction. In accordance with 20 NMAC 2.73, a Notice of Intent is required for the operation of a concrete batch plant. Permits and Notices of Intent are administered by the Environment Department's Air Pollution Control Bureau.

In accordance with 20 NMAC 20.41 of the Albuquerque / Bernalillo County Air Quality Control Board regulations, an air quality permit is required for the operation of any asphalt plant or gravel crushing or screening facility or concrete batch plant prior to commencement of construction when operating in Bernalillo County on non Tribal lands. In Bernalillo County, the air quality permits are administered by the City of Albuquerque / Bernalillo County Air Quality Program.

The Contractor is advised that in addition to the documentation required to execute the contract, as indicated on the Preliminary Notice of Award, a copy of the Air Quality Construction Permit or "Ruled Complete" letter or Notice of Intent letter from the Environment Department is also required. The Permit or Notice of Intent letter shall be for the operation of EACH type of plant to be used on the awarded project. This does not apply to relocation notices. Failure to submit the documentation within fifteen days after the Preliminary Notice of Award has been received by the Contractor shall be just cause for the cancellation of the award of contract and the forfeiture of the proposal guaranty which shall become the property of the Highway and Transportation department, not as a penalty, but in liquidation of damages sustained.

For information on Air quality construction permits and Notices of Intent, contact:

Ted Schooly
New Source Review Unit/Air Pollution Control Bureau
New Mexico Environment Department
1301 Siler Road Building B
Santa Fe, New Mexico 87505
Telephone: 505.476.4348

Isreal Tavarez
City of Albuquerque/Environmental Health Department
Air Quality Division
PO Box 1293
Albuquerque, New Mexico 87103
Telephone: 505.768.1972

NOTICE TO CONTRACTORS
WAGE RATES

January 3, 2014

You are hereby advised that wherever differences exist between the minimum wage rates shown under Wage Decisions of the Office of the New Mexico Department of Workforce Solutions, Santa Fe, and those shown under U.S. Department of Labor Wage Decision No. NM 14-49 dated January 3, 2014, and any modifications thereto noted in the contract assembly, the higher wage rates shall govern.

General Decision Number: NM140049 01/03/2014 NM49

Superseded General Decision Number: NM20130049

State: New Mexico

Construction Type: Highway

Counties: Dona Ana and San Juan Counties in New Mexico.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Modification Number	Publication Date
0	01/03/2014

ELEC0611-003 07/01/2013

	Rates	Fringes
ELECTRICIAN (Boom Operator)	$ 29.21	12.29

* TEAM0492-003 04/01/2013

SAN JUAN

	Rates	Fringes
TRUCK DRIVER (Dump)	$ 14.65	6.00

SUNM2011-003 08/25/2011

	Rates	Fringes
CARPENTER (Includes Form Work)		
Dona Ana	$ 14.15	0.44
San Juan	$ 13.42	0.44
CEMENT MASON/CONCRETE FINISHER	$ 13.65	0.26
ELECTRICIAN (Includes Traffic Signalization and Installation)		
Dona Ana	$ 25.91	9.45
San Juan	$ 24.46	8.56
HIGHWAY/PARKING LOT STRIPING: Includes Highway Line/Parking Lot Line Striping and Line Striping Truck Driver		
Dona Ana	$ 15.44	0.35
San Juan	$ 14.39	0.35

IRONWORKER, REINFORCING		
Dona Ana	$ 22.61	6.03
San Juan	$ 16.41	5.85
LABORER		
Common or General		
Dona Ana	$ 11.95	0.35
San Juan	$ 11.48	0.35
Flagger/Cone Setter	$ 14.27	0.35
Mason Tender-		
Cement/Concrete	$ 10.25	0.35
Pipelayer	$ 17.13	5.04
POWER EQUIPMENT OPERATOR:		
Backhoe/Excavator/Trackhoe		
Dona Ana	$ 17.74	0.26
San Juan	$ 16.27	1.51
Bobcat/Skid Loader	$ 14.56	0.26
Broom Sweeper	$ 16.67	1.57
Grader/Blade	$ 17.64	1.51
Loader(Front End)	$ 16.53	0.26
Mechanic	$ 23.24	1.51
Oiler	$ 22.08	8.72
Piledriver	$ 16.26	0.26
Roller (Asphalt and Dirt)		
Dona Ana	$ 16.27	1.51
San Juan	$ 12.91	1.60
Trencher		
Dona Ana	$ 15.22	0.26
San Juan	$ 15.93	0.26
TRUCK DRIVER		
Dump Truck		
Dona Ana	$ 15.04	0.26
Flatbed Truck	$ 13.30	0.26
Pickup Truck		
Dona Ana	$ 12.14	0.26
San Juan	$ 12.95	0.26
Water Truck	$ 13.51	1.51

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

NOTICE TO CONTRACTORS

MINIMUM WAGE RATES
June 24, 1994

YOU ARE HEREBY ADVISED OF THE FOLLOWING:
In accordance with the rules and regulations under the New Mexico Public Works Minimum Wage Act, all certified payrolls submitted must contain required information as stated on the pertinent information sheet of the Wage Rate Decision issued on said project.

Special reference is made to Item 2G which indicated that the wage rate decision number must be indicated on the certified payroll submission. THIS WAGE RATE DECISION NUMBER MUST BE INDICATED ON ALL PAYROLL SUBMISSIONS BY THE PRIME CONTRACTOR, SUB-CONTRACTORS AND THEIR TIERS.

The wage rate decision is an integral part of the project specifications and contracting agencies must insure compliance with this provision before payment is made to the contractor.

SUSANA MARTINEZ
GOVERNOR

JOHN SANCHEZ
LT. GOVERNOR

CELINA BUSSEY
SECRETARY

STATE OF NEW MEXICO
DEPARTMENT OF WORKFORCE SOLUTIONS
625 Silver Ave SW Suite 410
Albuquerque, NM 87102
Telephone (505) 841-4405
Fax (505) 841-4420

PUBLIC WORKS PROJECT REQUIREMENTS

As a participant in a Public Works project valued at more than $60,000 in the State of New Mexico, the following list addresses many of the responsibilities that are assigned by statute to each project stakeholder.

Contracting Agency

- Ensure that all contractors/prime contractors wishing to bid on a Public Works project when the project is $60,000 or more are actively registered with the Labor Relations Division, Labor Enforcement Fund (LEF) prior to bidding.
- Provide completed Notice of Award (NOA) and Sub-Contractor list to Labor Relations Division promptly after the project is awarded.
- Provide updates to the Sub-Contractor list to the Labor Relations Division

General Contractor

- Provide to the Contracting Agency within 3 (Three) days of award a complete sub-contractor list and Statements of Intent (SOI) to pay Prevailing Wages for each contractor.
- Ensure that all sub-contractors wishing to bid on a Public Works project when their portion is over $60,000 are actively registered with the Labor Relations Division prior to bidding.
- Submit bi-weekly certified payrolls to the owner/contracting agency.
- Make certain NM Apprenticeship and Training Fund payments are to be paid either to an approved Apprenticeship program or to the Labor Relations Division.
- Confirm the Wage Rate poster, provided by the Labor Relations Division, is displayed at the job site in an easily accessible place.
- Make sure, when a project has been completed, the Affidavits of Wages Paid (AWP) is sent to the Contracting Agency.

Sub-Contractor

- Ensure that all sub-contractors wishing to bid on a Public Works project when their portion is over $60,000 are actively registered with the Labor Relations Division prior to bidding.
- Submit bi-weekly certified payrolls to the General Contractor(s).
- Make certain NM Apprenticeship and Training Fund payments are to be paid either to an approved Apprenticeship program or to the Labor Relations Division.

Additional Information

Reference material and forms for these requirements are available through the following New Mexico Workforce Solutions Web Link.
www.dws.state.nm.us/new/Labor_Relations/publicworks.html.

Additional Information

Additional information, requirements, and documents on these topics can be found through the Public Works web pages.

- Labor Enforcement Fund (LEF)
- Weekly Certified Payroll
- Public Works Apprenticeship and Training Fund (PWAT)
- Forms: Statement of Intent (SOI), Affidavit of Wages Paid (AWP)
- Prevailing Wage Rates (Base Rates, Fringe, and Apprenticeship Contributions)

CONTACT INFORMATION

Contact us for any questions relating to Public Works Projects.

Kim Kew at kim.kew@state.nm.us or 505-841-4405
Otis Caddy LynnO.Caddy@state.nm.us 505-841-4406
Stacey Lowrey Stacey.Lowrey@state.nm.us 505-841-4412

New Mexico Department of Workforce Solutions
Public Works
625 Silver Ave SW, Suite 410, Albuquerque, NM 87102
Phone: (505)-841-4400 fax to: (505) 841-4423 or Email to: public.works@state.nm.us

Wage Decision # SJ-14-0042 A

NOTIFICATION OF AWARD (NOA)

THIS WAGE DECISION # EXPIRES FOR BIDS ON 05/08/14

Description and Location of Work: Replacement of Bridge No. 8105, CR 7150 over Gallegos Wash
Replacement of Bridge No. 8105, CR 7150 over Gallegos Wash. Drilled shaft constuction, reinforced cast-in-place concrete abutment and pier construction, erection of precast, prestressed concrete girders, deck and approach slabs (reinforced cast-in-place concrete) construction, installation of metal railing, roadway paving, installation of storm drain pipes, installation of riprap at abutments, and earthwork

City of Bloomfield | County of San Juan | 6.74 Miles SW of Jct. US 550 on CR 7150

REMINDER for Agency Conducting BID Process: **If bids are NOT submitted before new wage rates go into effect, a NEW wage decision WILL be required.**
After the Contracting Agency awards this project the Wage Rate Poster and the Wage Rate Packet, excluding this NOA and Subcontractor List, must be delivered to the ***GENERAL/PRIME CONTRACTOR.*** The Contracting Agency or its agent must complete this form (including the next page listing all of the subcontractors including all tiers of subcontractors) and fax or mail it to the address above. ***If the project is canceled,*** this form must be completed by the Contracting agency conducting the bid process and the wording "Cancelled" written on the form and send to the Labor Relations Division. Failure to submit the NOA in a timely manner is a violation of paragraph 11.1.2.9.B (3) of the Public Works Minimum Wage Act Policy Manual.

General/Prime Contractor Company Name:_____ License#:_____

Address:_____ City:_____ State:_____ Zip:_____

Telephone:_____ Fax:_____

Project Contact's name:_____ E-Mail:_____

Approximate Date Work to Start:_____

Estimated Completion Date:_____

Estimated Cost of Project:_____

Bid Opening Date:_____

Note: The General/Prime Contractor **MUST** mail/fax in their Statement of Intent to Pay Prevailing Wages to the Contracting Agency or its agent before beginning work on the project. Each Subcontractor (and all tiers of subcontractors) **MUST** also mail/fax their Statement of Intent to Pay Prevailing Wages to the General/Prime Contractor 3 days after award of project. After work on the project is completed **and before, final payment,** is made to subcontractors and all tiers of subcontractors, the contractor and sub-contractors must mail/fax their Affidavit of Wages paid to the Contracting Agency for final payment.

Signature for Contracting Agency (or agent) _____
Printed Name_____
Email address for Contracting Agency (not agent)_____ **Required Field**
Date _____

8/29/13

SUBCONTRACTOR LIST

DO NOT list suppliers or professional services (such as surveyors)

INCLUDE individual subcontractor dollar amount for project

Email to: public.works@state.nm.us or fax to: (505) 841-4423

Please include **2nd & 3rd Tier** subcontractors. Make extra copies of form if necessary.

Wage Decision. # **SJ-14-0042 A**

General Contractor:

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ (To Whom) 3rd TIER ____ (To Whom)
Work to be performed: Start Date: Amount ($):

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ (To Whom) 3rd TIER ____ (To Whom)
Work to be performed: Start Date: Amount ($):

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ (To Whom) 3rd TIER ____ (To Whom)
Work to be performed: Start Date: Amount ($):

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ (To Whom) 3rd TIER ____ (To Whom)
Work to be performed: Start Date: Amount ($):

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ (To Whom) 3rd TIER ____ (To Whom)
Work to be performed: Start Date: Amount ($):

Company Name:_____
Address:_____ City:_____ State:____ Zip:_____
E-Mail Address:_____ License No.:_____
Phone No.:_____ Fax No.:_____ Sub ____ 2nd TIER ____ 3rd TIER ____

Work to be performed:	Start Date:	(To Whom) Amount ($):	(To Whom)

Replacement of Bridge No. 8105, CR 7150 over Gallegos Wash: WAGE DECISION #: SJ-14-0042 SJ

Replacement of Bridge No. 8105, CR 7150 over Gallegos Wash. Drilled shaft constuction, reinforced cast-in-place concrete abutment and pier construction, erection of precast, prestressed concrete girders, deck and approach slabs (reinforced cast-in-place concrete) construction, installation of metal railing, roadway paving, installation of storm drain pipes, installation of riprap at abutments, and earthwork

TYPE "A" - STREET, HIGHWAY, UTILITY & LIGHT ENGINEERING

Effective January 1, 2014

Trade Classification	Base Rate	Fringe Rate
Bricklayer/Blocklayer/Stonemason	17.74	0.26
Carpenter/Lather	15.99	0.44
Cement Mason	15.52	0.26
Ironworker	21.77	6.03
Painter (Brush/Roller/Spray)	17.56	0.44
Electricians (outside)		
Groundman	26.79	11.03
Equipment Operator	29.61	11.03
Lineman/Wireman or Tech	30.20	11.03
Cable Splicer	31.38	11.03
Plumber/Pipefitter	28.30	4.07
Laborers		
Group I	13.73	0.35
Group II	14.03	0.35
Group III	14.43	0.35
Operators		
Group I	15.74	0.26
Group II	15.94	0.26
Group III	16.52	0.26
Group IV	16.54	0.26
Group V	16.53	0.26
Group VI	16.69	0.26
Group VII	16.74	0.26
Group VIII	16.89	0.26
Group IX	17.39	0.26
Group X	18.19	0.26
Truck Drivers		
Group I	13.32	0.26
Group II	13.52	0.26
Group III	13.72	0.26
Group IV	13.92	0.26

NOTE: SUBSISTENCE AND INCENTIVE PAY DO NOT APPLY TO TYPE "A" CONSTRUCTION.

Form A-1083
Rev. 02/12

New Mexico Department of Transportation

CERTIFICATE OF PAYMENT OF CLAIMS

For the purpose of obtaining final payment of funds due me for the satisfactory completion of F100180 in conformity with the contract documents, including the plans and specifications or authorized modifications thereof, I hereby certify under penalty of perjury as follows (use additional sheets as necessary):

1. That all lawful claims for labor performed and material, supplies and services furnished by me or any sub-contractor for the said work, have been fully paid or satisfied, with the exception of the following disputed claims:

2. That all third party liability claims arising out of the work on this project have been paid, satisfied and released by the claimants, with the exception of the following disputed claim:

3. That the Disadvantage Business Enterprise (DBE) goal (if any) for the contract has been met or exceeded, or is excused for the following reason:

It is requested that final payment of funds due me under the contract be made.

_____
Contractor

By_____

STATE OF NEW MEXICO)
) as
COUNTY OF _____)

Subscribed and sworn to before me this _____ day of _____, 20_____

_____
Notary Public

My Commission expires:

NMDOT REQUIRED DOCUMENTS FOR BID SUBMITTAL

New Mexico DEPARTMENT OF
TRANSPORTATION
MOBILITY FOR EVERYONE

PS&E Section
PO Box 1149
Santa Fe, NM 87504-1149

REQUIRED DOCUMENTS FOR BID SUBMITTAL

CN/Project No.: F100180

County: San Juan

Termini: Replacement of Bridge 8105 on CR 7150

Contractor: _____

Form No. A-568
Rev. 4.2003

REQUIRED CONTRACT DOCUMENTS
FOR
BID SUBMITTAL

Index of Documents

Bid Form
Bid Schedule
Bid Bond
Notice to Contractors

- Bidder's List of Quoters for the Disadvantaged Business Enterprise (DBE) Program
- Subcontractors Fair Practices Act Compliance
- Non-Debarment Certification
- Certification for Federal-Aid Contracts
- New Mexico Pay Equity Reporting Acknowledgement Executive Order 2009-049
- Disadvantaged Business Enterprise (DBE) Program Race-Conscious Measures

These Required Contract Documents comprise the documentation required for bid submittal in accordance with the Department's Specifications For Section 102-Bidding Requirements and Conditions. SUBMIT ONLY THESE REQUIRED CONTRACT DOCUMENTS.

BID FORM
FOR CONSTRUCTION CONTRACTS

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

ACEC
American Council of Engineering Companies

American Society of Civil Engineers

National Society of Professional Engineers
Professional Engineers in Private Practice

AMERICAN COUNCIL OF ENGINEERING COMPANIES

ASSOCIATED GENERAL CONTRACTORS OF AMERICA

AMERICAN SOCIETY OF CIVIL ENGINEERS

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CONSTRUCTION SPECIFICATIONS INSTITUTE

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to: San Juan County, New Mexico, Office of Central Purchasing, 213 South Oliver Drive, Aztec, NM, 87410.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date

B. Bidder 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. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the plans.

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding 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 Bidder, including applying the specific means, methods, techniques, sequences, and procedures

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of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder 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 Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.

1. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

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;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid 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

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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.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

REPLACEMENT OF BRIDGE NO. 8105
BID NO. 13-14-02

BASE BID

Item No.	Description	Unit	Quantity	Unit Price	Total Price
201000	Clearing & Grubbing	LS	1	$_____.	$_____.
203000	Unclassified Excavation	CY	2,301	$_____.	$_____.
207000	Subgrade Preparation	SY	2,350	$_____.	$_____.
210000	Excavation & Backfill for Major Structures	CY	490	$_____.	$_____.
304000	Base Course	TON	580	$_____.	$_____.
407000	Asphalt Material for Tack Coat	TON	1	$_____.	$_____.
408100	Prime Coat Material	TON	4	$_____.	$_____.
423283	HMA SP IV Complete	TON	380	$_____.	$_____.
502084	Drill Shaft Foundation 84" D	LF	205	$_____.	$_____.
505000	CSL Consultant Testing	EA	4	$_____.	$_____.
511030	Structural Concrete, Class AA	CY	168	$_____.	$_____.
512003	High Performance Concrete (HPD)	CY	500	$_____.	$_____.
518065	Prestressed Concrete Bridge Member, Type 63 MOD	LF	1,406	$_____.	$_____.
532100	Permanent Anti-Graffiti Protective Coating	SF	900	$_____.	$_____.
540060	Reinforcing Bars Grade 60	LB	39,000	$_____.	$_____.
540160	Epoxy Coated Reinforcing Bars, Grade 60	LB	125,460	$_____.	$_____.
541000	Structural Steel for Concrete Bridges	LB	9,000	$_____.	$_____.
543002	Metal Railing, Type A42	LF	764	$_____.	$_____.
562000	Bridge Joint Strip Seal	LF	75	$_____.	$_____.

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570024	24" Culvert Pipe	LF	161	$_____.	$_____.
570025	24" Culvert Pipe End Section	EA	2	$_____.	$_____.
601000	Removal of Structures and Obstructions	LS	1	$_____.	$_____.
602000	Riprap Class A	CY	2	$_____.	$_____.
602020	Riprap Class C	CY	1713	$_____.	$_____.
603200	Silt Fence	LF	1700	$_____.	$_____.
603250	Drop Inlet Protection Type 1	EA	1	$_____.	$_____.
603261	Mulch Sock	LF	50	$_____.	$_____.
603280	SWPPP Management	LS	1	$_____.	$_____.
604001	Geotextile Class I	SY	1,255	$_____.	$_____.
606050	Metal Barrier End Treatment	EA	4	$_____.	$_____.
606200	Weathering Metal Barrier W-Beam	LF	213	$_____.	$_____.
606300	Weathering Metal Barrier Thrie Beam	LF	100	$_____.	$_____.
606610	Temporary CWB Retained by the Contractor	LF	80	$_____.	$_____.
618000	Traffic Control Management	LS	1	$_____.	$_____.
621000	Mobilization	LS	1	$_____.	$_____.
623012	Median Drop Inlet Type I (Rural), 3' to 6'	EA	1	$_____.	$_____.
632000	Class A Seeding	AC	2	$_____.	$_____.
701000	Panel Signs	SF	57	$_____.	$_____.
701100	Steel Posts & Base Posts for Aluminum Panel Signs	LF	112	$_____.	$_____.
702000	Construction Signing	SF	266	$_____.	$_____.
702100	Post for Construction Signing	LF	112	$_____.	$_____.
702238	Barricade, Type III 8'	EA	11	$_____.	$_____.
702525	Channelization Devices Type Drum	EA	36	$_____.	$_____.
704000	Retroreflective Painted Markings	LF	2,792	$_____.	$_____.
704099	Temporary Striping	LF	580	$_____.	$_____.
801000	Construction Staking by Contractor	LS	1	$_____.	$_____.
901000	Contractor Process Quality Control	LS	1	$_____.	$_____.

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SUBTOTAL BASE BID	$_____
N.M. GROSS RECEIPTS TAX (6.375%)	$_____
TOTAL BASE BID	$_____

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within 270 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 300 calendar days after the date when the Contract Times commence to run.

6.01 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security in the form of 5% ;

B. List of Proposed Subcontractors;

C. List of Project References;

D. Evidence of authority to do business in the state of the Project;

E. Required Bidder Qualification Statement with Supporting Data

F. DBE Forms:

1. DBE A-1, Notice to Contractors
2. DBE Form No. A585A
3. New Mexico Pay Equity Reporting Acknowledgement
4. Disclosure of Lobbying Activities
5. Non-Debarment Certification
6. SFPA-1, Subcontractors Fair Practices Act Compliance
7. BL-DBE, Bidders List of Quoters for the DBE Program

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7.02 **Bidders Please Note:** ***All BIDDERS*** shall submit DBE Form No. A-644, Disadvantaged Business Enterprise (DBE) Participation, to the Office of Equal Opportunity Programs (OEOP) located at Aspen Plaza, 1596 Pacheco Street, Suite 107, Santa Fe, NM 87505 within five (5) working days after the bid opening. OEOP can be contacted at 800-544-0936 or 505-827-1774 and fax number 505-827-1779.

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

9.01 This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____
Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

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Title: _____

(CORPORATE SEAL)

Attest _____

Date of Qualification to do business in New Mexico is ____/____/____.

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____

(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____(SEAL)

By: _____

(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address _____

_____

Phone No. _____ Fax No. _____

E-mail _____

SUBMITTED on _____, 20____.

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New Mexico State Contractor License No. _____.

New Mexico Workforce Solutions Registration No. _____.

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SUBCONTRACTOR LIST

Subcontractor Listing Threshold for this project **$8000**

Bidders shall submit the following information pursuant to Section 13-4-31 through 13-4-43 NMSA 1978 with emphasis added for completion of this form.

Each Contractor who submits a bid **shall** list on this form, the name of each Subcontractor proposed to perform work in excess of **$8,000** for each category of the work that will be done by each Subcontractor, the City or County of the place of business of each Subcontractor, the License Number of each Subcontractor, and other relevant information. In addition, the Contractor shall also indicate on this form ***the New Mexico Department of Workforce Solutions Registration/Certification Number for those proposed Subcontractors whose bid amounts are $60,000.00 and above.*** The Contractor shall list only one (1) Subcontractor for each category/nature of work.

Pursuant to the Public Works Section 13-4-33, NMSA 1978, Definitions, a "Subcontractor" means a contractor who contracts directly with the contractor.

(Emphasis Added) In compliance with Public Works Section 13-4-36 C & D, NMSA 1978, Substitution of Subcontractor, no Contractor whose bid is accepted shall permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original Subcontractor listed in the original bid without the consent of San Juan County.

No Contractor whose bid is accepted, other than in the performance of change orders causing changes or deviations from the original contract, shall sublet or subcontract any portion of the work in excess of the listing threshold as to which his original bid did not designate a Subcontractor unless:

(1) The Contractor fails to receive a bid from a category of work. Under such circumstances, the Contractor may subcontract. The Contractor shall designate on the listing form that *NO BID WAS RECEIVED or;*

(2) *The Contractor fails to receive more than one bid for a category of work. Under such circumstances, the Contractor may subcontract. The Contractor shall state on the listing form that ONLY ONE SUBCONTRACTOR'S BID WAS RECEIVED, together with the name of the Subcontractor. This designation shall not occur more than one time on the subcontractor list.*

Subcontractor:	Category of Work:	City or County of Business:	Phone #:	License No.:	Over $60,000? √	NM Workforce Solutions No. (If over $60,000)

SUBCONTRACTOR LIST Continued

Subcontractor:	Category of Work:	City or County of Business:	Phone #:	License No.:	Over $60,000? √	NM Workforce Solutions No. (if over $60,000)

New Mexico Department of Transportation

NOTICE TO CONSTRUCTION CONTRACTORS BIDDERS LIST OF QUOTERS FOR THE DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

PROJECT NUMBER: CN F100180/ Project No F100180

In accordance with 49 CFR Part 26, the Department will establish the State DBE goal using a Bidders List. The Bidders List will be a compilation of all quotes received by the Contractor during the advertising period. The Bidders List will be used to determine the relative availability of DBE's.

At the time the bid is submitted to the Department, the Contractor shall list, on Form BL-DBE, the quotes received for the project, using additional sheets as necessary. The listing shall include EACH quoter's name, business address, telephone number and whether the quoter is a New Mexico certified DBE. **FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL RENDER A BID NON-RESPONSIVE AND THE BID SHALL BE REJECTED.**

The term "quoter" shall include subcontractors and suppliers of materials with whom the Contractor has direct contact.

Providing the listing of quoters in compliance with the Provisions, shall not be a substitute for the requirements of the Subcontractors Fair Practices Act, Chapter 18, Laws of 1988, NMSA 1978, Sections 13-4-31 through 13-4-43.

BIDDER: _____

ADDRESS: _____

TELEPHONE No.: _____ **FAX No.:** _____

E-MAIL ADDRESS: _____

LISTING OF QUOTERS

Name	Address	Telephone	DBE/ Non-DBE

PROJECT NUMBER: CN F100180/Project No F100180

BIDDER: _____

LISTING OF QUOTERS (Continued)

Name	Address	Telephone	DBE/ Non-DBE

New Mexico
State Highway and Transportation Department

NON-DEBARMENT CERTIFICATION

I. Instructions For Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transactions," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage

sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it it not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List (tel. (505) 827-5570).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended,

debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

II. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion.

STATE OF _____)
) ss
COUNTY OF _____)

_____ being first
(President or duly authorized Company official

duly sworn deposes and says that he is _____

_____ of _____
(official capacity)

_____ with the intention of becoming
(name of Company)

a primary participant on New Mexico Highway Construction

Project _____
(Project Number)

and that he certifies to the best of his knowledge and belief that said company and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract

under a public transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Further affiant sayeth not.

_____
(Signature)

_____
(Print Name)

SUBSCRIBED AND SWORN to before me a notary public this _____ day of _____, 19____

_____
Notary Public

My commission expires: _____

NOTICE TO CONTRACTORS

March 14, 1990

CERTIFICATION FOR FEDERAL-AID CONTRACT

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

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal Agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action: a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application b. Initial award c. post-award	3. Report Type: a. initial filing b. material change For Material Change Only: year _____ quarter _____ date of last report _____

4. Name and Address of Reporting Entity: ☐ Prime ☐ Subawardee Tier_____, if known: Congressional District, if known:	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime Congressional District, if known:
6. Federal Department/Agency:	7. Federal Program Name/Description CFDA Number, if applicable:
8. Federal Action Number, if known:	9. Award Amount, if known: $
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI): (attach Continuation Sheet(s) SF-LLL-A, if necessary)	b. Individual Performing Services (including address if different from No. 10a) (last name, first name, MI)
11. Amount of Payment (check all that apply): $_____ ☐ actual ☐ planned	13. Type of Payment (check all that apply): ☐ a. retainer ☐ b. one-time fee ☐ c. commission ☐ d. contingent fee ☐ e. deferred ☐ f. other; specify:
12. Form of Payment (check all that apply): ☐ a. cash ☐ b. in-kind; specify: nature _____ value _____	

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for payment indicated in Item 11:

(attach Continuation Sheet(s) SF-LLL-A, if necessary)

15. Continuation Sheet(s) SF-LLL-A attached: Yes No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each failure.

Signature: _____

Print Name: _____

Title: _____

Telephone No.: _____ Date: _____

Authorized for Local Reproduction
Standard Form--LLL

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee of prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing of attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.

2. Identify the status of the covered Federal action.

3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.

4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.

5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.

6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.

7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract, grant, or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."

9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.

10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

    (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a); Enter Last Name, First Name, and Middle Initial (MI).

11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material charge report, enter the cumulative amount of payment made or planned to be made.

12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.

13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.

14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.

15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.

16. The certifying official shall sign and date the form, print his/her name, title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET

Approved by OMB
0348-0046

Reporting Entity: _____ Page _____ of _____

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Standard Form–LLL-A

New Mexico Pay Equity Reporting Acknowledgement
Executive Order 2009-049

Contractor: _____
Control No.: CN F100180

Note: The Executive Order and required forms can be obtained from the following link:
http://www.generalservices.state.nm.us/spd/pay_e.html

Contractor agrees if it has ten (10) or more employees OR eight (8) or more employees in the same job classification, at any time during the term of this contract, to complete and submit the required reporting form (PE10-249 or PE250, depending on their size at the time) either within thirty (30) calendar days of contract award (if the contract did not result from a solicitation) or on the annual anniversary of the initial report submittal for contracts up to one (1) year in duration (if the contract did result from a solicitation).

For contracts that extend beyond one (1) calendar year, or are extended beyond one (1) calendar year, contractor also agrees to complete and submit the required form annually within thirty (30) calendar days of the annual contract anniversary date of the initial submittal date and, if more than 180 calendar days has elapsed since submittal of the last report, at the completion of the contract.

Should contractor not meet the size requirement for reporting at contract award but subsequently grows such that they meet or exceed the size requirement for reporting, contractor agrees to provide the required report within ninety (90) calendar days of meeting or exceeding the size requirement. That submittal date shall serve as the basis for submittals required thereafter.

Contractor also agrees to levy these reporting requirements on any subcontractor(s) performing more than 10% of the dollar value of this contract if said subcontractor(s) meets, or grows to meet, the stated employee size thresholds during the term of the contract. Contractor further agrees that, should one or more subcontractor not meet the size requirement for reporting at contract award but subsequently grows such that they meet or exceed the size requirement for reporting, contractor will submit the required report, for each such subcontractor, within ninety (90) calendar days of that subcontractor meeting or exceeding the size requirement. Subsequent report submittals, on behalf of each such subcontractor, shall be due on the annual anniversary of the initial report submittal. Contractor shall submit the required form(s) to the State Purchasing Division of the General Services Department, and other departments as may be determined, on behalf of the applicable subcontractor(s) in accordance with the schedule contained in this paragraph. Contractor acknowledges that this subcontractor requirement applies even though contractor itself may not meet the size requirement for reporting and be required to report itself.

Contractor shall not be required to report more frequently than annually unless more than 180 calendar days has elapsed since submittal of the last report and the contract has reached completion. The requirement for reporting at contract completion shall not apply in the case of a one-time fulfillment of a purchase order.

By signing this form Contractor acknowledges that it will comply with these requirements.

_____ _____
Signature Date

DBE A-1

NOTICE TO CONTRACTORS

DISADVANTAGED BUSINESS ENTERPRISE (DOE) PROGRAM
RACE-CONSCIOUS MEASURES
October 18, 2010

CN F100180

This Project is subject to race-conscious measures. The established DBE Goal for this project is 3 %.

At the time the bid is submitted to the Department, **ALL BIDDERS** as indicated below, shall establish whether it can or cannot meet the established DBE goal and shall complete, sign and submit Form No. A-585, DBE A-1 Pages 1 and 2 indicating the subcontractors/suppliers that it will use if awarded the project. Each Bidder is responsible for confirming that each DBE it intends to utilize is currently certified. To do so, Bidders should confirm the DBE firm's status by accessing the DBE Directory at http://nmdot.dbesystem.com. Any questions about accessing the Directory or properly completing the forms can be addressed to the NMDOT Office of Equal Opportunity Programs (OEOP) at 1.800.544.0936 or 505.827.1774.

In addition, within five (5) working days after the bid opening, by 4:00 PM, **ALL BIDDERS** shall submit written confirmation from each DBE of its intent to participate in the contract as provided in the Bidder's commitment. See the Notice to Contractors for Disadvantaged Business Enterprise (DBE) Program Race-Conscious Measures- Form A-644 for specific instructions and the required form (Form No. A-644).

If the bidder cannot meet the established DBE goal, the bidder shall submit documentation evidencing its "Good Faith Efforts" to obtain DBE participation. This documentation shall be submitted to the OEOP located at Aspen Plaza, 1596 Pacheco Street, Suite 107, Santa Fe NM, 87505. Documentation will be accepted until 4:00 PM within (5) five working days after the bid opening. The *Selected DBE Program Provisions Disadvantaged Business Participation in USDOT Assisted Contracts* provides a detailed listing of the types of actions that the NMDOT will consider as evidence of a Bidder's "Good Faith Efforts" to obtain DBE participation. At a minimum, the Bidder shall provide evidence that it: solicited through all reasonable and available means the interest of all certified DBE firms that have the capability to perform the work on the contract; and, determined with certainty whether DBE firms were interested by taking appropriate steps to follow up on initial solicitations. Evidence shall include copies of newspaper advertisements, fax logs, telephone logs, or other means utilized to solicit and follow up with the DBE firms.

If a Bidder is submitting "Good Faith Efforts" documentation, this Notice to Contractors; Form No. A-585A, DBE A-1; and Form No. A-644 shall be completed and submitted in accordance with the time frames indicated above. If the OEOP determines that the apparent low bidder has failed to provide adequate evidence of "Good Faith Efforts", the Department will notify the apparent low bidder of that determination and provide the apparent low bidder with the opportunity to request administrative reconsideration of that determination pursuant to 49 CFR 26.53(b)(3)(d).

FAILURE TO COMPLY WITH THESE REQUIREMENTS SHALL RENDER A BID NON-RESPONSIVE AND THE BID SHALL BE REJECTED.

In accordance with 49 CFR Part 26, the Department's Disadvantaged Business Assistance Program, and the applicable Special Provisions, the bidder (Check box a., b. or c. as appropriate):

) a. Assures to meet or exceed the established DBE goal.

) b. Cannot meet the established DBE goal. Assures to submit "Good Faith Efforts" documentation.

) c. Is a certified DBE contractor. Shall list itself and any other DBE subcontractor(s) on Form No. A-585A, DBE A-1.

Form No. A-585A
DBE A-1
Rev. 10/18/10

New Mexico Department of Transportation
RACE CONSCIOUS MEASURE PROJECT
CONTRACT GOAL FOR DISADVANTAGED BUSINESS ENTERPRISE PROGRAM IN HIGHWAY CONSTRUCTION

For the purpose of this contract, a goal of 3% percent has been established for certified Disadvantaged Business Enterprise (DBE) Participation.

Type or print legibly

*Name of DBE	DBE Address	Description of Work	Proposed Amount
		Total DBE Participation	$

1. Control No. F100180
2. Contractor's DBE Liaison Officer _____
3. Total Amount of the Bid $_____
**4. DBE Participation Percentage _____ % of line 3.

*Written confirmation from the DBE that is participating in the contract is required. See Form A-644.
** If the contract goal is not met, evidence of "Good Faith Efforts" must be provided. The bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement by the scope, intensity and appropriateness

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I will abide by the Disadvantaged Business Enterprise (DBE) goal set forth for this project and hereby submit the names of the DBE firms that will participate in this project. Substitution(s) will not be allowed without prior submission of written justification to the Project Manager for approval. I understand that failure to meet the goal may result in Liquidated Damages for the difference between the DBE goal and the actual DBE participation achieved.

This statement is my assurance that _____ agrees to comply with the requirements of
(name of firm)
49 CFR Part 26, and the New Mexico Department of Transportation's Disadvantaged Business Enterprise Program, and all the requirements contained therein.

_____ _____
Date Signature of Company Official

TECHNICAL SPECIFICATIONS
PROVISIONS

Replacement of Bridge No. 8105
Carrying
San Juan County Road 7150 Over Gallegos Wash
NMDOT CN F100180
TECHNICAL SPECIAL PROVISIONS

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SECTION 101: ABBREVIATIONS, SYMBOLS, TERMS, AND DEFINITIONS

101.1 ACTIVE VOICE, IMPERATIVE MOOD, REFERENCES, USE OF LANGUAGE

The New Mexico Department of Transportation publishes this edition of the Standard Specifications for Highway and Bridge Construction with an emphasis on the active voice. In a sentence written in the active voice, someone acts on something. For example: "The Engineer will take a sample." A similar sentence in the passive voice "A sample will be taken" would be unclear about who was responsible for taking the sample.

This edition of the Standard Specifications also makes use of the imperative mood. The imperative mood is used when the party issuing an instruction and the party receiving it are already understood. In these Standard Specifications, the Department is stating its requirements or directions for Work to the Contractor; such statements have the same force as if they contained the word "shall." In an imperative sentence such as, "Pour the concrete," the Department is indicating that it requires the Contractor to pour the concrete. Before an Award of a Contract, imperative statements are directed to the Bidder. After a Contract has been awarded, imperatives are directed to the Contractor.

The Department will identify parties other than the Bidder or Contractor to whom it gives a responsibility in these Standard Specifications. In phrasings where the responsible party has already been clearly identified or in factual statements when it is not important to do so, the Department may use the passive voice.

The word "shall" is used in a mandatory or imperative sense and signifies that the Department is imposing a duty on a person or body that is the subject in the sentence. The word "may" is used to signify the conferring of a discretionary power, privilege, or right. However, use of the term "may not" signifies that a right, privilege, or power is intended to be denied.

The titles or headings of the sections and subsections herein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

The Contractor, having an obligation to comply with, observe, and comply with all federal and State law and regulations, any reference to any federal or State law or regulation shall constitute a reference to any applicable amendment or successor law or regulation.

101.2 ABBREVIATIONS

When the following abbreviations are used in the Plans, the Specifications, other Contract documents, and Department correspondence, their meaning is as follows:

Table 101.2:1
Acronyms and Abbreviations

Acronym or short form	Full name or meaning
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AI	Aggregate Index
AMRL	AASHTO Material Reference Laboratory
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers' Association
AWWA	American Water Works Association
CBC	concrete box culvert
CCD	closed circuit detection
CD	compact disc
CFR	Code of Federal Regulations
CMP	corrugated metal pipe
CN	control number
CPM	critical path method
CTR	certified test report
CWB	concrete wall barrier
DBE	disadvantaged business enterprise
EA	entrance angle
ESAL	equivalent single axle loading
FHWA	Federal Highway Administration
GRT	gross receipt tax
HDPE	high density polyethylene
HFE	high-float emulsion
HID	high-intensity discharge
HMA	hot-mix asphalt
HMWM	high molecular weight methacrylate
IES	Illuminating Engineering Society
IMC	intermediate metallic conduit

Table 101.2:1
Acronyms and Abbreviations

Acronym or short form	Full name or meaning
ITE	Institute of Transportation Engineers
JMF	job mix formula
LCD	liquid crystal display
LL	liquid limit
MSDS	Material Safety Data Sheet
MTR	mill test report
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program
NEC®	National Electrical Code®
NEMA	National Electrical Manufacturers Association
NMAC	New Mexico Administrative Code
NMDA	New Mexico Department of Agriculture
NMED	New Mexico Environment Department
NMSA	New Mexico Statutes Annotated
NMSSPWC	New Mexico Standard Specifications for Public Works Construction
NPDES	National Pollutant Discharge Elimination System
NTSC	National Transmission Standards Committee
OA	observation angle
OGFC	open-graded friction course
OSHA	Occupational Safety and Health Administration
PCC	portland cement concrete
PCCP	portland cement concrete pavement
PCI	Prestressed Concrete Institute
PCT	process control technician
PE-P	penetrating emulsified prime
PI	plasticity index
PTL	private testing laboratory
PVC	polyvinyl chloride
QA	quality assurance
QC	quality control
QCT	quality control technician
QLA	quality level assurance
RAP	reclaimed asphalt pavement
ROW	right of way
SSPC	Society of Protective Coating (formerly Steel Structures Painting Council)
SWPPP	storm water pollution prevention plan
TERO	Tribal Employment Rights Organization
TTCP	Technician Training and Certification Program
TV	target value
UBC™	Uniform Building Code™
UL	Underwriters Laboratories
USEPA	United States Environmental Protection Agency
UV	ultraviolet
VMA	voids in mineral aggregate
VTM	voids in total mix
WMA	warm mix asphalt

101.3 SYMBOLS

Within the Specifications and Contract, reference to the English system of measurement symbols is a reference to the U.S. Customary (Inch-pound) system.

Some of the symbols for units of measurement used in the Specifications and in the Bid Form are defined as shown in Table 101.3:1, "Measurement Symbols." The symbols for other units of measurement used in the Specifications are as defined in the various Specifications and tests referenced in the Specifications.

Table 101.3:1
Measurement Symbols

Physical Characteristic	Unit name	Symbol
Length	inch	in
	foot	ft
	yard	yd
	mile	mi

Table 101.3:1
Measurement Symbols

Physical Characteristic	Unit name	Symbol
	mile	mi
Area	square inch	in^2
	square foot	ft^2
	square yard	yd^2
	square mile	mi^2
	acre	acre
Volume	cubic inch	in^3
	cubic foot	ft^3
	cubic yard	yd^3
Mass (weight)	ounce	oz
	pound	lb
	ton, short (2,000 lb)	ton
Temperature	degree Fahrenheit	°F
Time	millisecond	ms
	second	s
	minute	min
	hour	h
Speed	miles per hour	mph
Pressure	pound-force per square inch	psi
Power, energy and electricity	watt	W
	kilowatt	kW
	milliampere	mA
	ampere	A
	volt	V
	voltampere	VA
	ohm	Ω
	hertz	Hz
	joule	J
	lumen	lm
	footcandle	fc
	horsepower	hp
Force	pound-force	lbf
	1,000 pounds-force	kip
Torque	pound-force foot	lbf-ft
Viscosity, dynamic	centipoises	cP
	poise	P
Viscosity, kinematic	centistokes	cSt
Flow	gallons per minute	gpm
Concentration	parts per million	ppm
Inductance	Henries	H
Frequency, concrete consolidation	vibrations per minute	vpm
Sound	Decibel, A-Scale	dbA

101.3.1 Engineer's Estimate Symbols

The measurement symbols shown on the Engineer's Estimate differ from those found in the rest of Project documents. Table 101.3.1:1, "Symbols for Engineer's Estimate," lists and defines the symbols.

Table 101.3.1:1
Symbols for Engineer's Estimate

Symbol	Unit of measure or meaning
LS	Lump Sum
EACH	Each
ALOW	Allowance
L.F.	Linear Foot
MILE	Mile
S.F.	Square Foot
S.Y.	Square Yard
SYIN	Square Yard Inch
ACRE	Acre
C.Y.	Cubic Yard
LB	Pound
TON	Ton

101.4 TERMS AND DEFINITIONS

If the following terms are used in the Plans, the Specifications, other Contract documents, and **Department** correspondence, the intent and meaning shall be interpreted as follows:

Acceptance. (Also called **Accept, Accepted and Acceptable**) 1) The determination by the **Department** that Materials and Work are in compliance with the Contract. 2) The process by which the **Department** determines whether or not the quality of produced Material or Work is **Acceptable** pursuant to the Contract, including sampling, testing, certifications and assessment of test results.

Act of God. An unusual, sudden, and unexpected manifestation of the forces of nature, the effect of which could not have been prevented by reasonable human foresight, pains, and care.

Addendum. A change in the **Plans** or **Specifications** issued after the **Advertisement** and before the opening of the **Bid**.

Advertisement. (Also called **Invitation for Bids**.) A public announcement inviting **Bids** for **Work** to be performed or **Materials** to be provided.

Apparent Low Bidder. The **Bidder** who submits at a **Bid Opening** a **Total Bid Amount** that is numerically lower than the **Total Bid Amount** submitted by other **Bidders**, but who's **Bid** may later be subject to rejection, recalculation or other modification that may change the order of **Bidders**.

Assistant District Engineer (ADE) - Construction. The **Engineer** in charge of the construction operations in a designated portion of a **Department District**.

Award. The written acceptance by the **Department** of a **Contract Bid**.

Base Course. The layer or layers of specified **Material** placed on a **Subbase** or a **Subgrade** normally used to support a **Surface Course**.

Baseline Schedule. A fixed **Project** schedule that is the standard by which **Project** performance is measured.

Basis of Payment. The terms under which **Work** is paid, as a designated **Pay Item** in accordance with the quantity measured and the **Pay Unit**.

Bid. The offer of a **Bidder**, on the prescribed form, to perform the **Work** at the prices quoted.

Bidder. An individual, partnership, firm, corporation, joint venture, or their authorized representative submitting a **Bid**.

Bid Form. The approved form on which the **Department** requires **Bidders** to prepare and submit **Bids**.

Bid Guaranty. The security provided with a **Bid** to guarantee that the **Bidder** will enter into the **Contract** if the **Department** accepts its **Bid**.

Bid Item (Contract Item, Pay Item). A specifically described unit of **Work** for which a **Bidder** provides a **Bid Item Unit Price** and **Bid Item Price**. The **Bid Items** become **Contract Items** when the **Contract** is executed. The **Contract Items** become **Pay Items** when calculating **Progress Payments**.

Bid Item Price. The price established by the **Contractor** for each individual **Bid Item** on the **Bid Form**; the product of the **Bid Item** quantity, provided on the **Bid Form**, and the **Bid Item Unit Price**.

Bid Item Unit Price. The price established by the **Contractor** for each unit of an individual **Bid Item** on the **Bid Form**. A **Bid Item Unit Price** reflects a **Bidder**'s actual and direct costs for the item plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs.

Bid Opening. A public reading of the properly submitted **Bids**, on a date established by the **Invitation for Bids**.

Bid Package. The **Bid** documents submitted by a **Bidder** in accordance with Section 102, "Bidding Requirements and Conditions."

Bid Schedule. Listing or table of **Bid Items**, also referred to as **Proposal Schedule**.

Borrow Pit. A source outside the **Roadway Prism** from where suitable **Material** used primarily for **Embankment** is obtained.

Breakaway. The ability of a system to yield at a predetermined impact force.

Bridge. A **Structure** having a length — as measured along the center of the **Roadway** — of more than 20 ft between undercopings of abutments or extreme ends of openings for multiple boxes or extreme ends of openings for Culverts placed in series with a spacing between Culverts not exceeding ½ the diameter, and carrying a pathway or **Roadway** over a depression or obstacle. It includes all appurtenances necessary to its proper use. The length of a **Bridge** structure is the distance along the line of survey stationing back-to-back of backwalls of abutments, if present, or end-to-end of the **Bridge** floor, and in no case less than the total clear opening of the structure. The **Bridge Roadway** width is that clear unobstructed width of

Bridge deck available for vehicle use measured normal to the centerline of the **Bridge**.

Business Hours. The **Department**'s Business Hours are from 7:45 a.m. to 4:30 p.m., Monday through Friday, official State **Holidays** and emergency closures excluded.

Cabinet Secretary. The individual in charge of the **Department**. Also referred to as the **Secretary**.

Calendar Day. Each and every **Day** shown on the calendar, beginning and ending at midnight.

Certificate of Compliance. A certificate provided by the **Contractor** proving that the relevant **Material** is in accordance with the **Contract**.

Change Order. A written order issued to the **Contractor** by the **Department** covering contingencies, **Extra Work**, increases or decreases in **Contract** quantities, payments for items for which there is no **Bid Item Unit Price**, additions or alterations to the **Plans** or **Specifications** within the scope of the **Contract**, and establishing the **Basis of Payment** and time adjustments for the **Work** affected by the changes, or adjustments to the original **Contract**. A **Change Order** may consist of a **Supplemental Agreement** or **Field Sheet**. A **Change Order** is the only method authorized for changing the **Contract**.

Chief Engineer. The **Engineer** in charge of the planning and design of **Projects** for the **Department** or the individual's designee.

Chill Factor. The Chill Factor is the ambient temperature (in degrees Fahrenheit) minus wind velocity (in miles per hour).

Claim. A **Contractor** request or demand for a **Contract** adjustment, equitable adjustment, additional time or compensation and other contractual damages, **Delay** damages, an extension of **Contract Time**, pass-through Subcontractor Claims, or for any other remedy arising from a dispute, disagreement, or controversy concerning respective rights and obligations under the **Contract**.

Commercial Material Source. A **Material** source that has been utilized by a private producer in a commercial operation from which **Material** has been sold within the last 24 months before the date of the letting.

Completion Dates. **Contracts** may have the following Completion Dates as defined herein:

Substantial Completion Date

Physical Completion or **"Completion" Date**

Mandatory Completion Date

Construction Maintenance Easement (CME). A real property interest in land acquired by the **Department** in conjunction with a **Highway, Street, or Road Project** to provide permanent access to private property to perform specific construction and maintenance functions.

Construction Zone. The area within the **Right of Way** from the first traffic control sign announcing the **Road** work to the last sign announcing the end of **Road** work within which the **Contractor** shall perform construction activities.

Contract. The entire and integrated written agreement between the **Department** and the **Contractor** setting forth the obligations of the parties, including, but not limited to, the performance of the **Work** and the **Basis of Payment**.

The Contract includes the **Advertisement, Bid Form** and **Contract Bond, Standard Specifications, Supplemental Specifications, Special Provisions, Addenda, Notice To Contractors**, general and detailed **Plans, Standard Drawing** serials, and **Notice to Proceed** — also any **Change Orders** and agreements that are required to complete the construction of the **Work** in an **Acceptable** manner, including authorized extensions thereof, all of which constitute one instrument.

Contract Bonds. The approved payment and performance bonds — executed by the **Contractor** and the **Contractor's Surety** or sureties — guaranteeing complete execution of the **Contract** and all **Change Orders** pertaining thereto, and the payment of all debts pertaining to the construction of the **Project**.

Contractor. The individual, partnership, firm, corporation, or joint venture contracting with the **Department** for performance of the **Work**.

Contract Time. The time specified in the **Invitation For Bids** for completion of the **Contract**. This time may be defined as a specified fixed date, a given number of **Working Days**, or a given number of **Calendar Days** — or a combination of the above. The Contract Time may be amended by mutual written agreement to include authorized time extensions as the performance of the **Contract** requires.

County. The County in which the **Work** herein specified is to be done.

Cultural Resource. Any prehistoric or historic period artifact, site, building, structure, material remains, or traditional use area resulting from, or associated with, human cultural activity. Historically important **Cultural Resources** are those eligible for inclusion on the National Register of Historic Places.

Cultural Resource Professional. An individual with at least four (4) years of full-time paid experience in **Cultural Resource** investigations, including analyzing and preparing documentation needed to meet the requirements of Section 106 of the

National Historic Preservation Act. The individual must be properly permitted to meet the requirements of the NM State historic preservation officer or appropriate tribal preservation officer.

Culvert. Any **Structure** not classified as **Bridge** or casing that provides an opening under a **Roadway**.

Day. Calendar Day unless otherwise noted.

Delay. Any event, action or factor that extends the time for the performance of the **Work** or that negatively affects the critical path for the **Project**, whether it be excusable, inexcusable, nonexcusable, concurrent, compensable or noncompensable.

Deleterious Material. Unsuitable material harmful to final product.

Department. The New Mexico Department of Transportation as constituted under the laws of the State for the administration of transportation Work. Any reference to **Contract** documents, **Plans**, **Special Provisions**, **Standard Drawings**, **Forms**, **Change Orders**, and any other pertinent written communication in which the terms "New Mexico State Highway Department" or "New Mexico State Highway and Transportation Department" appears shall be the same as the term New Mexico Department of Transportation or its designated agent.

Detour. A temporary route for traffic (vehicular or otherwise) around a closed portion of a **Road**.

Disadvantaged Business Enterprise (DBE). As defined in title 49 CFR part 26.

District. A subdivision of the **State** for the purpose of executing the **Department's** construction, maintenance, and administrative activities.

District Engineer. The **Engineer** in charge of a **Department District**.

Divided Highway. A **Highway** with separated **Roadways** for traffic, generally in opposite directions.

Embankment. The portion of a **Roadway** that is below the **Subbase**, **Base Course**, and **Surface Courses** and that is built up in layers consisting principally of soil and broken rock or a combination thereof.

Engineer. The designee of the **Cabinet Secretary** of the **Department**.

Entrance Angle (EA). The angle between the reference axis and the axis of incident light (Counter-clockwise rotation of the reference axis relative to the axis of incident light is considered positive.)

Environmental Professional. An individual qualified to perform hazardous material investigations. This individual must possess the qualifications described in 40 CFR Part 312(4)(E), the USEPA's Standards and Practices for All Appropriate Inquiries.

Environmental Program Manager. The individual in charge of the Environmental Bureau of the **Department**.

Environmental Resource. The physical and biological components of the human and natural environment.

Environmental Specialist. An individual with at least four (4) years of full-time paid experience in environmental investigations, including analyzing and preparing documentation needed to meet the FHWA approval requirements for the National Environmental Policy Act and related legislation.

Equipment. All machinery, tools, and Equipment, together with the necessary supplies for upkeep and maintenance, necessary for the construction and completion of the **Contract**.

Extra Work. Work not provided for in the **Contract** but found by the **Project Manager** to be essential to the satisfactory completion of the **Contract** within its intended scope. **Extra Work** means either 1) an item of **Work** ordered under the **Contract** for which there is no **Bid Item Unit Price** or 2) an increase or decrease of 25% in the original **Contract** quantity of a **Major Contract Item**. (See Section 104.2, "Significant Changes in the Character of Work.") Such **Work** shall be performed as directed and will be paid for only on one of two grounds as provided in Section 109.5, "Payment for Changes, Differing Site Conditions, and Extra Work," by **Bid Item Unit Price**, negotiated price agreement, or by **Force Account**.

Fabricator. A **Supplier** that fabricates or supplies **Structural Steel** or other structural items.

Field Sheet. A type of **Change Order** that does not require a **Contractor's** signature.

Force Account. The **Basis Of Payment** for the directed performance of **Work**, with payment based on the actual cost of labor, **Equipment**, and **Materials**, and including various constant additives.

Fractured Face. At least one-half of the projected particle area exhibits a rough, angular, or broken texture with well defined edges.

General Office (GO). The **Department's** main headquarters.

Hazardous Materials. Any substance, product, waste, or other **Material** of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to all applicable laws all as amended, or any other federal, state, or local statute law, ordinance, resolution, code, rule, regulation, order, or decree regulating, relating to, or imposing liability or standards of

conduct concerning any hazardous, toxic, or dangerous waste, substance, or material.

Highway, Street, or **Road.** A general term denoting a public way for purposes of vehicular or pedestrian travel.

Holiday. Holidays recognized by the State of New Mexico are as follows, unless otherwise provided by the legislature:

1. 1st Day of January (New Year's Day);
2. 3rd Monday in January (Martin Luther King Jr. Day);
3. 3rd Monday in February (Presidents' Day);
4. Last Monday in May (Memorial Day);
5. 4th Day of July (Independence Day);
6. 1st Monday in September (Labor Day);
7. 2nd Monday in October (Columbus Day);
8. 11th Day of November (Veteran's Day);
9. 4th Thursday in November (Thanksgiving Day);
10. 25th Day of December (Christmas Day).

If any Holiday above falls on a Saturday or Sunday, the previous Friday or following Monday, respectively, shall be considered a Holiday.

Independent Assurance. A construction management tool in which a third party, not directly responsible for process control or **Acceptance**, provides an independent assessment of the Work, Materials, or the reliability of test results obtained from process control and **Acceptance** testing.

Incentive/Disincentive Provision. Predetermined adjustments to the **Contract** price.

Incidental. Occurring or likely to occur at the same time or as a result of other items of **Work** as specified in the **Contract** for which no separate or additional payment will be made.

Inspector. The **Project Manager's** authorized representative.

Invitation for Bids. See **Advertisement.**

Job Mix Formula (JMF). The combined aggregate gradation and the percentage of each **Material** component in the mix.

Laboratory. A testing **Laboratory** of the **Department, Contractor** or any other testing **Laboratory** that may be designated by the **Engineer** and is **AASHTO** Materials Reference Laboratory (AMRL) Certified.

Landscape Architect. The **Cabinet Secretary's** designee for landscape architecture.

Lighting and Signal Engineer. The **Engineer** in charge of the **Department's** signal and lighting design.

Luminarie. A lighting device designed to illuminate the surface of a specific area from a mounting on a **Standard,** including the housing, optical control, lamps, and necessary ballasts.

Lump. The mathematical quantity for a **Lump** sum item is one.

Machine Vision Vehicle Detection System. A system that tracks vehicles on a **Roadway** via processing of video images and provides detector outputs to a traffic controller.

Mandatory Pre-Bid Conference. A meeting or conference to be conducted prior to the **Bid Opening** at which all **Bidders** are required to attend. A **Mandatory Pre-Bid Conference** is conducted for the purpose of discussing **Contract** requirements, to inform **Bidders** of important information relating to the performance of tha **Work,** to answer questions of prospective **Bidders** in order to better facilitate proper bidding, compliance with the **Contract,** performance of the **Work,** to reduce job-in-progress disputes between the **Department** and **Contractor,** and to reduce the potential for **Change Orders, Claims, Liquidated Damages,** added costs and cost overruns. The requirement to attend a Mandatory Pre-Bid Conference shall be set forth in a **Notice to Contractors, Special Provision** or **Addendum.** A **Bidder's** failure to attend shall result in its **Bid** being rejected as non-responsive.

Maintaining Agency. Public entity such as a **City** or **County** responsible for the electrical energy costs and maintenance of the approved and **Accepted** signal and lighting system.

Major Contract Item. Any item, excluding mobilization, having a **Bid Item Price** of 10% or more of the **Total Bid Amount** for the **Contract,** minus the amount **Bid** for mobilization.

Mandatory Completion Date. The date on which the **Project** shall be completed. This may be either **Substantial Completion** or **Physical Completion** as specified in the **Contract.** If neither is specified, it shall mean "**Substantial Completion.**"

Materials. Any substances specified for use in the construction of the **Project** and its appurtenances.

Median. That portion of a **Divided Highway** separating the **Traveled Way** for traffic in opposing directions.

Method of Measurement. The method in which a **Pay Item** is measured to conform with the **Pay Unit.**

Nominal Maximum Sieve. One sieve size larger than the first sieve that retains 10% or more of a given **Material.**

Non-Conformance. Contractor's failure to comply with the **Contract** or to provide **Acceptable Work** to the **Department. Non-Conformances** are subject to a withholding of 25% of the **Progress Payment. Non-Conformance** withholdings will be paid at the subsequent **Progress Payment** following resolution of all **Non-Conformances.**

Notice to Proceed. (Work Order) Written notice to the **Contractor** to proceed with the **Contract Work** including the beginning date of **Contract Time.**

Notice to Contractors. An addition to the **Contract** package, made prior to its issuance to the **Contractor**, indicating changes to the **Plans** and **Specifications.**

Observation Angle. The angle between the axis of incident light and the observation axis.

Partial Suspension. The suspension of **Work** on some, but not all **Contract Items.**

Pavement Structure. The combination of **Subbase, Base Course**, and **Surface Course** placed on a **Subgrade** to support and distribute the traffic load to the **Roadbed.**

Pay Adjustment. An adjustment to a payment for a specific portion of the **Work** based on the quality of the **Work** performed by the **Contractor** and **Accepted** by the **Department.** Other **Department** documents may refer to this term as price adjustments, price reductions, or pay reductions.

Physical Completion. All the **Work** is physically completed on the **Project** and is **Accepted** by the **Project Manager.** All documentation required by the **Contract** and by law shall be furnished by this date.

Pit Agreement. An agreement with a property owner to provide borrow or surfacing **Material** for **Highway** construction or maintenance.

Plans. The approved **Contract** drawings showing profiles, typical cross sections, or exact reproductions that show the location, character, dimensions, and general or specific details of the **Work** to be done.

Post Construction Plans. Final drawings reflecting **Work** and quantities performed under the **Contract.**

Pre-Construction Conference. A meeting between the **Department** and the **Contractor** prior to any **Work** taking place to review and discuss **Contract** requirements, construction details, the **Baseline Schedule, Contract** administration issues, and any items peculiar to the **Project.** See Section 108.2 "Notice to Proceed and Pre-Construction Conference" for specifics associated with the **Pre-Construction Conference.**

Pre-Pave Conference. A meeting between the **Department** and the **Contractor** prior to the commencement of paving operations to review, discuss and coordinate the **Work** associated with paving operations.

Pre-Fabrication Conference. A meeting between the **Department** and the **Contractor** prior to any fabrication **Work** taking place.

Pre-Deck Conference. A meeting between the **Department** and the **Contractor** prior to the commencement of deck placement operations to review, discuss and coordinate the **Work** associated with the deck placement.

Pre-Bid Due Diligence. The **Bidder's** exercise of due diligence before submittal of a **Bid** which includes the careful, independent examination of the site of the proposed Work, including Materials pits and haul **Roads**, the **Bid Package, all Contract** documents including **Standard Specifications, Special Provisions, Supplemental Specifications**, and standard and serial drawings and boring logs which are representative of the condition at the precise location where each boring was made but conditions may vary between boring locations.

Professional Service. A **Subcontractor** who provides a specialized service requiring professional licensure by the state of New Mexico, e.g. Professional Engineers, Professional Surveyors and Attorneys.

Profile Grade. The line obtained from the trace of a vertical plane intersecting the top of the surfacing at the locations shown on the **Plans** and determined in accordance with the criteria set forth in the standard serials and drawings. Profile Grade means either the elevation or the gradient of such trace according to the context. The location of the Profile Grade will be designated by the **Department** and shown on the **Plans.** The Profile Grade may be used to designate the gradient and elevation of other construction features such as tops of curb, channels, **Sidewalks**, etc.

Progress Payment. A monthly payment provided by the **Department** to the **Contractor** for **Work**, subject to withholdings for **Non-Conformances** and **Retainage.**

Project. The specific section of the **Highway** or property on which construction is to be performed as specified in the **Contract.**

Project Manager. The **Department's** representative who is delegated the responsibility for administration of the **Project**.

Punch List. A list, prepared by the **Project Manager**, of corrective **Work** items to be completed by the **Contractor** after **Substantial Completion** but before **Contractor's** request for final inspection. The **Punch List** is limited to items of the **Work** that are necessary to correct minor imperfections, deficiencies and deviations from the requirements of the **Contract** but which have no material or adverse effect on the full operability of the **Project** for its intended purpose and may be safely and effectively used by the public without delay, disruption, or impediments.

Quality Assurance (QA). The **Department's** sampling, testing, inspection, and other activities to determine payment and make **Acceptance** decisions.

Quality Control (QC). The Contractor's actions and considerations necessary to assess production and construction processes so as to control the level of quality being produced in the end product. Quality control includes sampling and testing by the Contractor to monitor and adjust its process. Quality Control does not include **Acceptance** sampling and testing by the **Department**.

Quality Level Assurance (QLA). Is equivalent to QC/QA.

R-value. The measurement of the response of a compacted sample of soil or aggregate to a vertically applied pressure under specific conditions.

Required Documents for Bid Submittal. Those documents specified in the **Bid Package** required for **Bid** submittal.

Resource Loading. The Contractor's assigning of resources necessary to develop an Acceptable CPM for the **Project**. **Resource Loading** shall include personnel, **Contract** dollars earned, **Materials**, facilities and **Equipment** associated with each activity within the CPM.

Responsible Bidder. A **Bidder** who submits a **Responsive Bid** and who has furnished, when required, information and data to prove that his financial resources, production or service facilities, personnel, service reputation and experience are adequate to make satisfactory delivery of the services, construction or items of tangible personal property described in the **Invitation For Bids** as defined in NMSA 1978, § 13-1-82.

Responsive Bid. A **Bid** which conforms in all material respects to the requirements set forth in the **Invitation For Bids** and the **Contract** documents, including **Notice to Contractors, Special Provisions, Supplemental Specifications,** and **Addenda** and which has not been rejected. Material respects of a **Bid** include but are not limited to price, quality, quantity or delivery requirements as defined in NMSA 1978, § 13-1-84.

Retainage. 5% of the **Total Original Contract Amount** as amended by **Change Order**. The 5% shall be retained when the Progress Payments equal 95% of the amended **Contract** amount. The retainage shall be withheld until **Physical Completion** to assure that the **Contractor** shall satisfy its obligations and complete the **Work**.

Right of Way (ROW). A general term denoting land or property, or interest therein, usually in a strip, acquired for or devoted to transportation purposes.

Roadbed. The graded portion of the **Highway** with top and side slopes prepared as a foundation for the **Subgrade**, **Pavement Structure**, and **Shoulders**.

Roadway. A general term denoting the **Traveled Way** and the **Shoulders**.

Roadway Prism. The **Roadway** construction limits between the outside limits of the side slopes.

Secretary. See **Cabinet Secretary**.

Shoulder. The portion of the **Roadway** contiguous with the **Traveled Way** for accommodation of stopped vehicles, for emergency use, and for lateral support of **Base** and **Surface Courses**.

Sidewalk. That portion of the **Roadway** primarily constructed for use by pedestrians.

Signal Assembly. A housing containing the required illuminated traffic signal indications (vehicular and pedestrian) mounted on a **Standard**.

Small Business. As defined in 5 USC Section 601 and 15 USC Section 632 of the Small Business Act.

Special Provisions. Additions and revisions to the **Standard** and **Supplemental Specifications** covering conditions applicable to an individual **Project**.

Specialty Items. Work not usually performed by **Highway Contractors** and so designated in the **Contract**.

Specifications. A general term applied to all written provisions and requirements pertaining to performance of the **Work**.

Specific Intensity. Candlepower of the returned light at the chosen **Observation** and **Entrance Angles** for each lumen per square meter, foot-candle of illumination at the reflector on a plane perpendicular to the incident light.

Standard. In traffic lighting, a pole-type structure that supports and positions signal and lighting devices, including arms, mounting hardware, and lowering and **Breakaway** devices as required.

Standard Drawings. Detailed drawings for specific items of **Work** approved for repetitive use.

Standard Specifications. The **Department's** book of **Specifications** approved for general application and repetitive use.

State. The State of New Mexico acting through its authorized representatives.

State Asphalt Engineer. The **Engineer** in charge of the **Department's** Asphalt Unit of the State Materials Bureau.

State Bridge Engineer. The **Engineer** in charge of the **Department's** Bridge Design Bureau.

State Concrete Engineer. The **Engineer** in charge of the Concrete Unit of the State Materials Bureau.

State Construction Engineer. The **Engineer** in charge of the State Construction Bureau.

State Geotechnical Engineer. The **Engineer** in charge of the Geotechnical Unit of the State Materials Bureau.

State Materials Engineer. The **Engineer** in charge of the State Materials Bureau.

State Transportation Commission. The six (6) member policy board for the **Department**.

State Transportation Commissioner. An individual member of the **State Transportation Commission**.

Structures. Bridges, Culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, end-walls, buildings, sewers, service pipes, under drains, foundation drains, and other such features that may be encountered in the **Work**.

Structural Steel. Steel shapes, plates, H-piling and sheet piling. Shapes are pipes, structural tubing and all hot-rolled flanged sections. Hot-rolled flanged section are rails and mill products having AISC shape designations of W, S, M, C, MC, HP, L, WT, ST and MT.

Subbase. The layer or layers of specified **Material** thickness placed on a **Subgrade** to support **Surface Courses.**

Subcontractor. An individual, partnership, firm, corporation, or joint venture, other than a **Trucker**, to whom the **Contractor** subcontracts part of the **Contract** who meets the requirements of a **Subcontractor** under Section 108.1, "Subcontracting." The term **Subcontractor** includes first-tier, second-tier and other tiered **Subcontractors** and Sub-subcontractors. A **Subcontractor** has no privity of **Contract** with the **Department** and has no direct or indirect cause of action against the **Department** for any **Claim** or cause of action, including nonpayment by the **Contractor**, arising out of the **Project**.

Subgrade. The portion of the **Roadbed** prepared as a foundation for the **Pavement Structure**.

Substantial Completion. The point at which:

1. All critical path activities on the **Project** have been completed and **Accepted**;
2. All **Non-Conformance** issues have been resolved without exception;
3. The **Project** is complete such that it can be safely and effectively used by the public without delays, disruption, or impediments;
4. The **Contractor** has requested a determination of **Substantial Completion** from the **ADE - Construction**; and
5. The **ADE – Construction** has made a determination that the **Project** is **Substantially Complete**.

For conventional **Bridge** and **Highway Work**, it is the point at which all the following **Work** is complete for the safe and efficient use of the public (or as otherwise defined in the **Contract**):

1. **Bridge** deck;
2. Parapet;
3. **Pavement Structure**;
4. **Shoulder**;
5. Permanent signing;
6. A minimum of one application of striping;
7. Traffic barrier;
8. Signalization and Lighting; and
9. Safety appurtenances.

Substructure. All of that part of the **Bridge Structure** below the bearings of simple and continuous spans, skewbacks of arches, and tops of footings of rigid frames, together with the backwalls, wingwalls, and wing protection railings.

Superintendent. The **Contractor's** agent authorized in writing to be in responsible charge of the **Project**.

Superstructure. The entire **Bridge Structure** except the **Substructure.**

Supplemental Agreement. A type of **Change Order** that may require **Contractor** signature.

Supplemental Specifications. Approved additions and revisions to the **Standard Specifications**.

Supplier. Any individual, partnership, firm, corporation, or joint venture that manufactures or supplies **Materials** to be incorporated into a construction **Project** but who performs no actual work on the **Project** site.

Surety. The corporation, partnership, or individual, other than the **Contractor**, executing a bond furnished by the **Contractor.**

Surface Course. Layer or layers of a **Pavement Structure** designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate.

Surfacing Pit. A source from which suitable **Material** for the production of **Surface Course** aggregate is obtained.

Suspension and Debarment. The disqualification of a **Bidder** or **Contractor** from bidding or performing construction **Work** for a period of time determined by **Department** Regulations (18.28.4 NMAC).

System Master. In traffic lighting, an electronic device normally installed in a controller cabinet capable of supervising an interconnected network of local controllers, providing coordinated traffic movement. System masters in turn may be controlled by a computerized traffic control closed-loop system.

Temporary Construction Permit (TCP). A temporary interest in land acquired in conjunction with a **Highway Project** to provide for the temporary use of private property for the duration of the construction to perform construction activities in which the improvements are not intended to be permanent.

Termini. A general term used to describe the **Project Limits**, and including the beginning and end of the **Project**, its **Right of Way**, pit sites, haul **Roads**, and temporary and permanent construction or maintenance easements.

Total Bid Amount. The sum of all the **Bid Item Prices** on the **Bid Form.**

Total Original Contract Amount. The total amount **Bid** as compensation for the **Contract**.

Town, City, or **District.** Subdivisions of the **State** used to designate or identify the location of the proposed **Work.**

Traffic Lanes. See **Traveled Way.**

Traffic Services Engineer. The **District Engineer's** representative for traffic engineering.

Traffic Signal. The complete installation of a traffic control system at an intersection, including the illuminated signal indications, supports, electrical controls, and distribution system.

Traveled Way. The portion of the **Right of Way** designated for the movement of vehicles, exclusive of **Shoulders** and Auxiliary Lanes.

Trucker. (Also called Trucking, Trucking Deliveries, Deliveries and Hauling) A **Trucker** is an individual, partnership, firm, corporation, or joint venture that transports or delivers **Materials** to and from the **Project** and does not perform **Work** on the **Project** site. A **Trucker** transports, but does not place, **Materials** (i.e. **pit Materials**, plant **Materials**, fabricated **Materials**, demolished and milled **Materials**, trash and waste **Materials**).

Unbalanced Bid. A **Bid** which is either materially or mathematically unbalanced. (A) Materially. A **Bid** that generates a reasonable doubt that awarding the **Contract** to the **Bidder** submitting a mathematically unbalanced **Bid** will result in the lowest ultimate cost to the **Department.** (B) Mathematically. A **Bid** containing lump sum or unit **Bid Items** that do not reflect reasonable actual costs plus a reasonable proportionate share of the **Bidder's** anticipated profit, overhead costs, and other indirect costs.

Value Engineering Cost Proposal. A **Contractor**-provided alternative to the **Work** methods or **Materials** specified in the **Contract** that establishes a better or approved-equal product or result without affecting the functional purpose of the **Work** being revised, and that produce a net savings to the **Department.** Areas exempted from **Value Engineering Cost Proposals** are mix designs and traffic control.

Work. The providing of all labor, **Materials**, **Equipment**, and other **Incidentals** necessary for the successful completion of the **Project**, the successful completion of **Pay Items**, and the carrying out of the duties and obligations imposed by the **Contract**.

Working Day. Every **Day** except Saturdays, Sundays, and **Holidays.** Based on a review of weather conditions and the actual **Work** performed by the **Contractor**, the **Project Manager** will determine (between the end of the **Day** and noon of the next **Day**) if the **Department** will charge a **Working Day.** If the **Contractor** was able to effectively prosecute **Work** on a critical

path item for six or more hours on a Saturday, Sunday, or **Holiday**, a **Working Day** will be charged.

Working Drawings. **Contractor**-furnished documents including, but not necessarily limited to:

1. Stress sheets;
2. Shop drawings;
3. Bending diagrams for reinforcing steel;
4. Plans for erection, false **Work**, frames **Work**, cofferdams, and other items; and
5. Such other similar data required for the successful completion of the **Work**.

107.14 CONTRACTOR'S RESPONSIBILITY FOR ENVIRONMENTAL AND CULTURAL RESOURCE PROTECTION

107.14.1 Environmental and Cultural Resource Studies and Approvals

Before beginning soil-disturbing activities (in accordance with Section 106.1, "Contractor-Furnished Aggregate and Borrow Sources"), the Contractor shall obtain the necessary study permits, and employ an Environmental Specialist and a Cultural Resource Professional to conduct environmental and Cultural Resource studies at any disturbed site, including, but not limited to the following:

1. Camp sites;
2. Plant sites;
3. Crusher sites;
4. Stockpile sites;
5. Equipment yards;
6. Borrow Pits;
7. Surfacing Pits; and,
8. Water sources.

The Contractor shall obtain the environmental and Cultural Resource approvals regardless of land ownership. For the environmental approval, the Contractor shall use the Department-furnished checklist Categorical Exclusion form (or equivalent form furnished by the Department), which shall be signed by the Contractor and the Environmental Specialist. For Cultural Resource reports, use the standard site investigation forms approved by the New Mexico Historic Preservation Division and the New Mexico Cultural Properties Review Committee. The Contractor shall ensure that the resource studies meet the standards of the Department, the State historic preservation officer, and any State, tribal, or federal land-managing agency or entity with jurisdiction. The Contractor shall ensure that the resource studies are in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. § 4321 et seq.), the National Historic Preservation Act (16 U.S.C. § 470 et seq.), and the New Mexico Cultural Properties Act (NMSA 1978, § 18-6-1 to 18-6-17), or any other successor statutes.

The Contractor may use previously-completed environmental and Cultural Resource studies, provided all other requirements of this Section are met.

The Contractor shall complete other coordination required by environmental regulations.

The Contractor shall submit the documentation prepared for the environmental and Cultural Resource approvals to the Project Manager and the Environmental Program Manager. The Department will then submit the documentation to the appropriate agencies for approval, and will notify the Contractor when approvals have been obtained. Approvals may take 45 Days or more after the Contractor delivers the resource studies to the Department. Adjustments shall only be made in accordance with Section 109.5, "Payment for Changes, Differing Site Conditions and Extra Work," when the time needed to obtain approvals exceeds Federal or State law or regulatory requirements containing time limits.

The Contractor shall comply with all conditions and commitments for protection of resources contained in resource agency permits and in the environmental and Cultural Resource approvals. The environmental approval is the FHWA-approved checklist categorical exclusion, or its equivalent. The Cultural Resource approval is the concurrence letter signed by the State historic preservation officer, or its equivalent.

The Contractor shall repair at the Contractor's expense all damage to environmental or Cultural Resources caused by the Contractor's failure to meet the requirements for environmental acceptability or abide by Department directives issued to protect resources identified during the environmental and Cultural Resource evaluation. The nature and extent of such repairs shall be determined after consultations between the Contractor, Department

representatives, and the regulatory authorities with management jurisdiction over the subject resources.

107.14.2 Parking and Cleaning of Equipment

For Projects that have received environmental and Cultural Resource approvals through programmatic categorical exclusions (e.g., pavement preservation and rehabilitation, guardrail replacements, Bridge deck replacements, signalization upgrades, etc.), environmental and Cultural Resource studies will not have been completed by the Department. These Projects will be noted as such in the Contract. For these Projects, the Contractor shall take special care when parking and cleaning Equipment, as outlined in the following requirement.

The intent of the following requirement is to ensure the protection of sensitive environmental and Cultural Resources that may be present within the Right of Way and to encourage the Contractor to avoid damaging these resources when parking and cleaning Equipment. The Contractor shall ensure that parking and cleaning of Equipment within the Right of Way does not damage environmental and Cultural Resources, in one (1) or a combination of the following manners:

1. Park and clean Equipment in previously disturbed areas only;
2. Identify all parking and cleaning locations in previously undisturbed areas, prior to construction, and complete the environmental and Cultural Resource approvals as described in Section 107.14.1, "Environmental and Cultural Resource Studies and Approvals;" or
3. Park and clean Equipment in previously undisturbed areas without completing the environmental and Cultural Resource approvals as described in Section 107.14.1, "Environmental and Cultural Resource Studies and Approvals," and assume all risk and liability for any damage to environmental or Cultural Resources resulting from these actions.

107.14.3 Aquatic Resources

The Department will apply for and obtain permits and certifications required for construction involving "waters of the United States" as defined by the U.S. Army Corps of Engineers. The Contractor shall comply with the terms of the permit obtained and shall be fully liable for consequences resulting from its failure to comply. The Department will provide a copy of the permits and certifications in the Contract.

The Contractor shall minimize vegetation removal, soil disturbance, erosion in the vicinity of live streams, water impoundments, wetlands, or irrigation supplies, and crossing of live streams with heavy Equipment. The Contractor shall not refuel or perform maintenance activities on Equipment near watercourses, nor dump or bury demolition concrete, asphalt, or other Materials near watercourses, but these activities shall be conducted in proper containment areas. The Contractor shall comply with the New Mexico Water Quality Act (NMSA 1978, § 74-6-1 et seq.) and applicable permits and regulations in accordance with the federal Clean Water Act (33 USC § 1251 et seq.).

The Contractor shall comply with the requirements of Section 603, "Temporary Erosion and Sediment Control," and the requirements of NPDES, and if performing Work along or adjacent to live streams, it shall do so in accordance with the federal Clean Water Act (33 USC § 1251 et seq.), the regulations and requirements of other authorities with jurisdiction.

107.14.4 Minimization of Soil Disturbance

The Contractor shall minimize damage to or removal of vegetation and trees, except as approved in Section 104.6, "Rights in and Use of Materials Found on the Work." The Contractor shall not clear, grub, disturb, or excavate land beyond what is authorized by the Contract. The Contractor shall remediate or replace vegetation due to unnecessary clearing or damage, at no additional cost to the Department.

107.14.5 Air Quality Requirements and Dust Abatement

The Contractor shall perform dust abatement on the Project. The Contractor shall ensure that burning operations, dust-producing activities, and other operations that produce particulate matter comply with State and federal air quality regulations, as administered by the Air Pollution Control Bureau of the NMED, applicable local air quality regulations, and the federal Clean Air Act (42 USC § 7401 et seq.).

107.14.6 Noise Abatement

If specified in the Contract, the Contractor shall not operate Equipment that emits noise above 70 dbA, measured at a distance of 50 ft, in urban or populated rural areas during those hours specified, and shall comply with County or municipal ordinances if they are more stringent than the requirements in the Contract.

107.14.7 Disposal of Removed Asphalt Pavement Material

The intent of the following requirement is to ensure that removed asphalt pavement Material does not contaminate a natural watercourse or Waters of the United States or Surface Waters of the State (pursuant to the federal Clean Water Act, section 307; the federal Clean Water Act, section 404, General Condition 6; the federal Clean Water Act, section 401, Water Quality Certification; the NM Solid Waste Management Regulations, 20 NMAC 9.1; and the NM Water Quality Control Commission Regulations, 20 NMAC 6.2.2201).

The Contractor shall dispose of removed asphalt pavement Material, not including minor sweepings, belonging to the Department using one (1) or more of the following methods:

1. Recycling and mixing it into Base Course, Subgrade or HMA of the new Roadway, with approval of the Project Manager; or
2. The Contractor shall break down asphalt surfacing removed from the Project to a nominal two (2) inch size, or smaller, haul and stockpile the Material at a location approved by the Project Manager or as indicated in the Contract.

If the Material is to be permanently placed within the Shoulder or Median, it shall betreated by using one (1) of the following methods:

a. Machine-compacted; or
b. Sealed with an approved rejuvenating agent.

107.14.8 Disposal of Other Materials and Debris

The Contractor shall move items designated for removal without salvage, unsuitable construction Materials, and debris from clearing and grubbing to an environmentally suitable disposal site secured and coordinated with the appropriate regulatory agencies. The Contractor shall not place any items in wetland areas or areas that may impact endangered species or Cultural Resources. The Contractor shall obtain an environmental and Cultural Resource approval in accordance with Section 107.14.1, "Environmental and Cultural Resource Studies and Approvals."

107.14.9 Underground Storage Tanks

The Contractor shall comply with applicable New Mexico and federal regulations governing the discovery and removal of underground storage tanks (UST). The Contractor shall report the discovery of USTs within the Right of Way (either temporary or permanent), pits, borrow areas, storage or Equipment yards within timelines required by the NMED Petroleum Storage Tank Bureau (PSTB). The Contractor shall remove USTs in accordance with NMED PSTB regulations. Any adjustments shall be made in accordance with Section 109.5, "Payment for Changes, Differing Site Conditions and Extra Work,"

107.14.10 Hazardous Waste Material, and Reporting and Cleanup of Spills

The Contractor shall immediately report all spills regardless of cause or association with the Work to the Project Manager if on the Right of Way, or to the property owner if outside of the Right of Way. The Contractor shall clean up and bear all costs of spills associated with the Work including gasoline, diesel fuel, motor oils, solvents, chemicals, toxic and corrosive substances, and other Materials that may threaten public health or the environment. Failure to report a pre-existing spill or spill not associated with the Work shall result in the Contractor bearing the full cost of remediation and cleanup.

107.14.11 Prime Coat, Tack Coat, and Soil Sterilants

The Contractor shall not contaminate soils outside the Roadway Prism when applying prime coat, tack coat and soil sterilants. The Contractor shall not contaminate arroyos, irrigation supplies (acequias and ditches), wetlands, water impoundments, and live streams.

107.15 STATE AND FEDERAL LAND-MANAGING AGENCIES

While working within or adjacent to State or federal lands and forests, the Contractor shall comply with all regulations of the State or federal authority having jurisdiction governing the protection of these areas, and observe all sanitary laws and regulations. The Contractor shall keep the areas in an orderly condition, dispose of all refuse, and obtain permits for the construction and maintenance of all construction camps, stores, warehouses, residences, latrines, cesspools, septic tanks, and other Structures in accordance with applicable federal or State regulations.

107.16 PREVENTION OF FOREST AND GRASS FIRES

The Contractor shall prevent forest and grass fires. The Contractor shall notify appropriate officials at the earliest possible moment of the location and extent of any fire. The Contractor shall comply with fire regulations applicable to the area of Work, and furnish and maintain firefighting Equipment and tools required in the Contract. The Contractor shall suspend fire-hazardous operations when necessary at the direction of the Project Manager and in accordance with Section 105.17, "Contract Adjustments for Suspension of Work."

107.17 USE OF EXPLOSIVES

The Contractor shall exercise extreme care when use of explosives is necessary for the prosecution of the Work. The Contractor shall not endanger life or property, including new Work. The Contractor shall use, handle, load, transport, and store explosives and blasting agents in accordance with applicable laws and ordinances, as well as title 29 CFR Part 1926 Safety and Health Regulations for Construction (OSHA) and 30 CFR Part 15.32 whichever is more restrictive. The Contractor shall clearly mark explosives and store them securely. If no local laws or ordinances apply, the Contractor shall store explosives not closer than 600 feet from Roads, buildings, camping areas, or places of human occupancy. The Contractor shall provide sufficient notice to any public utility and owner of railroad Right of Way having Structures or facilities near the Project, of the intention to use explosives, so that they may take steps to protect their property before detonation.

107.18 PROTECTION AND RESTORATION OF PUBLIC AND PRIVATE PROPERTY

The Contractor shall preserve public and private property including land, governmental survey monuments, and property markers from disturbance or damage until the Project Manager has witnessed or otherwise referenced their location, and directed their removal.

The Contractor shall restore public or private property damaged by the Contractor directly or indirectly by any act, omission, neglect, or misconduct in the execution of the Work, or by defective Work or Materials, or by non-prosecution of the Work, at no additional cost to the Department and return such property to a condition equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as directed by the Project Manager.

August 18, 2011

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 210
EXCAVATION AND BACKFILL FOR MAJOR STRUCTURES

All provisions of SECTION 210 – **EXCAVATION AND BACKFILL FOR MAJOR STRUCTURES** of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

Delete Subsection **210.5.1 Work Included in Payment** line 4. and replace with the following;

4. Select backfill, A-1-a or Base Course.

March 12, 2008

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 303
BASE COURSE (QLA)

All provisions of SECTION 303 – BASE COURSE (QLA) of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

303.3 CONSTRUCTION REQUIREMENTS

Delete Subsection **303.3.2 Mixing and Placing** and replace with the following;

Mix the Base Course Material to a homogenous mixture. Place maximum 6 in (compacted) lifts, unless specified otherwise. Do not place on frozen Subgrade. Compact Base Course to at least 96% of maximum density as determined by AASHTO T 180, Method D (TTCP Modified). Take field density tests at locations shown in the Contractor's quality control plan. Use nuclear testing methods to determine densities in accordance with AASHTO T 310. Correct nuclear moisture contents for residual hydrocarbons before computing in-place dry densities when using RAP.

November 1, 2013

PROJECT SPECIAL PROVISION

PAVEMENT SMOOTHNESS MEASUREMENT
SECTION 401

All Provisions of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Add the following to SECTION 401 – PAVEMENT SMOOTHNESS MEASUREMENT:

401.3 CONSTRUCTION REQUIREMENTS

401.3.2 Straightedge Measurements

All HMA pavement placed on the Project shall be considered as "bridge approaches and departures" as listed in the Supplemental Specification for Pavement Smoothness Measurement Section 401 with revised date of May 30, 2012, also included in these bid documents. All profile measurements shall be established using an approved 10-foot straightedge as described in the aforementioned Supplemental Specification.

August 26th, 2013

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATIONS FOR

HOT-MIX ASPHALT — SUPERPAVE (QLA and Non-QLA)
SECTION 423

All Provisions of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete SECTION 423- HOT-MIX ASPHALT — SUPERPAVE (QLA and Non-QLA) in its entirety and substitute the following:

423.1 DESCRIPTION

This Work consists of constructing one or more courses of hot-mix asphalt (HMA) on a prepared base.

423.2 MATERIALS

423.2.1 General

HMA is a mixture of asphalt binder, aggregate, blending sand, mineral filler, and hydrated lime or anhydrite based material. Unless otherwise prohibited in the Contract, the Department will allow Recycled Asphalt Pavement (RAP) in HMA mixtures as long as the resulting mixture conforms to all specification requirements.

Size, uniformly grade, and combine aggregate fractions in accordance with the Contract. Test Materials in accordance with applicable AASHTO methods, as modified by the Department (if applicable) or other test procedures as directed by the Department. The State Materials Bureau will decide all questions pertaining to the interpretation of test procedures.

423.2.2 Aggregate

Ensure the aggregate gradation of the HMA mixture meets the requirements of Table 423.2.2.1:1, "HMA Aggregate Gradation Control Points." The Project Manager may require, at no additional cost to the Department, wet preparation, per AASHTO T 146, Method A, if the Project Manager believes there are Deleterious Materials present in the aggregate stockpiles before aggregate gradation testing. The Contract will specify the type of HMA the Contractor is to use. The Department will allow the Contractor to combine Materials from two or more sources to produce aggregate only when each individual aggregate source meets all applicable quality requirements.

423.2.2.1 Gradation and Quality Requirements

Table 423.2.2.1:1
HMA Aggregate Gradation Control Points

Sieve size	% passing per HMA type

	SP-II		SP-III		SP-IV	
	Min	Max	Min	Max	Min	Max
2 in	—	—	—	—	—	—
1 1/2 in	100	—	—	—	—	—
1 in	90	100	100	—	—	—
3/4 in	—	90	90	100	100	—
1/2 in	—	—	—	90	90	100
3/8 in	—	—	—	—	—	90
No. 8	19	45	23	49	28	58
No. 200	1.0	7.0	2.0	8.0	2.0	10.0

423.2.2.1.1 Aggregate Quality

For each Material source, ensure the HMA coarse aggregate has an AI of 25 or less when calculated in accordance with Section 910, "Aggregate Index."

Regulate the crushing of aggregate stockpiles so that the minimum Fractured Faces content of the plus No. 4 Material complies with the requirements of Table 423.2.2.1.2:1, "Fractured Faces, Sand Equivalent, and Fine Aggregate Angularity," and evaluation by NMDOT Method FF-1, "*Fractured Face Determination for Coarse Aggregate*." Ensure the plus 3/8 in material contains a maximum of 20% flat, elongated particles with a dimensional ratio of 3:1 or greater as determined by ASTM D 4791 (TTCP Modified). Ensure the combined material, excluding RAP, passing the No. 40 sieve is non-plastic. Ensure that before the addition of hydrated lime or anhydrite based material, the minimum sand equivalent value and the minimum fine aggregate angularity value of the combined aggregate, excluding RAP, complies with the requirements of Table 423.2.2.1.2:1, "Fractured Faces, Sand Equivalent, and Fine Aggregate Angularity." Determine the sand equivalent value in accordance with AASHTO T 176, Alternate Method No. 1 and the fine aggregate angularity value in accordance with AASHTO T 304, Method A.

423.2.2.1.2 Fractured Faces

The Department will consider a face to be fractured when at least one-half of the projected particle area exhibits a rough, angular, or broken texture with well defined edges.

Table 423.2.2.1.2:1
Minimum Fractured Faces, Sand Equivalent, and Fine Aggregate Angularity for Virgin Aggregates

Design Traffic, ESALs[a] x 10^6	Fractured Faces[b]	Sand Equivalent (%)	Fine Aggregate Angularity
< 3.0	75.0 / —	45.0	40.0
≥ 3.0 – < 10.0	85.0 / 80.0	45.0	45.0
≥ 10.0 – < 30.0	95.0 / 90.0	45.0	45.0
≥ 30.0	99.0 / 95.0	50.0	45.0

[a]ESALs are based on a 20-year design life for all scenarios.
[b]Under "Fractured Faces", 85.0 / 80.0 denotes that 85.0% of the coarse aggregate has at least 1 Fractured Face and 80.0% has at least two Fractured Faces.
Ensure RAP provided from sources outside the project has at least 75% Fractured Faces (one fractured face), however Sand Equivalent and Fine Aggregate Angularity do not apply.

423.2.2.2 Production

When producing aggregates for HMA, remove natural fines by screening and stockpiling separately. Use a No. 4 screen, minimum, or a larger screen if needed to properly control the crushing and screening operation. Crush the aggregate retained on the scalping screen and separate the crushed Material into at least two stockpiles of fine and coarse aggregates. Regulate crushing operations to produce Material within the specified gradation band.

423.2.2.3 Stockpiling

The following requirements apply to stockpiles:

1. Place stockpiles upon prepared sites;
2. Make stockpiles neat and regular to prevent segregation;
3. Provide enough storage space for each size of aggregate;
4. Separate the aggregate stockpiles far enough apart to prevent mixing, or with walls or partitions;
5. Prevent contamination (store stockpiles away from vehicular and Equipment traffic);
6. Keep the storage yard neat and orderly and keep the stockpiles accessible for sampling; and
7. Keep the aggregate sizes separated until delivered to the cold feed system that feeds the drier.

423.2.2.4 Combining

When combining crushed Materials from different stockpiles, including RAP (if in the mixture), ensure the product is in accordance with the mix design gradation requirements. Use controlled feeders from each stockpile to combine crushed Material.

423.2.3 Asphalt Binder

The Contract will specify the type and grade of asphalt binder. Provide asphalt binders in accordance with Section 402, "Asphalt Materials, Hydrated Lime, and Anhydrite Based Material." Do not change the asphalt source after approval of the mix design without written approval of the State Materials Bureau.

423.2.4 Hydrated Lime or Anhydrite Based Material

Provide hydrated lime or anhydrite based material in accordance with Section 402, "Asphalt Materials, Hydrated Lime, and Anhydrite Based Material."

423.2.5 Blending Sand

Blending sand consists of the following:

1. Natural fines from the scalping process;
2. Concrete sand;
3. Sandy Material; or
4. A combination of these, graded to the mix design requirements.

Determine the need for and percentage (a maximum of 20.0%) of blending sand using mix design tests on samples taken from stockpiles during crushing operations and submitted to an approved testing Laboratory.

423.2.6 Mineral Filler

Provide mineral filler in accordance with AASHTO M 17 and approved by the State Materials Bureau. The Department will not allow fly ash as mineral filler for HMA.

423.2.7 Reclaimed Asphalt Pavement

Unless otherwise specified in the Contract, the Contractor may use RAP removed under the Contract consisting of salvaged, milled, pulverized, broken, or crushed asphalt pavement. The Contractor may use RAP produced from outside sources provided evidence of ownership is supplied and the following is met: After the Contractor obtains sufficient quantities of RAP aggregate samples in accordance with AASHTO T 308, the Department will accept RAP for which each fraction of coarse aggregate has a percent wear of 40.0 or less, at 500 revolutions, when tested in accordance with AASHTO T 96. Provide plus No. 4 RAP Material with a minimum of 75% Fractured Faces content (one face)

The Contractor may use a maximum of 15% RAP (by weight) in the production of HMA mixtures without changing the asphalt binder. For quantities greater than 15% to 25% RAP, lower the asphalt binder's high and low temperature grades by one grade (e.g. lower a PG 76-22 to a PG 70-28). For quantities greater than 25% to 35% RAP, extract, recover, and combine the RAP's asphalt binder with a virgin asphalt binder per AASHTO M 323, Appendix A. Ensure the resultant binder meets the entire AASHTO M 320 required project PG asphalt binder properties indicated on the approved mix design. The Department will not allow the Contractor to use more than 35% RAP in the production of HMA mixtures. For projects of entirely new construction, limit the RAP to 15% in the top mat or extract, recover and combine the RAP's

asphalt binder with a virgin asphalt binder per AASHTO M323, Appendix A. Ensure the resultant binder meets the entire AASHTO M320 required project PG asphalt binder properties indicated on the approved mix design.

Process RAP so that 100% passes a 1-1/2-inch sieve. For HMA mixtures containing greater than 15% RAP, maintain adequate stockpile management (i.e. sufficient quantities and shaping of the stockpiles) and fractionation (divide the RAP into a minimum of two stockpiles), so they are uniform throughout the stockpiles. Address in the Quality Control Plan how RAP will be controlled, such as which screen will be used to split into two stockpiles, or by what method the RAP will be controlled to keep the resultant mix within acceptable limits. Account for the weight of the binder in the RAP when batching aggregates. Provide RAP that is free of Deleterious Materials. If the Contractor decides to use RAP in the production of HMA mixtures, the Department will make no additional payment for the asphalt binder in the RAP or asphalt binder due to asphalt binder grade adjustment. As RAP is produced and prepared for inclusion in the HMA, perform Process Control testing in accordance with Section 901, Quality Control/Quality Assurance, Table 901.7:3, Minimum Process Control Guidelines for Aggregates and Base Course.

If problems with HMA consistency or compliance with project specifications occur, additional efforts taken to achieve acceptable levels of consistency and compliance with Contract specifications, at the Contractor's discretion (at no additional cost to the Department), include, but are not limited to:

- Reduce the top size of the RAP from 1-1/2" to 1";
- Fractionate the aggregates on a second screen, such as the 3/8" or 1/4" Screen so that the RAP is maintained in two stockpiles, one being Coarse RAP and the second being Fine RAP;
- Ensure that the RAP used in the HMA mix design is representative of the RAP available on the project;
- Cover the RAP pile(s) so that ambient moisture is not absorbed;
- Process and maintain the stockpiles so that the RAP material is equally and uniformly distributed throughout the entire stockpile(s) and is withdrawn such that uniform, non-segregated RAP is delivered to the hoppers;

423.2.8 Mix Design

Provide a mix design developed by a Department-approved testing Laboratory. A list of approved private testing laboratories is available from the State Materials Bureau. Develop the mix design at no additional cost to the Department. The Contractor may develop the mix design at any time prior to the project pre-paving conference. Submit at least five independent aggregate gradation test results from each stockpile to the Project Manager.

Provide the Department with a copy of the request to the testing Laboratory to develop a mix design, along with supporting documents in accordance with AASHTO R 35, to the Project Manager and the State Materials Bureau. Include the proposed aggregate combination and copies of all stockpile test results. Summarize the mix design results from the Department-approved testing

Laboratory in a format approved by the State Materials Bureau and submit them to the Project Manager and State Materials Bureau for review and concurrence. Include the results and design worksheets of testing calculations in accordance with AASHTO R 35, for the mix components as well as the mixture itself and in accordance with State Materials Bureau procedures. Department concurrence of a mix design will not relieve the Contractor of full responsibility for producing an acceptable mixture. The mix design may require adjustment in accordance with Section 423.2.8.1, "Mix Design Adjustment."

Create the JMF gradation in accordance with Table 423.2.2.1:1, "HMA Aggregate Gradation Control Points." The Department will require at least 1.0% hydrated lime or anhydrite based material in all mix designs. Include the hydrated lime or anhydrite based material in the gradation for developing the mix design. The mix design shall establish a single percentage of the aggregate passing each sieve size and a single percentage of asphalt binder the Contractor is to add to the aggregate. Develop the mix design using the Strategic Highway Research Program (SHRP) gyratory compactor in accordance with AASHTO R 35. AASHTO TP 77 may be used in lieu of AASHTO T 84/T 85. The mix design shall be in accordance with Table 423.2.8:1, "HMA Superpave Design Requirements for Aggregates with Less Than 3.0% Absorption," or Table 423.2.8:2, "HMA Superpave Design Requirements for Aggregates with 3.0% or Greater Absorption."

Test the HMA with at least 1.0% hydrated lime or anhydrite based material in accordance with AASHTO T 283, as modified below:

- Use 6 inch by 3.75 inch specimens for all prisms;
- Compact all test specimens in accordance with AASHTO T 312 to an air content of 7% +/- 0.5%;
- On the AASHTO T283 Section 11.3 scale of 0-5, with 5 exhibiting the most damage from moisture, visually estimate the amount of damage caused by moisture on the interior surfaces of each broken prism.
- Use a minimum of 1% hydrated lime or anhydrite based material and ensure the design amount results in a tensile stress ratio of at least 85%, and that no visual rating is greater than 1, as determined by AASHTO T283 Section 11.3.. Provide a mixture that meets all applicable criteria. If tests indicate the need for additives or modifiers not specified in the Contract or a change in source of binder to satisfy mix design requirements, perform the required changes at no additional cost to the Department.

Table 423.2.8:1
HMA Superpave Design Requirements for Aggregates with Less Than 3.0% Absorption

20-year design ESALs (a)	N initial	N design (b)	N max	Percent Voids in the Mineral Aggregate (VMA) per nominal maximum aggregate size			Voids Filled with Asphalt (VFA) Range, % (c)	Dust to Binder Ratio Range
				1 in (SP-II)	3/4 in (SP-III)	1/2 in (SP-IV)		
< 0.3	<91.5	96.0	< 98.0	12.5–14.0	13.5 – 15.0	14.5 – 16.0	72.0–80.0	0.6 to 1.4
0.3–<3.0	<90.5						68.0–78.0	
≥3.0	<89.0						68.0–75.0	

[a]In Millions
[b]Design Air Void Content of 4%
[c]For 1 in nominal maximum size mixtures, the specified lower limit of the VFA shall be 70% for the design traffic level <0.3 million ESALs.

Table 423.2.8:2
HMA Superpave Design Requirements for Aggregates with 3.0% or Greater Absorption

20-year design ESALs (a)	N initial	N design (b)	N max	Percent Voids in the Mineral Aggregate (VMA) per nominal maximum aggregate size			Voids Filled with Asphalt (VFA) Range, % (c)	Dust to Binder Ratio Range
				1 in (SP-II)	3/4 in (SP-III)	1/2 in (SP-IV)		
<0.3	<91.5	96.5	< 98.0	12.0–14.0	13.0 – 15.0	14.0 – 16.0	70.0–80.0	0.6 to 1.4
0.3–<3.0	<90.5						65.0–78.0	
≥3.0	<89.0						65.0–75.0	

[a]In Millions
[b]Design Air Void Content of 3.5%
[c]For 1 in nominal maximum size mixtures, the specified lower limit of the VFA will be 70% for the design traffic level <0.3 million ESALs.

When Department Reviewed Commercial Mix Designs are used on the project, submit a copy of proposed commercial mix design to the State Materials Bureau with project information to verify the proposed commercial mix design is

appropriate to use and meets all the requirements for the specific project. .If the proposed commercial mix design meets all the requirements for the specific project, the State Materials Bureau may re-issue the proposed commercial mix design for that specific project.

The State Materials Bureau may allow the Contractor to use a mix design for one year from the date of review by the State Materials Bureau. The Contractor may use or re-submit the design before the expiration of the one year time frame. Do not use a Mix Design beyond one year after the State Materials Bureau's review date. Submit acceptable evidence to the State Materials Bureau verifying that the component Materials have not changed. Submit a new mix design if changing the source of Materials. Obtain concurrence from the State Materials Bureau before using the new Materials.

423.2.9 Job Mix Formula

The Job Mix Formula (JMF) must be in accordance with all aggregate gradation requirements and result in a mix that meets all specified mix design requirements. The Department will refer to the result of the laboratory mix design developed in accordance with Section 423.2.8, "Mix Design," as JMF1.

Prepare the aggregate gradation of the calibration samples for analysis per AASHTO T 308. Individually calibrate each oven used to perform AASHTO T 308 in accordance with the State Materials Bureau's, *Ignition Oven Calibration Factors* procedure including a set for the Referee Lab. Provide a minimum of five sets of calibration samples. Do not combine the elements of the calibration samples prepared for the Referee Lab, and provide them, with the Project Number, Contractor and Project Manager clearly identified to the Project Manager who will forward them to the State Asphalt Engineer. All quality control, quality assurance and independent assurance ovens must be calibrated by this procedure prior to start of production of a JMF. New calibration samples may be required for new JMF's, as determined by the District Lab Supervisor or the State Asphalt Engineer. The Project Manager will suspend paving operations until calibration of the ovens has been completed. No additional time or compensation will be granted for completion of this requirement.

423.2.9.1 Job Mix Formula Adjustment

The Contractor may request a modification to the JMF based on field testing of Material produced through the plant. It is expected that minor adjustments will be necessary and the Project Manager (with the concurrence of the Department's District Laboratory Supervisor) may approve a new JMF if the adjustment results in a new TV that is within the tolerance from the design TV. (Example: If design TV for No. 4 sieve is 30%, then a new TV may be approved in the field from 23% - 37%). Test results and calculations that verify a proposed JMF adjustment complies with the specifications will be required prior to being reviewed by the Project Manager and concurred by the State Materials Bureau. Review and concurrence of a JMF adjustment can only be made after:

- The Quality Control Plan (including checks on specific gravity) has been submitted and concurred by the Project Manager and the District Lab

Supervisor for use on the project;

- Confirmation by the Project Manager that the Quality Control Plan is being followed;
- Concurrence of the proposed changes from Project Manager and District Lab Supervisor,
- Submittal by the Testing Laboratory responsible for the original mix design to the Project Manager with a copy to the State Asphalt Engineer.

If the JMF is adjusted after the Shakedown Period, terminate the previous lot when the adjusted JMF has been reviewed and concurred with by the Project Manager and the State Materials Bureau. Terminated lot will be added to the previous lot for evaluation by QLA. Begin a new lot for the QLA with the adjusted JMF. During the Shakedown Period, make JMF adjustments in accordance with Section 423.3.5.7, Test Strip and Shakedown Period.

423.3 CONSTRUCTION REQUIREMENTS

423.3.1 General

Provide sufficient storage space for each size of aggregate and RAP. Keep the different sizes separate until delivery to the cold feed system feeding the drier. While storing and moving the coarse and fine aggregate, ensure that segregation, degradation, or combination of Materials of different grades does not occur. Re-screen or waste segregated or degraded Material. Provide separate storage and bin feeder for mineral filler if the Contract requires mineral filler. Stockpile aggregates and RAP that contain gravitational water and allow them to drain before mixing. After introducing the required amounts of aggregate, RAP (if used), and asphalt binder into the mixer, mix them until the aggregate particles are completely and uniformly coated with asphalt binder. If the Project Manager determines that uncoated aggregate exists, take corrective action. Ensure that the moisture content of the HMA at discharge from the mixer does not exceed 0.5%.

423.3.2 Mix Temperature Requirements

Do not allow the temperature of the HMA discharged from the mixer into the transport vehicle to be greater or less than the target mixing temperature specified in the mix design by more than 10% F, not to exceed 350° F, unless written concurrence by the oil supplier and design lab are provided to the Project Manager. HMA delivered to the project with mix temperatures outside the acceptable range shall, at the sole discretion of the Project Manager, be removed and replaced at no cost to the Department.

423.3.3 Addition of Hydrated Lime or Anhydrite Based Material

Add the hydrated lime or anhydrite based material to the aggregate in an enclosed pug mill immediately after leaving the cold feed and just before introduction into the drier drum or aggregate drier. Minimize the loss of hydrated lime or anhydrite based material while adding to the aggregate. Use an enclosed conveyor belt to prevent blowing or loss of hydrated lime or anhydrite based material if necessary. During production, if necessary to counteract loss,

increase the percentage of hydrated lime or anhydrite based material.

Equip the out feed of the hydrated lime or anhydrite based material silo with a vane feeder and install a flow sensor on the discharge from the vane feeder. Ensure that the sensor activates audible and visual signals at the control panel upon interruption of hydrated lime or anhydrite based material flow.

Equip the hydrated lime or anhydrite based material silo with an approved means of metering the addition of hydrated lime or anhydrite based material to the mix at typical discharge rates with an accuracy of ± 3.0 %, by weight. Approved means of metering hydrated lime or anhydrite based material include load cell weighing devices placed beneath each leg of the silo, or a weigh belt feeder between the silo discharge and the pug mill. Obtain Project Manager's approval for other means of metering the addition of hydrated lime or anhydrite based material before use. Do not use external strain gauges affixed to the legs of the silo. If the Contractor uses load cell weighing devices for hydrated lime or anhydrite based material metering, use a cast-in-place concrete foundation pad to support the silo. Place grout between the foundation and the load cells to ensure contact between the load cell and the foundation. Control the hydrated lime or anhydrite based material content such that at a minimum the amount added is equal to the Target Value on the Job Mix Formula.

When mixing the aggregate and hydrated lime or anhydrite based material, maintain the moisture content of the combined aggregate at the recommended saturated surface dry moisture content, plus an additional 1.5 % ± 0.5 %, by weight. The Project Manager may increase the moisture content of the coarse and fine aggregates to properly coat the aggregates with hydrated lime or anhydrite based material and to eliminate dust pollution. Provide a method to measure the amount of moisture added to the hydrated lime or anhydrite based material-aggregate mix. On a daily basis, record the average amount of added moisture to verify specification compliance. Supply the recorded moisture information to the Project Manager upon request.

423.3.4 Equipment

423.3.4.1 Mixing Plants

423.3.4.1.1 Plant Scales

Ensure that the scales are accurate to 0.5% of the maximum allowable load in accordance with the Federal Motor Carrier Safety Administration (FMCSA) publication. A licensed scale serviceman must certify the scales. Submit a copy of the certification to the Project Manager.

423.3.4.1.2 Equipment for Preparation of Asphalt Materials

Provide storage tanks for asphalt binder capable of heating and holding the asphalt at the required temperatures and measuring the temperature of the asphalt in the tank. Use approved heating methods that do not allow flames in contact with the tank. Design the circulating system for the asphalt binder to ensure proper and continuous circulation during the operating period. Allow measuring and sampling of asphalt binder from the delivery truck upon arrival.

423.3.4.1.3 Feeder for Drier

Equip the plant with an accurate feeding mechanism to deliver the aggregate into the drier and maintain uniform production and temperature.

423.3.4.1.4 Drier

Equip the plant with a system to continuously agitate the aggregate during the heating and drying process. Use a drier that can dry and heat the aggregate and prevent fuel oil or carbon from coating the aggregate. Take corrective action if the aggregate becomes coated with burner fuel.

423.3.4.1.5 Bins

Equip the plant with storage bins large enough to supply the mixer when it is operating at full capacity. Arrange the bins to ensure separate and adequate storage of the appropriate fractions of the mineral aggregates. When necessary, use separating boards. Provide separate dry storage for hydrated lime or anhydrite based material. Ensure that the gates on the bins do not leak. Equip the bins with warning devices that notify the control panel when the bins are low.

423.3.4.1.6 Asphalt Binder Control Unit

Equip the plant with the following:

1. A scale or meter to obtain the proper amount of asphalt binder in the mix, within the allowable tolerances; and
2. A meter for checking the quantity or rate of flow of asphalt binder put in the mixer.

423.3.4.1.7 Thermometers

Equip the asphalt feed line, near the charging valve at the mixer unit, with an approved recording thermometer with a range of from 100 °F to 400 °F. Equip the discharge chute of the drier with an approved recording thermometer to automatically register the temperature of the heated aggregates or mix, as necessary. Provide the Project Manager with a record of discharge temperatures at the end of each week's production and when requested by the Project Manager during the course of production.

423.3.4.1.8 Truck Scales

Weigh the HMA on approved scales (provided by the Contractor) or public scales in accordance with Section 109.1, "Measurement of Quantity."

423.3.4.1.9 Requirements for Batching Plants

423.3.4.1.9.1 Weigh Box or Hopper

Provide a batching plant that can accurately weigh aggregate in a weigh box or hopper suspended on scales. Use a weigh box or hopper that can hold a full batch. Ensure that the gate of the weigh box or hopper does not allow material to leak into the mixer while being weighed. Test the scales in accordance with Section 109.1, "Measurement of Quantity."

423.3.4.1.9.3 Mixer

Provide a batch mixer with a capacity of at least 2,000 lb, capable of producing a uniform mixture within specified tolerances.

423.3.4.1.9.4 Control of Mixing Time

Equip the mixer with an accurate timing device that signals the end of the mixing time.

423.3.4.1.10 Drum Mix Plants

Equip the drum mix plant with the following auxiliary Equipment and capabilities:

1. Separate cold feed controls for each Material.
2. An automatic interlocking device for cold feed, asphalt, and additive.
3. A means for determining moisture content of aggregate so the dry weight of cold feed can be determined for proper setting of asphalt and additive flow. Determine the moisture content of the aggregate at least twice daily and adjust the moisture correction Equipment accordingly.
4. A means for sampling individual cold feeds and provisions for sequential sampling of aggregate, RAP, asphalt binder, and additives while under full production.
5. Measure the temperature of the mix at the discharge and the automatic burner controls.
6. A surge storage system having a minimum capacity of 40 ton, designed and equipped to prevent segregation. Equip the surge storage system bins with mechanical or electrical devices that provide an audible or visual warning when the bins are less than 1/4 full.
7. Equip the bin containing fine aggregate and filler, if required, with a device that prevents material hang-up during plant operation.
8. A minimum of one cold feed bin for each aggregate fraction in the mix.
9. Equip the cold feed with mechanical or electrical devices that indicate when the bins are empty or when the cold feed belt is not carrying the proper amount of Material. The device shall automatically lock the cold feed belt and provide an audible or visual warning.
10. A separate cold feed for RAP Material. Introduce RAP so that it does not come into direct contact with the burner flame.
11. Equip the feeding mechanism with an individual belt feeder with a variable speed feeder drive controlled by electronically operated actuators. Couple the asphalt feed control with the total-aggregate-weight measurement device to automatically vary the asphalt feed rate to maintain the required proportion.

423.3.4.2 Haul Equipment

Haul asphalt mixtures with trucks that have tight, clean, smooth metal beds and a thin coat (a minimal amount) of a Department-approved release agent to prevent the mixture from adhering to the bed. Do not use release agents derived from petroleum derivatives, including but not limited to diesel fuel that

contaminate or alter the characteristics of the mix.

Be prepared to cover and insulate hauling beds. Equip each truck with a waterproof and windproof cover of suitable material and sufficient size to protect the mix from the weather. Securely fasten covers when necessary to maintain temperature. Ensure that covers do not allow water to enter the bed, paver or mix material transfer device during mix unlading. Use insulated truck beds when necessary to maintain temperature.

423.3.4.3 Pavers

Use self-contained, self-propelled pavers, with activated screeds or strike-off assemblies, heated if necessary, and capable of spreading and finishing courses of HMA in accordance with the Plans.

423.3.4.4 Compaction Equipment

Provide a sufficient number, weight, and type of rollers to obtain the required compaction and specified pavement density while the HMA is in a workable condition. All rollers must be capable of reversing direction without shoving or tearing the mixture

423.3.5 Placement Operations

For cold milled surfaces, prepare the surface in accordance with Section 414, Cold Milling. Clean the existing surfaces and apply a tack coat in accordance with Section 407, "Tack Coat."

Place the HMA on the approved surface, then spread, and strike off to the specified grade and elevation. Spread and compact the HMA in layers in accordance with the Plans.

For new construction and reconstruction, prepare the Subgrade or Base Course as follows:

1. Clean of loose or Deleterious Materials;
2. Free of frozen material; and
3. Meet the moisture and density requirements.
4. Place prime coat, as required in the plans unless otherwise approved by the Project Manager, in accordance with Section 408, Prime Coat.

Place the HMA on the approved surface, then spread, and strike off to the specified grade and elevation. Spread and compact the HMA in layers in accordance with the Plans.

On all prepared surfaces, dump the HMA from the haul equipment directly into a Material Transfer Device capable of re-mixing the HMA; into the paving machine hopper or onto the paving surface and then, load it into the paving machine with an appropriate windrow elevator. Do not dump the HMA more than 250 ft in front of the paving machine or allow the loading equipment to exert any vertical load on the paver. Pick up and load all of the HMA into the paver. Consistently overloading the HMA mix into the paving machine is not acceptable. Coordinate the speed of the paving machine with the production of the plant and

keep enough haul equipment available to achieve continuous operation.

Use the control system on the paving machine to control the grade and the transverse slope by either of the following methods:

1. One end directly and the other indirectly through controlling the transverse slope; or
2. Each end independently, including screed attachments.

Suspend operations if the control system does not achieve the typical section in accordance with the Plans. Place, spread, and finish the courses of HMA according to the following:

1. Without segregation or tearing ;
2. True to the line, grade, and crown in accordance with the Plans; and
3. With self-propelled pavers, except as otherwise directed.

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing Equipment impracticable, dump, spread, and level the HMA by other methods to achieve the required compacted thickness.

423.3.5.1 Weather Limitations

Do not place HMA on wet or frozen surfaces or if weather conditions prevent proper handling, finishing, and compacting. Place HMA when the Chill Factor is at least 40 °F and rising. If the air temperature is 60 °F or warmer, do not consider the Chill Factor.

423.3.5.2 Compaction

Compact the HMA thoroughly and uniformly immediately after placement. Operate rollers at speeds slow enough to minimize displacement of the HMA, including the lines and grades of the asphalt edges. Remove marks from pneumatic rollers and immediately correct any displacement. The Department will not allow the use of equipment that crushes the aggregate excessively.

Prevent the HMA from sticking to the roller wheels by keeping the wheels moistened with water; water mixed with very small quantities of detergent or other approved material. Do not use diesel fuel or other petroleum diluents. At locations inaccessible to the rollers, compact the HMA with hot hand tampers, smoothing irons, or mechanical tampers. The Contractor may use a trench roller or cleated compression strips under the roller to transmit compression to depressed areas.

Remove areas that become loose, broken, mixed with dirt, segregated or defective, replace with fresh HMA, and compact to match the surrounding area, at no additional cost to the Department. Immediately correct areas that have excessive or deficient asphalt binder.

423.3.5.3 Not Used

423.3.5.4 Joints

Place the HMA as continuously as possible. Do not pass rollers over the unprotected end of a freshly laid mixture. When placing open-graded friction course over HMA, stagger longitudinal joints at least 6 in relative to the

longitudinal joints of the underlying course. Unless otherwise specified, taper transverse and longitudinal joints as follows:

1. At least a 3 ft taper for transverse joints, with a taper slope no steeper than 24:1.
2. At least a 1 ft taper or a notched taper, for longitudinal joints, with a taper slope no steeper than 6:1 or a notched taper with a one inch vertical edge at the top of the taper connected to a slope no steeper than 6:1.
3. Cut and square off transverse tapers before commencing new Work.
4. Clean and tack coat longitudinal joints from previous operations.
5. Avoid placing longitudinal joints in the wheel paths, unless approved by the Project Manager.

Completely bond joints. Smooth the surface of each course at the joints. The Department will not allow deviations greater than 3/16 in when tested with a 10 ft straightedge in any direction. When paving under traffic, schedule the daily surfacing operations so that tapered longitudinal joints are not exposed for longer than 7 Days.

423.3.5.5 Surface Tolerances

Smooth the surface of each completed course and prevent deviations larger than 1/8 in using a 10 ft straightedge in any direction. Immediately correct deviations exceeding this tolerance. Provide a final HMA surfacing course that conforms to Section 401, "Pavement Smoothness Measurement," if applicable.

423.3.5.6 Plan Surfacing Depths

Provide pavement at the depth specified in the Contract. Monitor depths by calculating continuous production yields using the formula found in the MT-1, as maintained by the State Construction Bureau. Calculate the required yield and the corresponding yields for 0.25 inch increase (upper limit) and decrease (lower limit). The Project Manager may adjust the required yield to fit field conditions. If adjusted, the new target yield will be communicated to the Contractor in writing. Control production to keep yield within the upper and lower limits. Correct deficiencies at no cost to the State. Correct deficient depths during placement. Address Plan Surfacing Depths in the Quality Control Plan.

423.3.5.7 Test Strip & Shakedown Period

Construct a maximum 1,000 ton test strip for each HMA mix design with a minimum of three Contractor and three agency samples to evaluate the JMF, process control, and placement operations. Construct test strip on shoulder, low volume segments of the pavement, or area approved by the Project Manager. Correct and modify non-complying placement operations and produce necessary process control adjustments. Develop a revised JMF if necessary based on the results of the test strip. Production and placement operations prior to approval of the revised JMF and placement operations are at the Contractor's risk. For purposes of payment, the test strip will be evaluated in conformance with Section 416, Minor Paving. If accepted, the test strip will have a pay factor of 1.0. If rejected, said material shall be handled in accordance with Section 423.3.6.1.3

Adherence to Specifications and Rejection of Non-specification Material. Remove unaccepted test strip material placed within the roadway prism at no cost to the Department. If the Contractor disagrees with removing and replacing unacceptable material placed in test strips outside the roadway prism, the Assistant District Engineer for Construction, based on engineering judgment, will decide if the material can remain in place with a maximum pay factor of 50%, or shall be removed and replaced at no cost to the Department. If the test strip is rejected, construct a subsequent test strip. Do not proceed to full production until an accepted test strip is produced. After the test strip is placed, continue to evaluate the mix properties and the JMF during the placement of the first two sublots in the first lot. Changes may be made to either the JMF or the mix proportions and/or properties with the concurrence of the Assistant District Engineer for Construction. For changes made prior to the completion of the first two sublots, the adjustments will be applied to the entire lot for purposes of payment.

The Project Manager may waive test strip requirements for the project, if requested by the Contractor based on prior experience with the JMF.

For QLA projects, the Shakedown Period is defined as the first two sublots produced in the first lot.

For non-QLA projects, the Shakedown Period is defined as the test strip. As the test strip is placed, evaluate the mix properties and the JMF. Changes may be made to either the JMF or the mix proportions and/or properties with the concurrence of the Assistant District Engineer for Construction.

423.3.6 Sampling and Testing

Sample and test the aggregate production and HMA mixture in accordance with Section 901, Quality Control /Quality Assurance (QC/QA), and the Department's "Minimum Testing Requirements for Non QLA Hot Mix Asphalt". Department personnel may test locations other than the random locations generated for statistical analysis. These tests will not be used for pay factor determination, but may be used to determine acceptance or rejection of localized material.

423.3.6.1 Contractor Quality Control

Administer a Quality Control Plan, referred to hereafter as "the Plan," to provide a product in accordance with the Contract. Ensure the Plan conforms to Section 901.2, "Contractor Quality Control." Submit the Plan a minimum of two weeks prior to commencement of crushing operations and at a minimum comply with "Contractor Quality Control Plan Guidelines". No HMA operations are allowed until the Plan has been approved by the Project Manager and the District Lab Supervisor. Address changes in the job mix formula in conformance with Section 423.2.9.1, Job Mix Formula Adjustments.

The Plan shall do the following:

1. Address elements that affect the quality of the asphalt concrete including, but not limited to, the following:
    1.1. Mix design;

1.2. Sampling and Testing;
1.3. Aggregate production;
  1.3a Gradation,
  1.3b Minus 200 wash,
  1.3c Plasticity index,
  1.3d Sand equivalent,
  1.3e Fine aggregate angularity,
  1.3f Flat and elongated particles count, and
  1.3g Fractured Face count.
1.4. RAP (if used)
1.5. Quality of components;
1.6. Stockpile management;
1.7. Proportioning;
  1.7a Gradation,
  1.7b Minus 200 wash,
  1.7c Plasticity index,
  1.7d Sand equivalent,
  1.7e Fine aggregate angularity,
  1.7f Flat and elongated particles count, and
  1.7g Fractured Face count.
1.8. Mixing, including addition of hydrated lime or anhydrite based material, and/or asphalt additive, if required;
1.9. Transporting;
1.10. Placing and finishing;
1.11. Joints;
1.12. Compaction;
1.13. Smoothness;
1.14. Plan Surfacing Depths
1.15. Shakedown period.
1.16 Corrective Action Processes
1.17 Proposed lot size and sublot size in accordance with Section 423.3.6.2.1.2 QLA

For the properties listed in 1.3 above, specifically address the requirements of Table 423.2.2.1.2:1 in the Plan. Define planned corrective action if the requirements are not met.

- 1.3a and 1.3b are for informational purposes during aggregate production.
- 1.3c through 1.3g, if three consecutive tests fail, address what will change in production. Failure to adjust will result in ceasing operations until a corrective action plan is approved by the Project Manager.

For the properties listed in 1.7 above, specifically address the requirements of Table 423.2.2.1.2:1 in the Plan. Define planned corrective action if the requirements are not met.

- 1.7a and 1.7b are to be evaluated against the Job Mix Formula.

- For properties listed in 1.7c through1.7d, if any three consecutive tests fail, the Contractor is to cease operations until a corrective plan is approved by the Project Manager and implemented.
- For properties listed in 1.7e through 1.7g, any test failing by more than 5 percentage points, or if three consecutive tests fail by an average of 0 to 5 percentage points, cease operations until a corrective plan is approved by the Project Manager and implemented.

2. Employ sampling and testing personnel who are either under the direct supervision of a TTCP certified technician or who are themselves currently certified to perform the required quality control testing. Provide the Project Manager with a listing of all testing personnel that summarizes their TTCP certifications or, if they are not TTCP certified to perform a particular test, which TTCP certified technician is supervising their testing. Keep the Project Manager notified, by providing an updated listing, of any changes.

Provide testing equipment that meets all applicable ASTM and AASHTO requirements to accomplish required sampling and testing. Establish a Laboratory for the project separate and distinct from the Department's Laboratory and quality assurance facilities. Submit verification that all quality control and assurance testing Equipment meets the applicable standards and has been calibrated per the requirements of AASHTO R-18. Remove any Equipment that does not meet the applicable standards or calibration requirements.

On projects designated as QLA projects, sample and test HMA in accordance with Section 901, "Quality Control/Quality Assurance (QC/QA)."

2.1. The Contractor is responsible for inspection performed at the crushing operations, hot mix plant and at the Contractor's field Laboratory; using the Laboratory test results and other quality control practices to ensure the quality of aggregate sources and other mix components. Adjust and control mix proportioning to meet the mix design. Be responsible for periodically inspecting all Equipment used in proportioning and mixing to ensure its proper operating condition and to ensure that proportioning and mixing is in conformance with the mix design and other requirements.

2.2 Be responsible for inspection, sampling, and testing performed at the paving site, ensuring that the delivered Materials meet Contract requirements and for periodically inspecting all Equipment used in transporting, placing, finishing, and compacting to ensure its proper operating condition. Ensure that placing, finishing, joint construction, compaction, and thickness, when required, are as specified.

3. Define and document the coordination of activities between the Contractor's management and all Contractor testing personnel including the frequency of each type of test, the criteria used by the Contractor's management and technicians to recognize deficiencies and reject or correct

unacceptable Materials, and a description of proposed corrective actions.

4. In the Plan, describe, in detail, the proposed process control sampling and testing programs. Include the method by which random sampling locations are to be determined. Develop sample locations for process control tests so that the center of the sample is at least 12 inches from a joint or edge of the pavement layer.

423.3.6.1.1 Contractor Quality Control of Aggregate

Obtain samples in accordance with Section 901.2.4 Sampling

Take representative samples as required, either at the stockpile or after the aggregate material is combined but before the addition of hydrated lime or anhydrite based material and mixing with asphalt binder. Test these samples for conformance with the approved Job Mix Formula and: (excluding RAP)

1. Gradation,
2. Minus 200 wash,
3. Plasticity index,
4. Sand equivalent,
5. Fine aggregate angularity,
6. Flat and elongated particles count, and
7. Fractured Face count.

The Project Manager may sample and test the aggregate at any time during production or stockpiling, or may request to split samples with the Contractor. If testing indicates corrections are necessary, make corrections in conformance with the Plan. The Department will base evaluation of RAP aggregate in accordance with Section 423.2.7, "Reclaimed Asphalt Pavement."

423.3.6.1.2 Contractor Quality Control for Compaction

Monitor the compaction process by determining the density of the HMA with a portable densometer in accordance with the Plan. Establish calibration of the portable densometer from cut pavement samples. Determine the density readings of the cut pavement samples in accordance with AASHTO T 166 (weight, volume method) and determine the density readings of the pavement with the portable densometer. Correlate these test results. Conduct Quality Control testing in accordance with Section 901, "Quality Control/Quality Assurance (QC/QA)," and provide test results to the Project Manager. Perform quality control density testing while the asphalt mixture is hot enough to permit further compaction. Do not roll for compaction when it becomes ineffective or damages the HMA. Do not use vibratory mode when the temperature of the mix is below 200 °F.

423.3.6.1.3 Adherence to Specifications and Rejection of Non-specification Material

Produce Material in compliance with all specification requirements. Evaluate test results for specification compliance and treatment of Material that does not meet specifications in accordance with Section 423 in its entirety. All Material that is rejected shall, at the sole discretion of the Department, be removed and

replaced with specification Material at the Contractor's expense.

423.3.6.2 Department Quality Assurance

The Department will conduct Quality Assurance Testing in accordance with Table 423.3.6.2:1. Assurance Testing is performed to verify that the Contractor's testing program is accurately determining the quality of the materials and is being used to monitor and adjust the mix to meet the Mix Design criteria. If the Department's tests are out of the below tolerances for three consecutive tests for the same characteristic, or if any two or more characteristics are out for three consecutive days, the Contractor and the Project Manager will investigate the cause of the discrepancy. The Project Manager may direct the Contractor to cease production until the discrepancy is corrected. Results of Quality Assurance Testing will be provided to the Contractor no later than 48 hours after sampling. Results of Quality Assurance testing shall not be included in the Quality Level Analysis used to determine pay factors or for determining acceptance.

Table 423.3.6.2:1
Assurance Testing Tolerances[a]

Characteristic	Specification limit, percentage points from TV
Air Voids, %	± 1.4
Pavement Density %	± 2.5
Hydrated Lime or Anhydrite Based Material %[e]	Minimum of JMF Target Value
Nominal Sieve, %[c]	± 5
3/8 in Sieve, %[a]	± 8
No. 4 Sieve, %[a]	± 7
No. 200 Sieve, %[a]	± 1.4
Voids in the Mineral Aggregate (VMA), %[d]	± 1.6
Asphalt Content %[a,b]	± 0.50

[a]All gradation, Asphalt Content, VMA, and VFA values will be determined using the AASHTO T 308 testing results.
[b] HMA will not be rejected based on Asphalt Content Determined by AASHTO T 308
[c]The "Nominal Maximum Sieve" is the sieve above the first sieve retaining 10% or more material.
[d] If Gmm fluctuates more than ±0.03 on a consistent basis, it is recommended that the Specific Gravity of the aggregates be checked in order to verify VMA.
[e]If Hydrated Lime or Anhydrite Based Material is below Design TV cease hot mix production, investigate and correct.

423.3.6.2.1 Acceptance

The Department will evaluate Materials for acceptance in accordance with this section. Sample and test the mixture and pavement on a statistically random basis in accordance with Table 901.7:6, "Minimum Acceptance Guidelines." The Project Manager may reject material that appears to be defective based on visual inspection.

Table 423.3.6.2.1:1
Acceptance Testing Tolerances[a]

Characteristic	Specification limit, percentage points from TV
Air Voids, %	± 1.4
Pavement Density %[c]	± 2.5
Hydrated Lime or Anhydrite Based Material %[e]	Minimum of JMF Target Value
Voids in the Mineral Aggregate (VMA), %[a,d]	± 1.6
Asphalt Content %[a,b]	± 0.50

[a] All gradation, Asphalt Content, VMA, and VFA values shall be determined using the AASHTO T 308 testing results.
[b] HMA will not be rejected based on Asphalt Content Determined by AASHTO T 308
[c] Density payment will be adjusted in accordance with Section 901.5
[d] If Gmm fluctuates more than ±0.03 on a consistent basis, it is recommended that the Specific Gravity of the aggregates be checked in order to verify VMA.
[e] If Hydrated Lime or Anhydrite Based Material is below Design TV cease hot mix production, investigate and correct.

423.3.6.2.1.1 Non-QLA

The Department will evaluate (QA) test results from projects with Bid quantities less than 15,000 tons for specification compliance in accordance with the following procedures: If the mean of the test results for each property is within the Acceptance Tolerances as listed in Table 423.3.6.2.1:1, "Acceptance Testing Tolerances," the Material will be accepted at full Contract price except that Roadway density will be adjusted in price in accordance with Section 901.5, Quality Level Analysis. If the mean of the test results for any of the listed properties is outside of the tolerances as listed in Table 423.3.6.2.1:1, "Acceptance Testing Tolerances," then the Department will determine acceptance of the Material in accordance with 901.1.3, "Acceptance Sampling

and Testing," and Section 901.5, "Quality Level Analysis." A composite pay factor of more than 1.00 is not allowed for projects with Bid quantities less than 15,000 tons. Remove and replace rejected Material with specification Material at no additional cost to the Department.

423.3.6.2.1.1.1 Acceptance of Pavement Density

The target density for acceptance of HMA will be 94.5% of the theoretical maximum density as determined from AASHTO T 209. For determination of maximum specific gravity, obtain and test a minimum of two samples and ensure the Department obtains and tests a minimum of one sample for each day that the HMA is placed. Each individual density test value obtained must be from 92.0% to 97.0% of the theoretical maximum density.

To be prepared for dispute resolution, the Contractor is to provide one additional core for each core tested by the Department for acceptance of density. The additional core is to be from the same lot as the initial core and shall be generated from the random sample plan. If the Contractor believes the Department's cut pavement samples have been damaged they may invoke Section 423.3.7 Dispute Resolution. The Referee Lab results will replace the initial core in determining pay factor. The Assistant District Engineer for Construction will make the final decision on accepting or rejecting material, based on the Referee Laboratory's result(s) by:

1. Accepting the section or sublot if the density falls between 92.0% - 97.0%;
2. Determining that a portion, based on visual determination, or all of the Material in that section or sublot shall be removed or replaced at no additional cost to the Department;
3. Determining that a portion, based on visual determination, of the Material in that section or sublot will be paid for at a 50% pay factor.

For purposes of acceptance and pay factor determination, determine the density from cut pavement sections (cores) with 6-inch diameters extending through the full thickness of the HMA. Determine the pay factor in accordance with Section 901.5, Quality Level Analysis. Use a minimum of ten cores to determine the pay factor, unless otherwise directed by the Assistant District Engineer for Construction. Determine the theoretical maximum density using an average of the maximum specific gravity values obtained by the Department and the Contractor the day the core's Material was placed. If a composite pay factor of more then 1.00 is calculated, the composite pay factor will be a 1.00 for the purposes of payment.

For projects consisting of single lift overlays or mill and inlay with a single lift of two and a half inches or less, the Project Manager may grant an exception to the mean density target requirement of at least 94.5% of the theoretical maximum density if the Contractor can demonstrate that a minimum of 92.0% cannot be reasonably obtained because of the existing conditions of the Pavement Structure or Subgrade materials. The Contractor demonstrates this by providing density results obtained during paving operations witnessed by a state inspector at the location in question. If the Project Manager grants this

exemption, construct a roadway test strip and develop an HMA compaction process to get the highest possible density based on an approved roller's density gain per pass, in accordance with Section 423.3.4.4, Compaction Equipment. The Project Manager will approve the process, establish a new target value for density and establish a new acceptance lot only for the portion of the project addressed herein (except for the roadway test strip) before paving begins or continues. Density shall not fall below 91%. If a lot does not meet either of the revised density requirements, the Project Manager will, with the concurrence of the Assistant District Engineer for Construction, do the following:

1. Accept and pay for the lot of HMA at 50% of the Bid Item Unit Price; or
2. Reject the in-place material and require the Contractor to remove and replace.

423.3.6.2.1.2 QLA

On projects with Bid quantities of 15,000 tons or more, the Department will determine acceptance of the Materials in accordance with Section 901.5, "Quality Level Analysis," using the acceptance limits in Table 423.3.6.2.1:1, "Acceptance Testing Tolerances". Acceptance lots shall be between 15,000 tons and 30,000 tons, as determined at the pre-paving conference. Table 423.3.6.2.1:2 indicates properties that will be tracked for purposes of Quality Assurance. For all QLA projects, if a composite pay factor of more than 1.00 is calculated, the composite pay factor will be a 1.00 for the purposes of payment.

423.3.6.2.1.2.1 Acceptance of Pavement Density

The target density for acceptance of HMA will be 94.50% of the theoretical maximum density as determined from AASHTO T 209. For determination of maximum specific gravity, obtain and test a minimum of two samples and ensure the Department obtains and tests a minimum of one sample for each day that the HMA is placed, in accordance with the random sampling plan. Each individual density test value obtained must be from 92.0% to 97.0% of the theoretical maximum density.

For purposes of acceptance and pay factor determination, determine the density from cut pavement sections (cores) with 6-inch diameters extending through the full thickness of the HMA. Determine the pay factor in accordance with Section 901.5, Quality Level Analysis. Use a minimum of ten cores to determine the pay factor, unless otherwise directed by the Assistant District Engineer for Construction. To be prepared for dispute resolution, the Contractor is to provide one additional core for each core tested by the Department for acceptance of density. The additional core is to be from the same lot as the initial core and shall be generated from the random sample plan. If the Contractor or Department believes the Department's cut pavement samples have been damaged they may invoke Section 423.3.7 Dispute Resolution. The Referee Lab results will replace the initial core in determining pay factor. Determine the theoretical maximum density using an average of the maximum specific gravity values obtained by the Department and the Contractor the day the core's Material was placed. If a composite pay factor of more then 1.00 is

calculated, the composite pay factor will be a 1.00 for the purposes of payment.

For projects consisting of single lift overlays or mill and inlay with a single lift of two and a half inches or less, the Project Manager may grant an exception to the mean density target requirement of at least 94.5% of the theoretical maximum density if the Contractor can demonstrate that a minimum of 92.0% cannot be reasonably obtained because of the existing conditions of the Pavement Structure or Subgrade materials. The Contractor demonstrates this by providing non-destructive density results obtained during paving operations witnessed by a state inspector at the location in question. If the Project Manager grants this exemption, construct a roadway test strip and develop an HMA compaction process to get the highest possible density based on an approved roller's density gain per pass, in accordance with Section 423.3.4.4, Compaction Equipment. The Project Manager will approve the process, establish a new target value for density and establish a new acceptance lot only for the portion of the project addressed herein (except for the roadway test strip) before paving begins or continues. Lot density shall not fall below 91%. If a lot does not meet either of the revised density requirements, the Project Manager will, with the concurrence of the Assistant District Engineer for Construction do the following:

1. Accept and pay for the lot of HMA at 50% of the Bid Item Unit Price; or
2. Reject the in-place material and require the Contractor to remove and replace at no cost to the Department.

423.3.6.3 Independent Assurance Testing

The Department will perform independent assurance sampling and testing in accordance with Section 901.3, "Independent Assurance Testing."

423.3.7 Dispute Resolution

For any test incorporated into the pay factor, if a dispute exists between the Department and the Contractor about the validity of the test result, either party may invoke a referee lab. The State Asphalt Engineer will maintain a list of labs that are willing and capable of performing referee testing. All referee labs shall be AASHTO Materials Reference Laboratory (AMRL) certified for the test(s) to be performed. Neither the Department's project staff, nor the Contractor will know who is performing the referee testing. The State Asphalt Engineer will select a laboratory, without disclosing the name of the lab to Department Project Personnel or Contractor personnel, from the following, not in priority order:

1. A district laboratory not from the district in which the project resides; or
2. A private laboratory currently listed on the State Material's Bureau's list of approved private labs not involved in the subject project in any manner, such as mix design submittal, preliminary testing for design, etc. Only laboratories that are in the routine business of providing testing and designs will be considered. Contractor owned laboratories will not be allowed.

When a referee lab is used, the referee lab's test results will be used in determining the pay factor. The referee lab must be invoked in writing within seven calendar days of receiving the test results from the other party. If not invoked within seven calendar days, the test results are deemed accepted. The results will be used to determine pay factors. The Department's prior test results or the Contractor's prior test results for the test in question will be discarded. If the composite pay factor decreases from applying the referee lab's results, the Contractor shall pay for the testing performed by the referee lab. If the composite pay factor increases from applying the referee lab's results, the Department will pay for the testing performed by the referee lab. If the composite pay factor remains unchanged, the cost shall be split with each party responsible for 50% of the total cost.

For all testing incorporated into the pay factor, each party shall generate an additional split sample from the Department's Acceptance Samples and the Contractor's Quality Control Samples used in pay factor analysis. Failure to provide the referee samples prior to testing the initial sample will result in the Project Manager suspending the project at no cost to the Department. Additional time will not be added to the Contract for project suspension caused by failure to comply with Dispute Resolution Process. Work shall not resume until the Contractor provides the delayed sample(s) and satisfies the Project Manager, in writing, that future samples will be provided in compliance with this requirement. The extra sample(s) is (are) to be retained by the Department. The Department will retain the samples at the project location inside a locked cargo container, provided by the Contractor at no cost to the state. The state will provide the lock for the cargo container. Once the pay factor is determined dispose of the unused samples at no cost to the Department. In no case will the unused samples be disposed of prior to the seven calendar day period in which the Dispute Resolution process may be invoked.

For Pavement Density, the Contractor shall provide an additional core only for each core provided to the Department for Acceptance. The additional core will be stored and retained in the provided container. Should the Contractor invoke the Dispute Resolution Process for Density, the second core will be provided to the Referee Lab. The density pay factor for the material in question will be based solely on the Referee Lab result, not including Department or Contractor results. Failure to comply with the requirements contained herein will result in the pay factor being calculated in accordance with the applicable Sections of 423, Superpave (QLA and Non-QLA), and 901, Quality Control/Quality Assurance (QC/QA). No test results will be replaced by referee results.

423.4 METHOD OF MEASUREMENT

If the Department measures *HMA* by the square yard, the Department will use the average width of the HMA in place and the length from station to station along the centerline of the Roadway when calculating quantities.

423.5 BASIS OF PAYMENT

Pay Item	Pay Unit
HMA Complete	Ton or Square Yard
HMA	Ton or Square Yard

The Department will pay for accepted quantities at the Bid Item Unit Price, adjusted in accordance with Section 423.5.1, "Price Adjustments." Providing and transporting all cores, samples and storage containers shall be incidental to the Pay Items above.

423.5.1 Price Adjustments

423.5.1.1 Projects with Bid Quantities of 15,000 Tons or Greater

The Department will pay for accepted quantities of *HMA* or HMA Complete at the Bid Item Unit Price, adjusted in accordance with Section 901.5, "Quality Level Analysis." The HMA will be evaluated on a lot-by-lot basis at a price determined by multiplying the Bid Item Unit Price by the weighting factor. The Department will use Table 423.5.1.1:1, "Weighting Factors," to calculate each lot's composite pay factor. The pay factor for the entire project will be calculated by applying weighted averages, based on tonnage contained within each lot, to each lot's composite pay factor. If the composite pay factor for a lot is greater than 1.0, the pay factor will be set at 1.0.

Table 423.5.1.1:1
Weighting Factors

Characteristic	"f" Factor (%)
Mat Density	35
Air voids	35
Voids in the mineral aggregate (VMA)	20
Asphalt Content*	10

* If the individual pay factor for asphalt content is less than 0.75, it will be set at 0.75 for the purpose of calculating payment.

423.5.1.2 Projects with Bid Quantities Less than 15,000 Tons

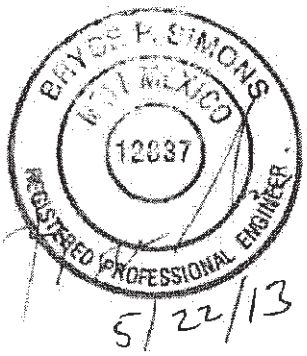
The Department will pay for accepted quantities of *HMA* or HMA Complete at the Bid Item Unit Price if the mean of the test results for each property is within the testing tolerances as listed in Table 423.3.6.2.1:1, "Acceptance Testing Tolerances." If the mean of the test results for any of the listed properties is outside of the testing tolerances as listed in Table 423.3.6.2.1:1, "Acceptance Testing Tolerances," then the Department will determine the price adjustment for the Material in accordance with the Department's *Price Reduction Procedures* current at the time of the Project letting. In no case will the pay factor be greater than 1.00.

423.5.1.2.1 Price Adjustment for Pavement Density (Bid Quantities Less than 15,000 Tons)

The Department will adjust the Bid Item Unit Price for the HMA or *HMA Complete* Pay Item, based on the Roadway density, in accordance with Section

901, Quality Control/Quality Assurance (QC/QA), specifically Section 901.5, Quality Level Analysis. If the composite pay factor for a lot is greater than 1.0, the composite pay factor will be set at 1.0 for purposes of payment. The Department will apply the price adjustments to the HMA pay item for each lot. The Department will base price adjustments on the average of all density tests for the lot.

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING



SECTION 509:
PORTLAND CEMENT CONCRETE MIX DESIGNS

509.1 DESCRIPTION

This Work consists of developing, submitting and getting approval to use PCC mix designs on Department projects.

509.2 MATERIALS

Test Materials in accordance with AASHTO and ASTM methods or other test procedures designated by the Department. The State Materials Bureau will decide questions about test procedure interpretation. Correct or remove and dispose of improperly graded or segregated material that fails to meet the requirements as directed by the Project Manager and at no additional cost to the Department.

Use pre-approved Materials in accordance with the current Department's *Approved Products List*. The Department will not allow changes in the source or character of the Materials without notifying the State Materials Bureau and obtaining written approval.

509.2.1 Reserved

509.2.2 Portland Cement

Use Type II, low-alkali portland cement in accordance with ASTM C 150 unless otherwise specified. If the results of the alkali-silica reactivity (ASR) mitigation tests required in Section 509.2.4.5 "Alkali-Silica Reactivity" are less than 0.10% for each of the individual aggregates in the mixture, the Department will waive the low-alkali requirement.

509.2.2.1 Source Approval and Acceptance

The Department will accept portland cement based on certification of the approved sources and satisfactory test results from project verification samples. The State Materials Bureau must approve cement from a particular source or Contractor before use. Include the following information in the request for source approval:

1. The Supplier or company;
2. Cement plant location;
3. Storage facility type and capacity,
4. Average and maximum production capabilities,
5. Production procedures;
6. Details regarding the in-house quality control program information:
   - 6.1 Routine sampling and testing frequency;
   - 6.2 Documentation that the Laboratory responsible for the certified ASTM C 150, ASTM C 595, and ASTM C 1157 test results is currently participating in the Cement and Concrete Reference Laboratory (CCRL) proficiency sample and the pozzolan inspection programs;
   - 6.3 A copy of the Laboratory letter authorizing CCRL to send copies of the CCRL inspection programs and proficiency result reports directly to the State Materials Bureau.
   - 6.4. Documentation of measures taken to ensure that the Supplier keeps unacceptable cement separated from acceptable cement;
7. Copies of quality control program test reports for the previous six months, including at least one comprehensive ASTM C 150 analysis for each month.

The Department will maintain a list of approved sources.

509.2.2.2 Sources on Approved List

Provide the following information from approved sources to the State Materials Bureau monthly:

1. Copies of routine quality control program test results, and
2. A certified ASTM C 150 or ASTM C 595 analysis for each lot tested. An average over a period of time or over several different test lots will not be acceptable.

509.2.2.3 Withdrawal of Source Approval

The State Materials Bureau may withdraw source approval for any of the following reasons:

1. A change in Equipment or production procedure from that on the original request for approval
2. Project sample failure to comply with specification requirements
3. Chemistry or physical properties that vary more than allowed
4. A source becomes inactive for a period of 3 months, or
5. A source does not provide cement to the Department for a period of 1 year
6. The appropriate mill certificates are not regularly received.

Manufacture cement at the same production facility unless otherwise approved by the State Materials Bureau. Obtain approval for changes in cement sources. Submit a written source change request to the Project Manager. The State Materials Bureau will issue a written decision within 7 Days of receipt.

Provide documentation that the proposed source will provide cement that produces concrete with hardened properties equal to or better than the original source. Compliance with ASTM C 150 is not sufficient documentation.

509.2.2.4 Blended Portland-Fly Ash Cement

Use blended portland-fly ash cement in accordance with ASTM C 595 or ASTM C 1157. Blend or inter-grind portland cement with fly ash. Provide proof that the blended portland-fly ash cement contains the appropriate percentage of the proper fly ash by weight of the cement only, to mitigate ASR concerns for the aggregates used.

509.2.2.4.1 Approval of Blended Portland-Fly Ash Cement Source

Provide test data showing that the proposed source can provide blended portland fly ash cement that produces concrete in accordance with Table 509.2.8.1:1 "Concrete Classes for Laboratory Design of Concrete Mixtures" and Section 509.2.8.4, "Concrete Mix Design Development."

509.2.2.5 Packaging

Mark portland cement and blended portland-fly ash cement packages with the name brand, the source manufacturing facility, and the cement type. Provide the same information on the shipping documents for bulk cement deliveries.

509.2.2.6 Storage

Protect cement from moisture. Store different brands or types of cement, or cement from different production facilities separately. Provide separate, identifiable blended portland-fly ash cement storage at the project or plant site. Store portland cement and portland-fly ash cement separately.

509.2.2.7 Cement Rejection

The Department will reject cement if it:

1. Has come in contact with moisture, fly ash, or other cements; or
2. Has partially set or is lumpy.

509.2.3 Fly Ash

Use fly ash that complies with the physical and chemical requirements of ASTM C 618 and the optional requirements for available alkalis and reactivity with cement alkalis as modified by Table 509.2.3:1, "Fly Ash Requirements." Use Class F fly ash if either the coarse or the fine aggregate is reactive. If both the coarse and the fine aggregate are non-reactive, the Contractor may use a C/F blend fly ash or a Class C fly ash.

Table 509.2.3:1
Fly Ash Requirements

Characteristics	Class C	Class F
Sum of Al_2O_3, SiO_2, and Fe_2O_3	—	>85%
Moisture content, maximum %	1.0	1.0
Loss on ignition, maximum %	3.0	3.0
Magnesium Oxide (MgO), maximum %	5.0	5.0
Available Alkalis, maximum %	1.5	1.5
Calcium Oxide (CaO), maximum %[a]	50.0	8.0

[a]NMDOT will only consider a fly ash as Class F if the CaO is less than 8%. Fly ash meeting the requirements of ASTM C 618 and containing more than 8% by weight of bulk CaO is considered as Class C fly ash and can only be used in concrete that is not exposed to sulfate environments or with "potentially reactive", or "reactive" aggregate.

Use waterproof and clearly labeled bags when supplying fly ash in bags. Label with the name brand, the manufacturer, type, and source. Provide an executed Certificate of Compliance with each fly ash shipment. Permission for blending Class C and Class F fly ash depends upon approval by the State Materials Bureau. Ensure the blended fly ash is in accordance with ASTM C 618 and is limited to concrete mixes in which the coarse and fine aggregates are non-reactive.

509.2.3.1 Source Approval and Acceptance

The Department will accept fly ash based on certification of approved sources and satisfactory test results on project verification samples. Obtain approval from the State Materials Bureau before using fly ash from a particular source or Supplier in PCC. Include the following in source approval requests:

1. Supplier or company name;
2. Source power plant location;
3. Coal type and origin;
4. Combustion process;
5. Storage facilities and capacity;
6. Production procedures;
7. Details regarding the Supplier's quality control program including the following:
   - 7.1. Routine sampling and testing frequency;
   - 7.2. Documentation showing that the Laboratory responsible for the certified ASTM C 618 test results is currently participating in the CCRL proficiency sample and pozzolan inspection programs. Submit a letter authorizing CCRL to send the Laboratory's inspection and proficiency reports directly to the State Materials Bureau; and
   - 7.3. Measures taken to ensure that fly ash not meeting specification requirements are kept separate from Material meeting the requirements;
8. Copies of the quality control program test reports for each lot tested for the previous six months including at

least one complete ASTM C 618 analysis for each month.

The Department will maintain an approved products list. Do not substitute the approved Material source for a different source without prior Department approval. The Department will consider a fly ash source change only after receiving a written request. The State Materials Bureau will review the request and provide written approval once they have verification of the equivalency of the proposed Material. Compliance with ASTM C 618 is not sufficient documentation to permit a change of sources. Provide information that verifies the proposed source Material performs equally as Material from the original source.

509.2.3.2 Sources on Approved List

Sources on the approved list are required to provide the State Materials Bureau with the following information on a monthly basis:

1. Test results obtained in their routine quality control program; and
2. A certified ASTM C 618 analysis for each lot tested.

509.2.3.3 Withdrawal of Source Approval

The Department may withdraw source approval for any of the following reasons:

1. If there is a change in Equipment or production procedures from what was shown in the original request for approval;
2. If a project sample fails to comply with specification requirements;
3. If a source becomes inactive for 3 consecutive months or more; or
4. If a source does not furnish fly ash to the Department for a period of 1 year.

509.2.3.4 Storage

Protect fly ash from moisture. Store different brands or types of fly ash, or fly ash from different production facilities separately. Provide separate, identifiable blended portland-fly ash cement storage at the project or plant site. Store portland cement and portland-fly ash cement separately.

509.2.4 Aggregate

The Department will allow the Contractor to combine aggregates from two or more approved sources based on the following criteria:

1. Each source complies with Material requirements other than gradation; and
2. The blended Material meets all requirements.

509.2.4.1 Aggregate Testing

Test coarse and fine aggregate in accordance with the methods shown in Table 509.2.4.1:1, "Aggregate Test Methods." Concrete mixture design approval involving a designated source will remain in effect as long as annual test results for specific gravity, absorption, gradation, and sand equivalent (for fine aggregate only) and annual tests for other requirements (except ASR) demonstrate Material compliance.

Table 509.2.4.1:1
Aggregate Test Methods

Aggregate test	Method
Sampling	AASHTO T 2
Clay lumps	AASHTO T 112
Amount of Material passing No. 200 sieve	AASHTO T 11
Absorption & Specific Gravity of Coarse Aggregate	AASHTO T-85 or TP 77
Absorption & Specific Gravity of Fine Aggregate	AASHTO T-84 or TP 77
Sieve analysis	AASHTO T 27
Soundness with magnesium sulfate	AASHTO T 104
Sand equivalent	AASHTO T 176
Soft fragments	AASHTO T 112
Flat and elongated pieces	ASTM D 4791
Alkali-Silica Reactivity	AASHTO T303 or ASTM C1293

509.2.4.2 Coarse Aggregate

Coarse aggregate is crushed stone, crushed gravel, or natural washed gravel. Unless otherwise specified, ensure that at least 50% of the aggregate by weight has a minimum of 1 Fractured Face. Ensure that Class G mixes are composed of at least 50% particles with no Fractured Faces. The Department may waive the Fractured Face requirement for mixes other than Class G mixes if less than 1.0% of the Material passes the No. 200 sieve.

509.2.4.2.1 Deleterious Materials

Do not exceed the deleterious substance tolerances in accordance with Table 509.2.4.2.1:1, "Deleterious Materials Tolerances for Coarse Aggregate." Perform tests in accordance with Table 510.2.4.1:1, "Aggregate Test Methods."

Table 509.2.4.2.1:1
Deleterious Materials Tolerances for Coarse Aggregate

Substance	Maximum % by weight
Soft fragments	2.0
Coal and lignite	0.25
Clay lumps	2.5
Materials passing No. 200 sieve	2.0
Flat and elongated pieces	[a]

[a] Ensure that Material larger than 3/8 in contains no more than 15% flat or elongated particles with a 3:1 or greater dimensional ratio in accordance with TTCP. Add the percentage of flat pieces to the percentage of elongated pieces to determine specification compliance. Count pieces that are both flat and elongated only once.

Provide aggregate that is free of organic matter. The Department will reject contaminated aggregate.

509.2.4.2.2 Coarse Aggregate Quality Requirements

Provide coarse aggregate with an AI of 25 or less, calculated in accordance with Section 910, "Aggregate Index." The Department will reject aggregates with an AI greater than 25.

509.2.4.2.3 Coarse Aggregate Gradation Requirements

If the combined gradation procedure detailed in Section 509.2.8.3.1, "Combined Gradation" has been chosen by the Contractor, then the gradation requirements specified below do not apply. Comply with all other aggregate properties and characteristics, including the amount of Material passing the No. 200 sieve.

Use coarse aggregate that complies with Table 509.2.4.2.3:1, "Coarse Aggregate Gradation Requirements."

Table 509.2.4.2.3:1
Coarse Aggregate Gradation Requirements

	% of aggregate passing sieve				
Sieve size	1.5 in	1.0 in	0.75 in	0.5 in	Class G
2.0 in	100	—	—	—	—
1.5 in	95–100	100	—	—	—
1.0 in	—	95–100	100	—	100
3/4 in	35–70	—	90–100	100	90–100
0.5 in	—	25–60	—	90–100	—
3/8 in	10–30	—	20–55	40–70	20–55
No. 4	0–5	0–10	0–10	0–15	0–10
No. 8	—	0–5	0–5	0–5	0–5
No. 200	0.0–2.0	0.0–2.0	0.0–2.0	0.0–2.0	0.0–2.0

Provide coarse aggregate that meets the following:

1. 50% of the Material has at least 1 Fractured Face; and
2. 2.0% or less (by weight) of the Material passes a No. 200 sieve.

The Department may accept coarse aggregate with more than the maximum percent passing the No. 200 sieve if the combined gradation of the coarse and fine aggregate percent passing the No. 200 sieve does not exceed 3.0%.

509.2.4.2.4 Portland Cement Concrete Pavement (PCCP) Gradations

Meet the coarse aggregate gradation requirements shown in Table 509.2.4.2.3:1, "Coarse Aggregate Gradation Requirements," for PCCP, unless using the combined gradation procedure. Additionally, except when the gradation of the coarse and fine aggregate combined has less than 1.0% passing the No. 200 sieve, all of the particles retained on or above the 3/8 in sieve must have at least 1 Fractured Face. The Contractor may eliminate the Fractured Face requirement by washing the aggregate to produce a combined aggregate of which less than 1.0% passes a No. 200 sieve. Provide proof that the mix design meets performance and minimum specified hardened properties.

509.2.4.3 Fine Aggregate

Use fine aggregate that consists of natural sand, manufactured sand, or a combination of both.

509.2.4.3.1 Deleterious Materials

Provide fine aggregates in accordance with Table 509.2.4.3.1:1, "Deleterious Material Tolerances for Fine Aggregate."

Table 509.2.4.3.1:1
Deleterious Material Tolerances for Fine Aggregate

Substance	Maximum % by weight
Soft fragments	2.0
Coal and lignite	1.0
Clay lumps	3.0
Materials passing No. 200 sieve	3.0

509.2.4.3.2, Fine Aggregate Quality Requirements

Provide fine aggregate with the following properties:

1. A soundness loss of 12 or less when tested in accordance with AASHTO T 104 using magnesium sulfate solution and a test duration of 5 cycles; and
2. A sand equivalent of at least 75 when tested in accordance with AASHTO T 176.

509.2.4.3.3 Fine Aggregate Gradation Requirements

If the combined gradation procedure detailed in Section 509.2.6.3.1, "Combined Gradation" has been chosen by the Contractor, then the gradation requirements specified below do not apply. Comply with all other aggregate properties and characteristics, including the amount of Material passing the No. 200 sieve.

Use well-graded fine aggregate in accordance with Table 509.2.4.3.3:1, "Fine Aggregate Gradation Requirements." The gradation requirements represent the limits that the Department will use to determine source acceptability.

The Department will not approve fine aggregate that has more than 45% passing any sieve and retained on the next finer sieve shown in Table 509.2.4.3.3:1, "Fine Aggregate Gradation Requirements." Use a fineness modulus, calculated in accordance with AASHTO M 6, to determine the degree of uniformity between representative samples. If the combined gradation procedure has not been chosen, the Department may reject fine aggregate from designated sources with variation in fineness modulus greater than 0.20 above or below the fineness modulus shown on the approved concrete mix designs. Variations in excess of these tolerances may be cause for rejection. The Department may accept the aggregate once the Contractor assures the State Materials Bureau that the source maintains the designated production tolerances.

Table 509.2.4.3.3:1
Fine Aggregate Gradation Requirements

Sieve size	% Passing
3/8 in	100
No. 4	90–100
No. 8	70–95
No. 16	45–80
No. 30	25–60
No. 50	5–30
No. 100	0–8
No. 200	0.0–3.0

The Department may accept fine aggregate with more than 3% percent passing the No. 200 sieve, but not more than 5% passing the No. 200 sieve if the combined fine and coarse aggregates passing the No. 200 sieve does not exceed 3.0%.

509.2.4.4 Alkali-Silica Reactivity

Prevent damage from ASR in accordance with the following procedures.

Perform the initial proof-of-reactivity-potential test using standard Rio Grande Type I-II low alkali cement from the Rio Grande Cement plant located at Tijeras, New Mexico. Use cement with an alkali content of from 0.5% to 0.6%. The Department considers aggregates with mean mortar bar expansions of greater than 0.10% at 14 Days potentially reactive and those less than 0.10% as non-reactive. Expansions greater than 0.20% are considered "Reactive." If tested using ASTM C 1293, the Department will consider aggregate non-reactive if the average expansion at the end of one year is less than 0.04%. Once the State Materials Bureau decides a particular aggregate source is non-reactive, it will not require the source to reevaluate for three years unless concerns arise from possible aggregate source changes. Obtain a list of reactive, potentially reactive, and non-reactive aggregate sources tested to date from the State Materials Bureau.

If the results of the initial proof-of-potential-reactivity test show the aggregate to be "potentially reactive" or "reactive", repeat the test procedure using the actual cement, fly ash and, if desired, any of the ASR inhibiting admixtures shown in Table 509.2.4.4:1 "ASR Inhibiting Admixtures." Report the minimum amount of Class F fly ash, and the minimum amount of ASR inhibiting admixture required to provide a maximum expansion at 14 Days that is less than 0.10%. Report the Fly Ash required as a percentage of the cement weight.

Table 509.2.4.4:1
ASR Inhibiting Admixtures

Material	Requirement
Fly ash (Class F)	Section 510.2.8, "Fly Ash"
Blended cement (Only Class F Fly Ash may be used)	Section 510.2.4.4, "Blended Portland Fly-Ash Cement"
Ground granulated blast furnace slag (GGBFS), Grade 100 and 200	AASHTO M 302
Silica fume	AASHTO M 307
Lithium nitrate ($LiNO_3$)	Section 510.2.11, "Lithium"

Use admixtures in accordance with Table 509.2.4.4:2, "ASR Mitigation Dosage Rate Requirements," unless it is determined that larger dosages are required to control the expansion.

Table 509.2.4.4:2
ASR Mitigation Dosage Rate Requirements

Material	Dosage Rate
Fly ash (Class F)	As required to mitigate ASR expansion, but not less than 20% by weight of cement only for binary blends; not less than 12% by weight for ternary blends as long as the total pozzolan dosage is at least 20%
Blended cement	As required, but not less than 20% by weight of cement only
GGBFS	As required, but not less than 25% by weight of cement only
Silica fume	As required, but not less than 10% by weight of cement only
Lithium nitrate	0.55 gal/yd³ of solution for each pound of cement sodium equivalent

509.2.4.4.1 ASR Mitigation Evaluation Criteria

The Department will consider an admixture effective if the mean mortar bar expansion at 14 Days is less than or equal to 0.10%, when tested in accordance with Section 509.2.4.4 "Alkali-Silica Reactivity." Retest aggregates classified as "potential reactive" or "reactive" for ASR mitigation each time the comprehensive mix evaluation is performed. If the test results from AASHTO T 303 or ASTM C 1293 indicate "potentially reactive" or "reactive" Material, but the Contractor believes that the aggregates are non-reactive, submit the following documentation as proof of non-reactivity:

1. A letter signed and sealed by an engineer registered in New Mexico confirming direct knowledge of the fundamentals of ASR in concrete and stating that the subject aggregates have never caused ASR concrete deterioration; and
2. A report from an approved petrographer. The report will confirm that at least two different concrete core samples obtained from different 15-year old exposed structures that used the subject aggregates in a cement-only mixture were examined and that there is no evidence of ASR reactivity.

After receipt of a stamped letter from the registered professional engineer indicating no evidence of ASR gel found in either of the cores, the Department will consider the aggregate sources non-reactive.

509.2.5 Admixtures

Ensure the total admixture, or combinations of admixtures, of soluble and insoluble chloride content does not exceed 1,000 ppm. Use only admixtures on the Department's *Approved Products List*.

509.2.5.1 Air Entraining Admixtures

Use air-entraining admixtures that comply with AASHTO M 154.

509.2.5.2 Chemical Admixtures

Use water-reducing and set-controlling admixtures set retarding admixtures, and non-chloride set accelerating admixtures, that comply with Section 509.2.5, "Admixtures," and AASHTO M 194.

509.2.6 Water

Test non-potable water before use in accordance with AASHTO T 26. Use water for mixing and curing concrete or washing concrete aggregates that does not contain acid, oil, alkali, organic matter, or other Deleterious Material that will adversely affect the concrete. Use water with a pH value of from 6.0 to 8.5 in accordance with AASHTO T 26. Do not use water with a sulfate content or chloride content that exceeds 1,000 ppm. Prevent contamination from silt, clay, organic matter, or other Deleterious Material. Do not use residual water, wash water, or recycled water generated by Equipment, mixer trucks, or central mixers in concrete mixtures.

509.2.7 Fibrous Concrete Reinforcement

Use fibers in the concrete mix at a minimum dosage rate of 1.5 lb per cubic yard of concrete. Use only 100% virgin polypropylene fibrillated fibers, containing no reprocessed olefin materials, and specifically manufactured for use in PCC.

509.2.8 PCC Mixture Design and Approval

509.2.8.1 Classifications

The classes of PCC are shown in Table 509.2.8.1:1, "Concrete Classes for Laboratory Design of Concrete Mixtures," and as specified:

Table 509.2.8.1:1
Concrete Classes for Laboratory Design of Concrete Mixtures

Class	Use	Specified compressive strength at 28 Days, (psi)	Laboratory design slump[a] (in)	Percent air content[b]
A	Cast in-place structural	3,000	4.5 to 5.5	—
AA	Cast in-place structural	4,000	4.5 to 5.5	—
D	Non-structural	2,600	4.5 to 5.5	—
E	Slip form structural	2,500[c]	2.0 to 2.5	—
F	Slip form structural	3,000[c]	2.0 to 2.5	—

Table 509.2.8.1:1
Concrete Classes for Laboratory Design of Concrete Mixtures

Class	Use	Specified compressive strength at 28 Days, (psi)	Laboratory design slump[a] (in)	Percent air content[b]
F-LS	PCCP Low Shrinkage	3,000	2.0 to 2.5	
G	Drilled shafts	3,000	—	No entrained air agent allowed
HPD	Bridge decks and other low shrinkage applications	4,000	4.5 to 5.5	—
Special	The *Contract Requirements* for the individual project will address special mix requirements.			

[a]As determined by AASHTO T 119.
[b]Project risk zone requirements apply; see Section 510.3.2, "Freeze-Thaw Risk Zones."
[c]The specified age for Class E and Class F is 14 Days.

509.2.8.1.1 Details for Table 510.2.8.1:1, "Concrete Classes for Laboratory Design of Concrete Mixtures"

Use Table 509.2.8.1:1, "Concrete Classes for Laboratory Design of Concrete Mixtures," only for designing concrete mixes. Do not use to evaluate concrete delivered to Department projects.

Use the minimum air content shown below in the Laboratory mix:

1. High Risk Zones: 7.0%
2. Medium Risk Zones: 6.5%
3. Low Risk Zones: 6.0%

Use a minimum compressive strength over-design at least 1,200 psi greater than the specified compressive strength for new mixes if there is no additional information available. For existing mixes with at least 15 compressive strength tests, or for plants which can provide at least 15 consecutive compressive strength tests for a similar mix (same entrained air and same specified compressive strength) determine the minimum allowable average compressive strength using one of the following equations. Use the equation that produces the largest value to determine the minimum allowable compressive strength.

$$f'_{cr} = f'_c + (1.34 \times k \times s) \quad (1)$$

$$f'_{cr} = f'_c + (2.33 \times k \times s) - 500 \quad (2)$$

where

f'_{cr} is the minimum laboratory compressive strength at the specified age

f'_c is the specified compressive strength

k is the k-factor from Table 509.2.8.1.1:1, "k-Factor for Increasing Standard Deviation," for standard deviation increase if the total number of tests is less than 30, but equal to or greater than 15

s is the standard deviation for the compressive strength tests submitted of the same specified strength

Table 509.2.8.1.1:1
k-Factor for Increasing Standard Deviation

Total number of tests	k-Factor
15	1.16
20	1.08
25	1.03
≥30	1.00

The Department will allow linear interpolation for an intermediate number of tests. A mix that was developed from a history of 15 or more test results from the preceding 12-month period is considered an existing mix. A mix developed without historical test results is considered a new mix.

Class E and Class F concrete must attain minimum strength at 14 Days. The minimum Class F over-design is 800 psi at 14 Days unless a lower value is calculated using the greater value from either Equation (1) or Equation (2). The minimum Class E over-design is 600 psi at 14 Days, unless a lower number is calculated using the greater value from either Equation (1) or Equation (2).

Class G shall have the following characteristics:

1. A minimum cementitious content of at least 611 lb;
2. A maximum water/cementitious ratio no greater than 0.44;
3. A maximum sized aggregate no greater than 0.75 in;
4. A sand/aggregate ratio between 40% and 42% by total aggregate volume;
5. A maximum air content no greater than 3.0%;
6. No air entrainment agent;
7. A slump range of 7.0 in ± 1.0 in, except when placing under a drilling fluid;
8. A slump range of 8.0 in ± 1.0 in for placement under a drilling fluid; and
9. Adjust admixtures for the job site conditions encountered so that the concrete remains workable and plastic for the 2 hr placement limit.

509.2.8.2 Freeze-Thaw Risk Zones

Design the concrete mixture for use in the freeze-thaw zone in which the project is located. One freeze/thaw cycle is defined as a day in which the lowest recorded temperature is equal to or less than 25 °F as recorded on the Western Regional Climate Center database. The web address is www.wrcc.dri.edu. The risk levels are defined as follows:

1. Low-Risk. The annual average number of freeze/thaw cycles is equal to or less than 30 cycles per year;
2. Medium-Risk. The annual average number of freeze/thaw cycles is greater than 30 but less than or equal to 130 cycles per year;
3. High-Risk. The annual average number of freeze/thaw cycles is greater than 130 cycles per year.

Obtain the number of freeze/thaw cycles using the closest weather station to the project with the most similar environmental conditions. Use Table 509.2.8.2:1, "Statewide Concrete Risk Zones," to determine the required risk zone.

Table 509.2.8.2:1
Statewide Concrete Risk Zones

District no.	County name	Station name	Concrete risk zone
1	Dona Ana	(County wide)	Low
1	Grant	(County wide)	Low
1	Hidalgo	(County wide)	Low
1	Luna	(County wide)	Low
1	Sierra	(County wide)	Low
1	Socorro	(County wide)	Medium
2	Chaves	(County wide)	Low
2	Curry	(County wide)	Medium
2	De Baca	(County wide)	Medium
2	Eddy	(County wide)	Low
2	Lea	(County wide)	Low
2	Lincoln	(County wide)*	Medium
2	Lincoln	Ruidoso	High
2	Otero	(County wide)	Medium
2	Roosevelt	(County wide)	Medium
3	Bernalillo	(County wide)*	Medium
3	Bernalillo	Sandia Crest	High
3	Sandoval	(County wide)	Medium
3	Valencia	(County wide)	Medium
4	Colfax	(County wide)	High
4	Guadalupe	(County wide)	Medium
4	Harding	(County wide)	Medium
4	Mora	(County wide)	High
4	Quay	(County wide)	Medium
4	San Miguel	(County wide)	Medium
4	Union	(County wide)	Medium
5	Los Alamos	(County wide)	Medium
5	Rio Arriba	(County wide)*	Medium
5	Rio Arriba	Chama	High
5	Rio Arriba	Dulce	High
5	Rio Arriba	El Vado Dam	High
5	Rio Arriba	Gavilan	High
5	Rio Arriba	Lindrith	High
5	Rio Arriba	Tres Piedras	High
5	San Juan	(County wide)	Medium
5	Santa Fe	(County wide)	Medium
5	Taos	(County wide)	High
5	Torrance	(County wide)	Medium
6	Catron	(County wide)	High
6	Cibola	(County wide)	High
6	McKinley	(County wide)*	High
6	Sandoval	(County wide)	High

*Except as otherwise listed

The minimum allowable air content for mix design submittal purposes is:

1. 6.0% for low-risk zones;
2. 6.5% for medium-risk zones;
3. 7.0% for high-risk zones.

Confirm these contents by the pressure method and the volumetric method in accordance with Section 509.2.8.4.3, "Mix Design Submittal."

509.2.8.3 PCC Mixture Development

Submit representative samples of all proposed Materials to a PTL that is pre-approved to design PCC mixtures by the State Materials Bureau. Provide a professional civil engineer licensed by the State of New Mexico with a minimum of

3 years experience in proportioning and testing PCC mixes to directly supervise all testing.

509.2.8.3.1 Combined Gradation

The combined gradation procedure is optional for all concrete mixes except for Class F-LS and High Performance Deck (HPD) mixes. Class F-LS and HPD mixes must be prepared using the combined gradation procedure. Evaluate aggregates for concrete mixtures prepared for the combined gradation procedures in accordance with the following:

1. **Coarseness Factor.** Determine the Coarseness Factor in accordance with the following equation:

$$CF = \frac{Q}{Q+I} \times 100 \qquad (3)$$

where

CF is the Coarseness Factor

Q is the weight of the aggregate retained on or above the 3/8-inch sieve

I is the weight of the aggregate passing the 3/8 in sieve, but retained on the No. 8 sieve

2. **Workability Factor.** The weight of the aggregate passing the No. 8 sieve divided by the weight of the combined gradation, represented as a percent.
3. **Mortar Factor.** The volume of the cement, fly ash, water, air, other pozzolans, and aggregate passing the No. 8 sieve divided by the volume of the entire concrete mixture, represented as a percent.
4. **Paste Factor.** The volume of the cement, fly ash, water, air, and other pozzolans divided by the volume of the entire concrete mixture, represented as a percent.

Combine aggregates to produce a uniform gradation. Ensure that combined aggregates comply with the required individual physical and chemical properties. Individual gradation requirements will not apply. Use the .45 Power Curve to blend the aggregates to achieve the densest grading possible. Approximate targets for the Coarseness Factor and the Workability Factor are shown in Table 509.2.8.3.1:1, "Recommended Workability Factor and Coarseness Factor Targets," for concrete mixtures designed using combined gradation.

Table 509.2.8.3.1:1
Recommended Workability Factor and Coarseness Factor Targets

Nominal Maximum Aggregate Size	Workability Factor	Coarseness Factor
3/4 in	32 - 36	65 - 75
1/2 in	40–42	10–20

509.2.8.4 Concrete Mix Design Development

Use fly ash in all concrete mixtures. If fly ash is the only pozzolan used, add at a minimum of 20%, by weight of cement only. Only use Class C or C/F blended fly ash with non-reactive aggregate. When using Class C or C/F blended fly ash instead of the Class F fly ash, use at a minimum dosage rate of 25%, by weight of cement. When using additional pozzolans, such as silica fume, metakaolin, or GGBFS, the minimum amount of fly ash required is 12% for mixtures using Class F fly ash and 15% for mixtures using Class C fly ash. When using multiple pozzolans, ensure that the total pozzolan content is at least 20% with Class F fly ash and 25% with Class C or C/F blend fly ash.

509.2.8.4.1 Concrete Mix Design Documentation

Submit documentation to the State Materials Bureau that verifies:

1. All Materials used comply with Section 510.2, "Materials;"
2. The PTL prepared and tested a proof mix using the designated Materials and batch weights;
3. A complete companion set of compressive strength test cylinders was delivered to the Department District Laboratory for comparison testing.
4. The cylinders were cured for at least 48 h after casting, and the cylinders were transported upright in protected and cushioned containers to the Department District Laboratory.

509.2.8.4.2 Concrete Mix Design Designing & Proportion

Design and proportion the concrete mixtures to comply with the following performance requirements:

1. Except for concrete mixtures to be used exclusively in pre-stressed applications, all structural concrete mixtures must demonstrate strength gain characteristics as follows:
   1.1 28-Day strength of at least 130% of the 7-Day strength;
   1.2 56-Day strength at least 108% of the 28-Day test;
2. For Class F-LS Concrete mixtures, the minimum average flexural strength for 3 beams cast in the laboratory shall be 650 psi at 28 days, when tested in accordance with AASHTO T-97
3. Structural concrete mixtures must achieve a minimum durability index
   3.1 Greater than or equal to 85 for Low-Risk Zones;
   3.2 Greater than or equal to 90 for Medium-Risk Zones; and
   3.3 Greater than or equal to 95 for High-Risk Zones;
1. Determine the durability index from at least one prism tested at 28 Days for 300 cycles, in accordance with ASTM C 666, Method A. Cure prisms tested for durability index by bathing in lime saturated water at a temperature of 73.3 °F ± 3.0 °F for the first 7 Days followed by 21 Days in lime saturated water at a temperature of 100.0 °F ± 3.0 °F.
2. If the specimen cannot be tested immediately after curing, place immediately in a freezer at a maximum

temperature of 10.0 °F until testing;

3. Hardened air void system characteristics required of all structural concrete classes, when examined in accordance with the ASTM C 457 linear traverse method include:
   3.1 A minimum air content of 5.0%;
   3.2 A specific surface greater than 600 in-1; and
   3.3 A spacing factor less than 0.008 in;
4. Ensure that concrete complies with Section 509.2.4.4, "Alkali-Silica Reactivity," and Section 509.2.4.5.1, "ASR Mitigation Evaluation Criteria," as determined by the State Materials Bureau;
5. Provide chloride ion permeability at 28 Days for structural concrete tested in accordance with ASTM C 1202 that is:
   5.1 Less than or equal to 3,000 coulombs for Low-Risk Zones; or
   5.2 Less than 2,500 coulombs for Medium-Risk Zones; or
   5.3 Less than 2,000 coulombs for High-Risk Zones;
6. Cure concrete for chloride ion permeability the same way as the durability index specimens in accordance with #2, above;
7. The maximum shrinkage value for Class F-LS concrete mixtures and for HPD concrete mixtures is 0.05% at 56 Days when tested with 3 in x 4 in x 16 in prism or 3 in x 3 in x 10 in prism and cured in a standard cure for the first 7 Days. Following the 7 Day initial cure, cure in a relative humidity of 50% and test in accordance with AASHTO T 160;
8. For Class G mixtures, provide trial mix and slump loss test results that verify compliance with the concrete slump requirements for Class G.

Only technicians who are currently certified by TTCP-Concrete or ACI Concrete Field Technician, Level I shall determine concrete fresh properties in accordance with the appropriate AASHTO procedures. Laboratories approved by the Department's State Materials Bureau shall determine hardened properties. Technicians performing tests on aggregates and aggregate gradations shall be certified by TTCP or ACI Concrete Laboratory Level I. Those technicians performing strength tests on hardened concrete must be certified as an ACI Level I Laboratory Technician or by TTCP for *Compressive Strength Testing of Concrete*.

Develop concrete mixtures with compressive strengths as close as possible to the over-design strengths calculated in accordance with Section 509.2.8.1.1, "Details for Table 509.2.8.1:1, 'Concrete Classes for Laboratory Design of Concrete Mixtures.'" Concrete with strengths substantially in excess of these over-design strengths will be rejected and returned to the submitting Laboratory for the appropriate adjustments.

509.2.8.4.3 Mixture Design Submittal

Submit a completed electronic copy of the NMDOT *Concrete Mix Design Submittal Form* to the Concrete Unit of the State Materials Bureau. Ensure that the following information is included:

1. Company name of the requestor;
2. Company address, telephone number and e-mail address;
3. PTL's name and signature; and
4. The New Mexico registration number of the professional engineer who is responsible for the concrete mixture design work;

Ensure that the following information and the required documentation is provided electronically and through back-up documentation:

5. A comprehensive materials list and the properties of each component, including:
   5.1. Aggregates:
      5.1.1. Source names;
      5.1.2. Specific source locations;
      5.1.3. For sources not on the Department approved list, provide a complete ASTM C 295 "Petrographic Examination of Aggregates for Concrete" and an ASTM C 294, *Constituents of Natural Mineral Aggregates* for both the coarse and fine aggregate Material after completing processing and manufacturing procedures and the aggregate is ready for use; include the geologic origin of the Material; perform and certify the analysis using a petrographer previously approved by the Department;
      5.1.4. Soundness loss with calculations;
      5.1.5. Percent of Fractured Faces for the coarse aggregate;
      5.1.6. Gradations, including AASHTO T 11;
      5.1.7 Bulk saturated surface dry specific gravities;
      5.1.7. Los Angeles wear abrasion;
      5.1.8. Fineness modulus;
      5.1.9. Aggregate absorption;
      5.1.10. Aggregate correction factor;
      5.1.11. Sand equivalent of fine aggregate;
      5.1.12. Dry-rodded coarse aggregate unit weight;
      5.1.13. Fine aggregate clay lumps content; and
      5.1.14. Organic impurity content, including soft fragments, coal and lignite, flat or elongated pieces, and other deleterious substances.
   5.2. Cement:
      5.2.1. ASTM C 150 Analysis;
      5.2.2. Chemical and physical cement properties, including the amount of C3S, C2S, C3A, the amount finer than the No. 325 sieve, and the Blaine Fineness; and
      5.2.3. Cube strengths;

5.3. Fly Ash:
  5.3.1. ASTM C 618 Analysis;
  5.3.2. Specific gravity;
  5.3.3. Material retained on a No. 325 sieve;
  5.3.4. Moisture content;
  5.3.5. Loss on Ignition;
  5.3.6. Magnesium oxide content; and
  5.3.7. Calcium oxide content.
5.4. Blended Cement:
  5.4.1. ASTM C 595 and ASTM C 1157 analyses;
  5.4.2. Chemical and physical cement properties, including the percent of C3S, C2S, C3A, the amount finer than a No. 325 sieve, and the Blaine Fineness;
  5.4.3. Total alkalis;
  5.4.4. ASTM C 618 Analysis; and
  5.4.5. Percent of fly ash;
5.5. Admixtures:
  5.5.1. Documentation of compliance with appropriate ASTM requirements; and
  5.5.2. Verification of supply availability;
5.6. Water:

6. Concrete mixture proportions; state clearly if submitting request under the combined gradation provisions;
7. Water/cementitious ratios;
8. Type and amount of admixtures; use admixtures on the Department's *Approved Products List*;
9. Water source and location; include pH, available alkalis, and a full chemical analysis, if the water source is not a certified NMED public potable water supply;
10. Plastic Concrete Properties:
  10.1 Air temperature;
  10.2 Concrete temperature;
  10.3 Slump; when using super-plasticizer, document the slump before and after addition of the super-plasticizer;
  10.4 Unit weight; and
  10.5 Air content measured in accordance with AASHTO T 152 or AASHTO T 121;
  10.6 When using super-plasticizer, document the measured air content before and after adding the super-plasticizer);
11. Hardened Concrete Properties:
  11.1 New Concrete Mixtures:
    11.1.1 Compressive strength tests (the average of three cylinders tested at 7 Days, 28 Days, and 56 Days, except for Class E ,Class F and Class F-LS mixes which shall have two cylinders tested at 7, 14, 28 and 56 Days);
    11.1.2 Type of fracture of each cylinder;
    11.1.3 Flexural strength test results for Class F-LS(average of three beams)
    11.1.4 Durability index (for structural mixes only);
    11.1.5 Hardened air void analysis (for structural mixes only);
    11.1.6 Rapid Chloride Permeability (for structural mixes only); and
    11.1.7 Expansion data from AASHTO T 303;
  11.2 Existing Concrete Mixtures:
    11.2.1 Consecutive compressive strength data with individual specimen test results from 7 Days, 28 Days, and 56 Days (at least 15 tests required); Present this data in chronological order;
    11.2.2 Durability index (for structural mixes only);
    11.2.3 Hardened air void analysis (for structural mixes only);
    11.2.4 Rapid Chloride Permeability (for structural mixes only); and
    11.2.5 Expansion data from AASHTO T 303:
  11.3 Incidental Concrete Mixtures (Only for specific Projects) Concrete mixes intended for projects that anticipate less than 300 yd^3 of each concrete class, but not more than 750 yd^3 for concrete used on the project:
    11.3.1 Compressive strength data (field performance data if using the mix within the previous 12 months, or laboratory mix performance data not using it in the field); and
    11.3.2 Air content, as measured by the pressure method or the volumetric method; when using superplasticizer, show the air content before and after adding superplasticizer.

509.2.8.5 Mixture Design Approval

The Department will require at least 14 Days to review the submittal packages after receipt by the State Materials Bureau of all required information. The Department will approve designs for a period of 1 year from the date of issuance if the documentation verifies compliance with all requirements. At least 30 Days before the 1-year approval expires, the Contractor may request that the mix design be reissued. The Contractor must provide test reports showing that the mix design met specification requirements during the issue period. Mix designs may be re-approved for no more than 4 additional years. The Department will grant each approval period if the documentation verifies the following:

1. Constituent Material sources and the Material's properties remain the same;
2. The compressive strength performance data verifies compliance with Section 510.3.5.3, "Acceptance of Concrete Based on Cylinders;"
3. Compliance with other fresh and hardened properties is verified where the mixture was used;

4. The coefficient of variation (CV), determined in accordance with ACI 214, is less than 12%; and
5. When field performance data shows the CV exceeds 12%, a "Comprehensive Operations QC/QA Manual" that shows how the Contractor will reduce the variability and improve the consistency of its production process will be required.

At the discretion of the State Concrete Engineer, a mixture can be adjusted without re-batching by using "cement efficiency" calculations to determine the amount of change to the cement and the total cementitious content that is necessary to achieve the desired level of performance. When this procedure is allowed, the ratio of pozzolan to cement ratio will remain unchanged, the water content will remain unchanged, and the aggregates will be adjusted without changing the overall gradation to accommodate the changes in volume from changes made to the cement. All changes made by this method must be approved by the State Concrete Engineer before being implemented in the field.

If the constituent Materials change, immediately provide documentation to the State Materials Bureau describing how to resolve the problem. Return the affected Material to an approved condition or submit a new concrete mixture design package. If the compressive strengths do not comply with Department requirements, describe the needed adjustments. Submit a written summary of the adjustments to achieve compressive strength to the State Materials Bureau for approval. Do not use the concrete mixture on Department projects before receipt of written approval from the State Materials Bureau.

The Department will not consider the addition of more cement a sufficient explanation or resolution without additional documentation explaining why other measures are not appropriate.

509.3 CONSTRUCTION REQUIREMENTS – Vacant

509.4 METHOD OF MEASUREMENT – Vacant

509.5 BASIS OF PAYMENT

The Department will pay for concrete in accordance with the section of these *Standard Specifications* for which the concrete is used.

July 2, 2012

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATIONS FOR

PORTLAND CEMENT CONCRETE
SECTION 510

All Provisions of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete SECTION 510- PORTLAND CEMENT CONCRETE in its entirety and substitute the following:

510.1 DESCRIPTION

This work consists of placing Portland Cement Concrete (PCC).

510.2 MATERIALS

Test materials in accordance with AASHTO and ASTM methods or other test procedures designated by the Department. The State Materials Bureau will decide questions about test procedure interpretation. Correct or remove and dispose of improperly graded or segregated material that fails to meet the requirements as directed by the Project Manager and at no additional cost to the Department.

Use pre-approved materials in accordance with the current Department's *Approved Products List.* The Department will not allow changes in the source or character of the materials without notifying the State Materials Bureau and obtaining written approval.

510.2.1 Portland Cement Concrete Mixture

Use a portland cement concrete mixture that has been reviewed and approved in accordance with Section 509 for the freeze-thaw risk zone in which the project is located.

510.2.2 Aggregate

Use aggregates that are the same as those used on the approved mixture design. Do not use aggregate from a different source as that shown on the approved mix design.

If the concrete mixture is approved under the conventional stockpile procedures, ensure the gradations comply with Table 509.2.4.2.3:1 "Coarse Aggregate Gradation Requirements" and Table 509.2.4.3.3:1 "Fine Aggregate Gradation Requirements."

If the concrete mixture is approved under the combined gradation procedures, ensure that the most current gradations have been reviewed, and the Coarseness Factor and the Workability Factor comply with Section 509.2.8.3.1 "Combined Gradations."

510.2.3 Curing Materials

510.2.3.1 Liquid Membrane Forming Compounds

Use Type 1-D or Type 2 liquid membrane-forming concrete curing compounds that comply with AASHTO M 148.

510.2.3.2 Linseed Oil Emulsion

Do not use linseed oil emulsion-curing agent.

510.2.3.3 Sheet Materials for Curing Concrete

Use concrete curing sheet materials in accordance with AASHTO M 171. The Department will only allow the white reflective type.

510.2.3.4 Fogging System

Use a fogging system which uniformly applies a constant uniform fog of water comprised of droplets that are too small visually discern any individual droplets, and that does not splash or mark the surface of the concrete.

510.2.4 Water

See Section 509.2.6, "Water."

510.3 CONSTRUCTION REQUIREMENTS

510.3.1 General Use

510.3.1.1 Freeze-Thaw

Use a concrete mixture which has been approved for use in a freeze-thaw zone of equal or greater risk than the zone in which the project is located.

510.3.1.2 Class Substitution

The Contractor may substitute an approved structural class of concrete with a higher compressive strength than that of the specified class of concrete, as long as the design slump characteristics remain the same (i.e. Class AA for Class A, Class F for Class E). Do not substitute Class A for Class E or Class AA for Class F concrete mixtures.

Perform concrete field-testing with Concrete Field Testing Technicians certified by ACI or TTCP.

510.3.1.3 Alternate Batching Facilities

A request may be made to the State Materials Bureau to allow a currently approved concrete mixture to be batched out of facilities not under the direct control of the Contractor to whom the concrete mixture approval is granted. The Department will permit off-site batching of an approved concrete mixture when the following occur:

1. Use the same materials as those used at the plant where the mixture is approved and as shown on the approved mix design;
2. Use the same admixtures as those used at the plant where the mixture is approved and as shown on the approved mix design;
3. Prepare a written QC plan for the alternate batch facilities, personnel and operations that adequately addresses how the alternate batch plant will assure the quality of the mixture;
4. The operations at the alternate batch facility has confirmed compliance with the approved QC plan with other mixtures;

5. Provide concrete performance statistics that assure the same level of performance can be achieved from the alternate batch facilities.

510.3.1.4 Plastic Properties

The allowable slump range for non-superplasticized Class AA, Class HPD and Class A concrete is 3.5 in ± 1.0 in. The allowable slump range for Class E and Class F Slip-Formed Concrete is 1.5 in ± 1.0 in. All test procedures and frequencies will be performed in accordance with the Minimum Testing Requirements. Measure the air content in accordance with AASHTO T 121. The air content determined by AASHTO T 121 will be used to confirm compliance with the specified air content for structural concrete.

1. Low Risk Freeze/Thaw Zone – from 4.5% to 8.0%; or
2. Medium Risk Freeze/Thaw Zone – from 5.0% to 8.0%; or
3. High Risk Freeze/Thaw Zone – from 6.0% to 8.0%.

510.3.1.5 Troubleshooting

If the approved mixture design fails to meet requirements, the Project Manager will immediately contact the PTL that designed the mixture and the State Concrete Engineer. The PTL shall work with the State Concrete Engineer to make the necessary changes to resolve the problems. Efforts to evaluate problems with the concrete does not relieve the Contractor of the responsibility to provide a concrete mixture that meets project requirements.

510.3.2 Batching

Produce ready-mixed concrete and site-mixed concrete in accordance with AASHTO M 157, Section 9 to 11. Ensure that production facilities are certified in accordance with the National Ready Mix Concrete Association (NRMCA) criteria for concrete production facilities.

510.3.2.1 Batching Plant

The Department will review and approve facilities and equipment before batching operations begin.

Ensure that batching plants have clearly separated aggregate bins or stockpiles; silos for cement and fly ash; weighing hoppers; and scales. Ensure that the batch plants are equipped to proportion aggregates, bulk cement and fly ash using calibrated weighing devices. Weigh aggregates on separate scales or accumulatively on a single scale. If weighing fly ash on the same scale as the portland cement, weigh the cement first, then add the fly ash.

Ensure that the batch plant operator has a direct view or live video of each scale and admixture sight tube while preparing batches of concrete. It is not sufficient to be able to see only the computer measurements. Ensure that the batch plant is capable of:

1. Accurately weighing and batching materials for the portland cement or portland cement/fly ash concrete mixture within the tolerances specified;

2. Providing readily visible scale dials or instrumentation devices for admixture bottles, beam scales and load cells, even if using a computer to prepare the batch;
3. Using weighing hoppers of sufficient size to contain the material without loss or spillage; and
4. Properly combining and re-combining various mixture components to obtain the required uniformity and consistency.

Use weighing hoppers that efficiently discharge weighed materials for each batch. Ensure that the material charging equipment can deliver the batch to the mixer without loss or spillage. Provide scales for weighing aggregates, cement, water, and fly ash in accordance with Section 109.1, "Measurement of Quantity."

510.3.2.2 Portland Cement and Fly Ash

Use cement and fly ash in bulk or in sacks. Weigh fractions of sacks before using cement or fly ash in a concrete batch. Measure cement and fly ash by weight. Weigh bulk cement and fly ash on an approved scale, except when using continuous proportioning and mixing equipment.

Provide cement, and combined cementitious weights within ± 1% of the required weights. If the weight of cementitious materials is expected to weigh less than 1,000 lb, ensure that those materials weigh within 30 lb of the target weight.

If the material varies from the target weight by more than ± 1.0%, the Department will immediately notify the Contractor to take corrective action. If the weight is no more than 2.0% above or 1.5% below the target weight, the Department may, at the Project Manager's discretion, accept a maximum of 5 loads out of the first 10 consecutive loads of concrete delivered of any continuous placement with these weight discrepancies, regardless of whether the discrepancies are for the same material or for other weighed materials. Any batches of concrete produced after the first 10 have been batched that have cement or total cementitious weights that are more than ± 1.0% will be rejected and not allowed to be placed on the project. Dispose of rejected loads at no additional cost to the Department.

Equip cement and fly ash scales and hoppers with a device that indicates the complete discharge of cement and fly ash into the mixer. Contain bulk cement and fly ash in weather tight bins and weighing hoppers. Do not suspend discharge chutes from the weighing hoppers. Arrange the discharge chutes so that cement and fly ash do not lodge in or leak from them.

Protect cement and fly ash from moisture. Store different brands or types of cement/fly ash, or cement/fly ash from different production facilities separately. Provide separate, identifiable blended portland-fly ash cement storage at the project or plant site. Store portland cement and portland-fly ash cement separately.

510.3.2.3 Water

Mixing water consists of free water, ice added to the batch and surface moisture on the aggregates. Measure the added water by weight or volume to ensure that the amount of water in the mixture design is not exceeded. Measure added ice by weight. For truck mixers, discharge the wash water before loading the next batch of concrete.

510.3.2.4 Aggregates

510.3.2.4.1 Stockpiles

Ensure the separation of stockpiles of different sizes or from different sources. Stockpile aggregates so that the coarse and fine particles do not separate. Provide stockpiles that can produce enough concrete for the section constructed during a scheduled operation. Ensure that aggregates are not contaminated by material from adjacent stockpiles or from contact with the ground, dust, or other deleterious materials. Do not use aggregates that become segregated or mixed with deleterious material. Do not use frozen lumps of aggregate in concrete batching.

Ensure that a "sacrificial" layer of the same size aggregate at least 6 inches deep is maintained below the bottom of the stockpile so that the front-end loader will not pick up non-complying materials that would contaminate the concrete mixture.

510.3.2.4.2 Gradations

The Project Manager may cancel concrete placements that have gradation data that is more than 7 Days old.

1. If the mixture design is approved with the Conventional Stockpile Procedure, ensure that the stockpile gradations comply with the standard gradation requirements for each sieve size shown in Table 509.2.4.2.3:1, "Coarse Aggregate Gradation Requirements," and Table 509.2.4.3.3:1, "Fine Aggregate Gradation Requirements."
2. If the mixture design is approved with the combined gradation procedure, it is the Contractor's responsibility to continuously monitor the gradation of each of the stockpiles. Provide new gradation results to the Project Manager, in one of the following ways:
   - 2.1 If placing more than 1000 yd^3 per week, provide new gradation results every 1000 yd^3;
   - 2.2 If regularly making placements that total less than 1000 yd^3 per week, provide new gradation results once per week.
   - 2.3 If placements are irregular and limited to no more than two placements in a single week, provide new gradation results at least 24 hours before the first scheduled placement in any week.
3. The Contractor's responsibilities to monitor gradations are not related to the QC/QA testing requirements. The Department considers these responsibilities to be part of the standard operation and maintenance of the batching facilities.
4. Determine if the combined gradation is within the following limits:
   - 4.1 Coarseness factor is ± 3 percentage points of the value in the approved mixture design;
   - 4.2 Workability factor is ± 2 percentage points of the value in the approved mixture design;
5. The aggregate batch weights will automatically be adjusted when the gradation information determined by the supplier is entered into the Field Report form. The supplier will be required to use the most recent gradations to determine if the Coarseness Factor or the Workability Factor does not comply with 4.1 or 4.2 above. If the Coarseness Factor or the

Workability Factor do not comply with 4.1 or 4.2 above, the mix batch weights must be adjusted to bring these factors into compliance. When adjusting these factors, adjust them to the tolerances in 5.1 and 5.2, below.

5.1 Coarseness factor is ± 2 percentage points of the value in the approved mixture design;

5.2 Workability factor is ± 1.5 percentage points of the value in the approved mixture design;

6. If the gradation tolerances in 4.1 and 4.2 can not be met, do not place concrete until the gradations are corrected to meet the designated tolerances.

510.3.2.4.3 Batch Weights

Batch aggregate target weights over 1,000 lb to within ± 2% of the target weight. For target weights less than 1,000 lb, batch to within ± 50 lb of the target weight.

If any of the first 10 loads of concrete have a fine or coarse aggregate weight that differs from the target weight by more than 2%, but not more than ± 3%, the Department may, at the Project Manager's discretion accept the concrete. The Department will allow no more than five loads out of the first 10 consecutive loads of concrete of any continuous placement to exceed the maximum allowable weight tolerances. Any batches produced after the first ten that differ from the target weight by more than ± 2% will be rejected from the project and can not be placed on the project. Dispose of rejected loads at no additional cost to the Department.

510.3.2.4.4 Moisture Control

1. For a manually operated facility or for hoppers not equipped with automatic moisture sensors, measure the moisture content of each stockpile not monitored by automatic moisture sensors at least every 4 hours, or as required by changing moisture conditions within the stockpiles

2. For plants equipped with automatic moisture probes, for each stockpile monitored by an automatic moisture probe, measure moisture content manually at least once a day. Compare the manual measurement immediately before preparing the first concrete load to the measurement shown by the moisture sensing equipment. If the measurements differ by more than 0.5%, re-correlate the moisture probe.

   For stockpiles not monitored by an automatic moisture probe, follow the requirements of 510.3.2.4.4(1).

3. Send a certificate showing the moisture content determined by manual methods in accordance with Paragraph 4 below, and the moisture correlation to the Project Manager with the first load of concrete. If this information is not included with the first load of concrete delivered to the project, that load of concrete and all subsequent loads of concrete are subject to rejection until the information is received at the project.

4. Determine the aggregate moisture content to the nearest 0.5% in accordance with one of the following procedures:

4.1 AASHTO T 217: The shelf life of the calcium carbide is relatively short. Closely monitor the age of the calcium carbide and replace it in strict accordance with the manufacturer's recommendations

4.2 AASHTO T 255: The Department will allow the hot-plate or microwave methods for this purpose, as long as no material is lost and the pan is continuously agitated during the drying process.

5. Provide the following information on the moisture certificate to the Project Manager:

5.1 Pan weight (it is not acceptable to tare out the pan weight on scales equipped to do so);

5.2 Wet weight of the pan and the sample;

5.3 First dry weight of the pan and the sample;

5.4 Second dry weight of the pan and the sample;

5.5 Third dry weight of the pan and the sample (if necessary);

5.6 Absolute moisture content of the sample;

5.7 The moisture probe reading from the tested sample (if equipped); and

5.8 The calculated difference between the actual moisture content test and that shown by the moisture sensing equipment.

Allow washed aggregates to drain before use. The Project Manager may require the aggregates to remain in the stockpile or storage area for longer, if the moisture contents are excessive.

510.3.2.5 Air-Entraining and Chemical Admixtures

Store admixtures in separate containers to avoid contamination, evaporation, and damage. Protect liquid admixtures from freezing and from damaging temperatures. For admixtures used as suspensions in non-stable solutions, provide agitating equipment to ensure the thorough distribution of the ingredients. Measure liquid admixtures within ± 3% of the target amount.

510.3.2.6 Mixing

Ensure that the uniformity of the concrete mixture complies with AASHTO M 157, Section 10.2. If using a central plant mixer it must have a rated mixing capacity of at least 3 yd^3. Batch and deliver concrete in accordance with NRMCA standards.

510.3.3 Transporting

Transport mixed concrete in non-agitating trucks only when the slump is less than 2 in. Revolving-drum mixer trucks must be used to transport concrete with a slump in excess of 2 in. Transport concrete produced in a dry-batched concrete plant in revolving-drum mixer trucks.

510.3.3.1 Non-Agitator Trucks

Use only non-agitating trucks with bodies that are smooth, mortar-tight metal containers capable of discharging the concrete at a satisfactory controlled rate without segregation. Provide covers needed for protection.

510.3.3.2 Truck Mixers and Agitators

Equip agitator trucks with a plate directly attached to the truck in a readily visible location, labeled with the specific truck properties, including the designated drum mixing speed.

Keep documentation for review by Department personnel upon request to show that the mixers and agitators have been inspected in accordance with NRMCA Guidelines within the last 12 months.

Department personnel will check the water tank site tube when the truck arrives at the project site. If there is water missing from the tank, the Department will reject the truck unless the Driver can account for the missing water.

510.3.3.3 Upon Arrival at the Project

Re-mix the concrete that arrives at the project site in agitator trucks as follows:

1. For concrete mixed in a central mix plant: mix at the designated mixing speed for a minimum of 2 min, before discharging;
2. For concrete mixed inside an Agitator Truck: mix at the designated mixing speed for a minimum of 5 min, before discharging;
3. If any water, water-reducing admixtures, entrained air, or other ingredients are added to the concrete, mix the additional material at the designated mixing speed for at least 5 min before discharging.

510.3.4 Placing

510.3.4.1 Temperature and Weather Limitations

See Section 511.3.3, "Temperature and Weather Limitations."

510.3.4.2 Mixing Time

"Mixing time" is the elapsed time from when the cement is exposed to the aggregates until the concrete has been placed into its final location. Do not use concrete mixed less than the minimum specified time. The maximum mixing time for concrete hauled in truck mixers or truck agitators is 90 min. Do not exceed 60 min of mixing time when:

1. The concrete temperature is 80 °F or above for bridge decks or approach slabs,
2. The concrete temperature is 85 °F for other concrete.

When hauling the concrete in non-agitating trucks, all concrete must be placed into its final location within 45 min of initial mixing. If the concrete temperature is 80 °F or above, place concrete within 30 min from initial mixing.

Concrete arriving at the project with a temperature greater than 90 °F can not be used.

510.3.4.2.1 Extended Mixing Time

In rural and remote areas of the State where mixing time cannot be met, submit a written request to the Assistant District Engineer for additional time. Include the following information:

1. The reason for requesting additional time;
2. The additional time needed in excess of the specified mixing time;
3. The proposed procedures, methods, and type of materials or admixtures to be used so that the concrete will meet required fresh and hardened properties; and
4. Documentation to prove that the additional time will not damage the quality of the concrete.

This information will be forwarded to the State Concrete Engineer for review. The State Concrete Engineer will issue a written recommendation within 10 Working Days from receipt of the request.

If the Department allows a mixing time extension, prepare a trial batch consisting of at least one full load of concrete at the designated production facility and haul to the project site. Batch the concrete in the same quantities as anticipated for the project. Place the trial batch in a non-critical application to assess the mixture. If the dosage used is found to provide a final setting time within 20 – 30 minutes after the concrete has been unloaded, then the contractor will be approved for the use of the designated hydration stabilizder at the dosage determined from this trial.

510.3.4.3 Concrete Sampling and Testing

The Contractor shall test for Quality Control; and the Department will test for acceptance.

1. Measure concrete for specification compliance only by the test methods shown in the Minimum Testing Requirements. The Department will not accept results from the in-place test methods described in Section 510.3.5.2, "In-Place Concrete Strength Measurements" as an alternative to these requirements. Obtain representative samples of concrete from the approximate middle of the truck being tested for the required properties from the point of discharge into the structure being placed. **The Department will provide test results to the Contractor after the final compressive strength tests for each set of test specimens is completed with a copy to the supplier on a weekly basis**;
2. Mold and cure concrete cylinders for compressive strength tests in accordance with AASHTO T 23, *Making and Curing Concrete Test Specimens in the Field* using 4 in × 8 in single use plastic cylinder molds with plastic lids. Use cylinder molds that are 6 in × 12 in if the nominal maximum size of the aggregate is equal to or greater than 1.5 in
3. Use a rod to consolidate the concrete for all slump, air content and unit weight tests and all compressive strength test cylinders cast with normal slump concrete (Class A, Class AA, Class G and Class D). Use a vibrator to consolidate the concrete in all air content and unit weight tests and all test cylinders cast from slip form concrete (Class E and Class F). Do not use a rod to consolidate slipform concrete
4. Provide all necessary support for all testing and to maintain sufficient safe storage space, including but not limited to water bath container, water for initial curing of concrete cylinders, heating or cooling as necessary, generators (and alter-

nate power sources, as needed) and all vibratory equipment and all equipment required to operate the vibratory equipment as required by Section 510.3.4.3.

5 Immediately after molding, begin curing of test cylinders by submerging in a water bath with a temperature of 70 °F ± 10 °F. Do not exceed 25 min from the time the concrete was sampled to the start of initial curing. Use water that complies with Section 510.2.4, "Water," for the initial curing.
All cylinder curing containers for testing of the concrete must be in the same location, and within 50 ft of the testing site, chosen in advance by Department inspection personnel unless an alternative location has been approved by the Project Manager prior to the placement. The Project Manager can not authorize any location that does not provide sufficient time for the casting of the test specimens and subsequent delivery to the initial curing location within the 25 minutes allowed to begin initial curing of the test specimens.
Maintain the water-filled containers with the test cylinders undisturbed for a minimum of 21 h, but not more than 48 h, from the time of placement. Ensure that the level of water never drops below the tops of the cylinders.

6. After initial curing, strip the concrete cylinders and place into a standard curing tank (or moist room) in accordance with AASHTO T 23, Section 10.1.3. If the cylinders are to be shipped to an off-site laboratory for testing, maintain the cylinders in the standard curing environment at a temperature of 73 +/- 3 °F until they are ready to be transported. Do not ship test cylinders until they are at least 48 h old.
7. The party that prepared the test specimens is responsible for transporting them from the initial curing environment to the final curing location. Protect the test specimens from being damaged in any way. Specific attention will be paid to protection from sun, wind, rain, vibrations, moisture loss and any sudden drops or impacts during transport.

510.3.4.3.1 Testing Frequency

Department personnel will perform all testing in accordance with the Minimum Testing Requirements.

510.3.4.4 Superplasticizers

If using a superplasticizer, measure the initial slump before adding the superplasticizer, and again immediately after the super-plasticizer has been properly mixed into the load. Do not exceed slump specifications defined on the approved mixture design before introducing the super-plasticizer. Do not exceed a slump of 8 in after adding the super-plasticizer. Check super-plasticized concrete for segregation before and during placement. Do not place segregated concrete.

510.3.5 Acceptance

510.3.5.1 Concrete Strength

Determine the compressive strength for compliance by averaging two or more concrete cylinder test results from the same concrete sample and tested at the

specified age. Make, handle, and store in accordance with AASHTO T 23 and test in accordance with AASHTO T 22. Consider the result from a single cylinder only as an indicator. It will not be considered an actual strength measurement.

510.3.5.1.1 Individual Strength Test

Unless otherwise specified, verify compliance with the specifications by determining the concrete strength at the age designated in Table 509.2.8.1:1, "Concrete Classes for Laboratory Design of Concrete Mixtures." Make at least 4 cylinders for each set. Test the first cylinder at 7 Days for use as an early concrete compressive strength indicator. Test the second and third cylinders to determine the Individual Strength Test result. Reserve the fourth cylinder for testing if the Within-Test-Coefficient-of-Variation exceeds 5%, in accordance with ACI 214.3.4.1. If the fourth cylinder is tested, average all of the cylinders tested at that age to determine the Individual Strength Test, unless any of the following conditions exist:

1. There is a visible cylinder defect or a defect in the capping.
2. A significant irregularity occurred while loading the test specimen to failure, such as a sudden load burst, cyclic or pulsating loads, or a loading rate not in accordance with AASHTO T 22.

510.3.5.2 In-Place Concrete Strength Measurements

If the Contractor requests measurement of in-place concrete strength for construction-related purposes, the Contractor must provide testing equipment and perform strength tests at no additional cost to the Department. Field cured test cylinders will be tested by a PTL approved by the State Materials Bureau. Use one of the following procedures to determine the in-place concrete strength:

1. **Core Testing.** Perform in accordance with AASHTO T 24, and Section 510.3.5.4, "Investigation of Low Strength Cylinder Test Results";
2. **The Maturity Method, ASTM C1074.** Integrates the heat of hydration and the time since the concrete was batched, correlated for the specific concrete mixture before use in the field;
3. **The Windsor Probe, ASTM C803.** Measures the penetration depth of a specially fabricated probe into the concrete, calibrated to the concrete mixture;
4. **The Pull-Out Test, ASTM C900.** Measures the pull-out resistance of a plug cast into the concrete, calibrated to the concrete mixture;
5. **The Match-Cure Method.** Places additional cylinders into a specially controlled chamber that maintains the temperature of the cylinders to that of the concrete represented;
6. **The Cast-in-Place Cylinder Method, ASTM C873.** Tests a cylinder that was cast into the concrete being evaluated and subsequently removed for testing. The hole remaining after removal of the cast-in-place-cylinder must be filled with a non-shrink grout or a Type K cement;
7. **The Rebound Test, ASTM C 805** (as modified herein) This procedure must be performed in accordance with directions from the State Concrete Engineer. At a minimum, a test shall consist of at least 14 credible rebounds obtained from an area approximately 18 inches in diameter. The highest two and the lowest two rebounds will be deleted and the

remaining 10 rebound results averaged to determine the rebound number from the test location.

8. **Field Curing.** Cast cylinders in accordance with AASHTO T 23, and cure in accordance with AASHTO T 23, Section 9.4.1.

Before using any method of measuring in-place concrete strength in the field (with the exception of Method 8 - "Field Curing"), submit complete supporting documentation for the method proposed for use and intended procedures to be followed to the Project Manager for approval by the State Materials Bureau.

Do not use field cured cylinders to determine the in-place strength for any structural applications. The Department will not permit any test samples to be extracted from bridge decks, prestressed members or approach slabs. Prohibited testing for these structures includes core testing, pull-out tests, or cast-in place cylinder test methods.

If the in-place compressive strength is at least equal to the strength required for the intended application, the Contractor may strip forms or allow traffic on the structure or pavement.

510.3.5.3 Compressive Strength Compliance of Concrete Based on Cylinders

The Department will accept concrete based on the compressive strength cylinder tests when the compliance tests equal or exceed the specified strength. If the compliance test is less than the specified strength, the test will be considered acceptable if both of the following requirements are met:

1. The running average of three consecutive individual strength tests meets or exceeds the specified strength; and,
2. No Individual Strength Test as defined in 510.3.5.1.1 falls below the specified strength by more than 500 psi.

If the compliance test does not meet cylinder-based acceptance requirements, the Department will review the strength tests and notify the Contractor whether the concrete will be accepted at a reduced price, or if the Contractor has to replace it.

510.3.5.4 Investigation of Low Strength Cylinder Test Results

Do not use the following test procedures as a substitute for the compliance test program in Section 510.3.4.3, "Concrete Sampling and Testing." The procedures described below will not be allowed more than twice during the course of the project.

If problems with low strength cylinder tests persist, the Department may suspend the project at no additional cost or time to the Department and require the Contractor to comply with Section 510.3.1.5, "Troubleshooting". If the corrective actions taken are insufficient, the Department may suspend work again, at no additional cost or time to the Department, until the Contractor determines acceptable action.

The Contractor may use any of the in-place strength-test methods in accordance with Section 510.3.5.2, "In-Place Concrete Strength Measurements," to investigate areas of concern. if normal acceptance tests do not comply with Section 510.3.5.3, "Acceptance of Concrete Based on Cylinders." However, the Schmidt Hammer test shown in Section 510.3.5.2.7 can not be used for final acceptance or to determine the pay factor. Do not use core testing, pull-out testing, or cast-in place cylinder test

methods for any investigation of concrete contained in bridge decks, prestressed members or approach slabs.

510.3.5.4.1 Testing Cores

If the Contractor uses cores to determine in-place compressive strength, obtain cores in accordance with AASHTO T 24, and immediately seal each core in an air tight plastic bag. Test cores in accordance with AASHTO T 22.

If the concrete structure will be dry under normal service conditions, cure the cores inside the plastic bags at a temperature range between 60 °F to 80 °F for 7 Days before testing. Test the cores dry.

If the concrete structure will be more than superficially wet under normal service conditions, cure the cores in lime-saturated water for at least 40 h before testing. Test the cores wet.

Obtain the cores 49 Days after concrete placement (21 days for Class E or Class F concrete). Take at least three cores from any area of concern to evaluate the area of that had low strength test results. The Department will approve core locations before the cores are obtained. Test for compressive strength of the concrete cores at 56 Days (28 Days for Class E or Class F concrete).

For bridge concrete (exclusive of bridge decks) with low strength test results, the Bridge Design Section will develop a coring plan within 38 Days of the initial concrete placement. Obtain, cure and test cores in accordance with the previous paragraph.

The Department will accept the concrete when the average of the cores representing each area of concern equals or exceeds the specified strength.

510.3.5.4.2 Alternate Testing

As an alternative to using cores for testing in-place compressive strength, Method 2,3,4,5,6 or 7 can be used to investigate the in-place strength of the concrete in question. For bridge decks, prestressed members and approach slabs, use only in-place strength-test methods 2, 3, 5 or 7 described in Section 510.3.5.2, "In-Place Concrete Strength Measurements." Submit a written request to the Project Manager for permission to use the selected method. Do not proceed until receipt of written approval from the State Materials Bureau. Method 7 can only be used to investigate the areas of concern, and can not be used for final acceptance of for determination of the pay factor.

The Department will accept the concrete when the average of the tests is equal to or greater than the 108% of the specified strength.

510.3.5.4.3 State Concrete Engineer Analysis

If the in-place strengths are not adequate for acceptance at full price, the State Concrete Engineer will evaluate the concrete. After reviewing the State Concrete Engineer's recommendations, the Department will take one of the following actions:

1. Direct the Contractor to remove and replace the failed concrete at no additional cost to the Department; or,
2. Pay the Contractor for the concrete in accordance with Flow Chart 510.3.5.5.1:1, "Price Adjustment Percentages for Low Strength Concrete Based on Lab-Cured Cylinders."

510.3.5.5 Price Adjustments

The Department will make price adjustments for non-compliance with concrete strength specifications based on lab-cured strength tests unless alternate in-place strength tests have been previously approved.

If the compliance strength test is 85% or more of the specified strength then the Contractor may choose to have a Hardened Air Content Test on a core obtained from the concrete in question performed by a Department approved Petrographer in accordance with ASTM C-457, linear traverse method. If the result of the hardened air content analysis meets the requirements below, the concrete will be paid for at full price.

1. A minimum air content of 5.0%;
2. A specific surface greater than 600 in^{-1}; and
3. A spacing factor less than 0.008 in.

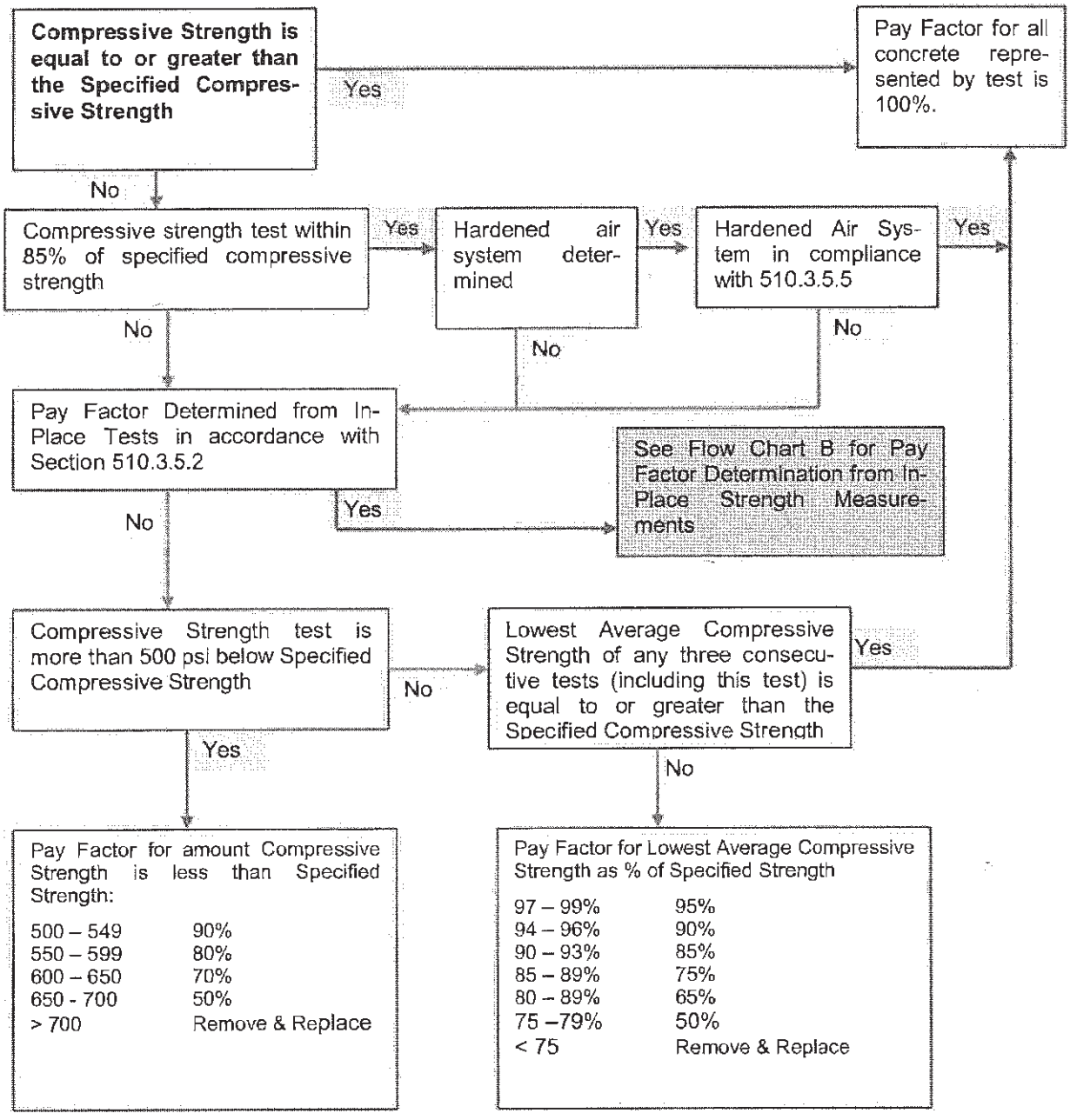
510.3.5.5.1 Cylinder Based Price Adjustments

If low strength concrete is accepted based on lab-cured cylinders, the Department will pay for concrete in the lot represented by the low strength tests in accordance with Flow Chart A:, "Price Adjustment Percentages for Low Strength Concrete Based on Lab-Cured Cylinders."

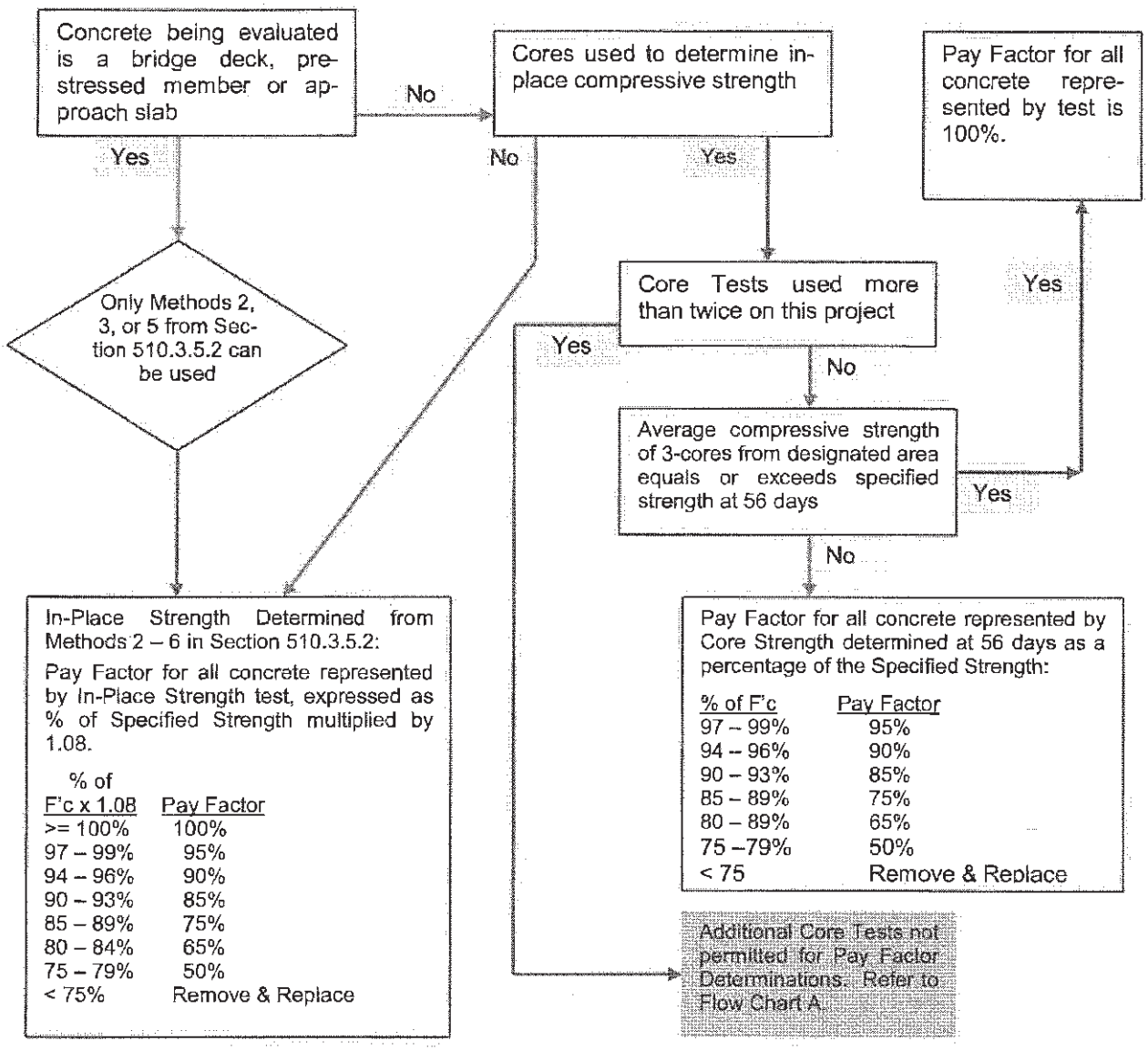
510.3.5.5.2 Price Adjustments based on In-Place Strength Tests

1. If the Department accepts low strength concrete based on core tests, the Department will pay for the concrete represented by the cores in accordance with "Flowchart B: Pay Factor Determination for Portland Cement Concrete by In-Place Strength Tests"
2. If the concrete strength is based on one of the in-place test methods specified in Section 510.3.5.2, "In-Place Concrete Strength Measurements", methods 2 through 6, The Price Adjustment Factor will be determined by first multiplying the specified strength by 1.08. This value will then be used as the denominator to determine the percentage of the measured in-place strength compared to the adjusted specified strength. The pay factor shown in Flow Chart B: Price Adjustment Percentages for Low Strength Concrete Based on In-Place Strength Tests for that percentage will be applied to all of the affected concrete. The Department will not allow use of field cured cylinders to determine price adjustments.

Flowchart A: Price Adjustment Percentages for Low Strength Concrete Based on Lab-Cured Cylinders



Flowchart B: Pay Factor Determination for Portland Cement Concrete by In-Place Strength Tests



510.4 METHOD OF MEASUREMENT—Vacant

The Department will measure concrete or concrete items in accordance with the section of these *Standard Specifications* for which the concrete is used.

510.5 BASIS OF PAYMENT—Vacant

The Department will pay for concrete in accordance with the section of these *Standard Specifications* for which the concrete is used.

February 15, 2008

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 512
SUPERSTRUCTURE CONCRETE

All provisions of SECTION 512 - SUPERSTRUCTURE CONCRETE of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

512.3 CONSTRUCTION REQUIREMENTS.

512.3.8 Temperature and Weather Limitations.

512.3.8.1 Temperature Requirements

See Section 511.3.3, " Temperature and Weather Limitations."

512.5 BASIS OF PAYMENT.

Pay Item	Pay Unit
Wind Break	Lump Sum
Fogging System	Lump Sum

April 6, 2009

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 517
PRECAST CONCRETE STRUCTURES

All provisions of SECTION 517 – PRECAST CONCRETE STRUCTURES of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

517.3 CONSTRUCTION REQUIREMENTS

Delete Subsection **517.3.1 General** and replace with the following;

Manufacture precast components in the following plants:

A National Precast Concrete Association certified plant (excludes concrete pipe products),

PCI certified plant regularly engaged in design and construction, or a structural precast member with a minimum of five years experience; or

A facility inspected and approved by a precast concrete inspector.

April 6, 2009

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 518
PRE-STRESSED CONCRETE MEMBERS

All provisions of SECTION 518 – **SECTION 518 PRE-STRESSED CONCRETE MEMBERS** of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

518.3 CONSTRUCTION REQUIREMENTS

Delete Subsection **518.3.1.2 Approval of Plants and Equipment** and replace with the following;

Certification under the Precast Concrete Institute.

National Precast Concrete Association certified plant when producing non-prestressed precast concrete (excludes concrete pipe products)

The State Bridge Engineer or the Department's Inspector must approve plants and Equipment for manufacturing pre-stressed concrete members before the Contractor starts the pre-stressed concrete work.

The State Bridge Engineer or the Department's Inspector may forbid unsatisfactory machinery, Equipment, or appurtenances.

January 23, 1997

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR

PERMANENT ANTI-GRAFFITI PROTECTIVE COATING
SECTION 532-A

All pertinent provisions of the New Mexico Department Of Transportation's Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

1. DESCRIPTION.

1.1 General. This work shall consist of furnishing and applying a permanent (non-sacrificial) anti-graffiti protective coating to concrete and steel surfaces at the location(s) shown in the contract, in accordance with manufacturer's recommendations and as approved by the Project Manager.

1.2 The Contractor shall furnish all materials, storage, handling, tools, equipment, labor, and other appurtenances necessary to complete the work.

2. MATERIALS.

2.1 Permanent anti-graffiti protective coating shall be a product conforming to one (1) of the following:

1. Appears on the Department's "Approved Products Listing"; **2.,** Is designated in the contract; or **3.,** Approved by the Project Manager.

2.2 Permanent anti-graffiti protective coating shall be a transparent clear coating which will not alter the color of the underlying special surface finish for concrete surfaces or topcoat for steel surfaces.

2.3 The protective coating shall act as a barrier to graffiti. The protective coating shall be capable of being cleaned of graffiti by use of a high pressure water sprayer or by use of commercially available cleansers or solvents, with common hand tools (rags, brushes, etc.).

3. CONSTRUCTION REQUIREMENTS.

3.1 General. Permanent anti-graffiti protective coating shall be applied to concrete and steel surfaces after completion of the special surface finish for concrete surfaces or topcoat for steel surfaces. The Contractor shall apply the protective coating in compliance with all manufacturer's recommendations. The type of protective coating and method of application must be approved by the Project Manager prior to use.

4. METHOD OF MEASUREMENT.

4.1 Permanent anti-graffiti protective coating will be measured by the square meter (square foot).

5. BASIS OF PAYMENT

Payments will be made under:

PAY ITEM	PAY UNIT
Permanent Anti-Graffiti Protective Coating	Square Meter (Square Foot)

Revised November 2, 2012
June 16, 2011

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 540
STEEL REINFORCEMENT

All provisions of SECTION 540 – STEEL REINFORCEMENT of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

540.2 MATERIAL

Subsection 540.2.6 Coating Material

Delete the last two paragraphs and replace with:

Provide a fusion-bonded powdered epoxy resin coating material that meets the requirements of AASHTO M 284.

Subsection 540.2.14 Uncoated Corrosion Resistant Bar Reinforcement

Replace the second paragraph with:

Uncoated corrosion resistant bar reinforcement may be Grade 316 stainless steel or other manufactured steels meeting the above chemistry and AASHTO MP 18 (ASTM A 1035).

540.3 CONSTRUCTION REQUIREMENTS

Delete **Subsection 540.3.1.3 Splicing** and replace with the following:

540.3.1.3 Splicing
Splice bars only in accordance with the plans unless otherwise approved by the Bridge Engineer.

Place and tie bars in lapped splices to maintain minimum reinforcing cover.

Splice spiral reinforcement by lapping. Ensure that laps are at least 48 bar or wire diameters, but not less than 1ft with 90° hooks around longitudinal bars at ends.

The Department will allow mechanical couplers for AASHTO M 31, Grade 60, deformed bar if the splice strength, verified by tests, is greater than or equal to 125% of the yield strength of the spliced reinforcing bars and develops the specified tensile strength of the bars. ACI 318 "Type 2" mechanical couplers

meet the above splice strength requirements. Submit documentation to the Bridge Engineer showing where mechanical couplers are proposed to be used, what type of coupler (manufacturer and model number) will be used, and certified test results from an approved testing service showing that the couplers meet these requirements. Show splice locations and coupler clearance dimensions in the request and submit before fabricating the reinforcing bars that will be coupled. Allow at least two weeks for review and approval.

Unless otherwise specified, ensure that welded wire fabric and bar-mat reinforcement overlap is at least one spacing of cross wires plus 2 inches when measured between the outer-most cross wires of each sheet.

Subsection 540.3.2 Requirements for Epoxy-Coated Reinforcing Bars

Delete the last two paragraphs.

Subsection 540.3.2.4 Coating Inspection and Tagging.

Delete the entire Subsection.

540.4 METHOD OF MEASUREMENT

The Department will measure reinforcing bar weight in accordance with Table 540.2.1:1, "Nominal Dimensions of Reinforcement," whether it is black steel, epoxy-coated, galvanized, stainless steel, stainless steel clad, or low-carbon, chrome steel. The Department will not include unscheduled splice overlaps in the measurement for payment. The computed weights of reinforcing bars will be based on the nominal weights of the bars before application of the epoxy-coating, or galvanizing of the bars. When splice overlaps are made for the convenience of the Contractor, and are approved by the State Bridge Engineer at locations not shown in the contract, the extra steel required for splice overlaps will not be included in computing the weight of the bars for payment.

540.5 BASIS OF PAYMENT

Subsection **540.5.1 Work Included in Payment**

Add the following item:

D. Mechanical reinforcing bar couplers.

April 15, 2010

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS MODIFYING

SECTION 560
ELASTOMERIC BEARING PADS

All provisions of SECTION 560 – ELASTOMERIC BEARING PADS of the New Mexico Department of Transportation's Standard Specifications shall apply except as modified herein:

560.2 MATERIAL

Delete Subsection **560.2.2 Certification** and replace with the following;

560.2.2 Certification

Furnish certified laboratory test results on the elastomer properties of compound for both plain and laminated bearings. The required tests are per AASHTO M 251-06 Table 1. For bridges north of I-40 and including I-40, the elastomer compound shall be Grade 3. For bridges south of I-40, the elastomer compound shall be Grade 2. Test shall be done on an annual basis or when the material supplier changes. Provide copies of certified mill test reports for laminated bearing steel and any required steel components.

Delete Subsection **560.2.4 Acceptance Criteria** and replace with the following;

560.2.4 Acceptance Criteria

The following tests shall be performed on the actual bearing pads. One bearing pad per lot shall be tested.

The bearing pad shall be tested per AASHTO M 251-06 Section 8.8.2. The average compressive load shall be 2,250 psi for laminated bearing pads and 1500 psi for plain bearing pads.

The bearing pad shall be tested per AASHTO M 251-06 Section 9.1. Where the bearing strain exceeds 10 percent, the lot shall be rejected. If the bearing pad design loads are not shown on the Contract Drawings, the test will not be required.

Testing is to be performed by the manufacturer laboratory with the certified test results submitted to NMDOT.

June 26, 2008

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISIONS FOR

PREFORMED CLOSED CELL FOAM BRIDGE JOINT SEALS
SECTION 564

All provisions of the New Mexico Department Of Transportation's (NMDOT) Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

564.1 DESCRIPTION

This work consists of providing and installing ultraviolet resistant Evazote or equivalent joint seal systems in accordance with the manufacture's recommendations and as approved by the Project manager.

564.2 MATERIALS

564.2.1 General

Select sealing material and the nosing element from the Department's Approved Products List for Preformed Closed Cell Foam Bridge Joints. Provide sealing, bonding and nosing elements from the same manufacturer.

564.2.2 Closed Cell Foam Joint Seal

Use a joint seal that:

a. is an impermeable, closed-cell, cross-linked, ethylene vinyl acetate, low density polyethylene copolymer, nitrogen blown foam material,
b. has a minimum working range of 60% compression and 30% tension,
c. meets or exceeds the requirements listed in Table 564.2.1 below,
d. has 1/8" deep by 1/8" wide grooves spaced at 1/4" to 1/2" along both sides of the joint and running the entire length of the joint to increase bond surface area,
e. is resistant to degradation due to ultraviolet radiation,
f. is self extinguishing,
g. is resistant to abrasion, oxidation, oils, gasoline, road salts and other petroleum products that may be spilled on the surface.

Table 564.2.1
Minimum Requirements For Preformed Joint Sealer

Property	Requirement
Service Range	-94 – 160 degrees F
Tensile Strength	110 psi min
Elongation at break	235% min
Tear Resistance (ASTM D-624)	20 lb/in min
Water Absorption (ASTM 3573, Suffix L)	0.035 psf max
Density	2.6 – 4.0 psf
Weathering (ASTM G-154)	3000 Hrs No Chalking, Flaking, Blistering, Checking, and Cracking
Recovery (ASTM D-545)	97% min
Compression / Deflection	
@25% Deflection of original width	10 psi
@ 59% Deflection of original width	20 psi

564.2.3 Bonder

Use a bonder that is a two component, 100% solid epoxy adhesive designed to bond joint material to steel, cured concrete or wood, and is approved by the manufacturer.

564.2.4 Elastomeric Concrete

Use an elastomeric concrete that is mixed and applied according to the manufacture's published recommendations and meets or exceeds the requirements listed in Table 563.2.4 below.

Table 563.2.4
Minimum Requirements For Elastomeric Concrete

Property	Reference	Requirement
Compressive Strength	ASTM D 695	2,600 psi
Tensile Strength	ASTM D 638	775 psi
Elongation at Break		150%
Hardness, Shore D	ASTM D 2240	59
Water Absorption	ASTM D 570	< 1%
Density		9.4 lb/gal
Slant Shear Bond Strength		
Concrete		250 psi min
Steel		250 psi min
Resilience @ 5% Deflection	ASTM D 695	90% min

564.2.5 Certificate of Compliance

Provide the Project Manager with a manufacturer's certificate of compliance. Indicate the project number, batch numbers, and material manufacture date on the certificate of compliance.

564.3 CONSTRUCTION REQUIREMENTS

564.3.1 General

Install the Joint sealant with a width 25% greater than the width of the joint opening at a near neutral condition (72 degrees F) according to the manufacturer's recommendations. Use the heat welding method for all directional changes in the joint sealant. Allow concrete to cure for 7 days, before installing the sealing material. Have all joint systems pre approved by the Project Manager prior to placement. Use a Performance and Installation Enhancement (P.I.E.) bevel cut when the joint opening is greater than 3 inches.

564.3.2 Technical Representative

Have the manufacturer's technical representative on site for the initial joint installation to assist and advise the construction personnel and ensure a satisfactory joint installation.

564.3.3 Manufacturer's Instructions

Provide a complete set of written joint installation instructions to the Project Manager at least 14 calendar days before installing the joints.

564.3.4 Priming

Prime all concrete or asphaltic surfaces prior to the placement of elastomeric concrete.

564.3.5 Existing Or New Concrete To Concrete Joints

Clean surfaces of joint and remove debris. Sand blasting and/or mechanical abrasion of substrate may be required to remove debris. Place bonder and joint material against new or sound existing concrete.

564.3.6 Existing Concrete To Concrete Or Concrete To Asphalt Joints

Remove unsound concrete or asphalt with a neat saw cut to a minimum size of 2" in depth and 4" wide. Clean surfaces of joint and remove debris. Prime all surfaces

with a primer acceptable to the manufacture and place elastomeric concrete. Place bonder and joint material against elastomeric nosing after it has cured to 80% of its final strength.

564.3.7 Protection of joints

Provide protection of the joint from construction traffic.

564.3.8 Warranty

In addition to the requirements of Section 106.11, "Guarantees and Warranties," provide a minimum 5-year warranty for the joint seals. Provide a warranty surety bond on a Department-approved form for the total bid item amount for *Preformed Closed Cell Foam Bridge Joint Seals*. Use a surety authorized to transact business in New Mexico and approved in the federal Circular 570 published by the United States Treasury Department. Provide all certifications required by the manufacturer necessary to sustain the manufacturer's warranty of the product to the Project Manager.

564.4 METHOD OF MEASUREMENT—Vacant

564.5 BASIS OF PAYMENT

Evazote or equivalent joint systems; including material, labor, certifications, and all other costs associated with providing and installing of the joint systems; shall considered incidental to the project and no separate payment will be made therefor.

August 26th, 2013

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATIONS FOR

QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)
SECTION 901

All Provisions of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete SECTION 901- QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) in its entirety and substitute the following:

DEFINITIONS:

Direct Supervision. The required supervision of a TTCP trainee by a certified TTCP technician who is on a project with the trainee and who is both signing off and is personally responsible for all of that trainee's sampling and testing procedures, results and reports.

Qualified Sampling and Testing Technician. A technician who has been certified under TTCP to independently perform inspections, sampling, and testing in specified Materials testing area(s) for either quality control or acceptance testing. The term "qualified" and "certified" have the same meaning.

TTCP Trainee. A technician who has attended the appropriate TTCP training class and has a certificate of completion, and is receiving required "on-the-job-training" under the direct supervision of a TTCP certified technician, as such is eligible to take a particular TTCP certification exam.

Validation. A procedure using statistical methods to compare the Contractor's and the Department's test results, specifically, the *F-test* to compare variances and *T-test* to compare means.

901.1 INSPECTIONS AND TESTING OF MATERIALS

901.1.1 General

Materials are subject to inspection, sampling, and testing before acceptance of the work. References in the Contract to test methods or specifications are to the latest versions as of the Bid Advertisement date, unless otherwise noted. Test methods may be subject to modification at the discretion of the State Materials Bureau. The Department's current *TTCP Manual* contains AASHTO and ASTM test method modifications. Testing frequency must be equal to or greater than the Minimum Testing Requirements, available here: http://nmshtd.state.nm.us/main.asp?secid=15344

The Department will sample and test Materials for acceptance unless otherwise specified in the Contract. The Department will provide acceptance test results to the Contractor within 2 Working Days after sampling, but only after Contractor QC tests have

been received for the same sublot, and will provide other test results to the Contractor upon request. Department testing is not intended for quality control.

901.1.2 Technician Certification

Ensure that testing is performed under the direct supervision of an individual certified by the State Materials Bureau's TTCP. Certification is based on demonstration of abilities for test methods and procedures, and a written test. The TTCP Board of Directors, in conjunction with the State Materials Bureau and the State Construction Bureau, will establish term and expiration date of certification and requirements for renewal of certification. If the competence of a certified individual is questioned, the question of competence must be documented in accordance with the *TTCP Manual*. The *TTCP Manual* requires a written complaint be addressed to the TTCP Administrator or the State Materials Engineer. The State Materials Bureau will investigate the concern through the TTCP. If this investigation substantiates the concern, disciplinary action such as probation, revocation, or suspension of certification will be implemented in accordance with procedures established by the TTCP Board of Directors.

901.1.3 Acceptance Sampling and Testing

The Department will sample and test in accordance with Table 901.7:6, "Minimum Acceptance Guidelines," or at a lesser sublot size for acceptance purposes as determined by the Project Manager before production of material begins. If Material appears defective, or if the Project Manager determines that a change in the process or product has occurred, additional sampling and testing may occur. When additional informational sampling and testing is performed, the results will be used only to determine if corrective actions need to be taken by the Contractor and will not be incorporated into the quality level analysis.

The Department will conduct acceptance testing independently from the Contractor's quality control testing. If the Department's acceptance testing validates in method and property to the Contractor's quality control testing, the Department will use both for acceptance and pay factor determination. Use of the Contractor's test results is dependent on the following conditions:

1. The Contractor uses quality control procedures as described in Section 901.2, "Contractor Quality Control."
2. The Department validates the Contractor's test results against the Department's test results using the *F-test* and *T-test*, conducted at a level of significance of 0.01.
3. The Contractor shall use all test results from the Contractor's random sampling plan as detailed in the quality control plan per Section 901.2.1, "Quality Control Plan." Do not include informational test data obtained by test results beyond the Contractor's random sampling plan locations. If a split sample is taken to determine deviations between Contractor and Department process, only data obtained from a random sampling plan location can be utilized in the quality level analysis. If a split sample is tested by the Contractor and Department for informational purposes and the location does not represent either the Contractor's or Department's random sampling plan locations, neither test data results are to be included in the quality level analysis.

If the Department cannot validate the Contractor's test data at any time during the project, the Project Manager and quality control technician will investigate to determine why and make corrections if possible. If the discrepancy cannot be resolved, then, unless otherwise approved by the Assistant District Engineer for Construction, the Department will determine the pay factor using the Department's test values only for all characteristics.

901.2 CONTRACTOR QUALITY CONTROL

Perform quality control sampling, testing, and inspection in accordance with Table 901.7:3, "Minimum Process Control Guidelines for Aggregates and Base Course," Table 901.7:4, " Minimum Process Control Guidelines for Hot/Warm Mix Asphalt," and Table 901.7:5, "Minimum Process Control Guidelines for Portland Cement Concrete Pavement."

901.2.1 Quality Control Plan

Provide a quality control plan to control the quality of the product. At the pre-construction conference, be prepared to discuss quality control responsibilities for specific Contract Items. Submit the quality control plan to the Project Manager at least two weeks before starting work. Itemize inspections, testing procedures, sampling and testing frequencies, and corrective action strategies that the Contractor will use to control the work. Develop the quality control plan using the Department's *Contractor Process Quality Control Plan Guidelines* available from the Project Manager or State Construction Bureau. Do not begin work that requires quality control testing for acceptance without a quality control plan that has been reviewed and approved by the Project Manager and the District Laboratory Supervisor. Provide written certification that testing Equipment is calibrated and meets the applicable specifications.

901.2.2 Quality Control Laboratory

Perform the quality control testing using a private testing Laboratory or a Contractor provided Laboratory. Use a portable or permanent quality control Type II Laboratory in accordance with Section 622.3.2.2, "Field Office Equipment." Calibrate or check testing equipment in accordance with AASHTO R 18 and any time the equipment is moved. Maintain calibration documentation at the Laboratory and provide this to the Project Manager upon request. The Project Manager in conjunction with the District Lab Supervisor will determine acceptability of the quality control Laboratory. Allow the Department unrestricted access to the Laboratory. The Department will conduct independent inspection of the Contractor's field Laboratory. The Project Manager will provide the Contractor a written accounting of Laboratory deficiencies.

901.2.3 Plan Administration and Technician Qualification

Identify the individual who will administer the plan. The individual shall have full authority to take actions necessary for the successful operation of the plan. Quality Control Technicians (QCT's) performing the actual sampling, testing, or inspection shall be TTCP certified as described in Section 901.1.2, "Technician Certification." Cease production if certified personnel are unavailable on the project.

901.2.4 Sampling

The sampling plan shall contain a random sampling selection technique in accordance with specified Department, AASHTO, or ASTM procedures, as modified by the State Materials Bureau. Allow the Project Manager to witness all sampling and testing. Take additional samples if directed by the Project Manager.

901.2.5 Testing

The Department will use test results from the random sampling plan only in the quality level analysis for pay factor determination. Additional informational test results will not be used in the quality level analysis. The Contractor shall provide original quality control test results (on approved forms including all original supporting handwritten worksheets and notes) to the Project Manager within 1 Working Days of sampling. The Technician performing the testing shall sign and certify the results as "true and accurate to the best of my belief and knowledge" prior to providing the results to the Department. Failure to provide the results within 1 working day of sampling may result in the Project Manager ordering the Contractor to cease HMA/WMA operations until said results are provided to the Project Manager.

901.2.6 Records

Maintain copies of the complete set of original quality control test records (including supporting documents (calculations, scratch sheets, internal forms etc.)and, upon request, make them available to the Project Manager within 24 hours. No hard copy laboratory testing documentation shall be destroyed for any reason, even after the data is entered into the computer spreadsheet for analysis. If complete records are not provided as requested, the Department may determine the pay factor using the Department's test values only for all testing characteristics. Maintain copies of test documentation for a minimum of three years after the Physical Completion Date of the project

901.2.7 Control Charts

Update Department-approved test control charts daily on all tests in accordance with Table 901.7:3, "Minimum Process Control Guidelines for Aggregates and Base Course," Table 901.7.4, "Minimum Process Control Guidelines for Hot/Warm-Mix Asphalt," and Table 901.7:5, "Minimum Process Control Guidelines for Portland Cement Concrete Pavement." Keep at a location approved by the Project Manager. Provide at least the following information on the charts:

1. Project number;
2. Contract Item number;
3. Test number;
4. Each test parameter;
5. Upper and lower specification limit applicable to each test parameter; and
6. The Contractor's test results.

Use the charts for identifying product and Equipment problems, and potential pay factor reductions. Notify the Project Manager of any identified problems within 4 hours.

901.3 INDEPENDENT ASSURANCE TESTING

TTCP certified independent personnel will perform independent assurance testing on split samples from quality control and acceptance programs to ensure that the Contractor and Department field personnel are using correct and accurate procedures and the proper Equipment. These personnel will not have direct responsibility for quality control or acceptance testing.

901.4 EVALUATION OF MATERIALS FOR ACCEPTANCE

The Department will analyze lot acceptance test results collectively and statistically using the Quality Level Analysis method. Quality Level Analysis is a statistical procedure for estimating the percent compliance with a specification; it is affected by shifts in the arithmetic mean, and by the sample standard deviations. The Department will use this analysis to estimate the total percent of the lot that is within specification limits. The maximum pay factor per lot is 1.0.

The Department may accept a lot containing Material below a pay factor of 1.00 at a reduced price, in accordance with the following criteria:

1. The composite pay factor is at least 0.75;
2. There are no rejectable individual criteria (Agency, Contractor or Combined); and
3. The Project Manager does not identify isolated defects (i.e., segregation, or other construction related material defects).

The Department will consider a written request to accept a Material lot below the Target Value (TV) that does not meet the above criteria, but at a composite pay factor not to exceed 0.50. The Contractor shall include an engineering analysis showing expected Material performance. The Assistant District Engineer for Construction will decide if the Material may remain in place and determine the final pay factor for the material in question. If less than three samples are obtained at the time a lot is terminated, they shall be incorporated in the prior lot. If no prior lot exists, the disposition of the material shall be decided by the Assistant District Engineer for Construction after evaluating with non-QLA criteria in accordance with Section 423.3.6.2.1.1

The Project Manager may reject Material that appears to be defective based on visual inspection.

901.5 QUALITY LEVEL ANALYSIS (QLA)

Use the following steps to calculate the standard deviation:

1. Do not include test results for Material not used in the Work;
2. Calculate the arithmetic mean of the test results using the following equation:

$$\bar{x} = \frac{\sum x}{n} \quad (1)$$

where

$\bar{x}$ is the arithmetic mean
$\sum$ is the summation of
x is the individual test value
n is the number of test values

3. Calculate the sample standard deviations using the following equation:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{(n-1)}} \quad (2)$$

where

s is the sample standard deviation
$\sum$ is the summation of
x is the individual test value
$\bar{x}$ is the arithmetic mean
n is the number of test values

4. Calculate the upper quality index using the following equation:

$$Q_U = \frac{USL - \bar{x}}{s} \quad (3)$$

where

Q_U is the upper quality index
USL is the upper specification limit, or TV plus allowable deviation above TV
$\bar{x}$ is the arithmetic mean
s is the sample standard deviation
TV is the Target Value

5. Calculate the lower quality index using the following equation:

$$Q_L = \frac{\bar{x} - LSL}{s} \quad (4)$$

where

Q_L is the lower quality index
$\bar{x}$ is the arithmetic mean
LSL is the lower specification limit, or TV minus allowable deviation below TV
s is the sample standard deviation

6. Determine P_U (the percent of test values below the upper specification limit, which corresponds to a given Q_U) from Table 901.7:1, "Quality Level Analysis by the Standard Deviation Method Upper Quality Index QU or Lower Quality Index QL." If a USL is not specified, P_u is 100.

7. Determine P_L (the percent of test values above the lower specification limit, which corresponds to a given Q_L) from Table 901.7:1, "Quality Level Analysis by the Standard Deviation Method Upper Quality Index QU or Lower Quality Index QL." If an LSL is not specified, P_L is 100.

8. Calculate the quality level (the total percent within specification limits) using the following equation:

$$Q=(P_U+P_L)-100 \qquad (5)$$

where

Q is the quality level

P_U is the percent of test values above the upper specification limit which corresponds to a given upper quality index (Q_U)

P_L is the percent of test values above the lower specification limit which corresponds to a given lower quality index (Q_L)

9. Using the quality level, determine the lot pay factor from Table 901.7:2, "Pay Factors."

10. Calculate the composite pay factor for each lot, using the following equation:

$$CPF=\frac{\left|f_1(PF_1)+f_2(PF_2)\ldots f_j(PF_j)\right|}{\left|f_1+f_2\ldots f_j\right|} \qquad (6)$$

where

CPF is the composite pay factor

f is the price adjustment factor specified for the applicable Material

j is the number of evaluated components

PF is the individual pay factor determined for each component

Carry the numbers in the above calculations to significant figures and round them in accordance with AASHTO R 11.

901.6 METHOD OF MEASUREMENT—Vacant

901.7 BASIS OF PAYMENT

The Department will pay for *Contractor Process Quality Control* on QLA projects as follows:

1. 25% of the lump sum pay item or 0.5% of the Total Original Contract Amount, whichever is less upon approval of the quality control plan; and
2. The remaining lump sum prorated based on total job progress.

The Department will withhold payment if the Contractor does not provide test result documentation in accordance with the Contract.

Pay Item	**Pay Unit**
Contractor Process Quality Control	Lump Sum

Table 901.7:1
QUALITY LEVEL ANALYSIS BY THE STANDARD DEVIATION METHOD
UPPER QUALITY INDEX QU OR LOWER QUALITY INDEX QL

Pu or Pl	n= 3	4	5	6	7	8	9	10 to 11	12 to 14	15 to 17	18 to 22	23 to 29	30 to 42	43 to 66	67 to x∞
100	1.16	1.49	1.72	1.88	1.99	2.07	2.13	2.20	2.28	2.34	2.39	2.44	2.48	2.51	2.56
99	—	1.46	1.64	1.75	1.82	1.88	1.91	1.96	2.01	2.04	2.07	2.09	2.12	2.14	2.16
98	1.15	1.43	1.58	1.66	1.72	1.75	1.78	1.81	1.84	1.87	1.89	1.91	1.93	1.94	1.95
97	—	1.40	1.52	1.59	1.63	1.66	1.68	1.71	1.73	1.75	1.76	1.78	1.79	1.80	1.81
96	—	1.37	1.47	1.52	1.56	1.58	1.60	1.62	1.64	1.65	1.66	1.67	1.68	1.69	1.70
95	1.14	1.34	1.42	1.47	1.49	1.51	1.52	1.54	1.55	1.56	1.57	1.58	1.59	1.59	1.60
94	—	1.31	1.38	1.41	1.43	1.45	1.46	1.47	1.48	1.49	1.50	1.50	1.51	1.51	1.52
93	1.13	1.28	1.33	1.36	1.38	1.39	1.40	1.41	1.41	1.42	1.43	1.43	1.44	1.44	1.44
92	1.12	1.25	1.29	1.31	1.33	1.33	1.34	1.35	1.35	1.36	1.36	1.37	1.37	1.37	1.38
91	1.11	1.22	1.25	1.27	1.28	1.28	1.29	1.29	1.30	1.30	1.30	1.31	1.31	1.31	1.31
90	1.10	1.19	1.21	1.23	1.23	1.24	1.24	1.24	1.25	1.25	1.25	1.25	1.25	1.26	1.26
89	1.09	1.16	1.18	1.18	1.19	1.19	1.19	1.19	1.20	1.20	1.20	1.20	1.20	1.20	1.20
88	1.07	1.13	1.14	1.14	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
87	1.06	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.11	1.11	1.11	1.11	1.11	1.11	1.11
86	1.04	1.07	1.07	1.07	1.07	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
85	1.03	1.04	1.03	1.03	1.03	1.03	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
84	1.01	1.01	1.00	0.99	0.99	0.99	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
83	0.99	0.98	0.97	0.96	0.95	0.95	0.95	0.95	0.94	0.94	0.94	0.94	0.94	0.94	0.94
82	0.97	0.95	0.93	0.92	0.92	0.92	0.91	0.91	0.91	0.91	0.90	0.90	0.90	0.90	0.90
81	0.95	0.92	0.90	0.89	0.88	0.88	0.88	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
80	0.93	0.89	0.87	0.86	0.85	0.85	0.84	0.84	0.84	0.83	0.83	0.83	0.83	0.83	0.83
79	0.91	0.86	0.84	0.82	0.82	0.81	0.81	0.81	0.80	0.80	0.80	0.80	0.80	0.80	0.79
78	0.88	0.83	0.81	0.79	0.79	0.78	0.78	0.77	0.77	0.77	0.76	0.76	0.76	0.76	0.76
77	0.86	0.80	0.77	0.76	0.75	0.75	0.74	0.74	0.74	0.73	0.73	0.73	0.73	0.73	0.73
76	0.83	0.77	0.74	0.73	0.72	0.72	0.71	0.71	0.70	0.70	0.70	0.70	0.70	0.70	0.70
75	0.81	0.74	0.71	0.70	0.69	0.69	0.68	0.68	0.67	0.67	0.67	0.67	0.67	0.67	0.66
74	0.78	0.71	0.68	0.67	0.67	0.65	0.65	0.65	0.64	0.64	0.64	0.64	0.64	0.64	0.63
73	0.75	0.68	0.65	0.64	0.63	0.62	0.62	0.62	0.61	0.61	0.61	0.61	0.61	0.61	0.60
72	0.73	0.65	0.62	0.61	0.60	0.59	0.59	0.59	0.58	0.58	0.58	0.58	0.58	0.58	0.57
71	0.70	0.62	0.59	0.58	0.57	0.57	0.56	0.56	0.55	0.55	0.55	0.55	0.55	0.55	0.54
70	0.67	0.59	0.56	0.55	0.54	0.54	0.53	0.53	0.52	0.52	0.52	0.52	0.52	0.52	0.52
69	0.64	0.56	0.53	0.52	0.51	0.51	0.50	0.50	0.50	0.49	0.49	0.49	0.49	0.49	0.49
68	0.61	0.53	0.50	0.49	0.48	0.48	0.48	0.47	0.47	0.47	0.46	0.46	0.46	0.46	0.46
67	0.58	0.50	0.47	0.46	0.45	0.45	0.45	0.44	0.44	0.44	0.44	0.43	0.43	0.43	0.43
66	0.55	0.47	0.45	0.43	0.43	0.42	0.42	0.42	0.41	0.41	0.41	0.41	0.41	0.41	0.40

Table 901.7:1
QUALITY LEVEL ANALYSIS BY THE STANDARD DEVIATION METHOD
UPPER QUALITY INDEX QU OR LOWER QUALITY INDEX QL

Pu or Pl	n= 3	4	5	6	7	8	9	10 to 11	12 to 14	15 to 17	18 to 22	23 to 29	30 to 42	43 to 66	67 to x∞
65	0.51	0.44	0.42	0.40	0.40	0.39	0.39	0.39	0.38	0.38	0.38	0.38	0.38	0.38	0.38
64	0.48	0.41	0.39	0.38	0.37	0.37	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.35	0.35
63	0.45	0.38	0.36	0.35	0.34	0.34	0.34	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.32
62	0.41	0.35	0.33	0.32	0.32	0.31	0.31	0.31	0.30	0.30	0.30	0.30	0.30	0.30	0.30
61	0.38	0.30	0.30	0.30	0.29	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28
60	0.34	0.28	0.28	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
59	0.31	0.27	0.25	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23
58	0.30	0.25	0.23	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
57	0.25	0.20	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
56	0.20	0.18	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
55	0.18	0.15	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
54	0.15	0.13	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
53	0.10	0.10	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
52	0.08	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
51	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: For negative values of Qu or Ql, Pu or Pl is equal to 100 minus the table value for Pu or Pl. If the value of Qu or Ql does not correspond exactly to a figure in the table, use the next lower figure.

Table 901.7:2
Pay Factors

Pay factor	Minimum Required Percent of Work Within Specifications Limits for a Given Pay Factor (Pu+PL) – 100 n= 3	4	5	6	7	8	9	10 to 11	12 to 14	15 to 17	18 to 22	23 to 29	30 to 42	43 to 66	67 to ∞
1.05	—	—	—	—	—	100	100	100	100	100	100	100	100	100	100
1.04	—	—	—	—	100	99	97	95	96	96	96	97	97	97	97
1.03	—	—	—	100	98	96	94	92	93	93	94	95	95	96	96
1.02	—	—	—	99	97	94	91	89	90	91	92	93	93	94	94
1.01	100	100	100	98	95	92	89	87	88	89	90	91	92	92	93
1.00	69	75	78	80	82	83	84	85	86	87	88	89	90	91	92
0.99	66	72	76	78	80	81	82	83	84	85	86	87	89	90	91
0.98	64	70	74	76	78	79	80	81	82	84	85	86	87	88	90

0.97	63	68	72	74	76	77	78	79	81	82	83	84	86	87	88
0.96	61	67	70	72	74	75	76	78	79	81	82	83	84	86	87
0.95	59	65	68	71	72	74	75	76	78	79	80	82	83	84	86
0.94	58	63	67	69	71	72	73	75	76	78	79	80	82	83	85
0.93	57	62	65	67	69	71	72	73	75	76	78	79	80	82	84
0.92	55	60	63	66	68	69	70	72	73	75	76	78	79	81	82
0.91	54	59	62	64	66	68	69	70	72	74	75	76	78	79	81
0.90	53	57	61	63	65	66	67	69	71	72	74	75	77	78	80
0.89	51	56	59	62	63	65	66	68	69	71	72	74	75	77	79
0.88	50	55	58	60	62	64	65	66	68	70	71	73	74	76	78
0.87	49	53	57	59	61	62	63	65	67	68	70	71	73	75	77
0.86	48	52	55	58	59	61	62	64	66	67	69	70	72	74	76
0.85	46	51	54	56	58	60	61	62	64	66	67	69	71	72	75
0.84	45	49	53	55	57	58	60	61	63	65	66	68	70	71	73
0.83	44	48	51	54	56	57	58	60	62	64	65	67	69	70	72
0.82	43	47	50	53	54	56	57	59	61	62	64	66	67	69	71
0.81	41	46	49	51	53	55	56	58	59	61	63	64	66	68	70
0.80	40	44	48	50	52	54	55	56	58	60	62	63	65	67	69
0.79	39	43	46	49	51	52	54	55	57	59	61	62	64	66	68
0.78	38	42	45	48	50	51	52	54	56	58	59	61	63	65	67
0.77	36	41	44	46	48	50	51	53	55	57	58	60	62	64	66
0.76	35	39	43	45	47	49	50	52	54	56	57	59	61	63	65
0.75	33	38	42	44	46	48	49	51	53	54	56	58	60	62	64
Reject Values less than those shown above															
Note: If the value of (Pu+PL) – 100 does not correspond to a (Pu+PL) – 100 value in this table, use the next lower (Pu+PL) – 100 value															

Table 901.7:3

Minimum Process Control Guidelines for Aggregates, Base Course and RAP (QC)

Item	Property	Testing frequency	Test method
Aggregate for Base Course, Hot/Warm Mix Asphalt, PCCP, and Open Graded Friction Course	Sampling	As specified	AASHTO T 2, 248
	Gradation	1 per 1,000 ton	AASHTO T 11, 27, 146[a]
	Fractured Faces		NMDOT Method FF 1
	Sand Equivalent		AASHTO T 176[c]
	Plasticity Index		AASHTO T 89, 90
	Moisture Content	As needed to control operations	AASHTO T 255

RAP (Recycled Asphalt Pavement) used in HMA/WMA and Base Course	Sampling	As specified	AASHTO T2, 248
	Gradation	2 per day (on RAP that is prepared for inclusion in the Base Course or HMA/WMA	AASHTO T30, 164, 308
	Asphalt Content		AASHTO T308
HMA/WMA	Los Angeles Wear	As needed to confirm quality	AASHTO T 96
	Soundness		AASHTO T 104
	Loss	Based on AASHTO TP 58	AASHTO T 85
	Adsorption	Testing results	
Aggregate for PCCP	Sampling	As specified	AASHTO T 2, 248
	Gradation	1 per 1,000 ton	AASHTO T 11, 27
	Sand Equivalent		AASHTO T 176
	Moisture Content	As needed to control operations	AASHTO T 255
Base Course	Sampling	As specified	AASHTO T 2, 248
	Moisture Content	1 per 1,000 ton	AASHTO T 255
	Density		AASHTO T 180
	Gradation		AASHTO T 11, 27
	Thickness		[b]

[a]For gradations to control crushing operations, the Contractor may, at its own risk, modify AASHTO T 146 to improve the test result timelines. Modified method tests will not be considered in acceptance determinations by the Project Manager.
[b]Take measurements at a randomly selected location. Determine thickness by removing all of the in-place compacted Material, placing a straight edge tool (i.e. a survey lath) across the hole, measuring the thickness to the nearest 1/4 in using a measuring tape, and then replacing and recompacting the removed material.
[c]This test will not be done for base course.

Table 901.7:4 Minimum Process Control Guidelines for Hot/Warm Mix Asphalt (QC)			
Item	**Property**	**Testing frequency**	**Test method**
HMA/WMA	Sampling	As specified	AASHTO T 168 / Agency Method AS-1
	Hydrated Lime or Anhydrite Based Material Content	Daily	Totalizing Weighing Device
	Flat/Elongated Particles	Daily	ASTM D 4791
	Fine Aggregate Angularity	Daily	AASHTO T 304
	Asphalt Content	1 per 1,000 ton[c]	AASHTO T 308
	Gradation		AASHTO T 30, 164, 308
	Air Voids		AASHTO T 166, 209, 269
	Voids in Mineral Aggregate (VMA)		AASHTO R 35
	Voids Filled with Asphalt (VFA)		AASHTO R 35
	Dust to Binder Ratio		AASHTO R 35
	Gyratory Tests		AASHTO T 312
	Thickness[a]		
	Mat Density, Cores[b]		AASHTO T 166, 209
	Density (Nuclear)	As needed to control operations	AASHTO T 310
	Temperature	As needed to control operations	—

[a]Take measurement at a randomly selected location. Determine thickness by coring the in-place compacted Material and measuring the thickness to the nearest 1/4 inch using a measuring tape.
[b]Density calculation will use the daily average of Contractor and Department maximum specific gravity as validated by *F-test* and *T-test* in the daily calculation.
[c]Minimum of one test per day and three tests per sublot, except for maximum specific gravity. Obtain a minimum of two tests per day for maximum specific gravity.

Table 901.7:5
Minimum Process Control Guidelines for Portland Cement Concrete Pavement (QC)

Item	Property	Testing frequency	Test method
Fresh Concrete for PCCP	Unit Weight	1 per 125 yd^3	AASHTO T 121
	Air Entrainment	1 per 125 yd^3	AASHTO T 152
	Slump	1 per 125 yd^3	AASHTO T 119
	Compressive Strength	1 per 125 yd^3	AASHTO T 22, 23, 231
PCCP in Place	Thickness[a]	2 per 2,500 yd^2 [b]	—

[a]Complete corrective work specified in Section 450.3.5.2, "Surfacing Smoothness Requirements," before determining pavement thickness
[b]Determine thickness by actual survey conducted before and after the construction of the PCCP at fixed, randomly selected locations.

Table 901.7:6
Minimum Acceptance Guidelines (QA)

Item	Property	Point of acceptance	Sublot size	Lot size	Test method
Base Course	Sampling	As specified	—	—	AASHTO T 2, 248
	Gradation	Processed Windrow	1 per 2,000 ton	20,000 tons	AASHTO T 11, 27
	Thickness	After compaction			[c]
	Density				AASHTO T 180, 238, 239
HMA/WMA	Sampling	As specified	—	—	AASHTO T 168
	Asphalt Content	Behind Laydown Machine, Before compaction	One tenth of the lot size[f]	15,000 to 30,000 tons	AASHTO T 308
	Gyratory Tests				AASHTO T 312
	Gradation				AASHTO T 30, 308
	Air Voids				AASHTO T 166, 209, 269
	Voids in Mineral Aggregate (VMA)				AASHTO R 35
	Dust to Binder Ratio				AASHTO R 35

Table 901.7:6
Minimum Acceptance Guidelines (QA)

Item	Property	Point of acceptance	Sublot size	Lot size	Test method
	Thickness	After compaction			[d]
	Mat Density Cores[a]				AASHTO T 166, 209
Fresh Concrete for PCCP	Air Content	Deliver to grade	1 per 500 yd^3	5,000 yd^3	AASHTO T 152
	Compressive Strength				AASHTO T 22, 23, 231
In-Place PCCP	Thickness[b]	—	2 per 10,000 yd^2	30,000 yd^2	[e]

[a]Density calculation will utilize daily average of Contractor and Department maximum specific gravity as validated by *F-test* and *T-test*. The Department will obtain a minimum of one maximum specific gravity sample per day.
[b]Complete corrective work specified in Section 450.3.5.2, "Surfacing Smoothness Requirements," before determining pavement thickness
[c]Take measurement at a randomly selected location. Determine the thickness by removing all of the in-place compacted Material, placing a straight edge tool (i.e. a survey lath) across the hole and measuring the thickness to the nearest 1/4 in using a measuring tape.
[d]Take measurements at a randomly selected location. At that location, the thickness shall be determined by coring the in-place compacted Material and measuring the thickness to the nearest 1/4 in using a measuring tape.
[e]Determine thickness by actual survey conducted before and after the construction of the PCCP at fixed, randomly selected locations.
[f]A lesser sublot size for acceptance purposes as determined by the Project Manager before production of material begins can be established.

December 20, 2007

NEW MEXICO DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATIONS FOR

AGGREGATE INDEX
SECTION 910

All Provisions of the New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

Delete SECTION 910- AGGREGATE INDEX in its entirety and substitute the following:

910.1 DESCRIPTION

The AI combines test values from the Los Angeles Wear Test, Soundness Loss Test, and Absorption Test. The AI is a single value representing the overall quality of the source from which the aggregates are obtained. Do not use to evaluate individual aggregate stockpile quality.

910.2 Sampling and Testing Procedures

Determine Los Angeles wear, soundness loss, and absorption values for the AI equation using at least five random test samples obtained from all stockpiles at the source in accordance with AASHTO T 2. Submit all of the samples to a Department approved private Laboratory for combination into a single sample. The Project Manager or the State Materials Bureau will have a list of approved private laboratories. Extract a representative test sample from the single sample to determine the Los Angeles wear and absorption values. Prepare the sample used to determine the absorption as follows:

Plus 3/4 in	1000 grams
3/4 in to 1/2 in	1000 grams
1/2 in to 3/8 in	1000 grams
3/8 in to #4	1000 grams

Separate the remaining amount of the single sample into five test samples using the procedures in AASHTO T 248. Calculate a soundness loss value for each of these five samples using Table 910.2:1, "Standard Gradation for Soundness Loss Testing."

Table 910.2:1
Standard Gradation for Soundness Loss Testing

Sieve size	% passing
1 1/4 in	100
1 in	100
3/4 in	79
1/2 in	53
3/8 in	34
No. 4	0

Average the five soundness loss results to obtain the overall soundness loss value for the subject aggregate pit.

910.2.2 Testing of Aggregates

Perform the following tests using a Department-approved private Laboratory or the State Materials Bureau:

1. Los Angeles Wear (in accordance with AASHTO T 96, Method B),
2. Soundness loss (in accordance with AASHTO T 104), and
3. Absorption (in accordance with AASHTO T 85 or NMDOT 001 (2006)).

Use the same private Laboratory for the entire project unless otherwise approved (in writing) by the Project Manager.

Obtain samples under the observation of the Project Manager or Department designee. Split samples into two samples in accordance with AASHTO T 248, if requested by the Project Manager. The private Laboratory and the State Materials Bureau will each test one sample. Send copies of test reports to the Project Manager.

910.2.3 Frequency of Testing

Submit samples at least once every year to maintain continuous approval of Commercial Material Sources.

910.2.4 Equation

Calculate the AI of a coarse aggregate to the nearest whole number in accordance with the following equation:

$$AI = \frac{1}{3}\sqrt{LA^{2.2} + SL^{3.0} + A^{4.0}} \qquad (1)$$

where:

- AI is the aggregate index
- LA is the Los Angeles Wear, the percent of aggregate wear at 500 revolutions if tested in accordance with AASHTO T 96
- SL is the soundness loss of the sample if tested in accordance with

AASHTO T 104 using magnesium sulfate with a test duration of 5 cycles and a standard gradation

A is the absorption, the amount of moisture retained if tested in accordance with AASHTO T 85

Example:

1. Determine the L.A. Wear as a whole number – for example, 25.
2. Determine the Soundness Loss as a whole number – for example, 15.
3. Determine the Absorption as a whole number – for example, 3.
4. Calculate the value of the L.A. Wear taken to the 2.2 power – that is, 25^(2.2) = 1189.8.
5. Calculate the value of the Soundness Loss taken to the 3rd power – that is, 15^(3) = 3375.
6. Calculate the value of the Absorption taken to the 4th power – that is, 3^(4) = 81.0.
7. Add the value obtained from steps 4, 5, and 6 – that is, 11.89.8 + 3375 + 81.0 = 4645.8.
8. Determine the square root of Step 7 – that is, $\sqrt{(4658.8)} = 68.2$
9. Divide the result from Step 8 by 3 – that is, 68.2 ÷ 3 = 22.7.

The A.I. for this sample is 22.7.

GEOTECHNICAL REPORTS

Additional Supplementary Conditions

Geotechnical Report

The following reports, titled *Geotechnical Engineering Report Bridge Replacement, Bridge No. 8105, County Road 7150, San Juan County, New Mexico*, dated January 19, 2010 and *Geotechnical Engineering Study LRFD Charts and LPile Parameters, Bridge No. 8105, County Road 7150, San Juan County, New Mexico*, dated July 2, 2012 prepared by GEOMAT Inc. is included for the Bidder's information regarding subsurface conditions and constitutes the only information available to the County and Engineer regarding these conditions. The information contained therein was utilized in the project development for bridge design purposes. These reports and the soils information contained therein are provided for information only, and do not necessarily represent overall soil conditions at the project site beyond those found at the actual locations tested. The Bidder is encouraged to perform his own investigations through previous arrangements with and approval by the County for access to the site, if he feels this work is necessary for the development of his bid.



GEOTECHNICAL ENGINEERING REPORT
BRIDGE REPLACEMENT
BRIDGE NO. 8105, COUNTY ROAD 7150
SAN JUAN COUNTY, NEW MEXICO

Submitted To:

David P. Keck
San Juan County
305 South Oliver Drive
Aztec, New Mexico 87410

Submitted By:

GEOMAT Inc.
915 Malta Avenue
Farmington, New Mexico 87401

January 19, 2010
GEOMAT Project 92-0970

GEOMAT INC
915 Malta Avenue ◆ Farmington, NM 87401 ◆ Tel (505) 327-7928 ◆ Fax (505) 326-5721

January 19, 2010

David P. Keck
San Juan County
305 South Oliver Drive
Aztec, New Mexico 87410

RE: Geotechnical Engineering Report
Bridge Replacement
Bridge No. 8105, County Road 7150
San Juan County, New Mexico
GEOMAT Project No. 92-0970

GEOMAT Inc. (GEOMAT) has completed our geotechnical engineering exploration for the proposed replacement of Bridge No. 8105 across the Gallegos Wash, located on County Road 7150 approximately 18 miles south of Bloomfield, San Juan County, New Mexico. This study was performed in general accordance with a scope of work outlined by URS Corporation in their letter to San Juan County dated November 16, 2009.

The results of our engineering study, including the boring location diagram, laboratory test results, test boring records, and the geotechnical recommendations are attached. Based on the geotechnical engineering analyses, subsurface exploration and laboratory test results, the north abutment of the new bridge could be supported by a shallow spread footing bearing in formational sandstone. The south abutment and piers could be supported by driven piles bearing in formational sandstone. Other design and construction details, based upon geotechnical conditions, are presented in the report.

We have appreciated being of service to you in the geotechnical engineering phase of this project. If you have any questions concerning this report, please contact us.

Sincerely yours,
GEOMAT Inc.

Donald R. Baldwin

Donald R. Baldwin
Geologist

GEORGE A. MADRID NEW MEXICO 9110 REGISTERED PROFESSIONAL ENGINEER

George A. Madrid, P.E. 1-19-10
President, Principal Engineer

Copies to: Addressee (2); Robert Bookwalter, P.E., URS Corp. (2)

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GEOTECHNICAL ENGINEERING REPORT
BRIDGE REPLACEMENT
BRIDGE NO. 8105, COUNTY ROAD 7150
SAN JUAN COUNTY, NEW MEXICO
GEOMAT PROJECT NO. 92-0970

INTRODUCTION

This report contains the results of our geotechnical engineering exploration for the proposed replacement of Bridge No. 8105 across the Gallegos Wash on County Road 7150, approximately 18 miles south of Bloomfield, San Juan County, New Mexico as shown on the Vicinity Map in Appendix A.

The purpose of these services is to provide information and geotechnical engineering recommendations about:

- subsurface soil conditions
- groundwater conditions
- lateral soil pressures
- drainage
- earthwork
- foundation design and construction

The opinions and recommendations contained in this report are based upon the results of field and laboratory testing, engineering analyses, and experience with similar soil conditions, structures, and our understanding of the proposed project as stated below.

PROPOSED CONSTRUCTION

We understand the new bridge will be either a standard AASHTO four-span girder bridge, or a prefabricated seven-span arch superstructure. We anticipate that the new bridge will occupy the same position as the existing bridge, and will be approximately 300 feet long, with a height from the flow line to the bottom of the beams of about 12 feet.

SITE EXPLORATION

Our scope of services performed for this project included a site reconnaissance by a geotechnical engineer, a subsurface exploration program, laboratory testing and engineering analyses.

Field Exploration:

Subsurface conditions at the site were explored between December 14 and 22, 2009 by drilling eight exploratory borings at the approximate locations shown on the Site Plan in Appendix A. The borings were drilled to depths ranging from 88 to 100 feet below existing ground surface. Borings B-1 and B-2 were drilled near the north abutment of the existing bridge; B-7 and B-8 were drilled near the south abutment; and B-3, B-4, B-5, and B-6 were drilled within the channel of Gallegos Wash as close as practicable to the existing bridge. Borings B-3, B-6, and B-8 were terminated short of their planned depths of 100 feet due to auger refusal on rock.

The borings were advanced using a CME-75 truck-mounted drill rig using continuous-flight, 7-inch O.D. hollow-stem auger. The borings were continuously monitored by a geologist and/or geotechnical engineer from our office who examined and classified the subsurface materials encountered, obtained representative samples, observed groundwater conditions, and maintained a continuous log of each boring.

Soil samples were obtained from the borings using a combination of standard 2-inch O.D. split spoon and 3-inch O.D. modified California ring barrel samplers. The samplers were driven using a 140-pound hammer falling 30 inches. The standard penetration resistance was determined by recording the number of hammer blows required to advance the sampler in six-inch increments.

Groundwater evaluations were made in each boring at the time of site exploration. Soils were classified in accordance with the Unified Soil Classification System described in Appendix A. Boring logs were prepared and are presented in Appendix A.

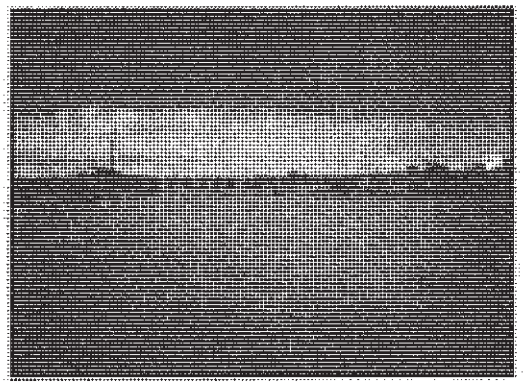
Laboratory Testing:

Samples retrieved during the field exploration were transported to our laboratory for further evaluation. At that time, the field descriptions were confirmed or modified as necessary, and laboratory tests were performed to evaluate the engineering properties of the subsurface materials.

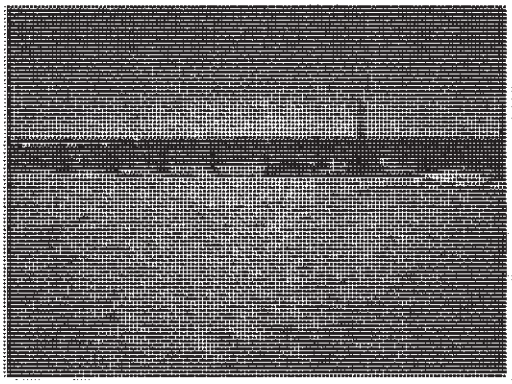
SITE CONDITIONS

The project site is located on the Gallegos Wash immediately south of the intersection of County Roads 7150 and 7300. The existing bridge is a single-lane, modular, military surplus bridge. It is constructed entirely of steel and is supported by pipe piles. The bridge is approximately 300 feet long and the deck was about 12 feet above the channel of the wash at the time of our exploration. It is understood that a telephone cable is located inside a pipe on the east side of the bridge. No flowing surface water was observed in Gallegos Wash during our exploration. A concrete structure with overhead electrical service is located in the channel of the wash approximately 100 feet east if the bridge; the structure is possibly a water well enclosure. The ground surface slopes steeply down from County Road 7150 toward the channel on both ends of the bridge. The ground surface in the wash was frozen at the time of our exploration, making travel across the wash bottom possible. The site has a sparse growth of brush and weeds near each abutment.

The following pictures depict the site conditions at the time of our field study.



View to the West
Drill Rig at B-8



View to the East
Drill Rig at B-6

SUBSURFACE CONDITIONS

Soil Conditions:

In all of our borings, we encountered generally sandy soils overlying formational rock. The sandy soils were very loose to medium dense and contained variable amounts of fines, along with occasional thin interbedded layers of clay. The sandy soils were damp to moist above the water table, and saturated below.

The formational rock consisted of thickly bedded sequences of sandstone, siltstone, and shale. The rock was generally highly weathered and soft at shallower depths, grading to fresh or slightly weathered and moderately hard at greater depths. The top of the rock surface was encountered at relatively shallow depths near the north end of the existing bridge, and at increasingly greater depths toward the south end. Although it was possible to advance the auger into the rock, refusal was experienced when attempting to drive the samplers. Borings B-3, B-6, and B-8 were terminated short of their planned depths due to auger refusal on fresh to slightly weathered rock.

At the locations of borings B-1 and B-2 (near the north abutment of the existing bridge), we encountered approximately 4 to 6 feet of loose to medium dense sandy soils overlying formational sandstone, siltstone, and shale. Rock extended to the full depth of the borings.

At the locations of B-7 and B-8 (near the south abutment of the existing bridge), we encountered fill soils consisting of sand, gravel, and cobbles to depths of 5 to 12 feet below existing site grade. Below the fill, we encountered loose to medium dense sandy soils with thin interbedded layers of clay extending to depths of 87 and 99 feet below ground surface in B-7 and B-8, respectively. Below the sand and clay soils, we encountered formational sandstone to the total depths explored.

At the locations of borings B-3, B-4, B-5, and B-6 (in the channel of the wash), we encountered very loose to medium dense sandy soils with interbedded clay layer overlying formational sandstone and shale. The rock was encountered at depths of approximately 10, 25, 48, and 75 feet below ground surface in borings B-3, B-4, B-5, and B-6, respectively. The rock extended to the total depths explored.

The surficial soils encountered in borings B-1 and B-2 exhibited a slight odor that could indicate the presence of petroleum hydrocarbons or other organic compounds. We did not attempt to evaluate this condition because evaluation of environmental conditions was beyond our scope of services.

Boring logs are presented in Appendix A.

Groundwater Conditions:

Groundwater was encountered in all of the borings during drilling, ranging from depths of about 18 feet at the south abutment, to 3 to 4 feet below the surface in the channel, to 44 feet at the north abutment. The greater depth to water at the north abutment could indicate that the shallower water table across the rest of the site is truncated near the north abutment by the sloping surface of the bedrock. The deeper water table near the north end of the bridge is likely isolated from the shallower water by the relatively impermeable clayey sandstone, siltstone, and shale bedrock.

It should be noted that groundwater elevations can fluctuate over time in response to variables, primarily the volume and duration of flow in the wash.

Laboratory Test Results:

Laboratory analyses of representative samples of the near-surface sandy soils indicate these soils have fines contents (percent passing U.S. No. 200 Sieve) on the order of 4 to 14 percent, as determined by the particle size analysis (ASTM C136/C117). Sieve analyses of representative samples indicate that the sandy soils have a D_{50} (diameter where 50 percent of the particles are smaller and 50 percent are larger) ranging between approximately 0.30 and 0.54 millimeters.

Results of all laboratory tests are presented in Appendix B.

OPINIONS AND RECOMMENDATIONS

Geotechnical Considerations:

The site is considered suitable for the proposed new bridge based on the geotechnical conditions encountered and tested for this report. The top of the bedrock surface appears to slope down from a depth of a few feet below ground surface at the north end of the existing bridge to approximately 99 feet at the south end. The north abutment of the new bridge could be supported by a spread footing bearing in the relatively shallow sandstone. The south abutment and the piers could be founded on deep foundation elements bearing in the bedrock.

Based on the conditions encountered in the borings and our understanding of the project, we are providing recommendations for driven piles and shallow spread footings. Other deep foundation elements, such as drilled shafts, etc. might also be possible foundation types, but are not likely to be as cost effective for this project. We will present recommendations for other foundation systems if requested.

If there are any significant deviations from the assumed finished grade elevations and/or structure location noted at the beginning of this report, the opinions and recommendations of this report should be reviewed and confirmed/modified as necessary to reflect the final planned design conditions.

Pile Foundations:

Based on our understanding of the type of new bridge to be built and the results of our field subsurface exploration and laboratory testing, we recommend that the south bridge abutment and piers be founded on a system of driven steel H-piles bearing in the sandstone and designed on an end-bearing basis. Based on AASHTO criteria we recommend the piles be designed using an

allowable stress of 0.25Fy. For vertical capacity purposes, the piles should be designed to bear one to two feet into the sandstone stratum. Battered piles might be used to counteract the lateral forces. Lateral capacities for the piles may require different embedment depths, depending on several different factors, including the number of battered piles that are to be used and the angle at which the piles are to be battered. A combination of the tip elevation of the pile and driving resistance of 10 blows per inch should be used to determine the final acceptable bearing elevation of the piles. We recommend the use of pile points to help prevent damage to the piles during driving.

In order for full individual pile capacity to be reached within a pile group, pile spacing should be greater than or equal to 2-1/2 times the greater width of the pile. All piles should be checked for alignment and plumbness during installation, and should be within the tolerances indicated in Section 501 of the New Mexico Department of Transportation Standard Specifications (NMDOT Specifications) for Road and Bridge Construction, 2007 Edition. If applicable, piles should be installed from the center of the group outward.

For driven steel H-piles, the pile hammer should meet the recommendations of the aforementioned NMDOT Specifications. A sufficient number of test piles should be driven to evaluate whether the design load capacity is obtained. Pile load testing could be performed in accordance with NMDOT Specifications and under the observation of GEOMAT to help verify the capacities of the piles. In addition to the above field testing, performance of a computerized wave equation analysis might be helpful to evaluate driven pile capacity, pile stress, and refusal criteria based on pile hammer blow count versus the driven distance of the pile. This procedure might be helpful during the test pile driving by establishing driving criteria and pile capacity parameters before production driving begins.

Settlement of the piles should not be more than ½ inch based on the conditions encountered in the test borings for the piles bearing in the sandstone.

Spread Footings:

The north abutment could be supported by a shallow spread footing bearing in the sandstone.

The abutment footing should be founded a minimum of two (2.0) feet into competent sandstone. The lateral excavation for the footing should extend at least five (5.0) feet beyond the perimeter of the abutment.

A design bearing capacity of 10,000 pounds per square foot is recommended for footings founded at a minimum depth of two feet into competent sandstone. Contact stress at the base of footings may be increased by one-third when considering total loads that include wind or seismic conditions.

Criteria for materials and compaction for footing backfill should be as recommended in the **Earthwork** section of this report. Adequate drainage should be provided to prevent the supporting materials from undergoing significant moisture changes.

Total and differential settlements resulting from the assumed structural loads are estimated to be on the order of ½ inch or less. Proper drainage should be provided in the final design and during construction and areas adjacent to the structure should be designed to prevent water from ponding or accumulating next to the structure.

Total and differential settlements should not exceed predicted values, provided that:

- Foundations are constructed as recommended, and
- Essentially no changes occur in water contents of foundation materials.

Footings and foundations should be reinforced as necessary to reduce the potential for distress caused by differential foundation movement.

Foundation excavations should be observed by GEOMAT. If the soil conditions encountered differ significantly from those presented in this report, supplemental recommendations will be required.

Site Classification:

The Site Classification is C based on Table 1613.5.2 of the 2006 International Building Code.

Lateral Earth Pressures:

Please contact us to provide recommended lateral pressures once the structural elements on which the lateral pressures will act are determined.

Fill against abutments, wing walls and retaining walls should be compacted to densities specified in **Earthwork**. Medium to high plasticity clay soils should not be used as backfill against retaining walls. Compaction of each lift adjacent to walls should be accomplished with hand-operated tampers or other lightweight compactors. Over compaction may cause excessive lateral earth pressures that could result in wall movement.

Corrosivity:

Two representative samples of the sandy soils were tested to help evaluate the potential for the on-site soils to corrode buried metal and/or concrete. The samples were tested for pH, electrical resistivity, and soluble sulfates. Results of these tests are presented in Appendix B.

Corrosion of Concrete:

The soluble sulfate contents of the samples tested were approximately 39 and 37 ppm, which may be characterized as negligible potential for corrosion (IBC Table 1904.3). According to the American Concrete Institute Building Code 318, when the sulfate content is less than 150 ppm, there shall be no restriction on the cement type and water/cement ratio. Results of sulfate, chloride, pH and resistivity tests are presented in Appendix B.

Corrosion of Metals:

Corrosion of buried ferrous metals can occur when electrical current flows from the metal into the soil. As the resistivity of the soil decreases, the flow of electrical current increases, increasing the potential for corrosion. A commonly accepted correlation between soil resistivity and corrosion of ferrous metals is shown in the following table.

Resistivity (ohm-cm)	Corrosivity
0 to 1,000	Severely Corrosive
1,000 to 2,000	Corrosive
2,000 to 10,000	Moderately Corrosive
>10,000	Mildly Corrosive

The samples tested had resistivity values between 3,600 and 4,440 ohm-cm. Based on these laboratory results and the table above, the on-site soils would be characterized as moderately corrosive toward ferrous metals. The potential for corrosion should be taken into account during the design process.

Earthwork:

General Considerations:

The opinions contained in this report for the proposed construction are contingent upon compliance with recommendations presented in this section.

Site Clearing:

1. Strip and remove all existing vegetation, debris and other deleterious materials from the proposed structure areas. Any existing fills and structures should be completely removed from below the structure. All exposed surfaces below structures should be free of mounds and depressions, which could prevent uniform compaction.

2. If unexpected fills or underground facilities are encountered during site clearing, we should be contacted for further recommendations. All excavations should be observed by GEOMAT prior to backfill placement.

3. Stripped materials consisting of vegetation and organic materials should be removed from the site, or used to revegetate exposed slopes after completion of grading operations. If it is necessary to dispose of organic materials on-site, they should be placed in non-structural areas, and in fill sections not exceeding 5 feet in height.

4. Sloping areas steeper than 5:1 (horizontal:vertical) should be benched to reduce the potential for slippage between existing slopes and fills. Benches should be level and wide enough to accommodate compaction and earth moving equipment. The contractor's "Competent Person" will be responsible for evaluating the safety of slopes during the construction process.

5. All exposed areas which will receive fill, once properly cleared and benched where necessary, should be scarified to a minimum depth of eight inches, conditioned to near optimum moisture content, and compacted, except in areas where sandstone is encountered.

Excavation:

1. Evaluation of the site excavation conditions would best be done using the same type of equipment as will be used during construction.

2. The contractor's "Competent Person" will be responsible for evaluating the safety of excavations and the allowable slopes that can be used during the construction process.

3. On-site soils may pump or become unstable or unworkable at high water contents. Workability may be improved by scarifying and drying. Overexcavation of wet zones and replacement with granular materials may be necessary. Lightweight excavation equipment may be required to reduce subgrade pumping.

Fill Materials:

1. On-site or imported soils with low expansive potentials could be used as fill material for the following:

   - general site grading
   - foundation areas
   - foundation backfill
   - exterior slab areas

2. Select granular materials should be used as backfill behind walls that retain earth.

3. On-site or imported soils to be used in general site fills should conform to specifications in the following table.

Gradation	Percent finer by weight (ASTM C136)
3"	100
No. 4	50-100
No. 200 Sieve	50 (max)
Maximum expansive potential (%)*	1.5

* Measured on a sample compacted to approximately 95 percent of the ASTM D698 maximum dry density at about 3 percent below optimum water content. The sample is confined under a 144 psf surcharge and submerged.

4. Aggregate base course should conform to Section 304 of NMDOT specifications for Base Course.

Placement and Compaction:

1. Place and compact fill in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift.

2. The thickness of uncompacted fill lifts should not exceed the capacity of the compaction equipment to achieve the minimum required compaction throughout the lift.

3. Materials should be compacted to the following:

Material	Minimum Percent (ASTM D1557)
Subgrade soils beneath fill areas	95
On site or imported soil fills:	95
Aggregate base beneath slabs	95
Miscellaneous backfill	95

4. On-site and imported soils should be compacted at moisture contents within three percent of optimum.

Compliance:

Recommendations for slabs-on-grade and foundation elements supported on compacted fills depend upon compliance with **Earthwork** recommendations. To assess compliance, observation and testing should be performed by GEOMAT.

Drainage:

Surface Drainage:

Positive drainage should be provided during construction and maintained throughout the life of the proposed project. Infiltration of water into foundation excavations must be prevented during construction. Surface features which could retain water in areas adjacent to structures should be sealed or eliminated.

Subsurface Drainage:

Free-draining, granular soils containing less than five (5%) percent fines (by weight) passing a No. 200 sieve should be placed adjacent to walls which retain earth. A drainage system consisting of either weep holes or perforated drain lines (placed near the base of the wall) should be used to intercept and discharge water which would tend to saturate the backfill. Where used, drain lines should be embedded in a uniformly graded filter material and provided with adequate clean-outs for periodic maintenance. An impervious soil should be used in the upper layer of backfill to reduce the potential for water infiltration.

GENERAL COMMENTS

It is recommended that GEOMAT be retained to provide a general review of final design plans and specifications in order to confirm that grading and foundation recommendations in this report have been interpreted and implemented. In the event that any changes of the proposed project are planned, the opinions and recommendations contained in this report should be reviewed and the report modified or supplemented as necessary.

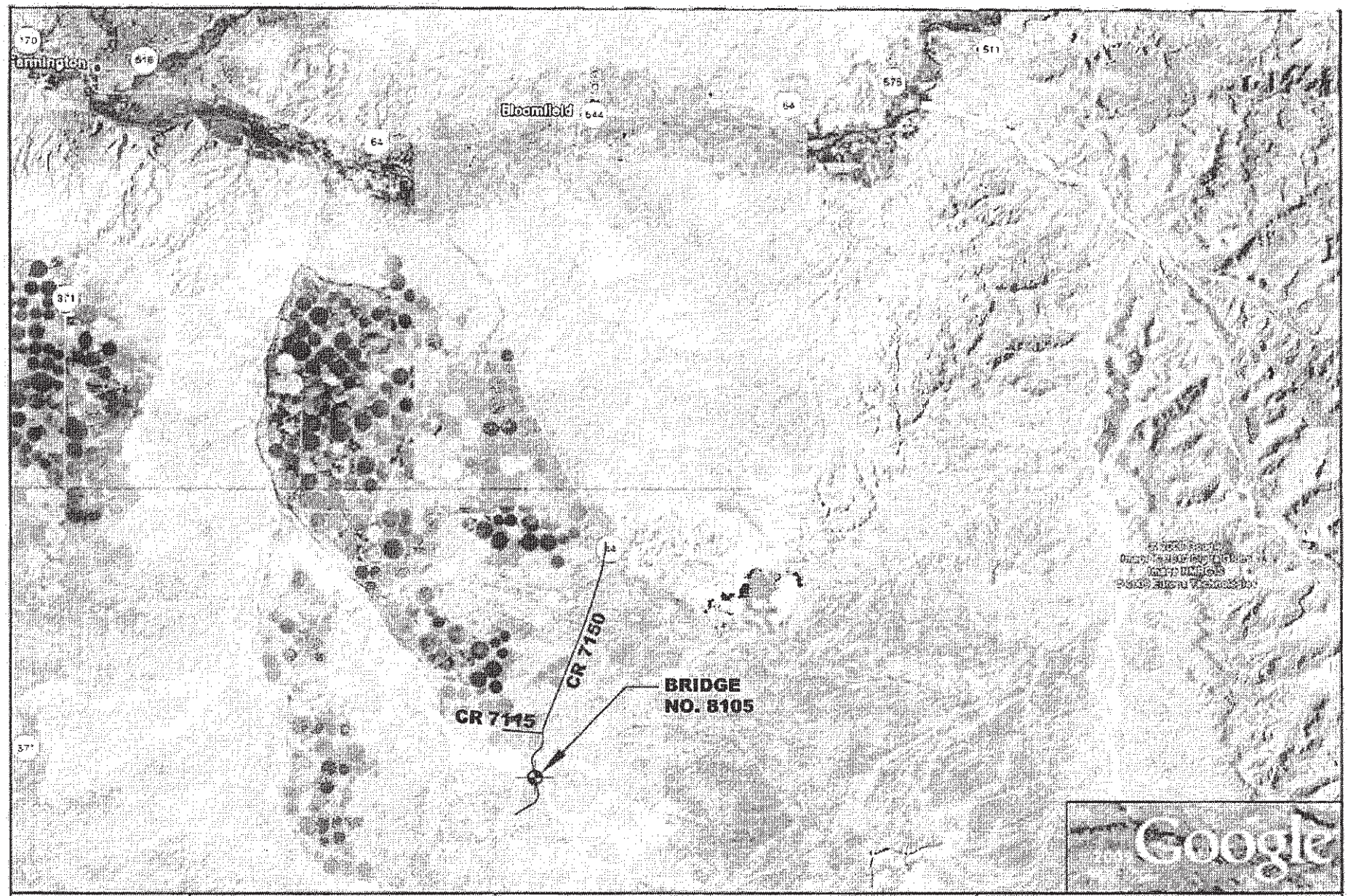
GEOMAT should also be retained to provide services during excavation, grading, foundation, and construction phases of the work. Construction testing, including field and laboratory evaluation of fill, backfill, pavement materials, concrete and steel should be performed to determine whether applicable project requirements have been met.

The analyses and recommendations in this report are based in part upon data obtained from the field exploration. The nature and extent of variations beyond the location of test borings may not become evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report.

Our professional services were performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical engineers practicing in this or similar localities at the same time. No warranty, express or implied, is intended or made. We prepared the report as an aid in design of the proposed project. This report is not a bidding document. Any contractor reviewing this report must draw his own conclusions regarding site conditions and specific construction equipment and techniques to be used on this project.

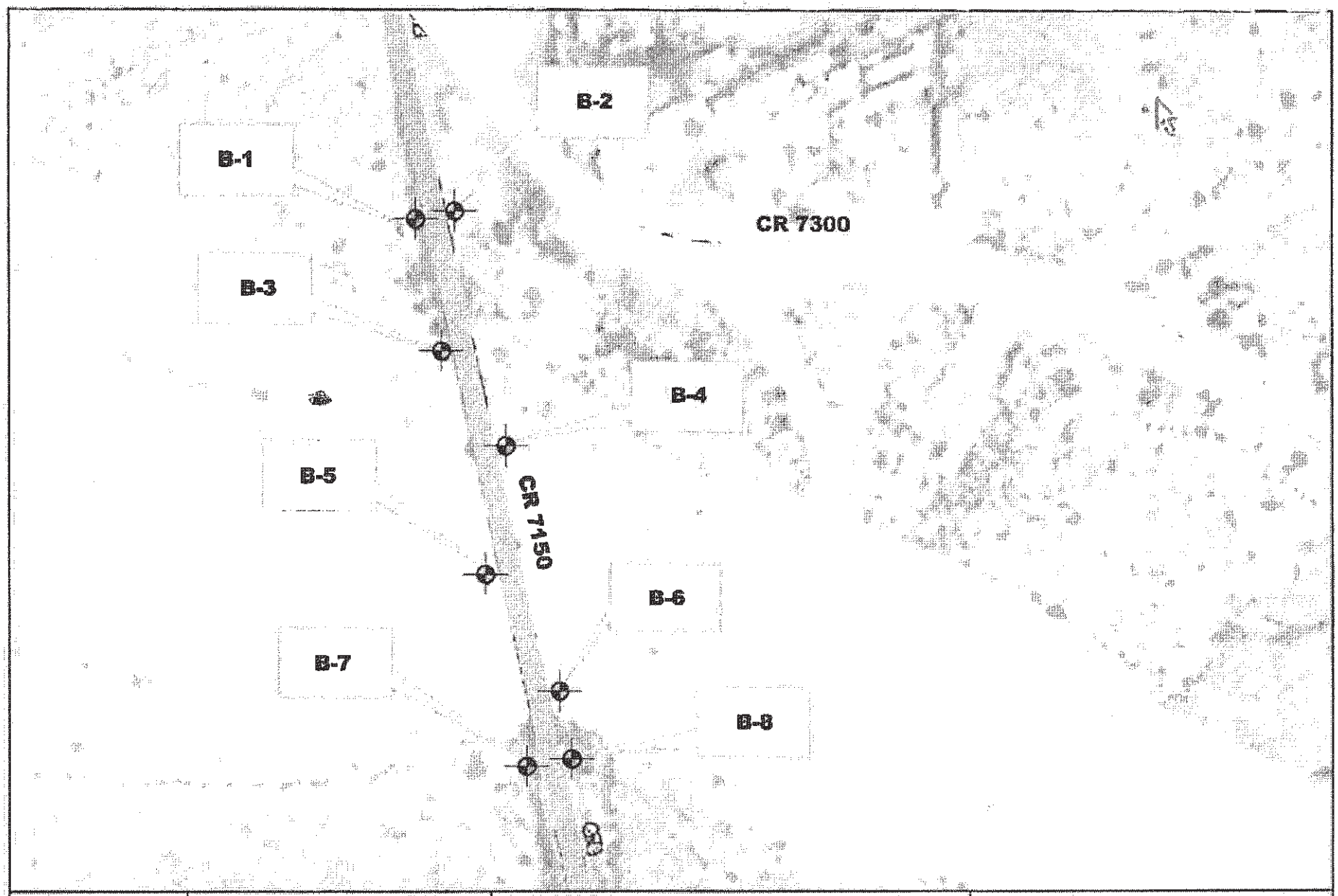
This report is for the exclusive purpose of providing geotechnical engineering and/or testing information and recommendations. The scope of services for this project does not include, either specifically or by implication, any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken. This report has also not addressed any geologic hazards that may exist on or near the site.

This report may be used only by the Client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on and off site), or other factors may change over time and additional work may be required with the passage of time. Any party, other than the Client, who wishes to use this report shall notify GEOMAT in writing of such intended use. Based on the intended use of the report, GEOMAT may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements, by the Client or anyone else, will release GEOMAT from any liability resulting from the use of this report by an unauthorized party.



Approximate Not to Scale	VICINITY MAP GEOMAT Project No. 92-0970	PROJECT Bridge Replacement Bridge No. 8105, CR 7150 San Juan County, New Mexico

GEOMAT INC



Approximate Not to Scale	SITE PLAN Boring Locations (approximate) GEOMAT Project No. 92-0970 Date Borings Drilled: 12-14-09 to 12-22-09	PROJECT Bridge Replacement Bridge No. 8105, CR 7150 San Juan County, New Mexico

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Borehole B-1

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Ring and Split spoon samples
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/14/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 44 ft during drilling
Logged By: LEC
Remarks: North Abutment

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				28-50/3	MC 9		SM		0	SILTY SAND, tan, fine-grained, loose to medium dense, damp
				32-50/1	SS 7		RK		5	SANDSTONE, tan, fine-grained, moderately weathered, soft to moderately hard, weakly to moderately cemented, slight odor (hydrocarbon?)
				34-50/2	SS 8				10	
				27-50/3	SS 9		RK		15	SILTSTONE, gray, moderately weathered, soft to moderately hard
				50/6	SS 8				20	
				17-19-37	SS 18		RK		25	SHALE, gray, moderately weathered, soft, massive
				50/5	SS 5		RK		30	SILTSTONE, gray, moderately weathered, moderately soft to moderately hard
				50/5	SS 5				35	
				38-50/4	SS 10		RK		40	SANDSTONE, gray, clayey, fine-grained, moderately weathered, soft to moderately hard, weakly to moderately cemented
				39-50/2	SS 8				45	

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-1

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/14/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 44 ft during drilling
Sampling Method:	Ring and Split spoon samples	Logged By:	LEC
Hammer Weight:	140 lbs	Remarks:	North Abutment
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				50/5	SS 5				55	
				50/6	SS 6		RK		60	SANDSTONE, gray, clayey, fine-grained, moderately weathered, soft to moderately hard, weakly to moderately cemented
				50/3	SS 3				65	
				50/6	SS 6				70	
				34-50/3	SS 9		RK		75	SILTSTONE, gray, moderately weathered, soft
				50/4	SS 4				80	
				50/6	SS 6				85	
				50/4	SS 4		RK		90	SHALE, brown, moderately weathered, moderately soft, massive
				50/4	SS 4				95	
				50/5	SS 5				100	
									105	Total Depth 100.5 feet

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Borehole B-2

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/15/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 43 ft during drilling
Sampling Method:	Split spoon sample	Logged By:	LEC
Hammer Weight:	140 lbs	Remarks:	North Abutment
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	Laboratory Results: % Passing #200 Sieve	Laboratory Results: Plasticity Index	Laboratory Results: Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
							SM		1	SILTY SAND, tan to brown, fine-grained, loose to medium dense, damp
				50/6	SS 6					SANDSTONE, tan to gray, fine-grained, highly to moderately weathered, moderately soft, weakly to moderately cemented, slight odor (hydrocarbon?)
				50/6	SS 6		RK			
				50/6	SS 6					
				50/6	SS 6					
				35-50/3	SS 9		RK			SILTSTONE, gray, moderately weathered, soft
				50/6	SS 6					
				35-50/3	SS 9					SANDSTONE, gray, fine-grained, moderately weathered, highly to moderately weathered, soft to moderately hard, weakly to moderately cemented
				26-50/2	SS 8		RK			
				50/5	SS 5					
				50/6	SS 6					

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-2

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/15/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 43 ft during drilling
Sampling Method:	Split spoon sample	Logged By:	LEC
Hammer Weight:	140 lbs	Remarks:	North Abutment
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				50/6	SS 6		RK		5	SANDSTONE, gray, fine-grained, moderately weathered, highly to moderately weathered, soft to moderately hard, weakly to moderately cemented
				50/6	SS 6				10	
				25-50/5	SS 11				15	
				50/6	SS 6		RK		20	SILTSTONE, gray, slightly weathered, moderately hard
				50/3	SS 3				25	
				50/5	SS 5				30	
				50/4	SS 4				35	
				50/5	SS 5				100	
									102	Total Depth 100.5 feet

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Borehole B-3

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/21/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 4.5 ft during drilling
Sampling Method:	Split spoon sample	Logged By:	DRB
Hammer Weight:	140 lbs	Remarks:	Channel
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				2-2-2	SS 18		SM		0	SILTY SAND with trace gravel, brown, fine- to medium-grained, loose, moist
				8-27-50/6	SS 18		RK		5	SHALE, brown, highly weathered, moderately soft, massive
				32-30-34	SS 18				10	
				34-50/3	SS 9				15	SANDSTONE, green-gray, clayey, fine-grained, highly weathered, moderately soft to moderately hard, weakly cemented
				24-36-50/4	SS 16				20	
				30-50/5	SS 11		RK		25	
				23-50/4	SS 10				30	
				22-50/6	SS 12				35	
							RK		40	SHALE, brown to gray, moderately weathered, moderately soft to moderately hard, massive to blocky

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-3

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Split spoon sample
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/21/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 4.5 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
				50/2	SS 2				55	SHALE, brown to gray, moderately weathered, moderately soft to moderately hard, massive to blocky
									60	green-gray slightly weathered moderately hard
				40-50/4	SS 10		RK		70	dark brown fresh massive
				50/5	SS 5				80	green-gray
				50/2	SS 2				88	Boring terminated at 88 foot depth due to auger refusal on rock Total Depth 88.2 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-4

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Split spoon sample
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/16/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 3.5 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
	6.8			4-4-5	SS 18		SM		0	SILTY SAND, brown, fine- to medium-grained, loose, moist
	3.8			2-3-2	SS 18				5	color change to green-gray
				2-5-5	SS 18				10	
				4-3-2	SS 18				15	
				15-50/6	SS 12				20	
				20-36-50/5	SS 17		RK		25	SANDSTONE, green-gray, clayey, fine-grained, highly weathered, soft, weakly cemented
				31-50/4	SS 10				30	color change to tan
				50/6	SS 6				35	
				28-50/5	SS 11		RK		40	SHALE, purple-gray, moderately weathered, moderately soft, massive
				50/6	SS 6				45	
									50	
									55	

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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GEOMAT INC
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Borehole B-4

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Split spoon sample
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/16/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 3.5 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
				50/3	SS 3		RK		56–70	SHALE, purple-gray, moderately weathered, moderately soft, massive color change to green-gray moderately soft to moderately hard weakly fissile
				50/4	SS 4				70–80	
				50/1	SS 1				80–87	slightly weathered moderately hard
				50/2	SS 2		RK		87–100	SANDSTONE, light gray, clayey, fine-grained, slightly weathered, moderately hard, weakly to moderately cemented interbedded with thin layers of sandy shale
				50/4	SS 4				100–102	Total Depth 100.4 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-5

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/22/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 4 ft during drilling
Sampling Method:	Bulk and Split spoon samples	Logged By:	DRB
Hammer Weight:	140 lbs	Remarks:	Channel
Hammer Fall:	30 inches		

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
	8.5				A				0	SILTY SAND, brown, fine- to medium-grained, loose, moist
									2	wet
	14			2-1-2	SS 18				4	color change to green-gray
									6	interbedded with thin clay layers
				3-3-5	SS 18				8	
							SM		10	fine- to coarse-grained with trace gravel and occasional thin clay layers
				4-4-4	SS 18				12	
									14	fine- to medium-grained
				6-8-10	SS 18				16	
									18	fine- to coarse-grained with trace gravel medium dense
				35-50/4	SS 10		RK		20	SHALE, yellow-brown, sandy, highly weathered, moderately soft, massive

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-5

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Bulk and Split spoon samples
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/22/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 4 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results										
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
									56	SHALE, yellow-brown, sandy, highly weathered, moderately soft, massive
				50/3	SS 3				70	color change to green-gray slightly weathered, moderately hard weakly fissile
				50/5	SS 5		RK		71	color change to dark gray fresh, moderately hard fissile
				50/4	SS 4				80	color change to green-gray
				50/4	SS 4				88	SANDSTONE, light gray, fine-grained, fresh, moderately hard, weakly to moderately cemented
				50/2	SS 2		RK		100	
									101	Total Depth 100.2 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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GEOMAT INC
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Borehole B-6

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Split spoon sample
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/17/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 3 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results											
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				3-3-1	SS 18				1	SILTY SAND with gravel, brown, fine- to coarse-grained, loose, moist
										▽ wet
				2-2-2	SS 18				10	color change to green-gray
				3-4-5	SS 18					
				3-4-4	SS 18				20	fine-grained
				4-4-6	SS 18		SM			
				3-5-7	SS 18				30	trace gravel
				3-3-4	SS 18					no recovery
				3-4-5	SS 18				40	
				4-10-11	SS 18					
				6-9-9	SS 18				50	interbedded with thin clay layers

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

GEOMAT 92-0970.GPJ GEOMAT.GDT 01/18/10

GEOMAT INC
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Farmington, NM 87401
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Fax (505) 326-5721

Borehole B-6

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Split spoon sample
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/17/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 3 ft during drilling
Logged By: DRB
Remarks: Channel

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
				0-0-0	SS 0		SM		55–75	SILTY SAND with gravel, brown, fine- to coarse-grained, loose, moist very loose SPT 18" under weight of hammer interbedded with thin clay layers increased gravel content 72 to 74 feet
				5-9-8	SS 18					
				50/4	SS 4		RK		75–90	SANDSTONE, green-gray, clayey, fine-grained, moderately weathered, moderately hard, weakly to moderately cemented fresh - hard drilling
				50/1	SS 1				90–110	Boring terminated at 90 foot depth due to auger refusal on sandstone Total Depth 90.1 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-7

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/18/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 11 ft during drilling
Sampling Method:	Split spoon sample	Logged By:	DRB
Hammer Weight:	140 lbs	Remarks:	South Abutment
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				2-1-1	SS 18		SM		0	SILTY SAND, brown, fine-grained, loose to medium dense, moist (FILL to approx. 5 ft. depth)
				4-5-6	SS 18				5	wet
				4-3-4	SS 18					color change to green-gray fine- to coarse-grained interbedded with thin clay layers
				4-5-6	SS 18					
				2-4-5	SS 18					fine- to medium-grained
				3-3-3	SS 18					
				3-1-1	SS 18		SP		10	SAND, poorly graded, medium-grained, loose, wet
				4-6-7	SS 18					trace gravel
				4-4-4	SS 18		SM		15	SILTY SAND, green-gray, fine- to medium-grained, loose, wet
				4-4-6	SS 18					

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-7

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/18/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 11 ft during drilling
Sampling Method:	Split spoon sample	Logged By:	DRB
Hammer Weight:	140 lbs	Remarks:	South Abutment
Hammer Fall:	30 inches		

Laboratory Results: Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)	Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
				4-5-6	SS 18				0	SILTY SAND, green-gray, fine- to medium-grained, loose, wet
										interbedded with thin clay layers
				3-6-9	SS 18		SM		20	
				2-3-5	SS 18				40	fine-grained interbedded with thin clay layers
				36-50/3	SS 9		RK		80	SANDSTONE, green-gray, clayey, fine-grained, moderately weathered, moderately soft to moderately hard, weakly to moderately cemented
										slightly weathered, moderately hard moderately cemented
				50/2	SS 2				100	Total Depth 100.2 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-8

Project Name:	Bridge 8105, CR 7150	Date Drilled:	12/15/2009
Project Number:	92-0970	Latitude:	Not Determined
Client:	San Juan County	Longitude:	Not Determined
Site Location:	San Juan County, New Mexico	Elevation:	Not Determined
Rig Type:	CME - 75	Boring Location:	See Site Plan
Drilling Method:	7" O.D. Hollow Stem Auger	Groundwater Depth:	Approx. 18 ft during drilling
Sampling Method:	Bulk, Ring and Split spoon samples	Logged By:	LEC
Hammer Weight:	140 lbs	Remarks:	South Abutment
Hammer Fall:	30 inches		

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
							GP		1	GRAVEL with sand and cobbles, tan to gray, fine- to coarse-grained, loose, damp (FILL to approx. 12 ft. depth)
					A					SILTY SAND, tan, fine- to coarse-grained, loose, damp
				10-11	MC 12				5	
				12-11	MC 12				10	
				7-8	MC 12				15	no recovery
										moist
				3-3-4	SS 18				20	wet
				4-6-5	SS 18				25	
							SM			
				4-5-5	SS 18				30	color change to green-gray
				2-2-2	SS 18				35	
				3-2-2	SS 18				40	heaving sand in auger interbedded with thin clay layers
				7-5-7	SS 18				45	fine- to medium-grained
				4-7-10	SS 18				50	

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

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Borehole B-8

Project Name: Bridge 8105, CR 7150
Project Number: 92-0970
Client: San Juan County
Site Location: San Juan County, New Mexico
Rig Type: CME - 75
Drilling Method: 7" O.D. Hollow Stem Auger
Sampling Method: Bulk, Ring and Split spoon samples
Hammer Weight: 140 lbs
Hammer Fall: 30 inches

Date Drilled: 12/15/2009
Latitude: Not Determined
Longitude: Not Determined
Elevation: Not Determined
Boring Location: See Site Plan
Groundwater Depth: Approx. 18 ft during drilling
Logged By: LEC
Remarks: South Abutment

Laboratory Results				Blows per 6"	Sample Type & Length (in)	Recovery	USCS	Soil Symbol	Depth (ft)	Soil Description
Dry Density (pcf)	% Passing #200 Sieve	Plasticity Index	Moisture Content (%)							
				11-8-10	SS 18		SM		0	SILTY SAND, tan, fine- to coarse-grained, loose, damp
				4-8-10	SS 18					
				5-7-6	SS 18					fine-grained unable to drive sampler due to approx. 7 feet of heaving sand in auger advanced auger without sampling
					A		CL		90	SANDY LEAN CLAY, gray, moist to wet
				30/0	6S 0		RK		100	SANDSTONE (?), fresh, hard no recovery auger refusal at 99.5 foot depth Total Depth 99.5 feet

A = Auger Cuttings GRAB = Hand Sample MC = Modified California (Ring Sample) SS = Split Spoon

GEOMAT 92-0970.GPJ GEOMAT.GDT 01/18/10

UNIFIED SOIL CLASSIFICATION SYSTEM

Major Divisions			Group Symbols	Typical Names
Coarse-Grained Soils More than 50% retained on No. 200 sieve	**Gravels** 50% or more of coarse fraction retained on No. 4 sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands More than 50% of coarse fraction passes No. 4 sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils 50% or more passes No. 200 sieve	**Silts and Clays** Liquid Limit 50 or less		ML	Inorganic silts, very fine sands, rock flour, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit greater than 50		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat, muck & other highly organic soils

CONSISTENCY OR RELATIVE DENSITY CRITERIA

Standard Penetration Test
Density of Granular Soils

Penetration Resistance, N (blows/ft.)	Relative Density
0-4	Very Loose
5-10	Loose
11-30	Medium Dense
31-50	Dense
>50	Very Dense

Standard Penetration Test
Density of Granular Soils

Penetration Resistance, N (blows/ft.)	Consistency	Unconfined Compressive Strength (Tons/ft2)
<2	Very Soft	<0.25
2-4	Soft	0.25-0.50
4-8	Firm	0.50-1.00
8-15	Stiff	1.00-2.00
15-30	Very Stiff	2.00-4.00
>30	Hard	>4.0

U.S. Standard Sieve Sizes	3"	3/4"	#4	#10		#40	#200
Unified Soil Classification	Cobbles	Gravel		Sand			Silt or Clay
		coarse	fine	coarse	medium	fine	

MOISTURE CONDITIONS

Dry	Absence of moist, dusty, dry to the touch
Slightly Damp	Below optimum moisture content for compaction
Moist	Near optimum moisture content, will moisten the hand
Very Moist	Above optimum moisture content
Wet	Visible free water, below water table

MATERIAL QUANTITY

trace	0-5%
few	5-10%
little	10-25%
some	25-45%
mostly	50-100%

OTHER SYMBOLS

R Ring Sample
S SPT Sample
B Bulk Sample
▼ Ground Water

BASIC LOG FORMAT:
Group name, Group symbol, (grain size), color, moisture, consistency or relative density. Additional comments: odor, presence of roots, mica, gypsum, coarse particles, etc.

EXAMPLE:
SILTY SAND w/trace silt (SM-SP), Brown, loose to med. Dense, fine to medium grained, damp

UNIFIED SOIL CLASSIFICATION SYSTEM

TEST DRILLING EQUIPMENT & PROCEDURES

Description of Subsurface Exploration Methods

Drilling Equipment – Truck-mounted drill rigs powered with gasoline or diesel engines are used in advancing test borings. Drilling through soil or softer rock is performed with hollow-stem auger or continuous flight auger. Carbide insert teeth are normally used on bits to penetrate soft rock or very strongly cemented soils which require blasting or very heavy equipment for excavation. Where refusal is experienced in auger drilling, the holes are sometimes advanced with tricone gear bits and NX rods using water or air as a drilling fluid.

Sampling Procedures - Dynamically driven tube samples are usually obtained at selected intervals in the borings by the ASTM D1586 test procedure. In most cases, 2" outside diameter, 1 3/8" inside diameter, samplers are used to obtain the standard penetration resistance. "Undisturbed" samples of firmer soils are often obtained with 3" outside diameter samplers lined with 2.42" inside diameter brass rings. The driving energy is generally recorded as the number of blows of a 140-pound, 30-inch free fall drop hammer required to advance the samplers in 6-inch increments. These values are expressed in blows per foot on the boring logs. However, in stratified soils, driving resistance is sometimes recorded in 2- or 3-inch increments so that soil changes and the presence of scattered gravel or cemented layers can be readily detected and the realistic penetration values obtained for consideration in design. "Undisturbed" sampling of softer soils is sometimes performed with thin-walled Shelby tubes (ASTM D1587). Tube samples are labeled and placed in watertight containers to maintain field moisture contents for testing. When necessary for testing, larger bulk samples are taken from auger cuttings. Where samples of rock are required, they are obtained by NX diamond core drilling (ASTM D2113).

Boring Records - Drilling operations are directed by our field engineer or geologist who examines soil recovery and prepares boring logs. Soils are visually classified in accordance with the Unified Soil Classification System (ASTM D2487), with appropriate group symbols being shown on the logs.

LAB NO.	BORING NO.	SAMPLE DEPTH	SIEVE ANALYSIS, ACCUMULATIVE % PASSING												D_{50} (mm)	CLASSIFICATION
			3/4"	1/2"	3/8"	No. 4	No. 8	No. 10	No. 16	No. 30	No. 40	No. 50	No. 100	No. 200		
8564	B-4	5					100	99	99	91	75	50	15	6.8	0.30	Poorly Graded SAND w/ silt **(SP-SM)**
8565	B-4	10	100	99	98	97	95	94	88	58	36	20	6	3.8	0.54	Poorly Graded SAND **(SP)**
8566	B-5	0 - 5			100	99	97	96	92	71	52	35	14	8.5	0.41	Poorly Graded SAND w/ silt **(SP-SM)**
8567	B-5	10	100	97	96	93	90	89	84	64	49	36	20	14	0.43	Silty SAND **(SM)**

GEOMAT INC.

SUMMARY OF SOIL TESTS

Project	Bridge No. 8105, County Road 7150
Job No.	92-0970
Location	San Juan County, New Mexico
Date Drilled	12/14/09 - 12/22/09

envirotech
Analytical Laboratory

pH, Soluble Sulfate and Chloride

Client:	Geomat	Project #:	04001-0002
Sample ID:	8612 B-5 @ 20'	Date Reported:	01-15-10
Laboratory Number:	52962	Date Sampled:	12-22-09
Chain of Custody:	8857	Date Received:	01-14-10
Sample Matrix:	Soil	Date Extracted:	01-14-10
Preservative:	Cool	Date Analyzed:	01-15-10
Condition:	pH Out of Holding Time		

Parameter	Analytical Result	Units
Soluble Sulfate	39.4	ppm
pH	9.03	su
Resistivity	3,600	Ohm-cm

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.
ASTM D 516, Standard Test Method for Sulfate Ion in Water.

Comments: **Military Bridge**

Analyst

Review

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envirotech
Analytical Laboratory

pH, Soluble Sulfate and Chloride

Client:	Geomat	Project #:	04001-0002
Sample ID:	8613 B-7 @ 80'	Date Reported:	01-15-10
Laboratory Number:	52963	Date Sampled:	12-18-09
Chain of Custody:	8657	Date Received:	01-14-10
Sample Matrix:	Soil	Date Extracted:	01-14-10
Preservative:	Cool	Date Analyzed:	01-15-10
Condition:	pH Out of Holding Time		

Parameter	Analytical Result	Units
Soluble Sulfate	**37.1**	**ppm**
pH	**9.57**	**su**
Resistivity	**4,440**	**Ohm-cm**

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.
ASTM D 516, Standard Test Method for Sulfate Ion in Water.

Comments: **Military Bridge**

Analyst

Review

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LABORATORY TESTING PROCEDURES

Consolidation Tests: One-dimensional consolidation tests are performed using "Floating-ring" type consolidometers. The test samples are approximately 2.5 inches in diameter and 1.0 inch high and are usually obtained from test borings using the dynamically-driven ring samplers. Test procedures are generally as outlined in ASTM D2435. Loads are applied in several increments to the upper surface of the test specimen and the resulting deformations are recorded at selected time intervals for each increment. Samples are normally loaded in the in-situ moisture conditions to loads which approximate the stresses which will be experienced by the soils after the project is completed. Samples are usually then submerged to determine the effect of increased moisture contents on the soils. Each load increment is applied until compression/expansion of the sample is essentially complete (normally movements of less than 0.0003 inches/hour). Porous stones are placed on the top and bottom surfaces of the samples to facilitate introduction of the moisture.

Expansion Tests: Tests are performed on either undisturbed or recompacted samples to evaluate the expansive potential of the soils. The test samples are approximately 2.5 inches in diameter and 1.0 inch high. Recompacted samples are typically remolded to densities and moisture contents that will simulate field compaction conditions. Surcharge loads normally simulate those which will be experienced by the soils in the field. Surcharge loads are maintained until the expansion is essentially complete.

Atterberg Limits/Maximum Density/Optimum Moisture Tests: These tests are performed in accordance with the prescribed ASTM test procedures.

GEOTECHNICAL ENGINEERING STUDY
LRFD CHARTS AND LPILE PARAMETERS
BRIDGE NO. 8105, COUNTY ROAD 7150
SAN JUAN COUNTY, NEW MEXICO

Submitted To:

David P. Keck
San Juan County
305 South Oliver
Aztec, New Mexico 87410

Submitted By:

GEOMAT Inc.
915 Malta Avenue
Farmington, New Mexico 87401

July 2, 2012
GEOMAT Project 92-0970

GEOMAT INC
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July 2, 2012

David P. Keck
San Juan County
305 South Oliver Drive
Farmington, New Mexico 87410

RE: Geotechnical Engineering Study
LRFD Charts and LPILE Parameters
Bridge No. 8105, County Road 7150
San Juan County, New Mexico
GEOMAT Project No. 92-0970

GEOMAT Inc. (GEOMAT) has completed the additional geotechnical engineering services to provide LRFD Design Charts and LPILE Parameters for the referenced bridge. Our services were performed in general accordance with San Juan County Purchase Order No. S121839 dated May 31, 2012.

The results of this engineering study, including the Factored Axial Resistance and Service Axial Resistance Charts and the recommended parameters to be used for LPILE evaluation of the drilled shafts are included in this report. The calculations to develop the charts and LPILE parameters were based on the previous borings, laboratory testing and engineering analyses that were performed by GEOMAT for the original geotechnical engineering report for the project, GEOMAT project 92-0970, dated January 19, 2010. Also included with this report are site plans showing the locations of GEOMAT's test borings and the location of the bridge, including the abutments and piers.

We understand that the bridge has been re-designed from the conditions noted in our original report. The bridge is now a three-span structure. The abutments will be on the sides of the wash and the two piers will be in the wash channel.

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URS, the bridge designer, provided GEOMAT with the following information about the design loads and scour conditions for the bridge:

(All loads are service loads)

Abutments
Dead Load Composite – 481 kips
Dead Load Wearing Surface – 45 kips
Live Load – 316 kips
Total Load on Abutment – 842 kips

Piers
Dead Load Composite – 991 kips
Dead Load Wearing Surface – 124 kips
Live Load – 728 kips
Total Load on Pier – 1843 kips

Scour Depth
Thalweg Minimum Elevation – 6142.34ft.
Pier and Abutment Scour for the 500 year event is 21.6' below the minimum Thalweg Elevation = 6120.74
Pier Scour for the 100 year event is 18.52' below the minimum Thalweg Elevation = 6123.82
The two piers will be exposed to scour from the 100-year flood event, but the abutments will not because they will be protected by rip-rap.

As shown on the boring logs for the project, the subsurface profile is loose to moderately dense silty sand overlying shale and sandstone bedrock. The depth to the bedrock increases significantly from the north to south bridge abutment. At the north abutment, the rock was encountered approximately 5 feet below existing ground surface (bgs). At the south abutment, the rock was encountered between approximately 87 and 100 feet bgs. Based on these conditions and discussions with URS, we understand that the north abutment will be founded on a shallow spread footing bearing on the bedrock. The two piers and south abutment will be founded on single drilled shafts. The depths of the shafts will be designed based on the conditions shown on the attached charts, the LPILE analysis and the other (loading and scour, etc.) conditions.

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Recommended LPILE parameters to be used for design are presented in the following table:

Structure	Layers	Top Elevation	Bottom Elevation	Layer Thickness	Design N value	Design Bouyant Unit Wt (pcf)	Design Friction Angle ø (deg)	Design Cohesion (psf)	Design Adhesion** (psf)	Lateral Soil Modulus k (pci)	ε_{50}
N Abut	100-yr Scour	6155	6155	0	0	0	0	0	0	0	0
	Sat. Sand	6155	6150	5	5	55	24	0	0	40	0
	Rock	6150	6055	95	50+	130	38	13900	10425	4000	0.002
Pier 2	100-yr Scour*	6142	6123.5	18.5	0	0	0	0	0	0	0
	Sat. Sand	6123.5	6118.5	5	5	55	24	0	0	40	0
	Rock	6118.5	6042	76.5	50+	130	38	13900	10425	4000	0.002
Pier 1	100-yr Scour*	6142	6123.5	18.5	0	0	0	0	0	0	0
	Sat. Sand	6123.5	6094	29.5	5	55	24	0	0	40	0
	Rock	6094	6042	52	50+	130	38	13900	10425	4000	0.002
S Abut	100-yr Scour	6157	6157	0	0	0	0	0	0	0	0
	Sat. Sand	6157	6067	90	5	55	24	0	0	40	0
	Rock	6067	6057	10	50+	130	38	13900	10425	4000	0.002

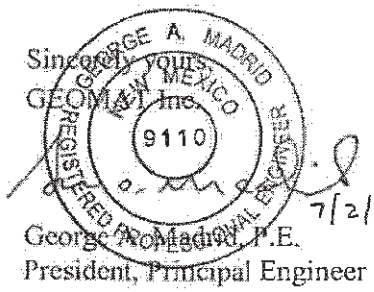
* based on 100-yr scour depth (ft) = 18.52

** adhesion = 0.75 x cohesion

Other design and construction details, based upon geotechnical conditions, are presented in the original GEOMAT report for the project.

We have appreciated being of service to you in the geotechnical engineering phase of this project. If you have any questions concerning this report, please contact us.

Sincerely yours,
GEOMAT Inc.



7/2/12

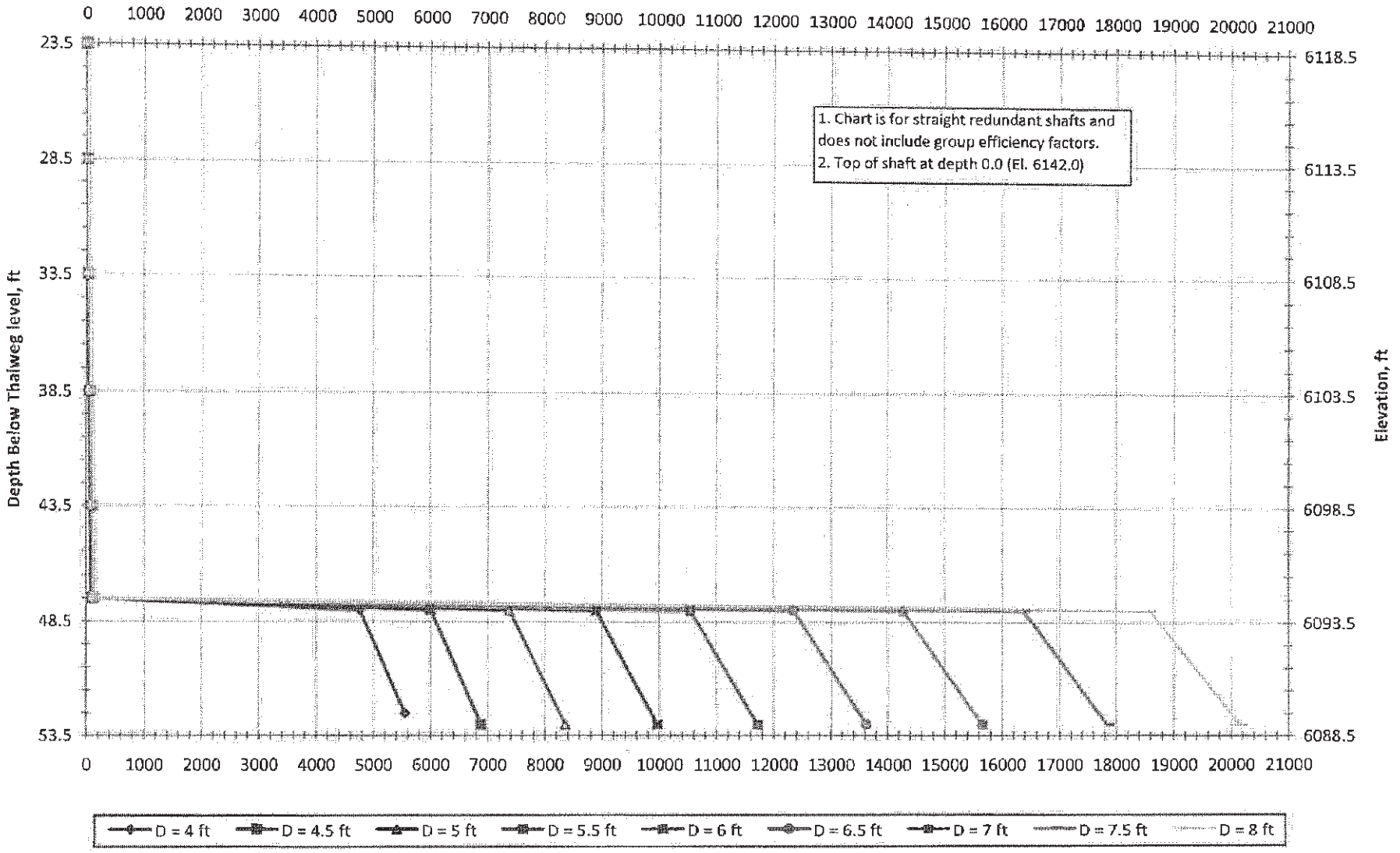
George A. Madrid, P.E.
President, Principal Engineer

Attachments

Copies to: Addressee (1), Roxanne Blatz, P.E., URS (1), Midhat Hassan, URS (1)

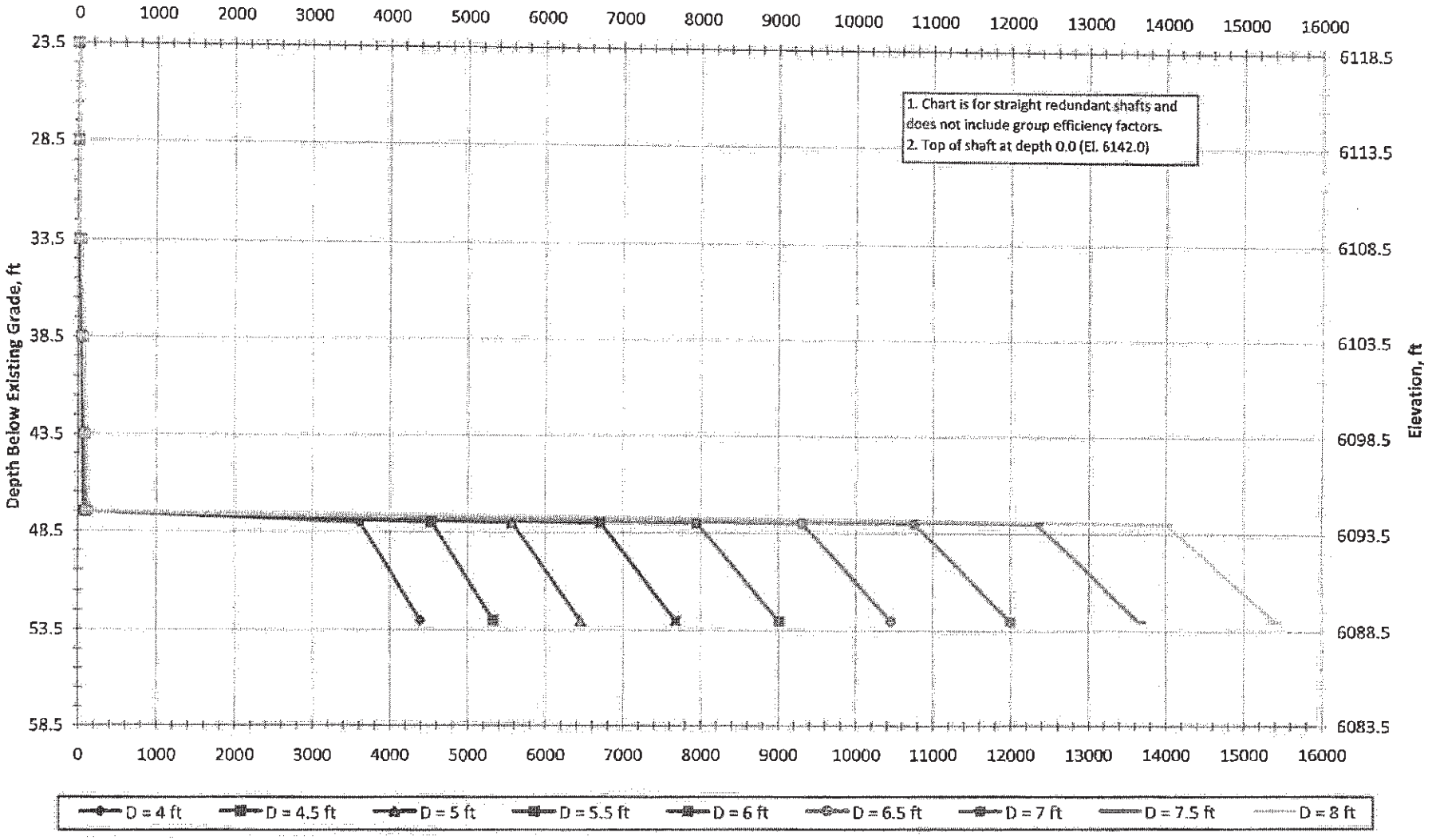
LRFD DESIGN CHARTS

Pier #1 (STA 109+08.25)
Factored Axial Resistance, kips
(Strength Limit State)



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Pier #1 (STA 109+08.25)
Service Axial Resistance, kips
(For Estimated Settlement = 0.5 in.)

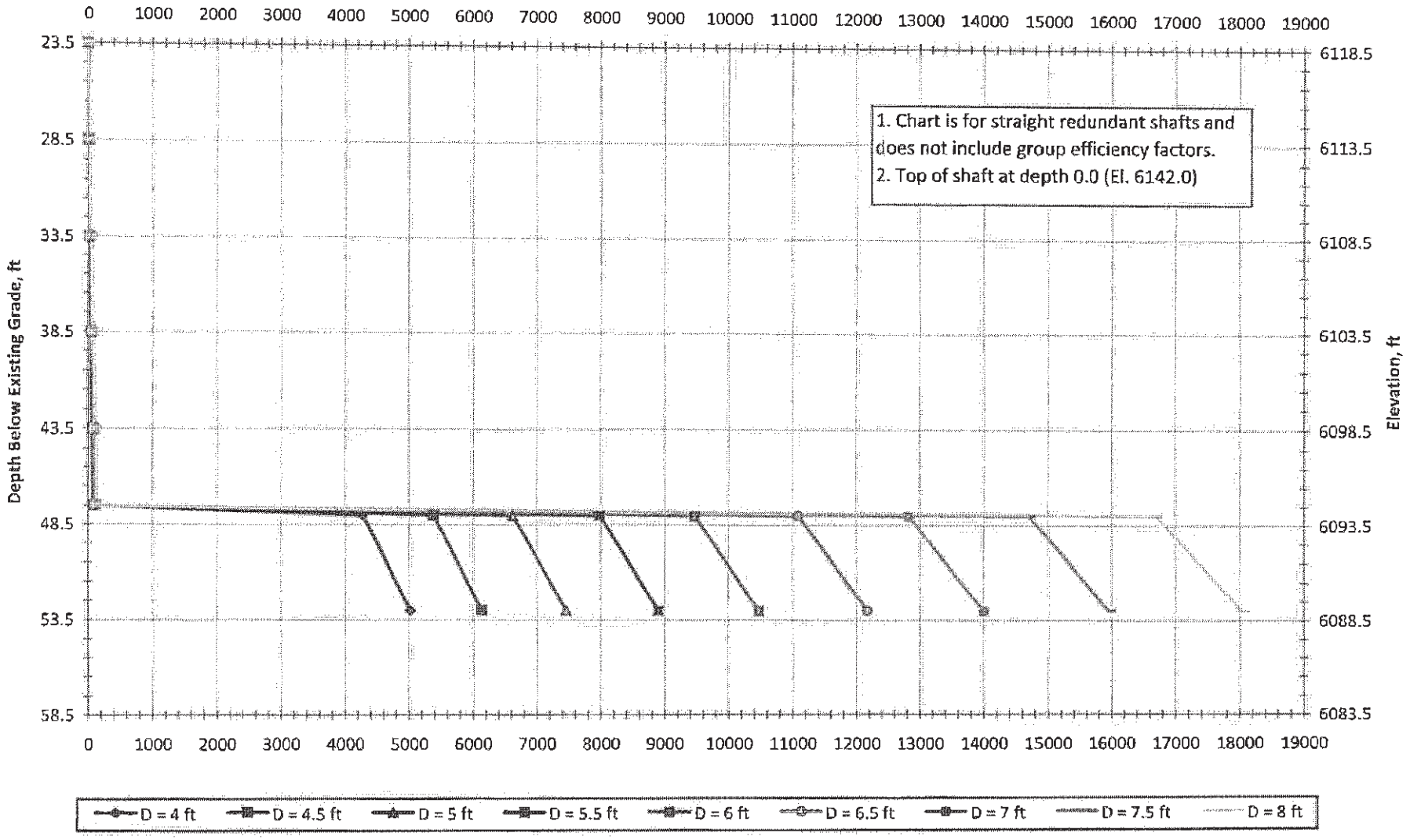


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Pier #1 (STA 109+08.25)

Service Axial Resistance, kips

(For Estimated Settlement = 1.0 in.)

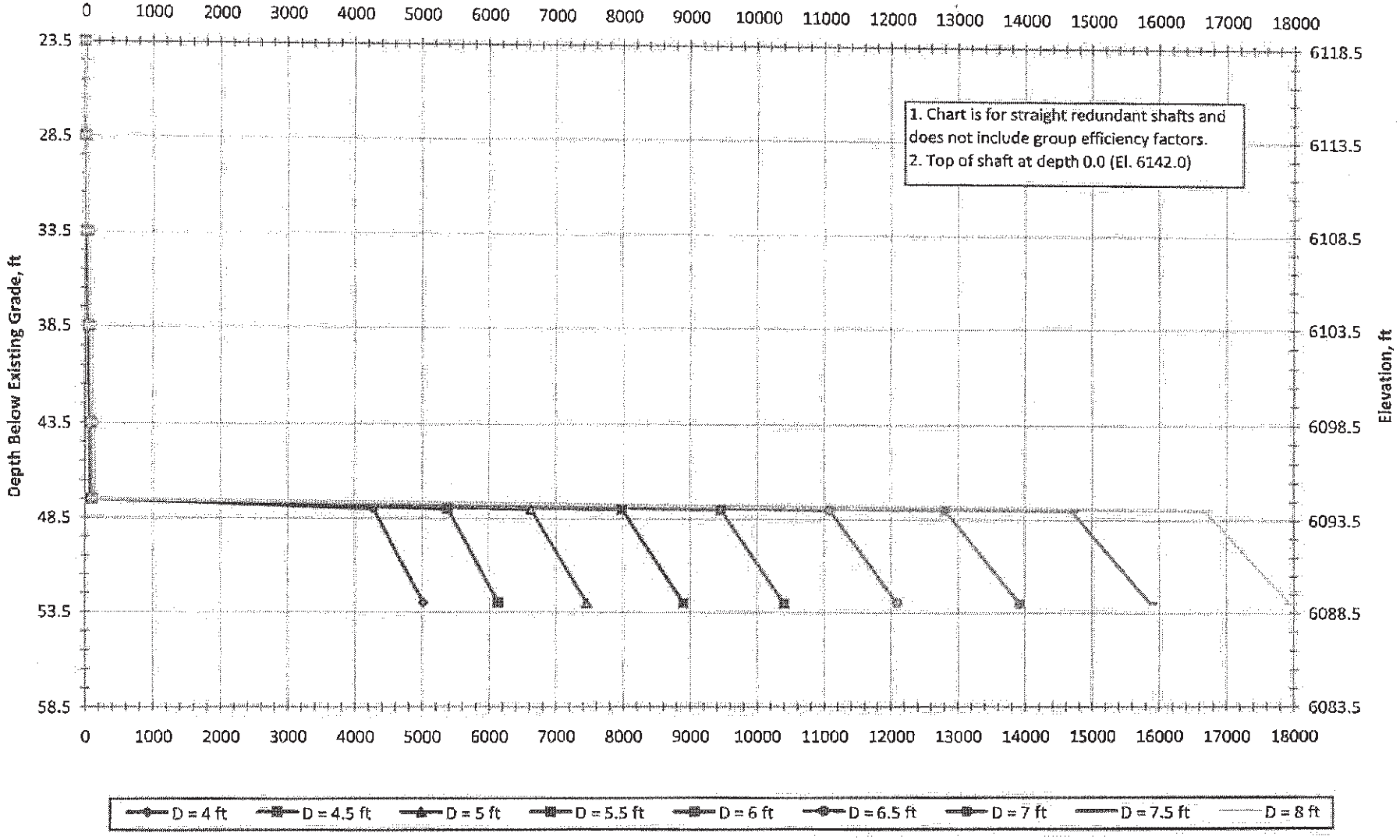


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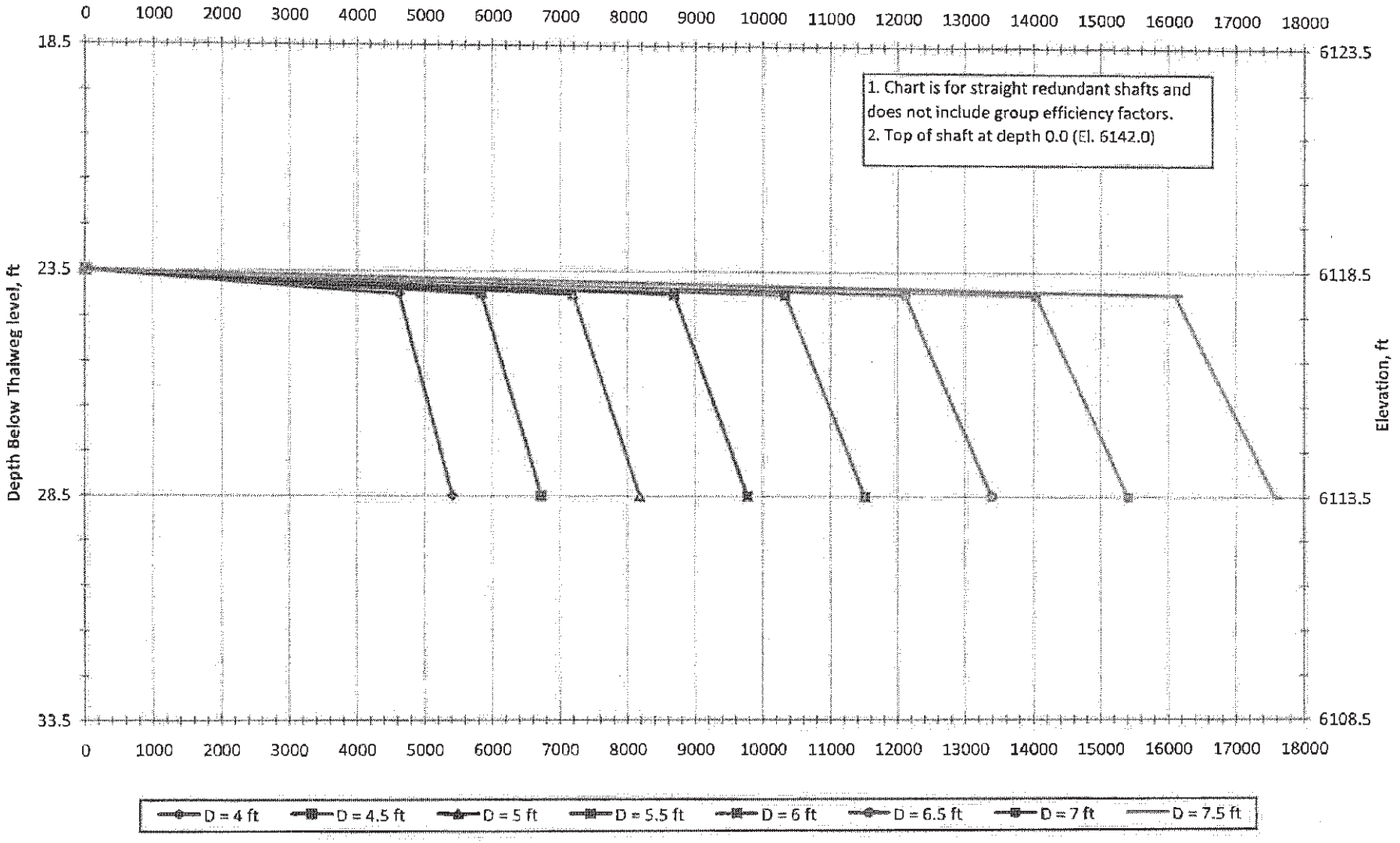
Service Axial Resistance, kips

(For Estimated Settlement = 2.0 in.)



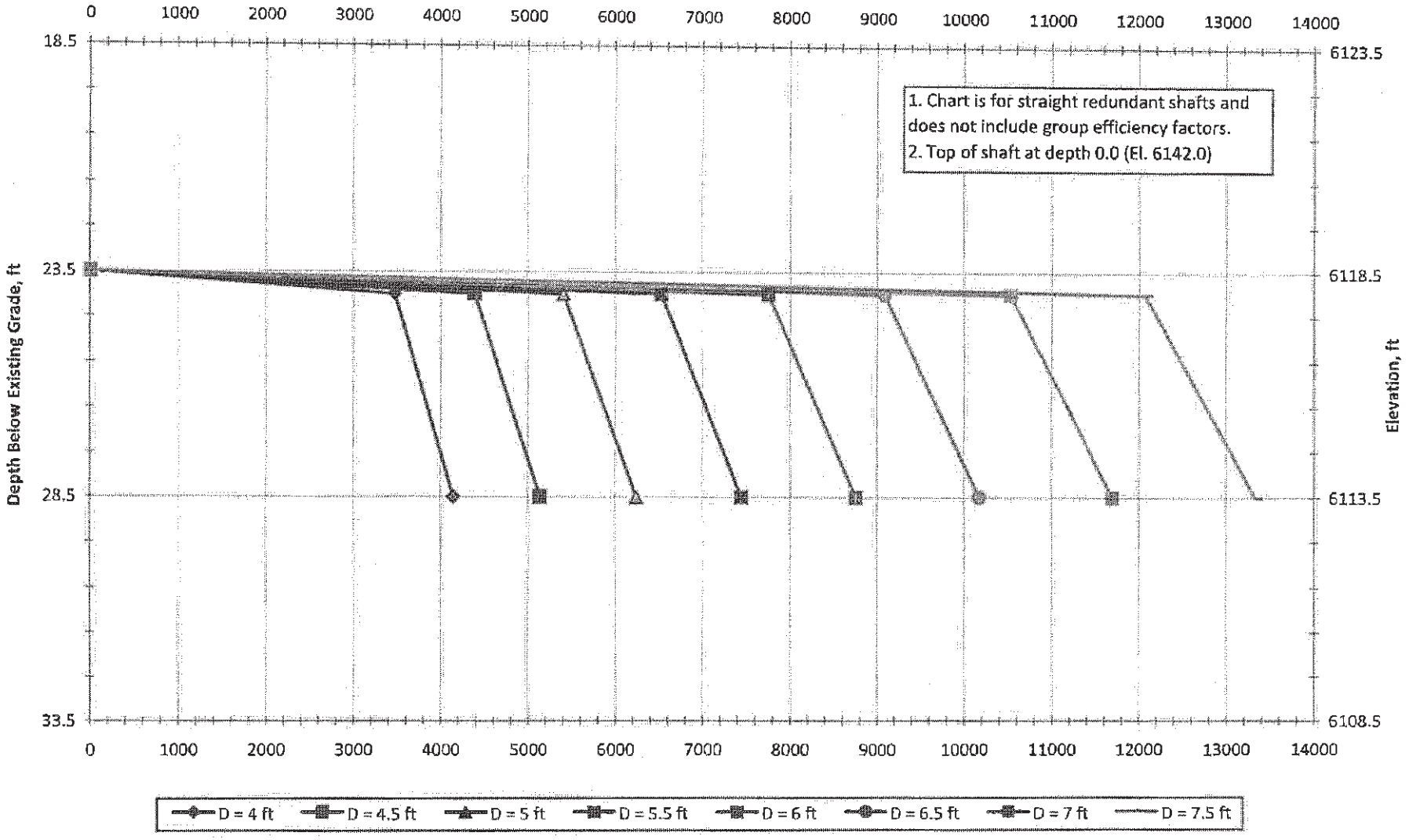
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Pier #2 (STA 110+26.25)
Factored Axial Resistance, kips
(Strength Limit State)



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Pier #2 (STA 110+26.25)
Service Axial Resistance, kips
(For Estimated Settlement = 0.5 in.)

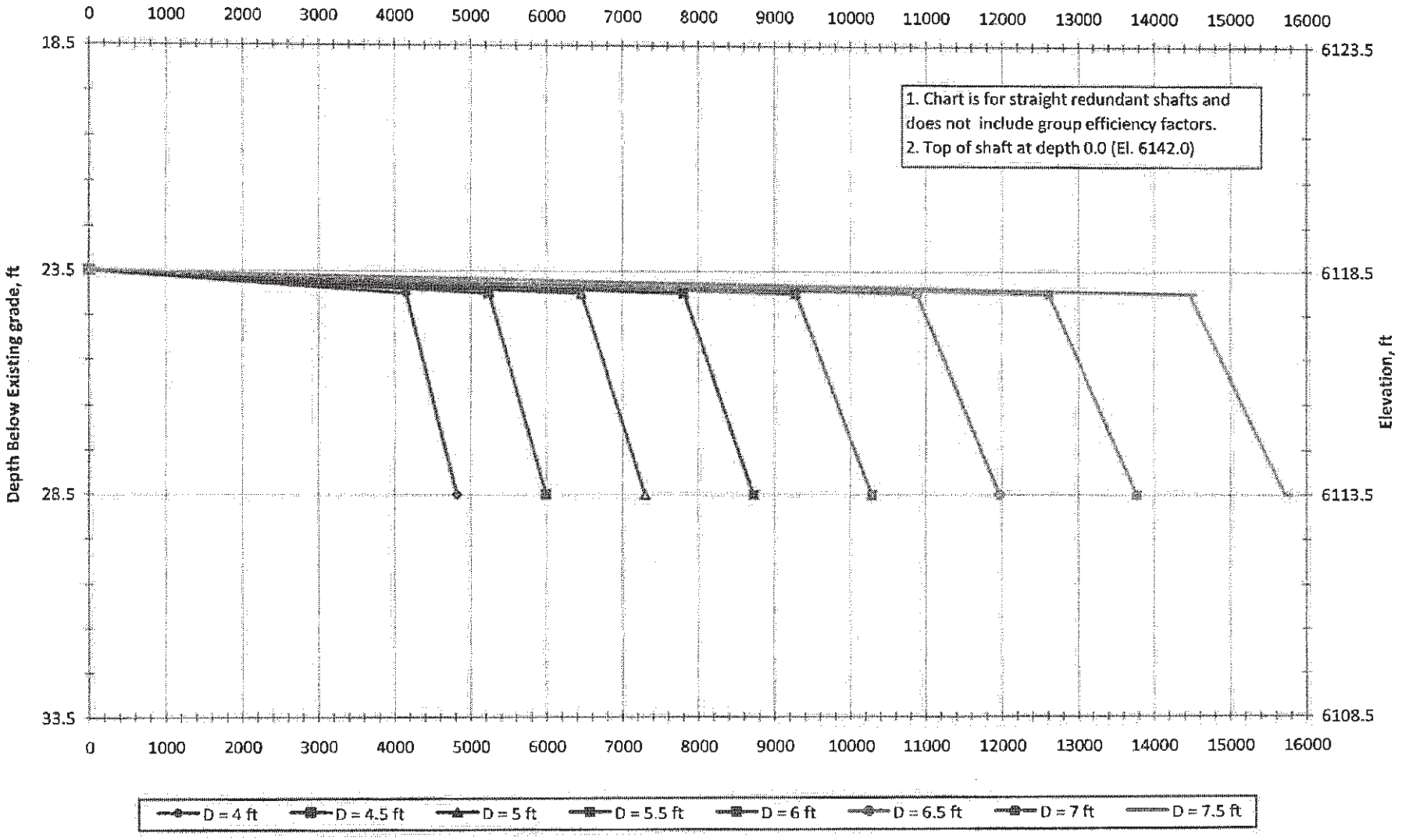


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Pier #2 (STA 110+26.25)

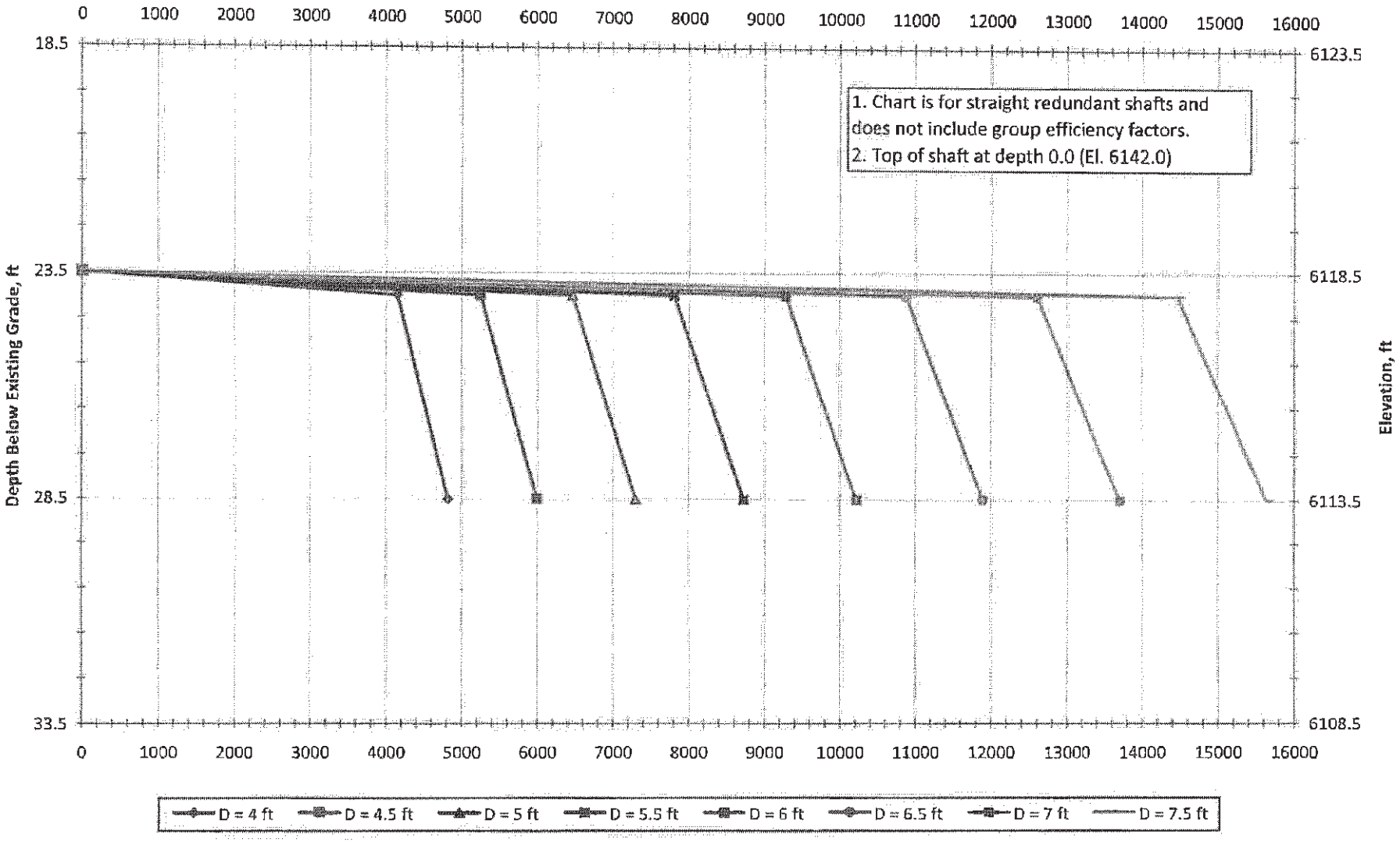
Service Axial Resistance, kips

(For Estimated Settlement = 1.0 in.)



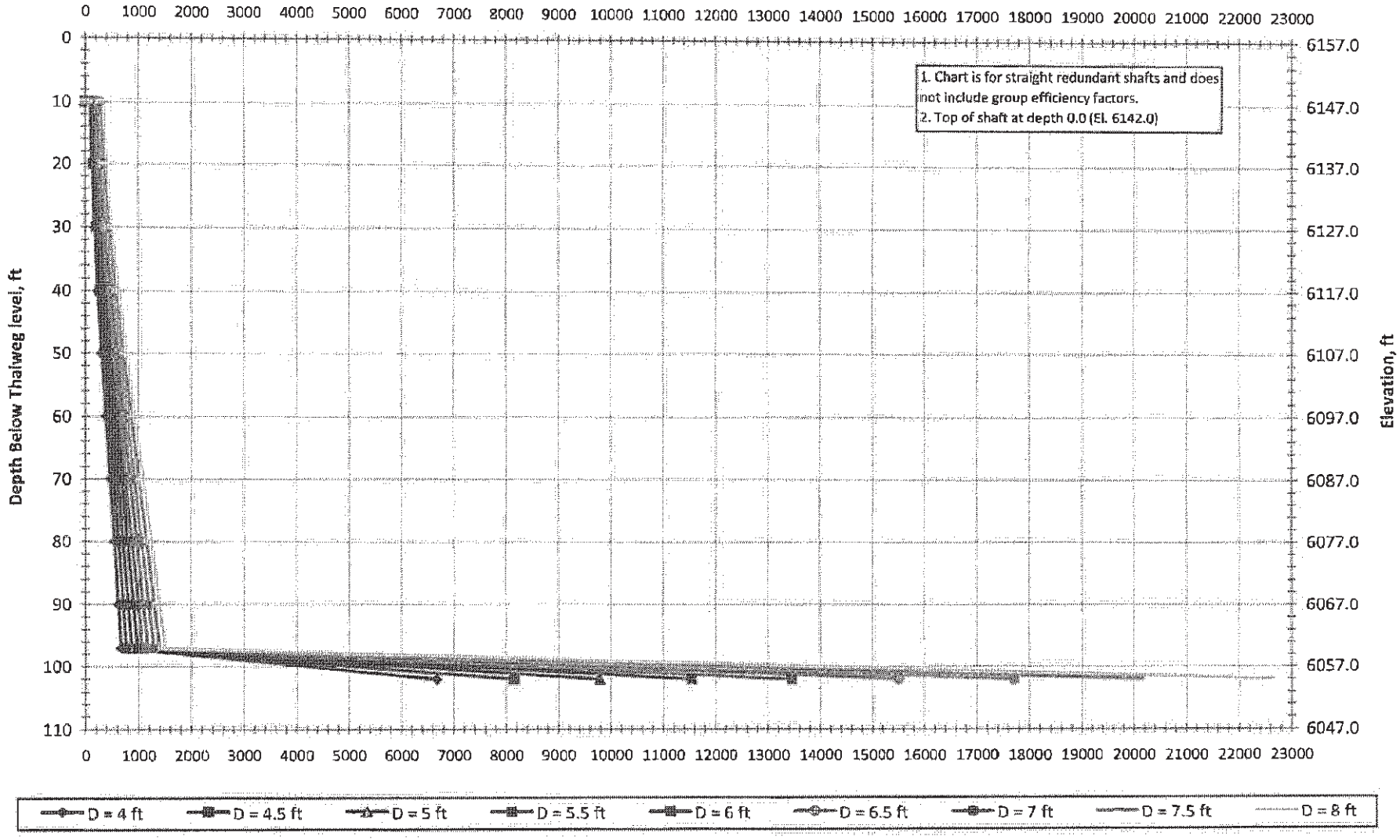
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Pier #2 (STA 110+26.25)
Service Axial Resistance, kips
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South Abutment (STA 107+91)
Factored Axial Resistance, kips
(Strength Limit State)

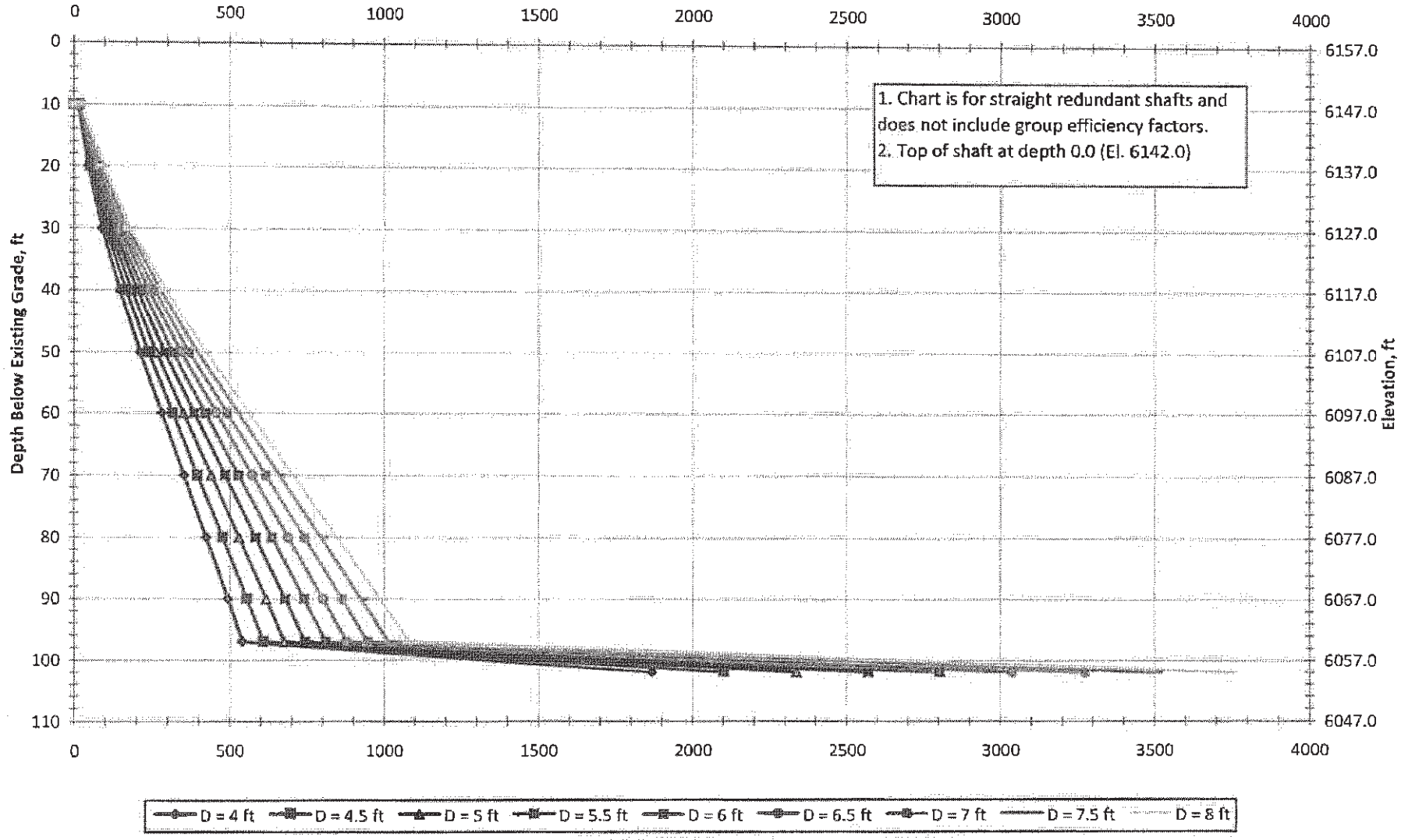


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South Abutment (STA 107+91)

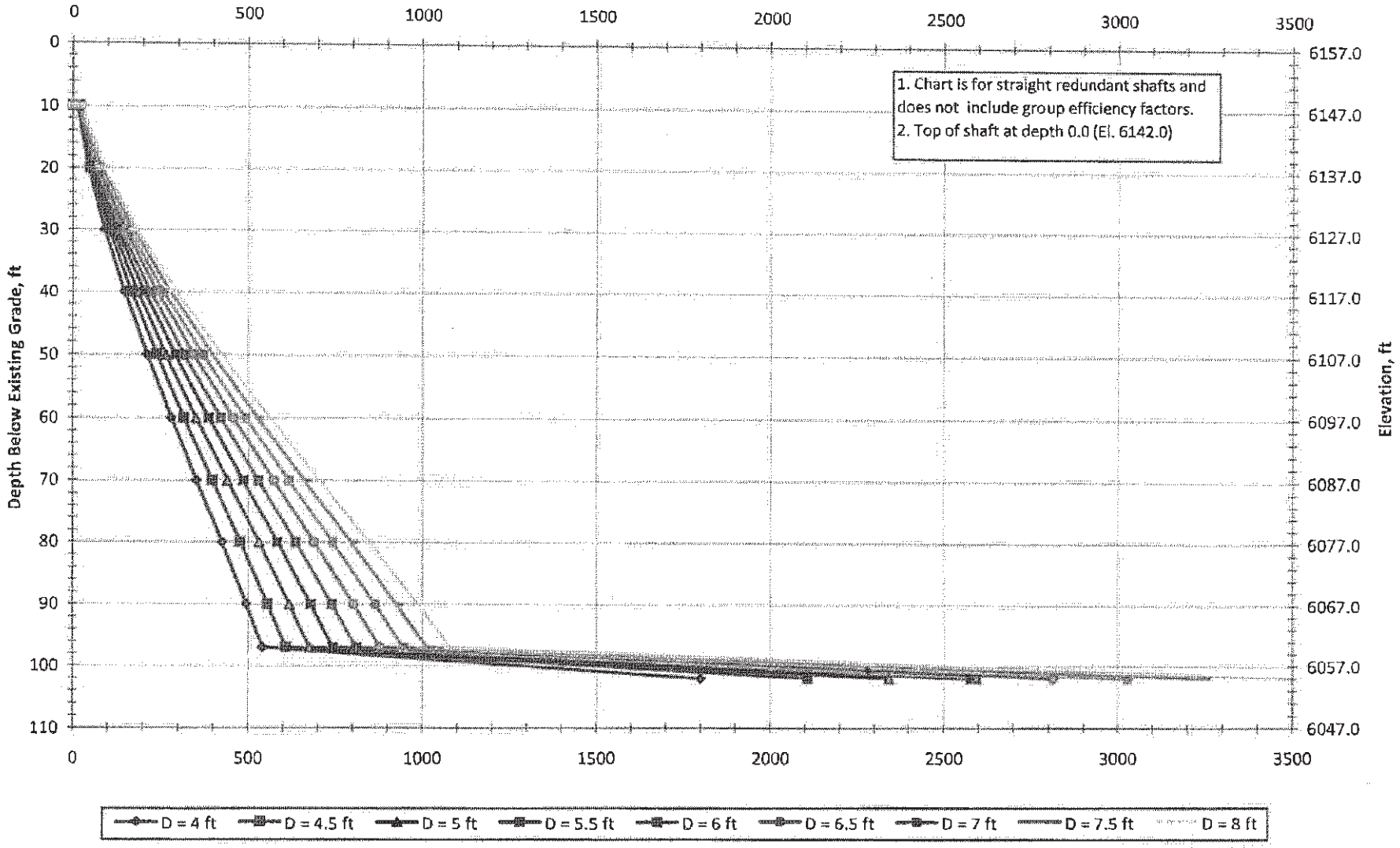
Service Axial Resistance, kips

(For Estimated Settlement = 0.5 in.)



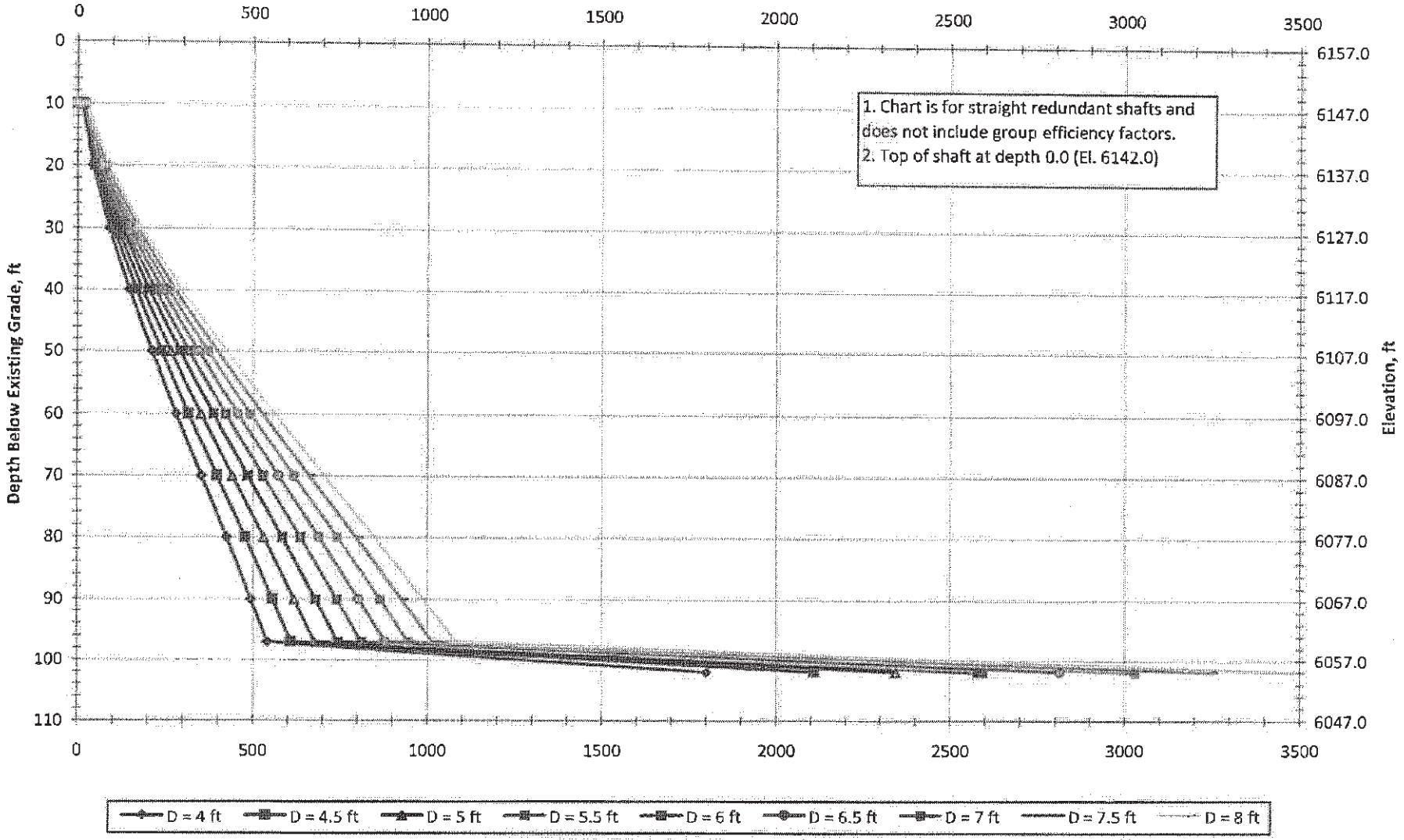
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South Abutment (107+91)
Service Axial Resistance, kips
(For Estimated Settlement = 1.0 in.)



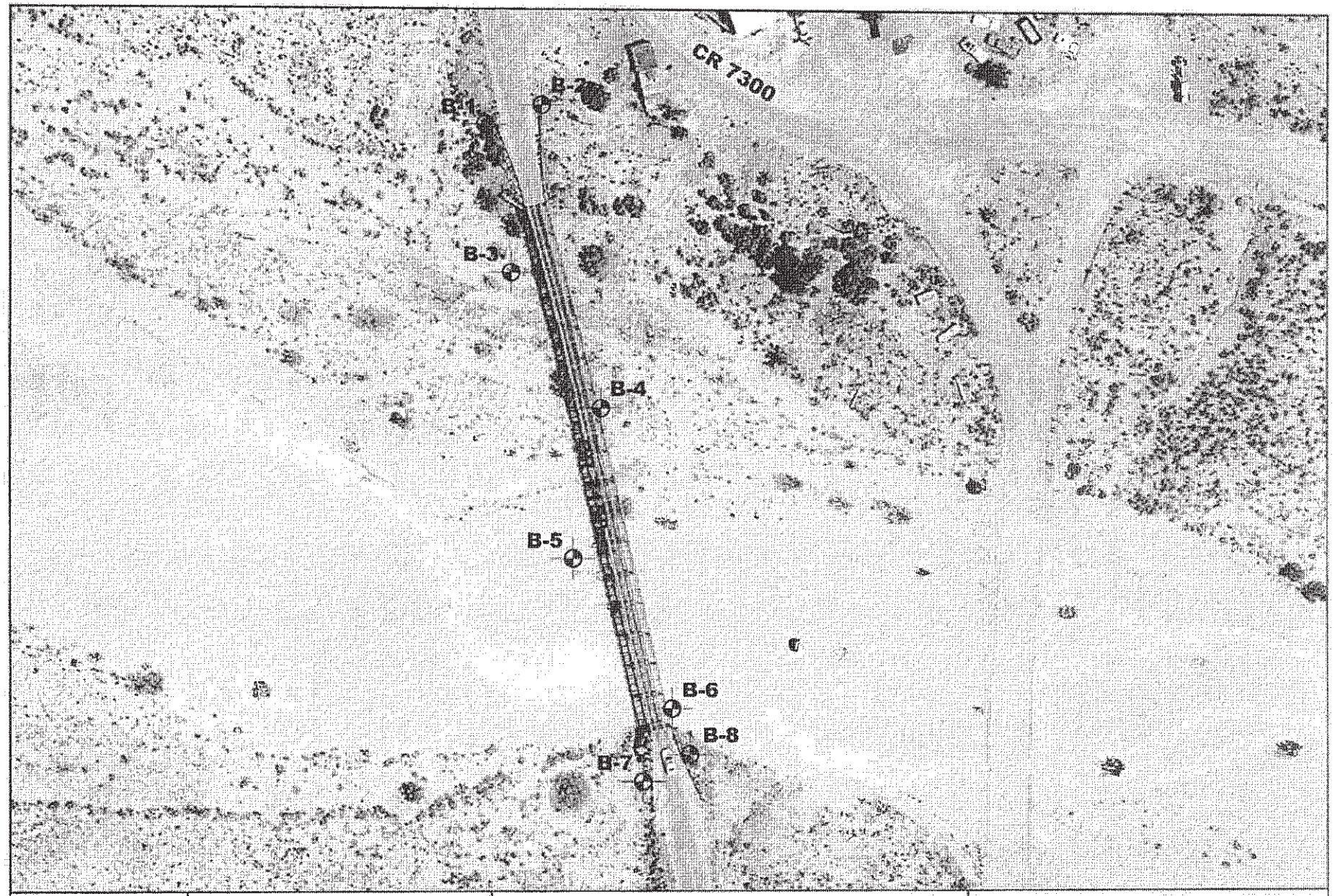
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SITE PLANS



Approximate Not to Scale	SITE PLAN Boring Locations (approximate) GEOMAT Project No. 92-0970 Date Borings Drilled: 12-14-09 to 12-22-09	PROJECT Bridge Replacement Bridge No. 8105, CR 7150 San Juan County, New Mexico

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SITE PLAN PROVIDED BY URS

