

# City of Santa Fe, New Mexico



## REQUEST FOR BID

BID # '16/13/QB

**BID DUE: November 10, 2015 at 2:00 P.M.**  
**PURCHASING OFFICE**  
**CITY OF SANTA FE**  
**2651 SIRINGO ROAD - BUILDING "H"**  
**SANTA FE, NEW MEXICO 87505**

I, John J. Romero, Registered Professional Engineer No. 16679, hereby certify that this manual was prepared by me, or directly under my supervision, and is true and correct to the best of my knowledge and belief.

  
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John J. Romero PE 16679



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**A. BIDDING DOCUMENTS**

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**A.1. REQUEST FOR QUALIFICATIONS  
BID NO. '16/13/B**

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### REQUEST FOR QUALIFICATIONS

**The City of Santa Fe is requesting interested General Contractors to submit Qualifications for work on the Cerrillos Road Reconstruction Project – Camino Carlos Rey to Llano Street, CIP#810A, Bid # 16/13/QB**

The Request for Qualification (RFQ) from contractors will be received by the City of Santa Fe and five (5) copies will be delivered in a sealed envelope to the City of Santa Fe Purchasing Office at 2651 Siringo Rd., Building "H", Santa Fe, NM 87505, until 2:00 P.M. local prevailing time, October 20, 2015. Any RFQ received after the deadline will not be considered. Failure of a Bidder to become prequalified will render their bid non-responsive and the Bid will be rejected and unopened.

The City will select contractors qualified to bid on the project described below. Criteria for qualification will be based on the items requested below. Failure to submit any one of the items below may result in disqualification. Several items listed below will be assigned a weighted value. Contractors who meet 90% of the total possible 100 points will be qualified to bid.

The project is approximately ½ mile long and begins near Camino Carlos Rey and continues to the intersection Llano Street east of St. Michael's Drive. Roadway infrastructure improvements include installation of a storm drain system throughout for improved drainage; installation of bike lanes and an outer auxiliary lane; reconstruction of the asphalt driving surface, sidewalks and ADA curb ramps; and median reconstruction to better manage vehicular access for more efficient traffic flow and improved safety. Other improvements include installation of new traffic signal equipment at the Lujan Street and St. Michael's Drive intersections, new street lighting, landscaping and irrigation, bus plazas, and various utilities. Construction is anticipated to start in March of 2016.

Below is a list of the criteria that must be included within the prequalification package. The weighted value of each item (if applicable) is also listed.

1. Minimum of three successfully completed public or private projects, with minimum \$5,000,000 contract amount and completed within the last five years. Provide project name, address, scope of work, contract amount, date completed and references, including contact name and current phone number, for each project. (10%)
2. Statement of at least \$5,000,000 Bonding Capacity, Statement of Insurance Coverage, and a Bank Letter of Reference (5%)
3. Contractor License Number
4. Resume of General Superintendent, Project Engineer, Project Superintendent, Site Foreman(s), and Traffic Control Superintendent and Technicians (if no subcontractor will be used for Traffic Control). (10%)
5. List of ongoing work. Provide project name, address, scope of work, contract amount, contract start date, contract physical completion date, date of anticipated completion and references with contact name and current phone number for each project. (5%)
6.
  - a. Statement of defaulted public works projects within the past ten (10) years. (10%)
  - b. Statement of debarment or suspension from bidding or performing work for any State, Local, or Federal Government Agency. (10%)
  - c. Is or has the company been under Bankruptcy protection at any time? (5%)
7. Statement of any Litigation, past and present, and Safety Record. Indicated outcome of proceedings. (15%)
8. In the past ten (10) years has the company been assessed liquidation damages on any State, Local, or Federal projects (include the project name, amount of days, dollar amount assessed and project owner)? (15%)
9. In the past ten (10) years has the company filed a formal claim against any State, Local, or Federal agency? If yes, include project name, claim amount, settlement amount. (5%)
10. Has the company been denied pre-qualification in the past ten (10) years by any State, Local, or Federal agency? If yes, indicate the agency and provide a detailed explanation. (10%)
11. State of commitment to bid, if selected as a pre-qualified contractor.

The contractor's attention is directed to the fact that applicable Federal Laws, State Laws, Municipal Ordinances, and all rules and regulations of all authorities having jurisdiction over said item shall apply to the RFQ and will apply to the contractors that are selected to bid. The laws will be deemed to be included in the bid documents the same as though herein written out in full.

The City of Santa Fe is an Equal Opportunity Employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation or national origin. The successful bidder will be required to conform to the Equal Opportunity Employment regulations. State wage rates will apply.

Any questions regarding this RFQ should be directed to Desirae Lujan at the City of Santa Fe Roadway and Trails Engineering Division, (505) 955-6672 or [dllujan@santafenm.gov](mailto:dllujan@santafenm.gov).

ATTEST:

  
\_\_\_\_\_  
Robert Rodarte, Purchasing Officer  
City of Santa Fe, New Mexico

Received by the Santa Fe New Mexican on: October 8, 2015  
To be published on: October 13, 2015

Received by the Albuquerque Journal on: October 8, 2015  
To be published on: October 13, 2015

**A.2. BID SCHEDULE  
BID # '16/13/B**

1. ADVERTISEMENT October 13, 2015
2. ISSUANCE OF REQUEST FOR QUALIFICATIONS: October 13, 2015
3. RECEIPT OF PRE-QUALIFICATION PACKAGE: October 20, 2015
4. PRE-QUALIFICATION DETERMINATION: October 26, 2015
5. PRE-BID CONFERENCE: October 29, 2015 at 2:00 P.M., Roundhouse Conference Room at the Market Station Offices of the City of Santa Fe at 500 Market Street, Suite 200, Santa Fe, NM 87501
4. RECEIPT OF BID: November 10, 2015 at 2:00 P.M., local prevailing time. Purchasing Office 2651 Siringo Road Bldg., "H" Santa Fe, New Mexico 87505, (505) 955-5711
5. RECOMMENDATION OF AWARD TO PUBLIC WORKS COMMITTEE: November 23, 2015
6. RECOMMENDATION OF AWARD TO FINANCE COMMITTEE: November 30, 2015
7. RECOMMENDATION OF AWARD TO CITY COUNCIL: December 9, 2015
8. NOTICE TO PROCEED: March 6, 2016

**DATES OF CONSIDERATION BY FINANCE COMMITTEE AND CITY COUNCIL ARE TENTATIVE AND SUBJECT TO CHANGE WITHOUT NOTICE.**

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### **A.3. INFORMATION TO BIDDERS**

Bids are requested by City of Santa Fe for Construction of Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A in accordance with the drawings, specifications and other contract documents prepared by Parsons Brinckerhoff, Inc., Albuquerque, New Mexico.

1. **LOCATION AND DESCRIPTION OF WORK:** The work under this contract is located in or adjacent to the City of Santa Fe, New Mexico. The work consists of furnishing all equipment, labor and materials for the construction of the Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A as specified in the construction plans.
2. **SPECIFICATIONS AND CONTRACT DOCUMENTS**
  - a. **SPECIFICATIONS:** The construction of this project will be in accordance with the NEW MEXICO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION 2014 Edition (NMDOT SSHBC).
  - b. **PLANS AND CONTRACT DOCUMENT DEPOSIT:** No monetary deposit for plans and contract documents is required as stated in the "Advertisement for Bids". Upon application by a prospective bidder, one set of plan drawings, specifications, and contract documents will be provided upon the condition that all such documents will be returned to the City of Santa Fe Roadway & Trails Engineering Division complete and in good condition within ten (10) business days after the date of bid opening. An additional four (4) sets of bidding documents will be furnished to the successful bidder at no additional charge. Any additional sets requested will be issued to the successful bidder by the Engineer at the cost of reproduction.
3. **DEFINED TERMS:** Terms used in these Instructions to Bidders have the meanings assigned to them in Section 101 of the NMDOT (or SSHBC) Standard Specifications as modified.
4. **EXAMINATION OF BIDDING DOCUMENTS AND SITE:** Before submitting his/her bid, each bidder must (a) examine the bidding documents thoroughly, (b) visit the project site(s) to familiarize himself/herself with local conditions that may in any manner affect performance of the work, (c) familiarize himself/herself with federal, state and local laws, ordinances, rules and regulations affecting performance of the work; and (d) carefully correlate his/her observations with the requirements of the contract documents. The submission of a Bid constitutes representation by Bidder that Bidder has complied with every requirement of this section and that the contract documents are sufficient in scope to indicate and convey understanding of all terms and conditions for performance of the work.

5. THE COMPLETE CONTRACT DOCUMENTS CONTAIN THE FOLLOWING:  
Everything that is bound herein, project plans and any standard specifications referenced herein.

6. INTERPRETATIONS:

**1. ADDENDA AND INTERPRETATIONS**

No oral interpretations of the meaning of the specifications or other pre-bid documents will be binding. Oral communications are permitted in order to make an assessment of need for an addendum. ANY QUESTIONS CONCERNING THE BID SHOULD BE ADDRESSED PRIOR TO BID OPENING DATE.

Every request for such interpretations should be in writing addressed to Robert Rodarte, Purchasing Officer, 2651 Siringo Road, Bldg. H, Santa Fe, New Mexico 87505 and to be given consideration must be received at least (5) five days prior to the date fixed for the opening of bids.

Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications that, if issued, will be published via electronic/digital format on the web site of the City of Santa Fe, not later than three days prior to the date fixed for the opening of the bids, at the following web address:

[http://www.santafenm.gov/bids\\_rfps](http://www.santafenm.gov/bids_rfps)

Failure of any bidder to receive any such addendum or interpretations shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.

The City reserves the right to not comply with these time frames if a critical addendum is required or if the proposal deadline needs to be extended due to a critical reason in the best interest of the City of Santa Fe.

7. BID SECURITY: Bid security in the amount of 5% of the amount of the bid shall accompany the bid submittal and must be in the form of a certified or bank cashier's check made payable to the City or a bid bond issued by a surety licensed to conduct business in the State of New Mexico, or other supplies in a form satisfactory to the City. The Bid Security of the successful bidder will be retained until he/she has executed the Construction Agreement and furnished the required Contract Security, whereupon it will be returned. If he/she fails to execute and deliver the Construction Agreement and furnish the required Contract Security within 10 days of the Notice of Award, the City may annul the Notice of Award and the Bid Security of that bidder will be forfeited. The Bid Security of any bidder whom the City believes to have a reasonable chance of receiving the award may

- be retained by the City until either the seventh day after the executed Construction Agreement is delivered by the City to Contractor and the required Contract Security is furnished or the sixty-first day after the bid opening, whichever is earlier. Bid security of other bidders will be returned within thirty days of the bid opening, or sooner.
8. **CONTRACT TIME:** The number of days for the completion of work (the contract time) is set forth in the Bid Form and will be included in the executed Construction Agreement.
9. **SUBCONTRACTORS, SUPPLIERS AND OTHERS:**
- a) The Contractor, in the bid documents, must identify in writing to the City those portions of the work that he/she proposes to subcontract and after the Notice of Award, may only subcontract other portions of the work with the City's written consent.
  - b) Registration with the New Mexico Department of Workforce Solutions, Public Works Bureau (formerly NM Dept. of Labor, Labor and Industrial Division). A contractor or subcontractor that submits a bid valued at more than fifty thousand dollars (\$50,000) for a city project that is subject to the Public Works Minimum Wage Act (13-4-10 NMSA 1978) shall be registered with the New Mexico Department of Workforce Solutions, Public Works Bureau. The registration number shall be provided in the bid submitted for the contractor in the space provided and for subcontractors with work proposed over \$50,000 on the subcontractor form. After the bid opening, the registration number(s) will be verified by the City and the bid will be determined to be non-responsive and disqualified if the registration number(s) appear to be not valid and the contractor does not provide proof of the required registration for itself or its subcontractors with work proposed over fifty thousand dollars (\$50,000). It is the responsibility of the contractor and the subcontractors to ensure the registration is completed prior to the bid opening.
  - c) Contractor will not be required to employ any other subcontractor, other person or organization against whom he/she has reasonable objection.
  - d) The Contractor shall list all subcontractor names, addresses, and type of work to be performed.
  - e) The threshold amount for this project is \$5,000. The General contractor must list all subcontractors who will perform work in excess of this threshold. Only one sub-contractor may be listed for each category as defined by the contractor. The Subcontractor Fair Practice Act (13-4-31 thru 14-3-43 NMSA 1988) shall apply.
  - f) **EXEMPTION:** In accordance with the "SUBCONTRACTOR'S FAIR PRACTICES ACT", Section 13-4-35, the Contractor shall not be required to submit a Subcontractor's Listing form with the bid for contracts for

construction, improvement or repair of streets or highways, including bridges, underground utilities within easements, including but not limited to waterlines, sewer lines and storm sewer lines. The SUBCONTRACTOR'S FAIR PRACTICES ACT shall apply, however, to that portion of contracts for construction, improvement, or repair of streets or highways which covers street lighting and traffic signals.

- g) The bidder shall list the subcontractor or material suppliers he/she proposes to use for all trades or items on the Subcontractor Listing Form attached to the Bidding Documents. If awarded the contract, the Bidder shall use the firm listed, or himself/herself if "General Contractor" has been listed, unless a request for a change or substitution is approved by the Owner of any reason as outlined herein.
  
- h) For subcontract work involving the provision of "SUBCONTRACTOR'S FAIR PRACTICES ACT 13-4-31...43 NMSA 1978." summarized as follows, shall apply:
  - h.1. The subcontractor fails or refuses to execute a contract due to bankruptcy or insolvency;
  - h.2. The subcontractor fails or refuses to perform;
  - h.3. The contractor demonstrates to the City that the listed subcontractor was due to an inadvertent clerical error;
  - h.4. Acceptance of an alternate by the City causes the original subcontractor's bid not to be low;
  - h.5. The contractor can substantiate to the City that a subcontractor's bid is incomplete; or
  - h.6. The subcontractor fails or refuses to meet bond requirements of the contractor.

- h.7. Prior to approval of the contractor's request for substitution, the City shall give notice to the listed subcontractor by certified mail. The subcontractor shall have five working days to submit written objections to the City. Failure to respond shall constitute subcontractor's consent to the substitution. If written objections are received, the City shall give five working days' notice of a hearing.
- h.8. No other substitution of subcontractors may be permitted by the contractor, other than for requested change orders in the scope of the work or unless the contractor can show that no bids were received.
- h.9. It shall be the responsibility of the subcontractor to be prepared to submit performance or payment bonds if requested by the contractor. If the subcontractor does not furnish such requested bonding, the contractor may substitute another subcontractor, as per the provisions of item 1 above. (The requirement of such bonding must be included in the contractor's written or published request for subcontract bids.)
- h.10. If the contractor does not specify a subcontractor, he/she represents that he/she shall perform the work.
- h.11. If the contractor is claiming an inadvertent clerical error, notice shall be given to the City and to the involved subcontractor within two working days of the bid opening. The subcontractor shall have six working days from the bid opening to submit written objections. Failure to respond shall constitute subcontractor's agreement that an error was made.
- h.12. If determined to be an emergency, upon written finding, subcontracting may be permitted although not originally designated in the bid.
- h.13. By State statute, violation of this act may allow the City to cancel the contract or assess the contractor a penalty up to 10% of the subcontract involved, but in no case less than the difference between the amount of the listed subcontractor and the subcontractor used. The contractor shall be entitled to a hearing after receiving a notice of intent to assess a penalty.
- h.14. If a hearing is held, the dispute shall be stated in writing and the City shall evaluate the issues of both sides and render a determination within 10 days of the hearing and provide the parties with a written copy of the decision by certified mail. The City may also refer the matter to arbitration.
- h.15. A Contractor may not substitute any subcontract or any subcontractor listed, unless the City approves the substitution based on the following situations:
- h.16. The subcontractor fails or refuses to execute a contract due to bankruptcy or insolvency;

- h.17. The subcontractor fails or refuses to perform;
- h.18. The contractor demonstrates to the City that the listed subcontractor was due to an inadvertent clerical error;
- h.19. Acceptance of an alternate by the City causes the original subcontractor's bid not to be low;
- h.20. The contractor can substantiate to the City that a subcontractor's bid is incomplete; or
- h.21. The subcontractor fails or refuses to meet bond requirements of the contractor.
- h.22. Prior to approval of the contractor's request for substitution, the City shall give notice to the listed subcontractor by certified mail. The subcontractor shall have five working days to submit written objections to the City. Failure to respond shall constitute subcontractor's consent to the substitution. If written objections are received, the City shall give five working days' notice of a hearing.
- h.23. No other substitution of subcontractors may be permitted by the contractor, other than for requested change orders in the scope of the work or unless the contractor can show that no bids were received.
- h.24. It shall be the responsibility of the subcontractor to be prepared to submit performance or payment bonds if requested by the contractor. If the subcontractor does not furnish such requested bonding, the contractor may substitute another subcontractor, as per the provisions of item 1 above. (The requirement of such bonding must be included in the contractor's written or published request for subcontract bids.)
- h.25. If the contractor does not specify a subcontractor, he/she represents that he/she shall perform the work.
- h.26. If the contractor is claiming an inadvertent clerical error, notice shall be given to the City and to the involved subcontractor within two working days of the bid opening. The subcontractor shall have six working days from the bid opening to submit written objections. Failure to respond shall constitute subcontractor's agreement that an error was made.
- h.27. If determined to be an emergency, upon written finding, subcontracting may be permitted although not originally designated in the bid.
- h.28. By State statute, violation of this act may allow the City to cancel the contract or assess the contractor a penalty up to 10% of the subcontract involved, but in no case less than the difference between the amount of the listed subcontractor and the subcontractor used. The contractor shall be entitled to a hearing after receiving a notice of intent to assess a penalty.

- h.29. If a hearing is held, the dispute shall be stated in writing and the City shall evaluate the issues of both sides and render a determination within 10 days of the hearing and provide the parties with a written copy of the decision by certified mail. The City may also refer the matter to arbitration.
- i) **QUALIFICATION OF BIDS:** All bidders must have a valid New Mexico Contractor's License appropriate to the work herein specified.
- j) **SUBMISSION OF BIDS:** Bids shall be submitted at the time and place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope, marked with the project title, name and address of the bidder, N.M. License Number, and accompanied by the Bid Security, list of subcontractors and other required documents. The bid submittal shall not be detached from the bound set of bidding documents. All blanks must be filled in. Conditional bids will not be considered. The envelope shall be addressed to:

**Purchasing Office  
2651 Siringo Road, Bldg H  
Santa Fe, New Mexico 87505**

10. **MODIFICATION AND WITHDRAWAL OF BIDS:** Bids may be modified or withdrawn by an appropriate document duly executed and delivered to the place where bids are to be submitted at any time prior to the opening of bids.
11. **BID OPENING PROCEDURE:** The person or persons opening the bids will adhere to the following procedure:
12. **Bid - Name the Bidder and the Number of Bidder's New Mexico Contractor's License with a check for proper signatures.**
- a) Check for bid bond.
  - b) Non-Collusion Affidavit of Prime Bidder.
  - c) Submittal, acknowledgement of Addenda, if any.
  - d) Properly executed Bid Form.
  - e) EEO-1
  - f) Certification of Non-segregated Facilities.
  - g) Subcontractor's Listing (as applicable)

If any of the above requirements have not been met, the bid shall be disqualified and considered a non-responsive bid. Any disqualified bids will not be read.

13. **BIDS TO REMAIN OPEN:** All bids shall remain open for sixty (60) days after the day of the bid opening, but the City may, in its sole discretion, release any bid and return the Bid Security prior to that date.

**14. AWARD OF CONTRACT:**

- a) The City reserves the right to reject any and all bids and waive any and all informalities or technicalities and the right to disregard all nonconforming or conditional bids or counter bids.
- b) The City reserves the right to award bid based upon the lowest base bid only or if alternates are to be awarded, the low bid for any combination of base bid and alternate(s). (Note that the listed order of alternates is not prioritized).
- c) If a contract is to be awarded, it will be awarded to the lowest responsible bidder whose evaluation indicates to the City that the award will be in the best interests of the project and the City.
- d) Simultaneously with delivery of the executed counterparts of the Agreement to the City, contractor shall deliver to the City the required Contract Bonds.
- e) If a contract is to be awarded, the City will give the apparent successful bidder a Notice of Award within sixty (60) days after the day of the bid opening.
- f) If the lowest responsible bidder has otherwise qualified, the lowest bidder may negotiate with the City for a lower bid if the lowest bid is within ten percent over budgeted project funds. No change in the original scope of the terms or terms and conditions will be allowed. Terms and conditions refer to the contract requirements, warranties, and bonds. Negotiation may be permitted with product, materials, and equipment alternatives as determined to be in the best interest of the Owner.

**15. WAGE RATES:** The Bidder's attention is directed to the fact that wages to be paid on this project shall not be less than the higher of the two prevailing wage rates as listed by the New Mexico Department of Workforce Solutions, Public Works Bureau (formerly NM Dept. of Labor, Labor & Industrial Division) and the U.S. Department of Labor Wage Decision, if applicable. It shall be the successful Bidder's responsibility to inform himself/herself thoroughly of all state, federal and local laws and statutes pertaining to the employment of labor, the freedom of organization and the conditions of employment and shall strictly adhere to such laws and regulations as are applicable. There shall be no discrimination because of race, creed, color, national origin or legal political affiliation in the employment of persons qualified by training and experience for work under this contract.

**16. REQUIRED SUBMITTALS:**

- a) Name of Bidder and NM Contractor License Number and types
- b) Bid Bond
- c) Non-Collusion Affidavit of Prime Bidder
- d) Proposal, acknowledgement of Addenda, if any
- e) Properly executed Bid Form

- f) EEO-1
- g) Certification of Non-segregated Facilities
- h) Subcontractors Listing (as applicable)

If any of the above requirements have not been met, the bid shall not be read.

17. **SUBSTITUTIONS:** The bid shall not be qualified by the proposal of substitutions for specified materials or equipment.
18. **PREFERENCES:** In the construction of this project, the City has no preference for any process, type of equipment, or kind of material, but will consider all processes, types of equipment or kinds of material offered on an usual competitive basis if they are in fact the equal to that specified and will accomplish the purpose intended. The City reserves the right to be the sole judge as to whether or not a different process, type of equipment or kind of material offered is in fact equal to that specified.
19. **LICENSE OR ROYALTY FEES:** Licenses and/or royalty fees for products or for processes must be paid for directly by the contractor.
20. **PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND:** The contractor will be required to furnish surety bonds in an amount at least equal to one hundred percent (100%) each of the total contract price as security for faithful performance of the contract and payment for all labor and materials. The surety company must be authorized to do business in the State of New Mexico and must be acceptable to the City of Santa Fe.
21. **ADDENDUM:** Each addendum shall be made a part of the contract documents to the same extent as though contained in the original documents and itemized listing thereof. Each bidder shall acknowledge receipt of each addendum in the space provided on the bid submittal form.
22. **COLLUSION:** No bidder shall be interested in more than one bid. Collusion among bidders or the submission of more than one bid under different names by any firms or individual shall be cause for rejection of all bids in question without consideration.
23. **QUANTITIES:** The quantities set forth in the bid submittal are estimated quantities on which bids will be compared and which will be the basis for award of contract. Payment will be made for the work actually performed.
24. **UTILITY INSPECTION:** All work done on the existing City owned utilities shall be inspected by a representative of the City before backfilling.
25. **POWER OF ATTORNEY:** Attorneys in fact who sign bonds must attach certified effective copies of their Power of Attorney to all bonds.

26. **PRE-BID CONFERENCE:** A pre-bid conference will be held on **Tuesday, October 29, 2015** at 2:00 p.m. at the City of Santa Fe Market Station Offices, 500 Market Street, Suite 200, Santa Fe, New Mexico 87501. The purpose of this conference will be for the clarification of the project requirements.

## 27. PROTEST PROCEDURE

Any bidder, offeror, or contractor who is aggrieved in connection with a procurement may protest to the City Purchasing Director. The protest must be in writing and be submitted within fifteen (15) days after the facts or occurrences.

The complete procedures and requirements regarding protests and resolution of protests are available from the Purchasing Office upon request.

## 28. CONSIDERATION OF BIDS

### a) Receipt, Opening and Recording

Bids received on time will be opened publicly and will be read aloud, and an abstract of the amounts of the Base Bids and Alternates or Bid Items, if any, will be made available to the Bidders. Each Bid shall be open to public inspection.

### b) Bid Evaluation and Award

- b.1. It is the intent of the City to award a contract to the lowest responsible Bidder, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents. The unreasonable failure of a Bidder to promptly supply information in connection with an inquiry with respect to responsibility is grounds for a determination that the Bidder is not responsible Bidder.
- b.2. If the Base Bid is within the amount of funds available to finance the construction contract, contract award will be made to the responsible Bidder submitting the low Bid; except that, if sufficient funds are available to fund alternates, the City may award the contract to the responsible Bidder submitting the low combined Bid within the amount of funds available (Base Bid plus Bid Alternates). Note that the listed order of Bid Alternates is not prioritized.
- b.3. Discrepancies in the Bid form between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

### c) Competitive Sealed Bids

Contracts solicited by competitive sealed bids shall require that the bid amount exclude applicable New Mexico Gross Receipts Taxes or applicable

local option taxes, but that the City shall be required to pay the applicable taxes, including any increase in the applicable tax which becomes effective after the date the contract is entered into. The applicable Gross Receipts Tax shall be computed and shown as a separate amount on the Bid Submittal and on each request for payment made under the contract.

d) Notice of Award

A written Notice of Award shall be issued by the City after review and approval of the Bid and related documents by the Governing Authority, as defined in the Supplementary Conditions, with reasonable promptness.

e) Identical Bids

- a.1. When two or more of the Bids submitted are identical in price and are the low Bid, the City Purchasing Agent or the City may:
- 1.1.1. Award by letter to one of the identical low Bidders;
  - 1.1.2. Reject all Bids and re-solicit Bids or proposals for the required services, construction, or items of tangible personal property.

f) Cancellation of Award

When in the best interest of the public, the City may cancel the award of any contract at any time before the execution of said contract by all parties without any liability against the City.

## 29. POST-BID INFORMATION

a) Return of Bid Security

All Bid Security in the form of checks, except those of the two lowest Bidders, will be returned immediately following the opening and checking of the Bids. The retained Bid Security of the unsuccessful of the two lowest Bidders, if in the form of a check, will be returned within fifteen (15) days following the award of contract. The retained Bid Security of the Successful Bidder, if in the form of a check, will be returned after a satisfactory contract bond has been furnished and the contract has been executed. Bid Securities in the form of Bid Bonds will be returned only upon the request of the unsuccessful Bidder, but will be released by the City Purchasing Agent after the Notice of Award is sent by the City.

b) Notice to Proceed

The City will issue a written Notice to Proceed to the Contractor stipulating the date from which Contract time will be charged and the date Contract Time is to expire, subject to valid modifications of the Contract authorized by Change Order.

c) Failure to Execute Contract

d) Failure to return the signed Contract with acceptable Contract Bonds and Certificate of Insurance within ten (10) calendar days after the date of the Notice of Award shall be just cause for the cancellation of the award and the forfeiture of the bid security, which shall become damages sustained. Award may then be made to the next lowest responsible Bidder, or the work may be re-advertised and constructed under contract or otherwise, as the Owner may decide.

e) Contractor's Qualification Statement

Bidder to whom award of a Contract is under consideration shall submit, upon request, information and data to prove that their financial resources, production or service facilities, personnel, and service reputation and experience are adequate to make satisfactory delivery of the services, construction, or items of personal property described in the Bidding Documents and form of Statement of Bidder's Qualifications.

f) Contract Bonds Requirements

The Successful Bidder, where the Contract Price exceeds twenty-five thousand dollars (\$25,000), shall post a one hundred percent (100%) Performance Bond and one hundred percent (100%) Labor and Material Payment Bond. Bonds shall be executed on Performance Bond and Labor and Material Payment Bond forms attached hereto, with amount payable conforming to the terms of the Contract. Surety shall be a company licensed to do business in the State of New Mexico and acceptable to the Owner.

g) Insurance Requirements

g.1. The Contractor shall carry insurance to protect the City of Santa Fe from and against all claims, demands, actions, judgments, costs, expenses and liabilities which may arise or result directly or indirectly from or by reasons of loss, injury or damage related to the Project. The Contractor shall file with the City of Santa Fe current certificates evidencing public liability insurance with limits as provided in the New Mexico Tort Claims Act, Section 41-4-19 NMSA 1978, and as that section or successors section may be amended from time to time. The contractor shall also carry such insurance as it deems necessary to protect it from all claims under any workmen's compensation law in effect that may be applicable to the Contractor. All insurance required by this Agreement shall be kept and remain in full force and effect for the entire life of this Agreement.

g.2. The insurance coverage shall include worker's compensation, employers liability, comprehensive general liability (Premises-Operations, independent contractors, products and completed operations, broad form property damage, contractual liability, explosion

and collapse hazard, underground Hazard, personal injury) comprehensive automobile liability (owned and hired), excess liability (umbrella form), and all-risk builder's risk.

- g.3. All insurance coverage must be maintained for the entire life of the Project. Products and completed operations coverage shall be maintained for a minimum period of one (1) year after final payment.
- g.4. A valid certificate of insurance must be submitted to the Owner prior to issuance of a Notice-to-Proceed.

### 30. MINIMUM WAGE RATES

- a) Any Contract entered into in excess of sixty thousand dollars (\$60,000) for construction, alteration, demolition or repair, or any combination of these, including painting and decorating, of public buildings, public works or public roads, is subject to the minimum wage rate determination issued by the New Mexico Department of Workforce Solutions, Public Works Bureau (formerly NM Dept. of Labor, Labor & Industrial Division). Federal Funded Contracts in excess of \$2,000.00 are subject to Federal Labor Standards Requirements of Davis Bacon Act.
- b) Contractor must comply with the City of Santa Fe Living (minimum) Wage Ordinance.
- c) The bidder shall ensure that, in submitting his/her Bid, the minimum wage rate determination, included herein, has been utilized in preparing his/her Bid.

### 31. CONTRACTOR AND SUBCONTRACTOR REGISTRATION WITH THE NEW MEXICO DEPARTMENT OF WORKFORCE SOLUTIONS, PUBLIC WORKS BUREAU (FORMERLY NM DEPT. OF LABOR, LABOR & INDUSTRIAL DIVISION)

Registration with the New Mexico Department of Workforce Solutions, Public Works Bureau (formerly NM Dept. of Labor, Labor & Industrial Division). A contractor or subcontractor that submits a bid valued at more than fifty thousand dollars (\$50,000) for a city project that is subject to the Public Works Minimum Wage Act (13-4-10 NMSA 1978) shall be registered with New Mexico Department of Workforce Solutions, Public Works Bureau (formerly NM Dept. of Labor, Labor & Industrial Division). The registration number shall be provided in the bid submitted for the contractor in the space provided and for subcontractors with work proposed over \$50,000 on the subcontractor form. After the bid opening, the registration number(s) will be verified by the City and the bid will be determined to be non-responsive and disqualified if the registration number(s) appear to be not valid and the contractor does not provide proof of the required registration for itself or its subcontractors with work proposed over fifty thousand dollars (\$50,000). It is the responsibility of the contractor and the subcontractors to ensure the registration is completed prior to the bid opening.

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**A.4. BID SUBMITTAL**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

To the City of Santa Fe, State of New Mexico, and Owner:

The undersigned proposes to furnish and deliver all the material and labor, and to do all the work required in the construction of the Cerrillos Road Reconstruction, Phase IIC, CIP #810A, City of Santa Fe, in Santa Fe County, State of New Mexico, according to the plans and specifications therefore and at the prices named and shown on the Bid Form.

The undersigned declares that the only person or parties interested in the bid submittal as principals are those named herein; that the bid submittal is made without collusion with any person, firm or corporation; that he/she has carefully examined the specifications, including special provisions, if any, and that he/she has made a personal examination of the site of the work, that he/she is to furnish all the necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials specified in the manner and the time prescribed; that he/she understands that the quantities are approximate only and subject to increase or decrease, and that he/she is willing to perform any increased or decreased quantities of work at unit price bid.

The undersigned hereby agrees to execute and deliver the Construction Agreement and required bonds within ten (10) days, or such further time as may be allowed in writing by the City of Santa Fe after receiving notification of the acceptance of this bid submittal, and it is hereby mutually understood and agreed that in case we do not, we forfeit the accompanying check or bid bond to the City of Santa Fe as liquidated damages, and the said City of Santa Fe may proceed to award the contract to others.

We hereby agree to commence the work within ten (10) days, or such further time as may be allowed in writing by the City of Santa Fe after notification to proceed, and to complete all the work within the time allowed by the construction agreement.

Substantial completion of the work shall mean complete and ready for acceptance and use of all work related to the trail improvements described in the contract documents.

The undersigned proposes to furnish Labor and Material Payment Bond and Performance Bond in the amount of 100% of the Contract amount each as surety conditioned for the full complete and faithful performance of this contract, and to indemnify and save harmless the City of Santa Fe from any damage or loss of which the City of Santa Fe may become liable by the default of said Contractor, or by reason of any neglect or carelessness on the part of said Contractor, his/her agents or

employees, or by or on account of any act or omission of said Contractor, his/her servants, agents or employees, in performance of this contract.

1. The undersigned proposes to guarantee all work performed under these Plans Specifications and Contract for two years after acceptance by the City and repair and maintain same until the date of acceptance by the City of Santa Fe.
2. The undersigned tenders herewith, as a bid guaranty, for which receipt has been given, a certified check or bid bond in the amount of \_\_\_\_\_ dollars \$\_\_\_\_\_ drawn to the order of the City of Santa Fe.

\_\_\_\_\_  
Signature-Title

(Corporate Seal)

\_\_\_\_\_  
Corporate Name

\_\_\_\_\_  
Address

(Names of individual members of firms or names and titles of all officers of Corporation.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corporation organized under the laws of the State of

\_\_\_\_\_

\_\_\_\_\_  
N.M. Contractor's License No. & Type

NM Dept. of Workforce Solutions, Public Works Bureau  
Labor Enforcement Fund Registration Number: \_\_\_\_\_

[A Subcontractor NM Dept. of Workforce Solutions, Public Works Bureau Enforcement Labor Fund Registration Number, on work over \$50,000 must be listed on Subcontractor listing.]

## A.5. BID FORM

CITY OF SANTA FE  
CONTRACTING AGENCY AND OWNER

FROM: \_\_\_\_\_

\_\_\_\_\_ hereinafter called "Bidder".

TO: City of Santa Fe  
200 Lincoln Avenue  
P.O. Box 909  
Santa Fe, New Mexico 87504

hereinafter called "CONTRACTING AGENCY",

Bid For: **Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A**

### **Bid No. '16/13/QB**

1. The bidders have familiarized themselves with the existing conditions on the project area affecting the cost of the work and with the contract documents which includes:
  - Advertisement for Bids
  - Instructions For Bidders
  - Bid Submittal and other required bid forms as listed herein
  - Agreement
  - Form of Performance Bond
  - Form of Labor and Material Payment Bond
  - Technical Specifications
  - Everything else included in the Project Manual and the Drawings.

Therefore, the Bidder hereby proposes to furnish all supervision, technical personnel, labor, materials, tools, appurtenances, equipment, and services (including all utility and transportation services) required to construct and complete the improvements, all in accordance with the above listed documents.

Bidder agrees to perform all of the improvements described in the specifications and shown on the plans for the following unit prices:

(Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words shall govern).

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BASE BID				
	Item No.	Item Description	Units	Approx. Quantity
1	201000	CLEARING AND GRUBBING	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
2	203000	UNCLASSIFIED EXCAVATION	CU.YD.	25000
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
3	203100	BORROW	CU.YD.	3000
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
4	203200	SUBEXCAVATION	CU.YD.	3000
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
5	203211	UNSTABLE SUBGRADE STABILIZATION	SQ. YD.	40635
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
6	207000	SUBGRADE PREPARATION	SQ.YD.	42970
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
7	303015	BASE COURSE	SQ.YD.	42590
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
8	303140	BASE COURSE 4"	SQ.YD.	380
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
9	403600	OPEN GRADED FRICTION COURSE COMPLETE	SQ.YD.	40380
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	<b>Item No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Approx. Quantity</b>
10	405000	DETOUR PAVEMENT CONSTRUCTION	SQ. YD.	3900
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
11	407000	ASPHALT MATERIAL FOR TACK COAT	TON	30
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
12	408100	PRIME COAT MATERIAL	TON	77
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
13	416000	MINOR PAVEMENT	SQ. YD.	43690
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
14	502030	DRILLED SHAFT FOUNDATION 30" DIAMETER	LIN. FT.	130
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
15	502036	DRILLED SHAFT FOUNDATION 36" DIAMETER	LIN. FT.	64
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
16	502042	DRILLED SHAFT FOUNDATION 42" DIAMETER	LIN. FT.	64
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
17	502054	DRILLED SHAFT FOUNDATION 54" DIAMETER	LIN. FT.	15
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
18	511000	STRUCTURAL CONCRETE, CLASS A	CU. YD.	81
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	<b>Item No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Approx. Quantity</b>
19	540060	REINFORCING BARS GRADE 60	LBS.	4998
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
20	570XX1	18" CULVERT PIPE	LIN.FT.	1086
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
21	570XX2	54" STORMDRAIN	LIN.FT.	490
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
22	570XX3	60" STORMDRAIN	LIN.FT.	2520
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
23	601000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
24	603281	SWPPP PLAN PREPARATION AND MAINTENANCE	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
25	606610	TEMPORARY CWB RETAINED BY THE CONTRACTOR	LIN.FT.	2800
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
26	606619	RESETTING OF CONCRETE WALL BARRIER	LIN.FT.	2800
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
27	608004	CONCRETE SIDEWALK 4"	SQ.YD.	4000
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

BASE BID				
	Item No.	Item Description	Units	Approx. Quantity
28	608106	DRIVE PAD 6"	SQ.YD.	1010
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
29	608206	CONCRETE MEDIAN PAVEMENT 6"	SQ.YD.	82
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
30	608404	CONCRETE MEDIAN PAVEMENT 4" (COLORED AND PATTERNED)	SQ.YD.	2540
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
31	609200	HEADER CURB	LIN.FT.	4390
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
32	609201	CUT-OFF WALL	LIN.FT.	940
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
33	609324	CONCRETE SLOPED CURB AND GUTTER 6" X 24"	LIN.FT.	16
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
34	609424	CONCRETE VERTICAL CURB AND GUTTER TYPE B 6"X24"	LIN.FT.	7320
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
35	609472	CONCRETE VERTICAL CURB AND GUTTER TYPE D 6"X12"	LIN.FT.	7520
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
36	609478	CONCRETE VERTICAL CURB AND GUTTER TYPE D 6"X18"	LIN.FT.	590
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	<b>Item No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Approx. Quantity</b>
37	609636	CONCRETE VALLEY GUTTER 6"X36"	LIN.FT.	430
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
38	609706	CONCRETE LAYDOWN CURB 6"	LIN.FT.	772
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
39	618000	TRAFFIC CONTROL MANAGEMENT	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
40	621000	MOBILIZATION	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
41	623340M	CURB DROP INLET SPECIAL DESIGN (MOD TYPE-B)	EACH	19
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
42	662XX1	MANHOLE TYPE T-4' DIAMETER	EACH	9
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
43	663049	PRE-CONSTRUCTION UTILITY SURVEY	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
44	663206	WATER SYSTEM	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
45	663207	SEWER SYSTEM	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	Item No.	Item Description	Units	Approx. Quantity
46	664000	LANDSCAPE, COMPLETE	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
47	701000	PANEL SIGNS	SQ.FT.	730
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
48	701010	EXTRUDED PANEL SIGNS	SQ.FT.	150
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
49	701100	STEEL POST AND BASE POST FOR ALUMINUM PANEL SIGNS	LIN.FT.	1430
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
50	701341	OVERHEAD SIGN STRUCTURE, BUTTERFLY TYPE, 24-INCH	EACH	1
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
51	702610	PORTABLE CHANGEABLE MESSAGE SIGN	EACH	3
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
52	702700	TEMPORARY SIGNAL SPAN	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
53	702810	TRAFFIC CONTROL DEVICES FOR CONSTRUCTION	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
54	704000	RETROREFLECTORIZED PAINTED MARKINGS 4"	LIN.FT.	18647
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	Item No.	Item Description	Units	Approx. Quantity
55	704754	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT STRIPE 4"	LIN.FT.	13187
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
56	704758	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT STRIPE 8"	LIN.FT.	57
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
57	704762	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT STRIPE 12"	LIN.FT.	1275
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
58	704764	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT STRIPE 24"	LIN.FT.	355
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
59	704767	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING RIGHT ARROW	EACH	8
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
60	704768	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING LEFT ARROW	EACH	43
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
61	704769	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING THRU ARROW	EACH	4
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
62	704770	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING WORD (ONLY)	EACH	28
Unit Bid Price Written in WORDS:			Unit Bid Price Written In NUMBERS:	Total Item Bid Amount Written in NUMBERS
<i>Dollars and Cents</i>			<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	Item No.	Item Description	Units	Approx. Quantity
63	704777	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING WORD (LANE)	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
64	704782	RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT MARKING BIKE SYMBOL (BIKEWAY)	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
65	706200	METER PEDESTAL (SIGNAL)	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
66	706350	POWER SERVICE INSTALLATION	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
67	706405	LIGHTING CONTROL CABINET-SIX CIRCUIT	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
68	707010	TYPE I STANDARD, 10'	EACH	5
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
69	707015	TYPE I STANDARD, 15'	EACH	7
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
70	707325	TYPE III STANDARD, 25' ARM	EACH	3
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
71	707340	TYPE III STANDARD, 40' ARM	EACH	3
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	Item No.	Item Description	Units	Approx. Quantity
72	707345	TYPE III STANDARD, 45' ARM	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
73	707540	TYPE V STANDARD, 40'	EACH	19
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
74	709020	RIGID ELECTRICAL CONDUIT 2" (DIA.)	LIN.FT.	21650
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
75	709030	RIGID ELECTRICAL CONDUIT 3" (DIA.)	LIN.FT.	8690
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
76	710000	ELECTRICAL PULL BOX (STANDARD)	EACH	23
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
77	710010	ELECTRICAL PULL BOX (LARGE)	EACH	18
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
78	710400	TRAFFIC SIGNAL MANHOLE	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
79	711005	MULTI CONDUCTOR CABLE 5	LIN.FT.	5455
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
80	711007	MULTI CONDUCTOR CABLE 7	LIN.FT.	905
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	<b>Item No.</b>	<b>Item Description</b>	<b>Units</b>	<b>Approx. Quantity</b>
81	711020	MULTI CONDUCTOR CABLE 20	LIN.FT.	3220
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
82	711102	SINGLE CONDUCTOR 2	LIN.FT.	11350
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
83	711106	SINGLE CONDUCTOR 6	LIN.FT.	1610
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
84	711108	SINGLE CONDUCTOR 8	LIN.FT.	3375
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
85	711110	SINGLE CONDUCTOR 10	LIN.FT.	3230
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
86	712031	3 SECTION TRAFFIC SIGNAL ASSEMBLY (LED)	EACH	25
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
87	712041	4 SECTION TRAFFIC SIGNAL ASSEMBLY (LED)	EACH	8
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
88	712051	5 SECTION TRAFFIC SIGNAL ASSEMBLY (LED)	EACH	6
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
89	712201	PEDESTRIAN SIGNAL (LED)	EACH	16
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

BASE BID				
	Item No.	Item Description	Units	Approx. Quantity
90	712330	3 SECTION BACKPLATE	EACH	17
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
91	712340	4 SECTION BACKPLATE	EACH	1
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
92	712350	5 SECTION BACKPLATE	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
93	713020	PUSH BUTTON STATION	EACH	16
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
94	713030	LOOP DETECTOR WIRE	LIN.FT.	13750
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
95	713250	LOOP LEAD-IN CABLE	LIN.FT.	20155
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
96	713300	DETECTOR SAW CUT	LIN.FT.	5290
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
97	713430	PHASE SELECTOR MODULE	EACH	4
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
98	713511	OPTICAL DETECTOR, 1 DIRECTION, 1 CHANNEL	EACH	8
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

BASE BID				
	Item No.	Item Description	Units	Approx. Quantity
99	713600	OPTICAL DETECTOR CABLE	LIN.FT.	1815
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
100	713805	VIDEO COAXIAL CABLE	LIN.FT.	430
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
101	713806	VIDEO POWER CABLE	LIN.FT.	430
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
102	713810	VIDEO CAMERA	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
103	713812	PAN-TILT-ZOOM UNIT	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
104	713900	ADVANCED TRAFFIC MANAGEMENT SYSTEM	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
105	714000	TRAFFIC ACTUATED CONTROLLER	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
106	714001	TRAFFIC TECHNICIAN SIGNAL CABINET TRAINING COURSE	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
107	714280	8 PHASE DOUBLE RING CONTROLLER CABINET	EACH	2
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>

<b>BASE BID</b>				
	Item No.	Item Description	Units	Approx. Quantity
108	716040	ROADWAY LUMINAIRE TYPE 400 S	EACH	27
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
109	716301	INTERNALLY ILLUMINATED SIGN	EACH	8
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
110	720060	VEHICULAR IMPACT ATTENUATOR UNIT - WORK ZONES	EACH	12
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
111	720110	REMOVE/RESET IMPACT ATTENUATOR UNIT	EACH	18
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
112	750000	INTELLIGENT TRANSPORTATION SYSTEM	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
113	750080	ITS MANHOLE (48"X48"X48")	EACH	20
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
114	801000	CONSTRUCTION STAKING BY THE CONTRACTOR	L.S.	L.S.
		<i>Unit Bid Price Written in WORDS:</i>	<i>Unit Bid Price Written In NUMBERS:</i>	<i>Total Item Bid Amount Written in NUMBERS</i>
		<i>Dollars and Cents</i>	<i>Dollars and Cents</i>	<i>Dollars and Cents</i>
<b>TOTAL BASE BID AMOUNT (excluding NM gross receipts tax)</b>				
			written in NUMBERS	<i>Dollars and Cents</i>
<b>NEW MEXICO GROSS RECEIPTS TAX @ 8.3125%</b>				
			written in NUMBERS	<i>Dollars and Cents</i>
<b>TOTAL BASE BID AMOUNT (including NM gross receipts tax)</b>				
			written in NUMBERS	<i>Dollars and Cents</i>
<b>NOTE:</b>	<b>The City reserves the right to award the bid based upon the lowest base bid only or if alternates are included, the lowest based bid for any combination of base bid and alternates(s).</b>			

2. Bidder has bid on all items.

3. In submitting this bid, the Bidder understands that the right is reserved by the City of Santa Fe to reject any irregular or all bids, waive any technicalities in the bids, and accept the bid deemed to be in the best interest of the public and that the City of Santa Fe intends to award one contract (if at all) for the items bid. If written notice of the acceptance of this bid is mailed, telegraphed or otherwise delivered to the undersigned within sixty (60) days after the opening thereof or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver the agreement in the prescribed form and furnish the required forms and bond(s) within ten (10) days after the agreement is presented to him/her for signature.

4. All Addenda pertaining to this project, shall be acknowledged by the Bidder in the spaces provided below:

Addendum No.	Addendum Date	Acknowledgement by Bidder or Authorized Representative	Date Acknowledged

Failure to acknowledge receipt, as provided above, may be considered sufficient grounds for disqualification of the bidder and rejection of his/her bid submittal.

Any and all such Addenda, if issued, will be published via electronic/digital format on the web site of the City of Santa Fe, not later than three days prior to the date fixed for the opening of the bids, at the following web address:

[http://www.santafenm.gov/bids\\_rfps](http://www.santafenm.gov/bids_rfps)

It shall be the bidder's responsibility to become fully advised of all Addenda prior to submitting his/her bid.

5. The Bidder agrees to commence work under this Contract within ten (10) days after a date to be specified in a written "Notice to Proceed" from the City of Santa Fe or its authorized agents, and fully complete the project within the time provided in the contract documents. Bidder further agrees to pay liquidated damages as provided in the Contract Documents.

6. Security in the sum of five (5) percent of the amount bid in the form of (check one):  
 \_\_\_\_\_ Bid Bond \_\_\_\_\_ Certified Check

is attached hereto in accordance with the "Instructions for Bidders".

7. This Bid Submittal contains the following:
- Bid - Name the Bidder and the Number of Bidder's New Mexico Contractor's License with a check for proper signatures.
  - Check for bid bond.
  - Acknowledgement of Addenda, if any.
  - Properly executed Bid Form
  - Subcontractor's Listing (as applicable)
  - Notices to Contractor
    - a. Subcontractors Fair Practices Act Compliance
    - b. Non-Debarment Certification (Disclosure of Lobbying Activities)
    - c. Certification for Federal-Aid Contracts
    - d. New Mexico Pay Equity Reporting Acknowledgement Executive Order 2009-049
    - e. Disadvantaged Business Enterprise (DBE) Program Race Conscious Measures

**ONE ORIGINAL AND ONE COPY OF THE BID SUBMITTAL IS REQUIRED**

Respectfully submitted:

Name of Bidder \_\_\_\_\_

By: \_\_\_\_\_  
(Signature)

Title: \_\_\_\_\_

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

Official Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Telephone No. \_\_\_\_\_

New Mexico Contractor's License Number and Types: \_\_\_\_\_

United States Treasury Number: \_\_\_\_\_

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**A.6. BID BOND**

A. KNOW ALL MEN BY THESE PRESENTS, THAT WE \_\_\_\_\_

\_\_\_\_\_ hereinafter called the PRINCIPAL, as Principal, and the \_\_\_\_\_, of \_\_\_\_\_ a

Corporation duly organized under the laws of the State of \_\_\_\_\_, and authorized to do business in the State of New Mexico, hereinafter called the SURETY, as SURETY are held and firmly bound unto the City of Santa Fe, a Municipal Corporation, hereinafter called the OBLIGEE, in the sum of \_\_\_\_\_

dollars (\$ \_\_\_\_\_) for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying bid, dated \_\_\_\_\_, 2015, (Bid No.16/13/B') for the construction of the Cerrillos Road Reconstruction, Phase IIC, CIP #810A, City of Santa Fe.

B. NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof or in the event of the failure of the Principal to enter such contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

C. SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, a.d. 2015.

\_\_\_\_\_  
BIDDER

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

(SEAL)

\_\_\_\_\_  
WITNESS

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

\_\_\_\_\_  
WITNESS

Title: \_\_\_\_\_

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### A.7. CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

#### INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or perspective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract or subcontract 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.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

---

#### CERTIFICATION OF BIDDER

Bidder's Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. Yes \_\_\_\_ No \_\_\_\_
2. Compliance reports were required to be filed in connection with such contract or subcontract. Yes \_\_\_\_ No \_\_\_\_

---

Certification - The information above is true and complete to the best of my knowledge and belief.

\_\_\_\_\_  
NAME AND TITLE OF SIGNER (please type or print)

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
DATE

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**A.8. CERTIFICATION OF NON-SEGREGATED FACILITIES**

(Applicable to construction contracts and related subcontracts exceeding \$10,000, which are not exempt from the Equal Opportunity Clause).

The construction contractor certifies that he/she does not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she does not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. The construction contractor certifies further that he/she will not maintain or provide for his/her employees any segregated facilities at any of his/her establishments, and that he/she will not permit his/her employees to perform their services at any location, under his/her control, where segregated facilities are maintained. The construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clock, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreating or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The construction contractor agrees that (except where he/she has obtained identical certifications from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed SUBCONTRACTORS prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that he/she will retain such certifications in his/her files.

SIGNED: \_\_\_\_\_

TITLE: \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

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**A.9. NON-COLLUSION AFFIDAVIT OF PRIME BIDDER**

STATE OF NEW MEXICO

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn, deposes and says that:

(1) He/she is the \_\_\_\_\_ of \_\_\_\_\_ the Bidder that has submitted the attached Bid Submittal;

(2) He/she is fully informed respecting the preparation and contents of the attached Bid Submittal and of all pertinent circumstances respecting such bid;

(3) Such bid is genuine and is not a collusive or sham bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Contracting Agency or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(SIGNED) \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:  
\_\_\_\_\_

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**A.10. NON-COLLUSION AFFIDAVIT OF SUBCONTRACTOR**

STATE OF NEW MEXICO

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn, deposes and says that:

(1) He/she is the \_\_\_\_\_ of \_\_\_\_\_, hereinafter referred to as the "Subcontractor";

(2) He/she is fully informed respecting the preparation and contents of the Subcontractor's bid submitted by the Subcontractor to \_\_\_\_\_, the Contractor, for certain work in connection with the \_\_\_\_\_ contract pertaining to the \_\_\_\_\_ project in \_\_\_\_\_;

(3) Such Subcontractors bid submittal is genuine and is not a collusive or sham bid submittal;

(4) Neither the Subcontractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham bid in connection with the Contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communications or conference with any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the Contracting Agency or any person interested in the proposed Contract; and

(5) The price or prices quoted in the Subcontractor's bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(SIGNED) \_\_\_\_\_

TITLE \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:

\_\_\_\_\_

## **A.11. SUBCONTRACTS**

- A. The Contractor shall not execute an agreement with any subcontractor or permit any subcontractor to perform any work included in this contract until he/she has submitted a Non-Collusion Affidavit from the subcontractor, in substantially the form shown above, and has received written approval of such subcontractor from the City of Santa Fe.
  - B. No proposed subcontractor shall be disapproved by the City of Santa Fe except for cause.
  - C. The Contractor shall be as fully responsible to the City of Santa Fe for the acts and omissions of his/her subcontractors and of persons either directly or indirectly employed by them, as he/she is for the acts and omissions of persons directly employed by him/her.
  - D. The Contractor shall cause appropriate provision to be inserted in all subcontracts relative to the work to require compliance by each subcontractor with the applicable provisions of the Contract for the improvements embraced.
- A. Nothing contained in the Contract shall create any contractual relation between any subcontractor and the City of Santa Fe.

### A.12. SUBCONTRACTOR LISTING

**Note:** A Contractor that Submits a bid valued at more than fifty thousand (\$50,000) for a city project, that is subject to the public works minimum wage act 13-4-10 NMSA 1978, shall be registered with the NM Dept. of Workforce Solutions, Public Works Bureau.

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

Trade:	Name of Subcontractor:	
Address:		
Telephone No.:	License No.:	NM Dept. of Workforce Solutions Regist. No.:
Signature of Subcontractor (to be obtained after award of contract):		

## **B. CONTRACT DOCUMENTS**

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**B.1. CONSTRUCTION AGREEMENT**

CITY OF SANTA FE  
CAPITAL IMPROVEMENTS PROGRAM

AGREEMENT BETWEEN  
OWNER AND CONTRACTOR

CIP PROJECT # 810A  
Cerrillos Road Reconstruction, Phase IIC Project

This Agreement is entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2015, by and between the  
CITY OF SANTA FE, herein known as the Owner, and  
\_\_\_\_\_, herein known as the Contractor.

For the following:

PROJECT:	Cerrillos Road Reconstruction, Phase IIC Project
PROJECT NO.:	CIP #810A, CN S100130
ENGINEER OF RECORD:	Parsons Brinckerhoff, Inc. 6100 Uptown Blvd. NE, Ste. 700 Albuquerque, NM 87110

DISTRIBUTION:

OWNER	_____
CONTRACTOR	_____
ENGINEER	_____

*Revised July 2009*

## RECITALS

WHEREAS, the Owner, through its Governing Body, is authorized to enter into a construction Contract for the project; and

WHEREAS, the Owner has let this Contract according to the established State and Local Purchasing procedures for contracts of the type and amount let; and

WHEREAS, construction of this Project was approved by the Governing Body of the City of Santa Fe at its meeting of \_\_\_\_\_, 2015.

The OWNER and the CONTRACTOR agree:

### ARTICLE 1

#### THE CONTRACT DOCUMENTS

The Contract Documents consist of: this Agreement, the Conditions of the Contract (General, Supplementary, and other Conditions), the Drawings, the Specifications, all Addenda issued prior to and all Modifications issued after execution of this Agreement. These documents form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

### ARTICLE 2

#### THE WORK

The Contractor shall perform all the work required by the Contract Documents for CIP Project # 810A – Cerrillos Road Reconstruction, Phase IIC Project. (Bid Number '16/13/QB).

The work designated as Cerrillos Road Reconstruction, Phase IIC consists of, but is not limited to: removal and replacement of pavement, curb and gutter, and sidewalk with the addition of an access lane, new bike lane, driveways, bus stops, and landscaping, and also including new storm drain, utilities, lighting, signals, and other appurtenances as described in the Contract Documents.

Contractor shall be responsible for verifications of all conditions, measurements, and dimensions for bidding.

Contractor shall be responsible for all permits, fees, and State inspections associated with the construction.

### ARTICLE 3

#### TIME OF COMMENCEMENT AND PROJECT COMPLETION

The work to be performed under this Contract shall be commenced not later than ten (10) consecutive calendar days after the date of written Notice to Proceed. Physical Completion of the entire work described in the Contract Documents, except as hereafter extended by valid written Change Order signed by the Owner, shall be achieved no later than May 13, 2017. The project shall be deemed substantially complete on October 7, 2016 as defined in the 2014 New Mexico Department of Transportation Standard Specifications for Highway & Bridge Construction.

### ARTICLE 4

#### CONTRACT SUM

The Owner shall pay the Contractor in current funds for the performance of the work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract Sum of [to be determined] dollars and [to be determined] cents (\$tbid).

The Contract Sum is determined as follows:

Base Bid	\$ _____.
Gross Receipts Tax (8.3125%)	\$ _____.
<i>Base Bid plus NMGRT</i>	\$ _____.

**ARTICLE 5**  
**PROGRESS PAYMENTS**

Based upon Application for Payment submitted to the Owner by the Contractor and Certificates for Payment issued by the Owner, the Owner shall make progress payments on account of the Contract sum to the Contractor as provided in the Contract documents for the period ending the last day of the month as follows:

Not later than twenty-one (21) days following the end of the period covered by the Application for Payment, one hundred percent (100%) of the portion of the Contract Sum properly allocable to labor, materials, and equipment incorporated in the work and one hundred percent (100%) of the portion of the Contract sum properly allocable to materials and equipment suitably stored at the site or some other location agreed upon in writing for the period covered by the Application for Payment, less the aggregate of previous payments made by the Owner; and upon substantial completion of the entire work, a sum sufficient to increase the total payments to one hundred percent (100%) of the Contract sum, less such amounts as the Owner shall determine for all incomplete work and unsettled claims as provided in the Contract documents.

**ARTICLE 6**  
**LIQUIDATED DAMAGES**

Should the Contractor neglect, refuse, or otherwise fail to complete the work within the Contract Time for Physical Completion or any extension in the Contract thereof, the Contractor agrees to pay the Owner the amount of Four Thousand Dollars (\$4,000) per consecutive calendar day that passes until Physical Completion and acceptance or until voided pursuant to the provisions of the General Conditions of the Contract, not as a penalty, but as liquidated damages for such breach of the Contract.

**ARTICLE 7**  
**FINAL PAYMENT**

Final payment, constituting the entire unpaid balance of the Contract sum, unless it is a disputed payment, shall be paid by the Owner to the Contractor within twenty-one (21) calendar days, after all deficiencies to the Contract document that were noted during the Substantial Completion Inspection and listed on the attachment to the Certificate of Substantial Completion have been corrected, and provided the Contract has been fully performed and a final Certificate for Payment has been issued by the Owner. In addition, the Contractor shall provide to the Owner a certified statement of Release of Lien (AIA Document G706A or approved form), Consent of Surety, Warranty from Prime Contractor, Warranties from Suppliers and Manufacturers, training sessions, equipment/operating manuals, and as-built drawings.

**ARTICLE 8**

**SCHEDULE**

The Contractor shall prepare and submit five (5) copies of a progress schedule covering project operations for the 365 day Contract period and deliver them to the project manager at the pre-construction meeting as per section 108.3 Schedule of the NMDOT standard Specifications for Highway

and Bridge Construction, 2104 Edition. This progress schedule shall be of the type generally referred to as a Critical Path Method (CPM), Critical Path Schedule (CPS), and Critical Path Analysis (CPA), and other similar designations. The CPM shall be used to control the timing and sequences of the project. All work shall be done in accordance with the CPM Planning and Scheduling. A written statement of explanation shall be submitted with the progress schedule. All costs incurred by the contractor to implement the CPM shall be borne by the Contractor, and are part of their Contract (See Article 4.10, Progress Schedules of Section 00700, General Conditions of the Contract).

## ARTICLE 9

### GENERAL AND SPECIAL PROVISIONS

9.1 This Agreement shall be governed exclusively by the provisions hereof and by the laws of the State of New Mexico, as the same from time to time exist.

9.2 Terms used in this Agreement which are defined in the Conditions of the Contract shall have the meanings designated in those Conditions.

9.3 The Contractor shall defend, indemnify, and hold harmless the Owner against any and all injury, loss, or damage, including, without limitation, costs of defense, court costs and attorney's fees, arising out of the acts, errors, or omissions of the Contractor.

9.4 An enumeration of the Contractor's General Comprehensive Liability Insurance requirements appears in the General Conditions of the Contract for construction. Insurance requirements are also described in the Instructions to the Bidder section of the Project Manual. Contractor shall maintain adequate insurance in at least the maximum amounts, which the Owner could be liable under the New Mexico Tort Claims Act and shall provide proof of such insurance coverage to the City. It is the sole responsibility of the Contractor to be in compliance with the law.

9.5 This Agreement shall not become effective until: (1) approved by the Governing Body; and (2) signed by all parties required to sign this Agreement.

9.6 The Contractor and the Contractor's agents and employees are independent contractors performing professional and technical services for the Owner and are not employees of the Owner. The Contractor and the Contractor's agents and employees shall not accrue leave, retirement, insurance, bonding, use of Owner's vehicles, or any other benefits afforded to employees of the Owner as a result of this Agreement.

9.7 The Contractor shall not subcontract any portion of the services to be performed under this Agreement without prior written approval of the Owner. The Contractor shall make prompt payment to their subcontractors and suppliers for amounts owed for work performed on the construction project within seven days after receipt of payment from the Owner, contractor or subcontractor. If the contractor or subcontractor fails to pay the contractor's or subcontractor's subcontractor and suppliers by first-class mail or hand delivery within seven days of receipt of payment, the contractor or subcontractor shall pay interest to the subcontractors and suppliers beginning on the eighth day after payment was due, computed at one and one-half percent of the undisputed amount per month or fraction of a month until payment is issued. These provisions apply to all tiers of contractors, subcontractors and suppliers.

9.8 The Contractor shall maintain detailed time records which indicate the date, time and nature of services rendered. These records shall be subject to inspection by the Owner, the Department of Finance and Administration and the State Auditor. The Owner shall have the right to audit billings both before and after payment. Payment under this Agreement shall not foreclose the right of the Owner to recover excessive illegal payments.

9.9 The terms of this Agreement are contingent upon sufficient appropriations and authorization being made by the Owner for the performance of this Agreement. If the Owner does not make sufficient appropriations and authorization, this Agreement shall terminate upon written notice being given by the

Owner to the Contractor. The Owner's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final.

9.10 The Contractor warrants that the Contractor presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance or services required under this Agreement.

9.11 The Contractor hereby warrants that the Contractor complies with the Americans with Disabilities Act, 29 CFR 1630.

9.12 The Contractor, upon final payment of the amounts due under this Agreement, releases the Owner, the Owner's officers and employees, and the City of Santa Fe from all liabilities and obligations arising from or under this Agreement, including, without limitation, all damages, losses, costs, liability, and expenses, including, without limitation, attorney's fees and costs of litigation that the Contractor may have.

9.13 The Contractor agrees not to purport to bind the Owner to any obligation not assumed herein by the Owner, unless the Contractor has express written authority to do so, and then only within the strict limits of that authority.

9.14 Notices. Any and all notices provided for hereunder shall be in writing and shall be deemed delivered, given and received when (i) personally delivered, or (ii) 5 days after the same are deposited in the United States mail, postage prepaid, registered or certified mail return receipt requested, addressed to the applicable party at the address indicated below for such party or at such other address as may be designated by either party in a written note to the other party.

OWNER

City of Santa Fe, Public Works Department  
Roadway & Trails Engineering Division  
P.O. Box 909  
Santa Fe, New México 87504-0909

CONTRACTOR

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
New Mexico License #

9.15 Gender, Singular/Plural. Words of any gender used in this Agreement shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires.

9.16 Captions and Section Headings. The captions and section headings contained in this Agreement are for convenience of reference only, and in no way limit, define, or enlarge the terms, scope, and conditions of this Agreement.

9.17 This document shall be executed in no less than three (3) counterparts, each of which shall be deemed an original.

9.18 Certificates and Documents Incorporated. All certificates and documentation required by the provisions of the Agreement shall be attached to this Agreement at the time of execution, and are hereby incorporated by reference as though set forth in full in this Agreement to the extent they are consistent with its conditions and terms.

9.19 Separability. If any clause or provision of this Agreement is illegal, invalid or unenforceable under present or future laws effective during the term of this Agreement, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.

9.20 Waiver. No provision of this Agreement shall be deemed to have been waived by either party unless such waiver be in writing signed by the party making the waiver and addressed to the other party; nor shall any custom or practice which may evolve between the parties in the administration of the terms hereof be construed to waive or lessen the right of either party to insist upon the performance by the other party in strict accordance with the terms hereof. Further, the waiver by any party of breach by the other party of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach of the same or any other term, covenant, or condition thereof.

9.21 Entire Agreement. This Agreement represents the entire Contract between the parties and except as otherwise provided herein, may not be amended, changed, modified, or altered without the written consent of the parties hereto. This Agreement incorporates all of the conditions, agreements, and understandings between the parties concerning the subject matter of this Contract, and all such conditions, understandings, and agreements have been merged into this written Agreement. No prior conditions, agreement, or understanding, verbal or otherwise, of the parties or their agents shall be valid or enforceable unless embodied in this written Agreement.

9.22 Interchangeable Terms. For purposes of all provisions within this Agreement and all attachments hereto, the terms "Agreement" and "Contract" shall have the same meaning and shall be interchangeable.

9.23 Words and Phrases. Words, phrases, and abbreviations, which have well-known technical or trade meanings used in the Contract documents shall be used according to such recognized meaning. In the event of a conflict, the more stringent meaning shall govern.

9.24 Relationship of Contract Documents. The Contract Documents are complementary, and any requirement of one Contract Document shall be as binding as if required by all.

9.25 Pursuant to Section 13-1-191, NMSA 1978, reference is hereby made to the Criminal Laws of New Mexico (including Sections 30-14-1, 30-24-2, and 30-41-1 through 30-41-3, NMSA 1978) which prohibit bribes, kickbacks, and gratuities, violation of which constitutes a felony. Further, the Procurement Code (Sections 13-1-28 through 13-1-199, NMSA 1978) imposes civil and criminal penalties for its violation.

9.26 By entering into this Agreement, the parties do not intend to create any right, title or interest in or for the benefit of any person other than the Owner and the Contractor. No person shall claim any right, title or interest under this Agreement or seek to enforce this Agreement as a third party beneficiary of this Agreement.

9.27 Pursuant to Section 13-4-11. NMSA 1978, Reference is hereby made to the Minimum Wage on Public Works; weekly payments; posting wage scale; withholding funds.

#### ARTICLE 10 NEW MEXICO TORT CLAIMS ACT

Any liability incurred by the City of Santa Fe in connection with this Agreement is subject to the immunities and limitations of the New Mexico Tort Claims Act, Section 41-4-1, et. seq. NMSA 1978, as amended. The City and its "public employees" as defined in the New Mexico Tort Claims Act, do not waive any limitation of liability pursuant to law. No provision in this Agreement modifies or waives any provision of the New Mexico Tort Claims Act.

This Agreement is entered into as of the day and year first written above.

OWNER:  
CITY OF SANTA FE

\_\_\_\_\_  
JAVIER M. GONZALES, MAYOR

DATE: \_\_\_\_\_

ATTEST:

\_\_\_\_\_  
YOLANDA Y. VIGIL  
CITY CLERK

APPROVED AS TO FORM:

MDM 9/28/15  
\_\_\_\_\_  
KELLEY BRENNAN, CITY ATTORNEY

APPROVED:

\_\_\_\_\_  
OSCAR RODRIGUEZ, DIRECTOR  
FINANCE DEPARTMENT

32315/572970  
\_\_\_\_\_  
Business Unit/Line Item

CONTRACTOR:  
NAME OF CONTRACTOR

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

\_\_\_\_\_  
Print Name and Title of Signer

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

NM Taxation & Revenue CRS No.:

\_\_\_\_\_

City of Santa Fe Business Reg. No.:

\_\_\_\_\_

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**B.2. PERFORMANCE BOND**

A. KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_  
*(here insert the name and address or legal title of the Contractor)*  
as Principal, hereinafter called Contractor, and

\_\_\_\_\_  
*(here insert the legal title of Surety)*  
as Surety, hereinafter called Surety, are held firmly bound unto the City of Santa Fe, a New Mexico municipal corporation as Obligee, hereinafter called City, in the amount of

\_\_\_\_\_ DOLLARS,

(\$\_\_\_\_\_) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents;

B. WHEREAS, the Contractor has by written agreement dated \_\_\_\_\_, 2015, entered into a contract with the City of Santa Fe for the Cerrillos Road Reconstruction Project, Phase IIC, CIP #810A, in accordance with drawings and specifications prepared by the City of Santa Fe which contract is by reference made a part hereof, and is hereinafter referred to as the contract.

C. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

1. The Surety hereby waives notice of any alteration or extension of time made by the City.
2. Whenever Contractor shall be, and declared by the City to be in default under the contract, the City having performed City's obligations thereunder, the surety may promptly remedy the default or shall promptly:
  - a. Complete the contract in accordance with its terms and conditions or;
  - b. Obtain a bid or bids for submission to City for completing the contract in accordance with its terms and conditions, and upon determination by City and Surety of the lowest responsible bidder, arrange for a contract between such bidder and City, and make available as work progresses (even though there should be a default or a secession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price, but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph, shall mean the total amount payable by City to Contractor under the contract and any amendments thereto, less the amount properly paid by City to Contractor.

3. Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the contract falls due.

4. No right of action shall accrue on this bond to or for the use of any person or corporation other than the City named herein or the heirs, executors, administrators or successors of the City.

SIGNED AND SEALED ON \_\_\_\_\_, 2015.

My Commission Expires:

\_\_\_\_\_

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
Contractor – Principal

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

Title: \_\_\_\_\_

Approved as to form:

\_\_\_\_\_

\_\_\_\_\_  
Surety

\_\_\_\_\_  
Title: \_\_\_\_\_

Countersigned: \_\_\_\_\_

\_\_\_\_\_  
Surety's Authorized New Mexico Agent

### B.3. LABOR AND MATERIAL PAYMENT BOND

A. KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_  
*(here insert the name and address or legal title of the Contractor)*  
as Principal, hereinafter called Principal, and

\_\_\_\_\_  
*(here insert the legal title of Surety)*  
as Surety, hereinafter called Surety, are held firmly bound unto the City of Santa Fe, a New Mexico municipal corporation as Obligee, hereinafter called City, for the use and benefit of claimants as herein below defined, in the amount of \_\_\_\_\_ DOLLARS, (\$\_\_\_\_\_) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents;

B. WHEREAS, Principal has by written agreement dated \_\_\_\_\_, 2015, entered into a contract with the City of Santa Fe for the Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A, in accordance with drawings and specifications prepared by the City of Santa Fe which contract is by reference made a part hereof, and is hereinafter referred to as the contract.

C. NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the contract, than this obligation shall be void; otherwise, it shall remain in full force, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with the principal or with a subcontractor of the principal for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the contract.

2. The above named Principal and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The City shall not be liable for payment of any cost or expenses of any such suit.

3. No suit or action shall be commenced hereunder by any claimant:

a. Unless claimant, or other than one having a direct contract with the principal, shall have written notice to any two of the following: the Principal, the City, or the surety above named, within ninety (90) days after such said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed.

b. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, City or surety at any place where an office is regularly maintained for the transaction of business, or revised in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such services need not be made by a public officer.

c. After the expiration of one (1) year following the date on which Principal ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be

deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

d. Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

4. The amount of this bond shall not be reduced by and to the extent of any payments made in good faith hereunder, inclusive of the payment by Surety of mechanics liens, which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED ON \_\_\_\_\_, 2015.

In presence of:

\_\_\_\_\_  
Notary Public

My Commission Expires:

\_\_\_\_\_

\_\_\_\_\_  
Name of Company

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

Title: \_\_\_\_\_

\_\_\_\_\_  
Surety

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

Title: \_\_\_\_\_

Countersigned:

\_\_\_\_\_  
Surety's Authorized New Mexico Agent

This bond is issued simultaneously with performance bond in favor of contracting agency for the faithful performance of the contract.

# C. STANDARD SPECIFICATIONS

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## **C.1. STANDARD SPECIFICATIONS**

FOR

Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A

CITY OF SANTA FE

The New Mexico Department of Transportation Standard Specifications for Highway & Bridge Construction, 2014 Edition, shall govern construction of this project except where revised or amended by the Supplemental General Provisions, Special Provisions and Supplemental Specifications.

The Supplemental General Provisions, Special Provisions and Supplemental Specifications shall govern over the Standard Specifications and are hereby made a part of the Contract Documents.

## C.2. SPECIAL PROVISIONS FOR MINIMUM WAGE

This project is subject to the Minimum Wage Rates as determined by the New Mexico Department of Workforce Solutions, Public Works Bureau pursuant to Chapter 13, Section 13-14-11, NMSA 1978 and the U.S. Department of Labor Decision No. NM150048. The Minimum Wage Rates to be paid by the Contractor and any Subcontractors to their employees on this project shall be in accordance with those wages as listed in the New Mexico Department of Workforce Solutions, Public Works Bureau Minimum Wage Rate Decision Number SF-15-1508A. Copies of the wage rate decision and applicable forms are bound in this section. The Contractor is hereby required to submit all wage decision forms to the City as follows:

- **Subcontractor List & Statement of Intent to Pay Prevailing Wages** – Submit before construction starts
- **Affidavit of Wages Paid** – Submit after construction, but before final payment

Subcontractors shall provide all necessary wage decision forms or information to the prime contractor. The prime contractor shall be responsible for the submission of wage decision forms or information required of all subcontractors to the City. The same timelines stated above apply.

## C.3. SPECIAL PROVISIONS FOR SUBMISSION OF WEEKLY PAYROLLS

### WAGE RATE DECISION

Contractors are hereby advised that this project is subject to the New Mexico Department of Workforce Solutions, Public Works Bureau Wage Rate decision Number NM150048.

### SUBMISSION OF WEEKLY PAYROLLS

All Contractors and subcontractors shall submit one (1) certified copy of the project weekly payroll to the City of Santa Fe, 50 Market Street, Suite 200, Santa Fe, NM 87504, C/O, Desirae Lujan, Project Engineer, no later than five (5) working days after the close of each payroll period. Contractor will be required to use the LCPTracker and B2Gnow reporting. See the website for more information at:

<http://dot.state.nm.us/content/dam/nmdot/OEOP/Policy%20Statement.pdf>

The prime contractor shall be responsible for the submission of copies of payrolls of all subcontractors. All Contractors and subcontractors must have copies of certified payrolls available to the New Mexico Department of Workforce Solutions, Public Works Bureau within ten (10) days of a written request, if required.

## C.4. SPECIAL PROVISION FOR APPRENTICES

(Program of Department of Labor)

Before using apprentices on this project, the Contractor shall present to the Contracting Officer written evidence of registration of such employees with the U.S. Department of Labor, Bureau of Apprenticeship and Training, Western Bank Building (Room 1414), 505 Marquette Avenue, N.W., Albuquerque, New Mexico 87102, Telephone 245-2142. If the apprentice is not registered in a bona fide apprenticeship program as mentioned above, the journeyman's wage rate for that particular classification in which he/she is working is applicable.

### C.5. CITY OF SANTA FE LIVING WAGE ORDINANCE



PURSUANT TO THE CITY OF SANTA FE  
LIVING WAGE ORDINANCE, SECTION 28-1 SFCC 1987  
EFFECTIVE MARCH 1, 2015 ALL WORKERS WITHIN THE  
CITY OF SANTA FE  
SHALL BE PAID A LIVING WAGE OF



#### Santa Fe's Living Wage

- The Santa Fe Living Wage Ordinance establishes minimum hourly wages.
- The March 1, 2015 Living Wage increase corresponds to the increase in the Consumer Price Index (CPI).
- All employers required to have a business license or registration from the City of Santa Fe ("City") must pay at least the adjusted 2015 Living Wage to employees for all hours worked within the Santa Fe city limits.

#### Who is Required to Pay the Living Wage?

- The City to all full-time permanent workers employed by the City;
- Contractors for the City, that have a contract requiring the performance of a service but excluding purchases of goods;
- Businesses receiving assistance relating to economic development in the form of grants, subsidies, loan guarantees or industrial revenue bonds in excess of twenty-five thousand dollars (\$25,000) for the duration of the City grant or subsidy;
- Businesses required to have a business license or registration from the City; and
- Nonprofit organizations, except for those whose primary source of funds is from Medicaid waivers.
- For workers who customarily receive more than one hundred dollars (\$100) per month in tips or commissions, any tips or commissions received and retained by a worker shall be counted as wages and credited towards satisfaction of the Living Wage provided that, for tipped workers, all tips received by such workers are retained by the workers, except that the pooling of tips among workers shall be permitted.

More Information, including the Living Wage Ordinance, is available at  
<http://www.santafenm.gov>  
(Click on Hot Topics/Living Wage)



EFFECTIVO DESDE EL DÍA PRIMERO DE MARZO DE 2015  
 PARA TODOS LOS TRABAJADORES QUE LABOREN  
 DENTRO DE LOS LÍMITES DE LA CIUDAD DE SANTA FE  
 EL SALARIO MÍNIMO ESTABLECIDO QUE DEBERÁ SER  
 PAGADO ES DE

**\$10.84**  
**POR HORA**

### Salario Mínimo para la ciudad de Santa Fe

- La ciudad de Santa Fe establece salario mínimo por hora.
- Desde el 01 de Marzo de 2015 el incremento de salario, corresponde con el aumento en el índice de precios al consumidor (IPC).
- Todos los empleadores requieren, por ley, tener una licencia o registro de la ciudad de Santa Fe, deben pagar al menos el salario ajustado de 2015 a los empleados de todas las horas trabajadas dentro de los límites de la ciudad de Santa Fe.

### ¿Quién está obligado a pagar el salario?

- La ciudad a todos los trabajadores a tiempo completo permanentes contratados por la ciudad;
- Contratistas para la ciudad, tiene un contrato que requiere la prestación de un servicio, pero excluyendo las compras de mercancías;
- Empresas reciben asistencia en relación con el desarrollo económico en forma de becas, subsidios, garantías de préstamos o bonos industriales de ingresos superiores a 25 mil dólares (\$25,000) para la duración de la beca de ciudad o de subvención;
- Empresas requieren contar con la licencia o el registro de la ciudad; y
- Organizaciones sin fines de lucro, con excepción de aquellos cuya principal fuente de fondos es de exenciones de Medicaid.
- Para los trabajadores que habitualmente reciben más de cien dólares (\$100) por mes en consejos o comisiones, consejos o comisiones recibidas y retenida por un trabajador serán contados como salarios y acreditados hacia la satisfacción de los salario siempre que, para los trabajadores reciben propinas, todos los consejos recibidos por estos trabajadores son retenidos por los trabajadores, salvo que se permitirá la puesta en común de consejos entre los trabajadores.

Más información, incluyendo la ordenanza del salario, está disponible en  
<http://www.santafenm.gov>  
 (haga clic en Hot Topics/Living Wage)

## C.6. STATE WAGE DECISION

B.

SUSANA MARTINEZ  
GOVERNOR



CELINA BUSSEY  
SECRETARY

JOHN SANCHEZ  
LT. GOVERNOR

STATE OF NEW MEXICO  
DEPARTMENT OF WORKFORCE SOLUTIONS  
121 Tijeras Ave NE Suite 3000  
Albuquerque, NM 87102  
Telephone (505) 841-4405  
Fax (505) 841-4424

## 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](http://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 [Kim.Kew@state.nm.us](mailto:Kim.Kew@state.nm.us) or 505-841-4405

Otis Caddy [LynnO.Caddy@state.nm.us](mailto:LynnO.Caddy@state.nm.us) 505-841-4406

Stacey Lowrey [Stacey.Lowrey@state.nm.us](mailto:Stacey.Lowrey@state.nm.us) 505-841-4412

Violet Miera [Violet.Miera2@state.nm.us](mailto:Violet.Miera2@state.nm.us) 505-841-4418

New Mexico Department of Workforce Solutions  
Public Works

121 Tijeras Ave. NE, Suite 3000, Albuquerque, NM 87102  
Phone: (505)-841-4400 fax to: (505) 841-4424 or Email to: [public.works@state.nm.us](mailto:public.works@state.nm.us)

**Wage Decision # SF-15-1508 A**  
**NOTIFICATION OF AWARD (NOA)**

**THIS WAGE DECISION # EXPIRES FOR BIDS ON**

**02/04/16**

**Description and Location of Work:** Cerrillos Road Reconstruction, Phase IIC  
Removal and replacement of pavement, curb and gutter, and sidewalk with the addition of an access lane, new bike lane, driveways, bus stops, and landscaping, and also including new storm drain, utilities, lighting, signals, and other appurtenances

City of Santa Fe

County of Santa Fe

Cerrillos Road from Carlos Rey to Llano

**REMINDER for Agency Conducting BID Process:**

After the Contracting Agency awards this project the Wage Rate Poster, Sub-List and the Project Requirement Document, excluding this NOA must be delivered to the **GENERAL/PRIME CONTRACTOR**. The Contracting Agency or its agent must complete this form and submit with the sub-list listing all of the subcontractors including all tiers of subcontractors and fax or email 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) 841-4424

Please include 2nd & 3rd Tier subcontractors. Make extra copies of form if necessary.

Wage Decision. # **SF-15-1508 A**

#### General

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

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ License No.: \_\_\_\_\_  
Phone No.: \_\_\_\_\_ Fax No.: \_\_\_\_\_ Sub \_\_\_\_\_ 2<sup>nd</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

(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 \_\_\_\_\_ 2<sup>nd</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

(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 \_\_\_\_\_ 2<sup>ne</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

**(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 \_\_\_\_\_ 2<sup>nd</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

**(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 \_\_\_\_\_ 2<sup>nd</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

**(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 \_\_\_\_\_ 2<sup>ne</sup> TIER  
\_\_\_\_\_ 3<sup>rd</sup> TIER \_\_\_\_\_

(To Whom)

**(To Whom)**

Work to be performed: \_\_\_\_\_ Start Date: \_\_\_\_\_

Amount (\$): \_\_\_\_\_

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Revised 8/23/13

Cerrillos Road Reconstruction, Phase IIC: Wage Decision #SF-15-1508 A  
Removal and replacement of pavement, curb and gutter, and sidewalk with the addition of an access lane, new bike lane, driveways, bus stops, and landscaping, and also including new storm drain, utilities, lighting, signals, and other appurtenances.

**TYPE "A" - STREET, HIGHWAY, UTILITY & LIGHT ENGINEERING**

Effective September 24

Trade Classification	Base Rate	Fringe Rate
Bricklayer/Blocklayer/Stonemason	23.32	8.04
Carpenter/Lather	23.40	9.02
Cement Mason	17.11	6.32
Ironworker	26.12	14.02
Painter (Brush/Roller/Spray)	16.00	5.58
<b>Electricians (outside)</b>		
Groundman	21.28	10.53
Equipment Operator	30.54	12.94
Lineman/Wireman or Tech	35.94	14.34
Cable Splicer	39.52	15.28
Plumber/Pipefitter	28.30	4.07
<b>Laborers</b>		
Group I	12.20	5.30
Group II	12.50	5.30
Group III	12.90	5.30
<b>Operators</b>		
Group I	16.69	6.16
Group II	17.44	6.16
Group III	17.55	6.16
Group IV	17.63	6.16
Group V	17.75	6.16
Group VI	17.89	6.16
Group VII	18.27	6.16
Group VIII	18.50	6.16
Group IX	25.45	6.16

Group X	28.35	6.16
<b>Truck Drivers</b>		
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, ZONE AND INCENTIVE PAY APPLY ACCORDING TO THE PARTICULAR TRADES COLLECTIVE BARGAINING AGREEMENT. DETAILS ARE LOCATED AT [WWW.DWS.STATE.NM.US](http://WWW.DWS.STATE.NM.US).**

**C.7. FEDERAL WAGE NO. NM150048**

Modification Number      Publication Date  
 0                              01/02/2015

\* ELEC0611-003 07/01/2014

	Rates	Fringes
ELECTRICIAN (Boom Operator).....	\$ 29.79	12.74

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 SUNM2011-002 08/25/2011

	Rates	Fringes
CARPENTER (Includes Form Work)...	\$ 13.88	0.44
CEMENT MASON/CONCRETE FINISHER...	\$ 14.60	0.26
ELECTRICIAN (Includes Traffic Signalization and Installation).....	\$ 25.06	8.56
HIGHWAY/PARKING LOT STRIPING: Includes Highway Line/Parking Lot Line Striping and Line Striping Truck Driver.....	\$ 14.75	0.35
IRONWORKER, REINFORCING.....	\$ 22.44	5.85
LABORER		
Common or General.....	\$ 11.21	0.35
Flagger/Cone Setter.....	\$ 13.55	0.35
Mason Tender- Cement/Concrete.....	\$ 10.25	0.35
Pipelayer.....	\$ 17.13	5.04
POWER EQUIPMENT OPERATOR:		
Backhoe/Excavator/Trackhoe..	\$ 17.20	0.26
Bobcat/Skid Loader.....	\$ 12.00	0.26
Broom/Sweeper.....	\$ 16.67	1.57
Grader/Blade.....	\$ 17.64	1.51
Loader (Front End).....	\$ 16.43	0.26
Mechanic.....	\$ 23.24	1.51
Oiler.....	\$ 22.08	8.72
Piledriver.....	\$ 15.73	0.26
Roller (Asphalt and Dirt)...	\$ 16.27	1.51
Trencher.....	\$ 15.22	0.26
TRUCK DRIVER		
Dump Truck.....	\$ 15.04	0.26
Flatbed Truck.....	\$ 13.51	0.26
Pickup Truck.....	\$ 12.95	0.26
Water Truck.....	\$ 12.96	0.26

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 WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

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## **D. NOTICE TO CONTRACTORS**

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**NOTICE TO CONTRACTORS  
CIP NO. 810A  
CN S100130**

**D.1. CONTRACT TIME**

The contract time count consisting of a Contract Completion Time & Substantial Completion Time shall govern this project.

**Contract Completion Time**

The Substantial Completion Date shall be October 7, 2016. The Contract Completion Time will commence no later than ten (10) calendar days from the issuance of the Notice to Proceed submitted to the Contractor by the City and shall end upon Physical Completion of the contract by May 13, 2017. All work in the contract, including bid alternates (if applicable), shall be completed within this time in accordance with the definition of "Physical Completion" in Section 101 of the Standard Specifications. For purposes of this contract, this time shall be known as the "Contract Completion Time." The contractor shall be assessed liquidated damages for each consecutive Calendar Day in excess of this time in accordance with Section 108.8 Liquidated Damages, in the Standard Specifications.

**Progress Schedule**

The Contractor shall provide a progress schedule (CPM) to the City at the preconstruction conference (or sooner) for approval by the Project Manager prior to initiating any work. Contract & Substantial Completion Time shall be shown on the Contractor's progress schedule.

**Cumulative Imposition of Liquidated Damages**

The Contract Completion Time and Substantial Completion Time will be evaluated and applied independently, and liquidated damages may be cumulatively imposed for the failure to achieve any of the required time or date requirements.

**Night Work & City Noise Ordinance**

City of Santa Fe Noise Ordinance SFCC §10-2.4 B.(5)(a) prohibits operation of equipment used in construction work on streets in residential or commercially zoned areas between the hours of 9:00 p.m. and 7:00 a.m. the following day. However, the City of Santa Fe Public Works Dept. has acquired an exemption to this ordinance in accordance with SFCC §10-2.8 PERMITS. Therefore, the contractor may work nights if required, however, must coordinate such work at least 48 hours in advance with the Project Manager and take into consideration times and duration of such night work in the vicinity of hotels and motels. The city reserves the right to restrict night work operations in the near vicinity of hotels and motels as may be necessary. Should the contractor work nights, the city may require the contractor to turn off idling equipment and equipment back-up alarms (audible reverse signal alarms) within noise sensitive areas and substitute such use with an observer/signal person per OSHA requirements. Such cases will be evaluated and determined by the city on a case-by-case basis.

## D.2. ADA CONSTRUCTION INSPECTION PROCEDURE

### NOTICE TO CONTRACTORS

#### ADA Construction Inspection Procedure

CN S100130

#### General Comments

NMDOT is recognized as a Title II public entity under the Americans with Disabilities Act of 1990 (Public Law 101-336) (the "ADA"). The ADA provides protections to individuals with disabilities that are at least equal to those provided by the nondiscrimination provisions of title V of the Rehabilitation Act of 1973. The ADA extends the prohibition of discrimination in federally assisted programs, established by section 504 of the Rehabilitation Act, to all activities of State and local government, irrespective of the funding source for the program. As a Title II entity NMDOT must comply with the ADA to make public facilities accessible so as to prohibit discrimination against any "qualified individual with a disability"

Meeting ADA compliance is an ongoing NMDOT obligation, which requires commitment and diligence on multiple levels from project planning through construction of a public right-of-way (PROW) facility.

For this project, to ensure ADA compliance is met, the Contractor shall implement the NMDOT ADA Construction Inspection Policy and Procedure. This Work shall be considered incidental to the completion of the Project and no additional payment shall be made. Failure to comply with this Notice to Contractors may be deemed a Nonconformance in accordance with Specification Section 101.4 "Terms and Definitions" and subject the Contractor to Specification Section 108.9 "Default of Contract".

#### ADA Construction Compliance Requirement:

All constructed ADA facilities meet the *Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of -Way (PROWAG)*, July 26, 2011, which may be accessed through the State Construction Bureau webpage (<http://dot.state.nm.us/en/Construction.html>).

#### Construction Inspection Procedure

The ADA Curb Ramp Documentation forms attached to this Notice to Contractors will be used for the inspection process and NMDOT Acceptance of all curb ramps within the Project to ensure compliance with both PROWAG guidelines and NMDOT construction Plan design. The ADA Curb Ramp documentation forms and this procedure will be discussed at the mandatory Pre-Bid Meeting, if one is held, and the Pre-Construction Conference.

Procedure: The following procedure describes the use of the NMDOT ADA Curb Ramp Documentation form and the inspection process.

1) The Contractor must provide notice to the Project Manager in accordance with Standards Specification 105.10 "Inspection of Work".

- Only a 24 inch electronic digital (“Smart”) level with 0.1% slope accuracy shall be permitted for ADA construction and inspection Acceptance.
- The Contractor and the NMDOT shall calibrate each Smart level prior to performing the next step.
- The Contractor and NMDOT shall select which curb ramp form best aligns with the type to be inspected.
- Before scheduling delivery of concrete, the Contractor and NMDOT shall complete the Pre-Pour Inspection Form verifying that the concrete formwork is constructed to dimensions and grades shown on plans and meets PROWAG, 2011 technical design criteria and NMDOT Construction Plans.
- The NMDOT inspector will verify measurements on the Pre-Pour Form meet the requirements or require correction of all discrepancies in accordance with Standard Specification 105.11 “Removal of Unacceptable and Unauthorized Work”, before scheduling of concrete to ensure the finished concrete Work will meet PROWAG and NMDOT Construction Plans.
- When all measurements meet the Contract requirements then the NMDOT inspector will permit the concrete pour.
- Repeat the procedure using the Constructed Inspection Form after the concrete pour to ensure the curb ramp(s) meets PROWAG compliance and NMDOT Construction Plan design criteria.
- The NMDOT inspector will verify measurements on the Constructed Inspection Form for Acceptance of the Work. Unacceptable Work will be subject to Standard Specification 105.11 “Removal of Unacceptable and Unauthorized Work”.

The Contractor shall prepare the final documentation to include all applicable field measurements documented on the ADA Curb Ramp Documentation inspection forms; the acceptance by the inspector; and a minimum of two (2) pictures of the constructed curb ramp(s). The Contractor shall submit the completed forms to the NMDOT Project Manager, before the next Progress Payment.

The Contractor shall protect and maintain the constructed ADA facilities until such time that Final Acceptance of the ADA facility occurs. Final Acceptance occurs in accordance with Standards Specification section 109.10 “Project Closure”.



ADA Curb Ramp Documentation  
Type: Median – Area of Refuge

Constructed Inspection

STREET NAME \_\_\_\_\_

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMDDOT PROJECT # \_\_\_\_\_

NMDDOT DISTRICT # \_\_\_\_\_

CURB RAMP MP # \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*



ADA Curb Ramp Documentation  
Type: Median – Area of Refuge

Pre-Pour Inspection

STREET NAME \_\_\_\_\_

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMDDOT PROJECT # \_\_\_\_\_

NMDDOT DISTRICT # \_\_\_\_\_

CURB RAMP MP # \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

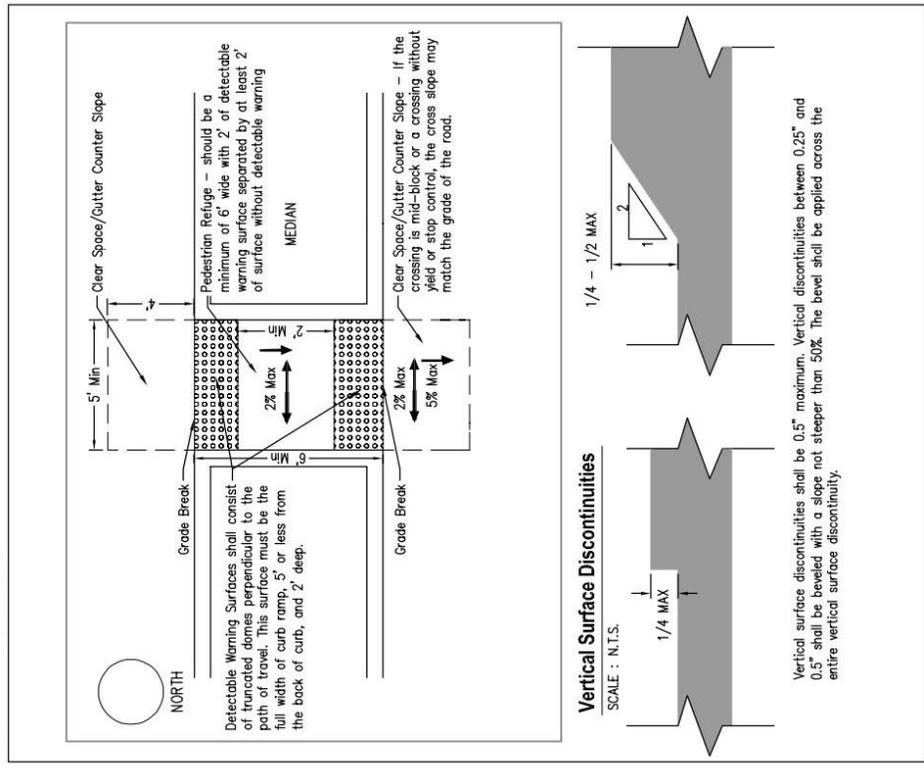
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
 Type: Median – Area of Refuge



**COMMENTS:**

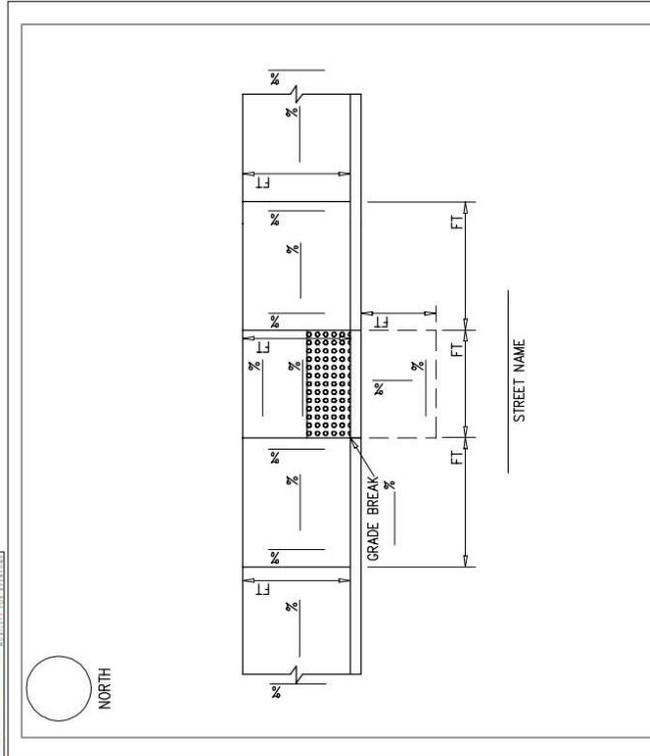
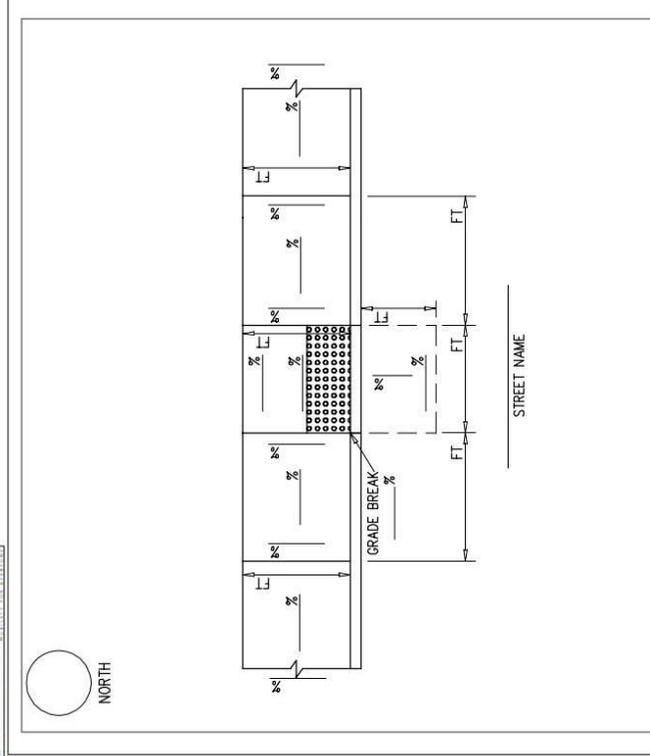
ADA Curb Ramp Documentation  
 Type: Median – Area of Refuge



ADA Curb Ramp Documentation  
Type: Mid-Block Parallel



ADA Curb Ramp Documentation  
Type: Mid-Block Parallel



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

LEVEL CALIBRATION

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

STREET NAME \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

LEVEL CALIBRATION

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

STREET NAME \_\_\_\_\_

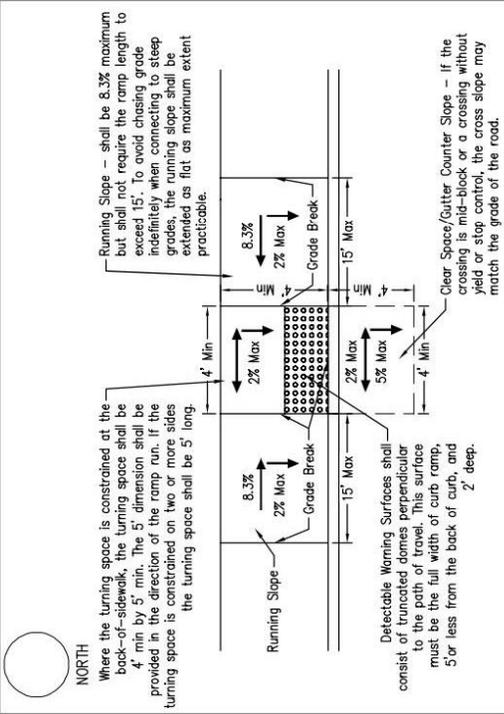
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Mid-Block Parallel



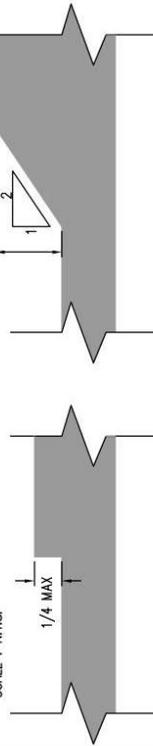
COMMENTS:

ADA Curb Ramp Documentation  
Type: Mid-Block Parallel



Vertical Surface Discontinuities

SCALE : N.I.T.S.

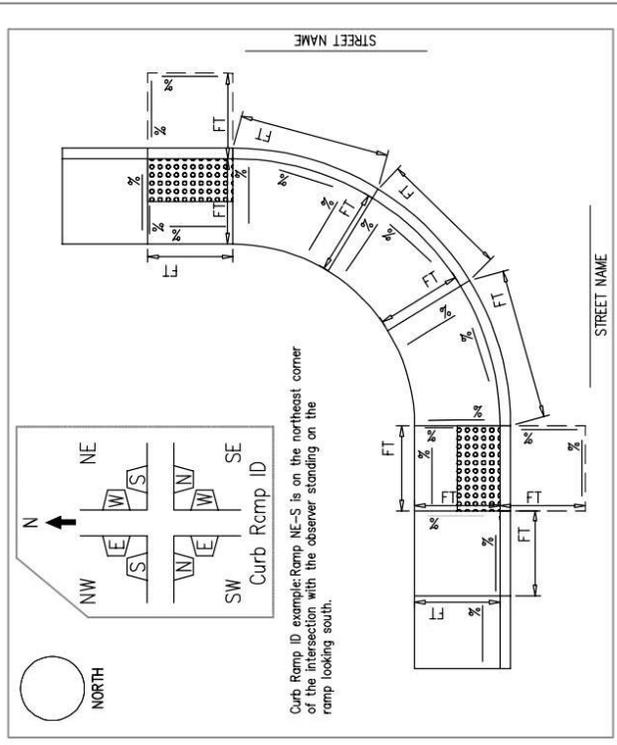


Vertical surface discontinuities shall be 0.5" maximum. Vertical discontinuities between 0.25" and 0.5" shall be beveled with a slope not steeper than 50%. The bevel shall be applied across the entire vertical surface discontinuity.



ADA Curb Ramp Documentation  
Type: Parallel (Directional)

Constructed Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDT PROJECT #: \_\_\_\_\_

NMDDT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

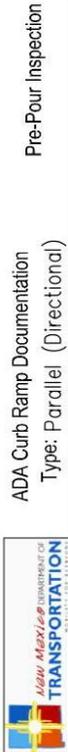
STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

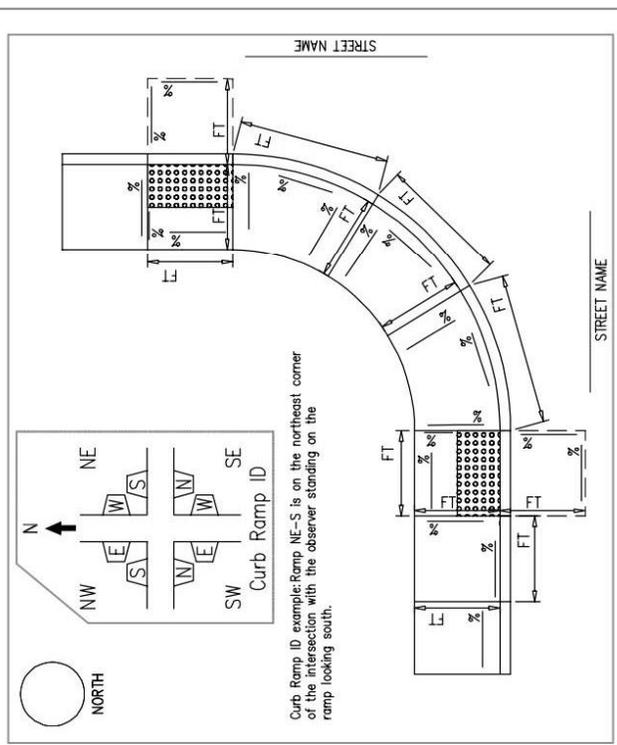
DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*



ADA Curb Ramp Documentation  
Type: Parallel (Directional)

Pre-Pour Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDT PROJECT #: \_\_\_\_\_

NMDDT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

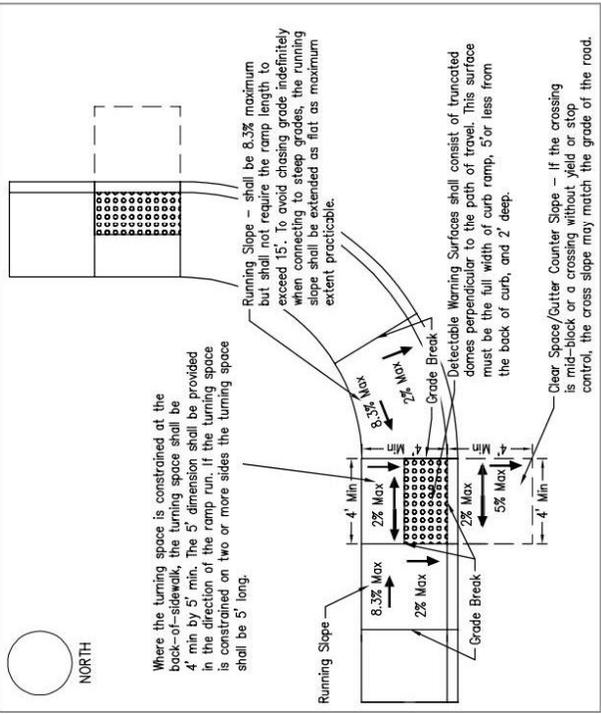
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Parallel (Directional)



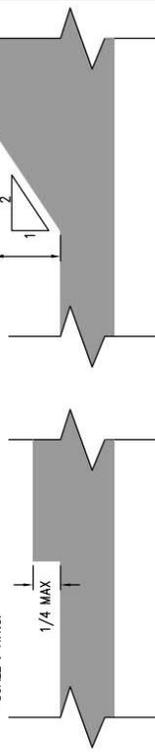
COMMENTS:

ADA Curb Ramp Documentation  
Type: Parallel (Directional)



**Vertical Surface Discontinuities**

SCALE : N.T.S.



Vertical surface discontinuities shall be 0.5" maximum. Vertical discontinuities between 0.25" and 0.5" shall be beveled with a slope not steeper than 50%. The bevel shall be applied across the entire vertical surface discontinuity.

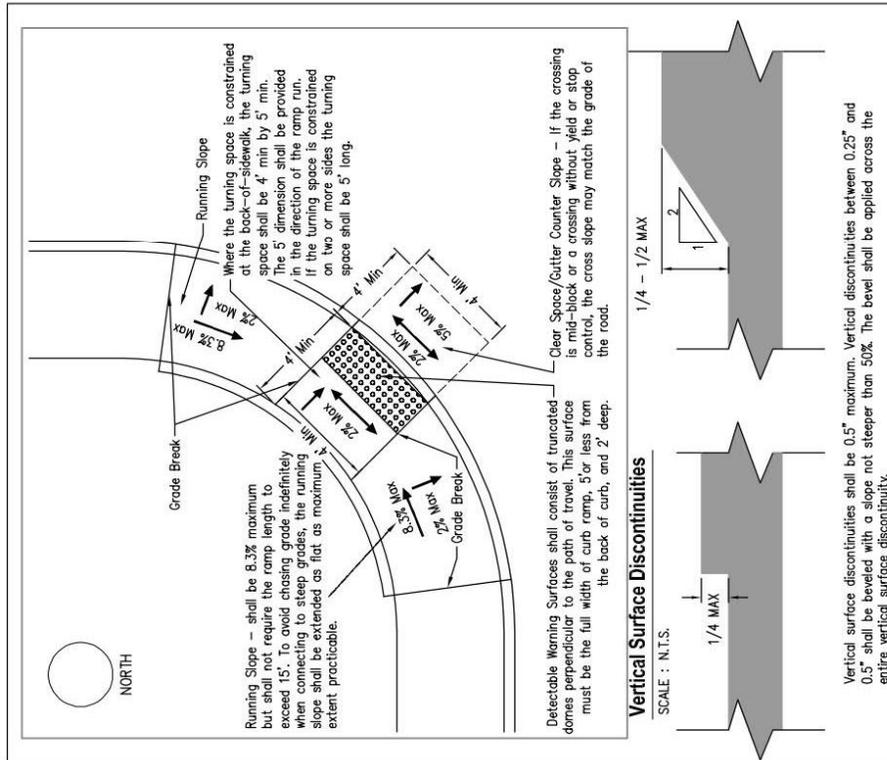


ADA Curb Ramp Documentation  
Type: Parallel (Diagonal)

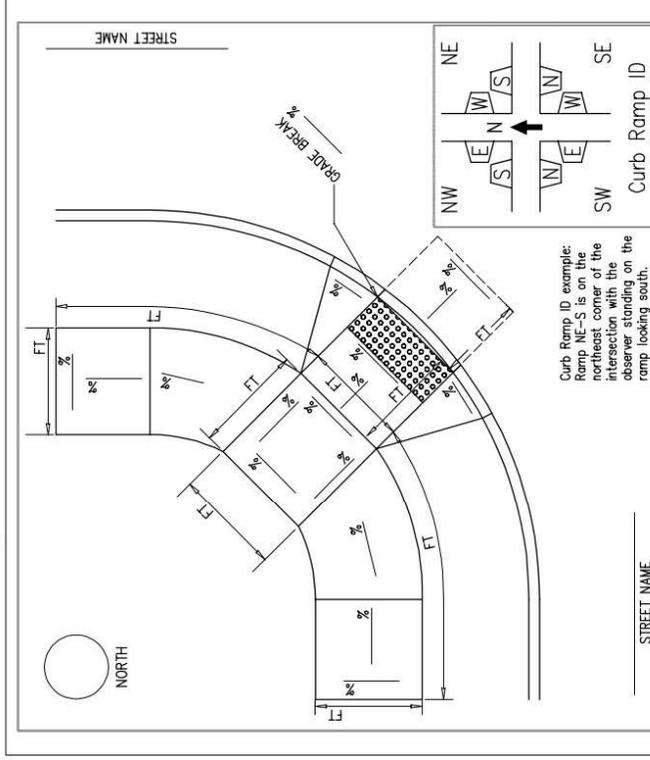


COMMENTS:

ADA Curb Ramp Documentation  
Type: Parallel (Diagonal)




 ADA Curb Ramp Documentation  
 Type: Perpendicular— Detached Walk  
 Constructed Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMIDOT PROJECT #: \_\_\_\_\_

NMIDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

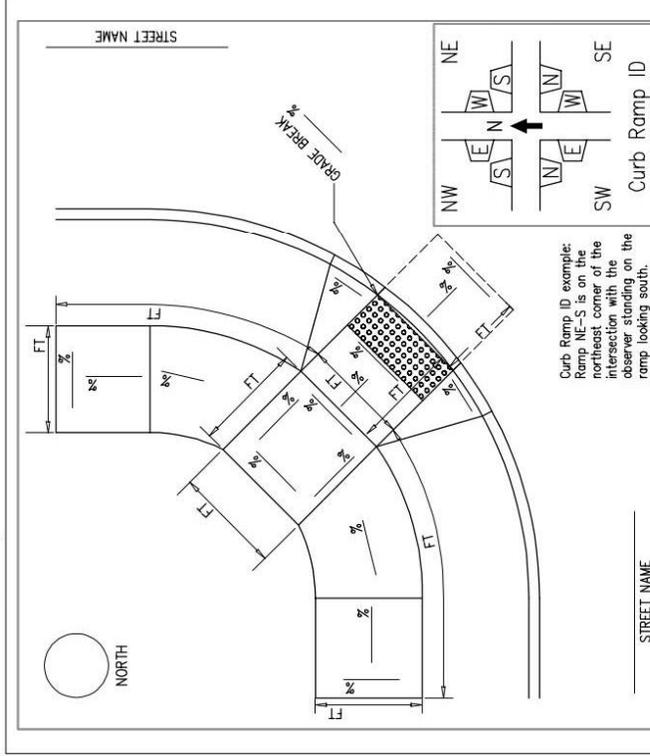
LEVEL CALIBRATION

NMIDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*


 ADA Curb Ramp Documentation  
 Type: Perpendicular— Detached Walk  
 Pre-Pour Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMIDOT PROJECT #: \_\_\_\_\_

NMIDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

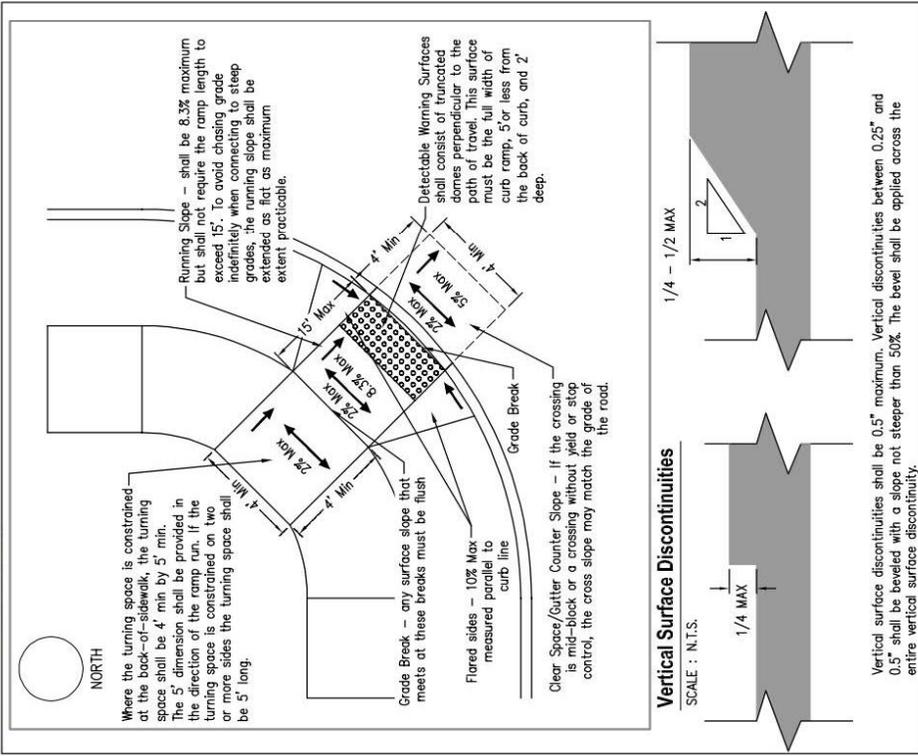
LEVEL CALIBRATION

NMIDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

**COMMENTS:**



ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)

Constructed Inspection

STREET NAME \_\_\_\_\_

Curb Ramp ID

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)

Pre-Pour Inspection

STREET NAME \_\_\_\_\_

Curb Ramp ID

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

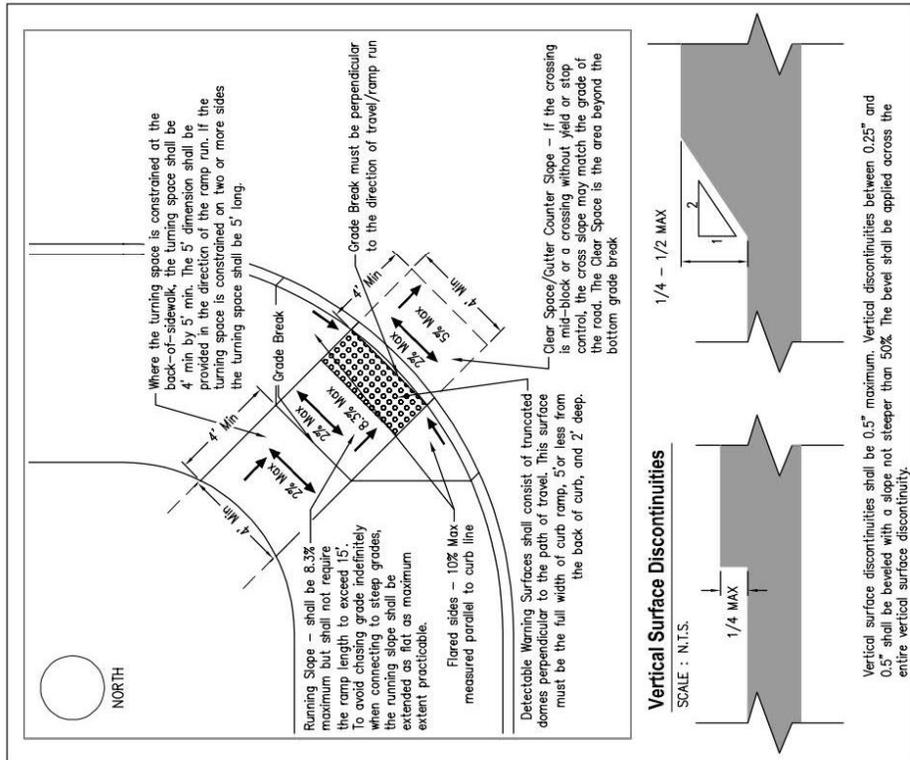


ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)

**COMMENTS:**



ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)



ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)

Constructed Inspection

STREET NAME \_\_\_\_\_

STREET NAME \_\_\_\_\_

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NM DOT PROJECT #: \_\_\_\_\_

NM DOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

NM DOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

LEVEL CALIBRATION

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)

Pre-Pour Inspection

STREET NAME \_\_\_\_\_

STREET NAME \_\_\_\_\_

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NM DOT PROJECT #: \_\_\_\_\_

NM DOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

NM DOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

LEVEL CALIBRATION

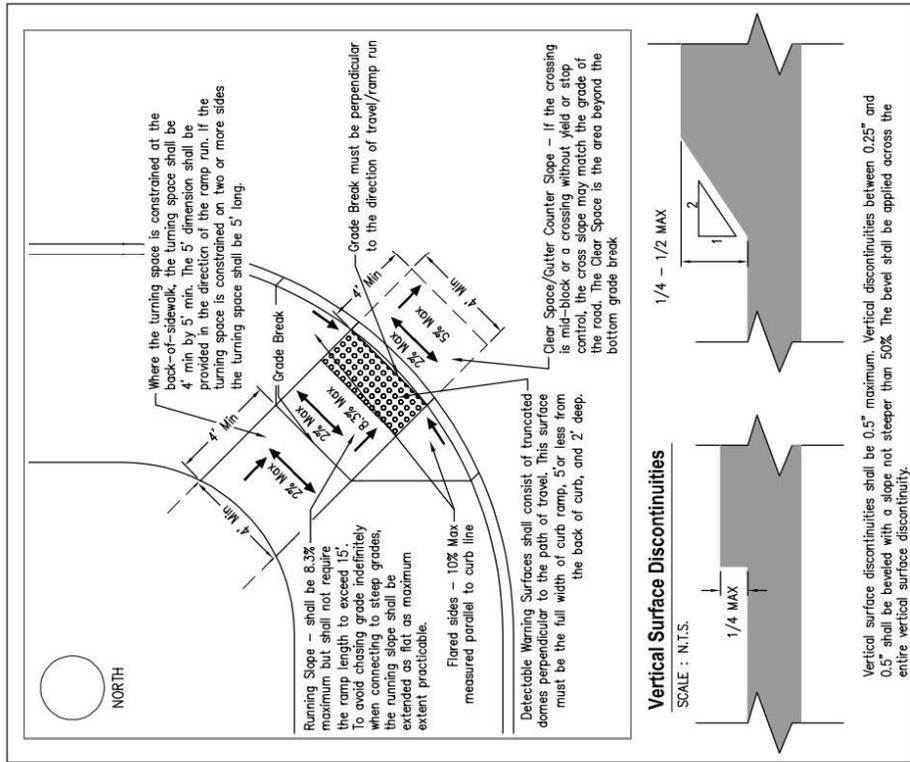
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)



**COMMENTS:**

ADA Curb Ramp Documentation  
Type: Perpendicular (Diagonal)





ADA Curb Ramp Documentation  
Type: Perpendicular (Directional)



**COMMENTS:**

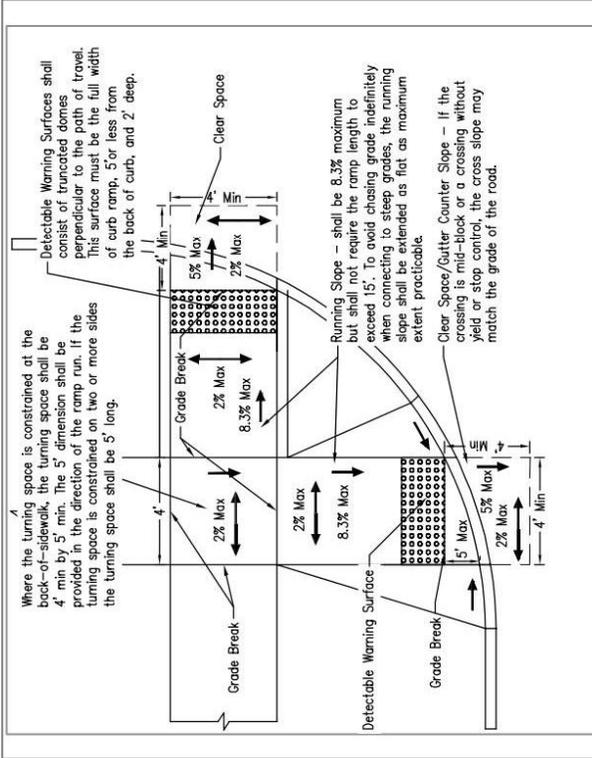
Where the turning space is constrained at the back-of-sidewalk, the turning space shall be 4' min by 5' min. The 5' dimension shall be provided in the direction of the ramp run. If the turning space is constrained on two or more sides the turning space shall be 5' long.

Detectable Warning Surfaces shall consist of truncated domes perpendicular to the path of travel. This surface must be the full width of curb ramp, 5' or less from the back of curb, and 2' deep.

Running Slope - shall be 8.3% maximum but shall not require the ramp length to exceed 15'. To avoid chasing grade indefinitely when connecting to steep grades, the running slope shall be extended as flat as maximum extent practicable.

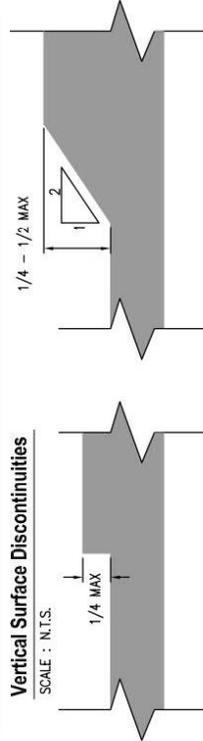
Clear Space/Gutter Counter Slope - If the crossing is mid-block or a crossing without yield or stop control, the cross slope may match the grade of the road.

ADA Curb Ramp Documentation  
Type: Perpendicular (Directional)



**Vertical Surface Discontinuities**

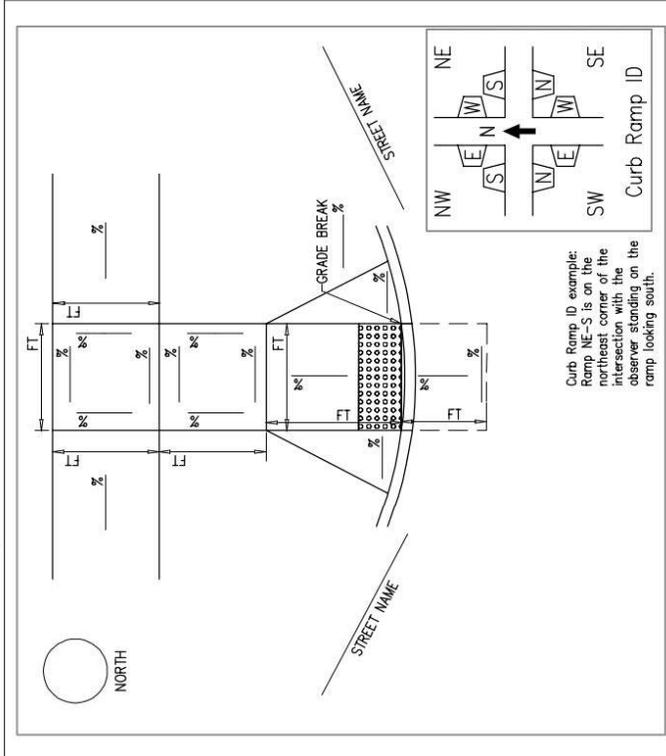
SCALE : N.T.S.



Vertical surface discontinuities shall be 0.5" maximum. Vertical discontinuities between 0.25" and 0.5" shall be beveled with a slope not steeper than 50%. The bevel shall be applied across the entire vertical surface discontinuity.

ADA Curb Ramp Documentation  
Type: Perpendicular (Radial)

Constructed Inspection



Curb Ramp ID example:  
Ramp NE-S is on the  
northeast corner of the  
intersection with the  
observer standing on the  
ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMIDOT PROJECT #: \_\_\_\_\_

NMIDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

LEVEL CALIBRATION

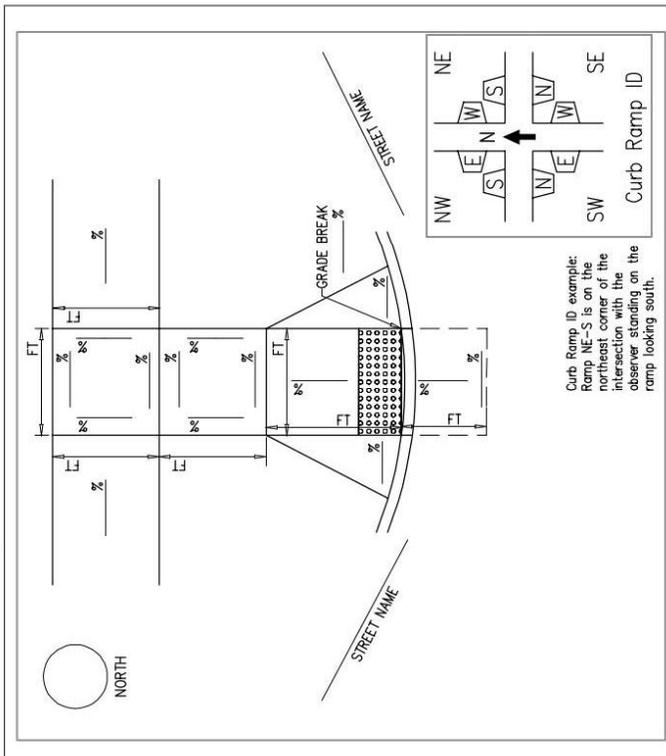
NMIDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular (Radial)

Pre-Pour Inspection



Curb Ramp ID example:  
Ramp NE-S is on the  
northeast corner of the  
intersection with the  
observer standing on the  
ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

NMIDOT PROJECT #: \_\_\_\_\_

NMIDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP #: \_\_\_\_\_

STA: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

LEVEL CALIBRATION

NMIDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

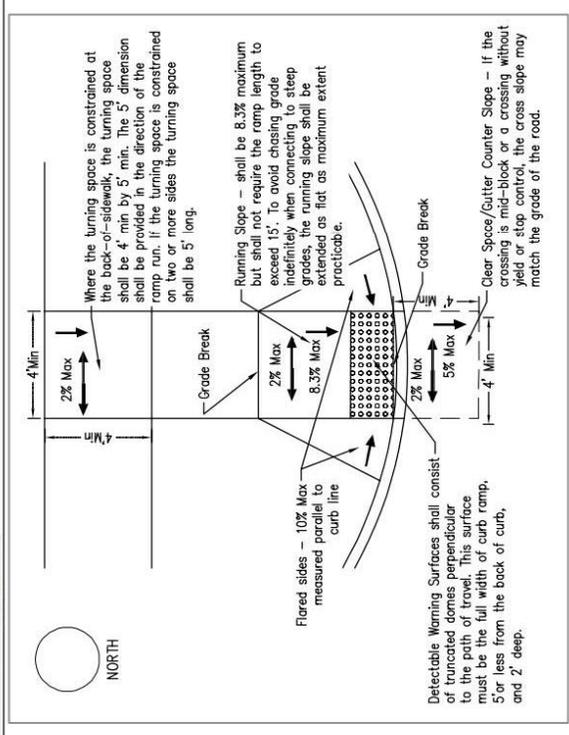
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular (Radial)



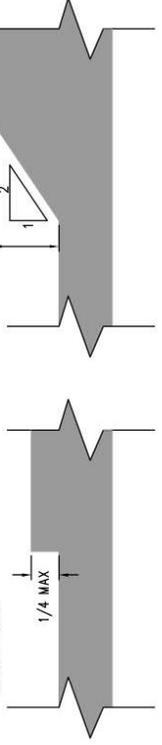
COMMENTS:

ADA Curb Ramp Documentation  
Type: Perpendicular (Radial)



Vertical Surface Discontinuities

SCALE : N.T.S.

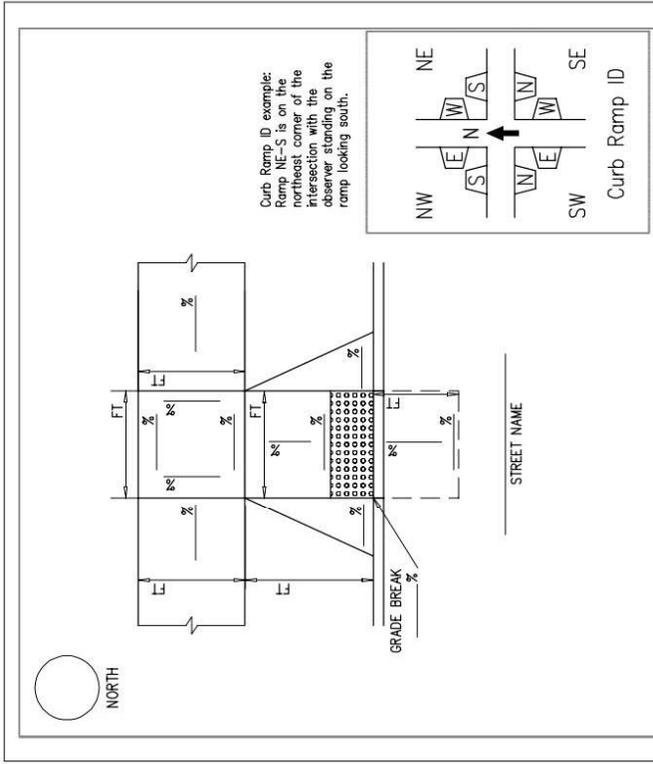


Vertical surface discontinuities shall be 0.5" maximum. Vertical discontinuities between 0.25" and 0.5" shall be beveled with a slope not steeper than 50%. The bevel shall be applied across the entire vertical surface discontinuity.



ADA Curb Ramp Documentation  
Type: Perpendicular

Constructed Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDOT PROJECT #: \_\_\_\_\_

NMDDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

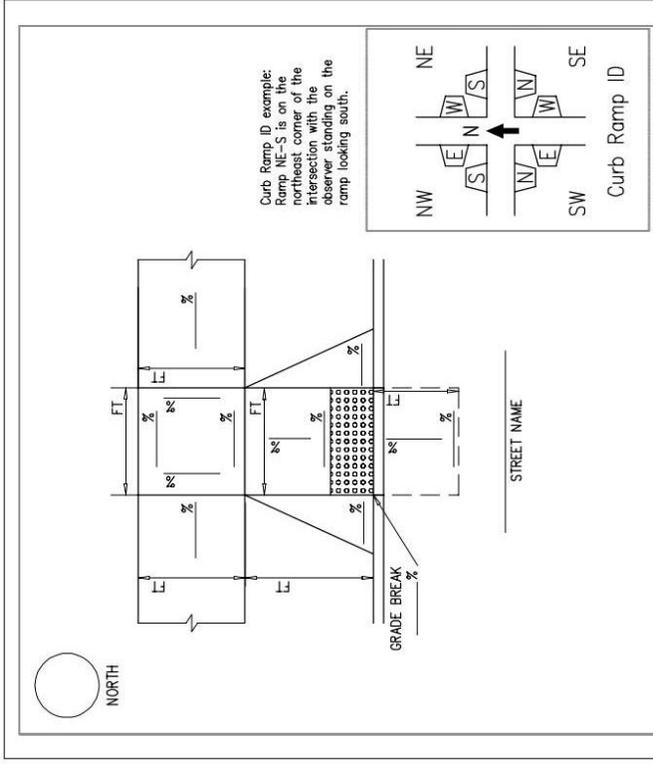
DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*



ADA Curb Ramp Documentation  
Type: Perpendicular

Pre-Pour Inspection



INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDOT PROJECT #: \_\_\_\_\_

NMDDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

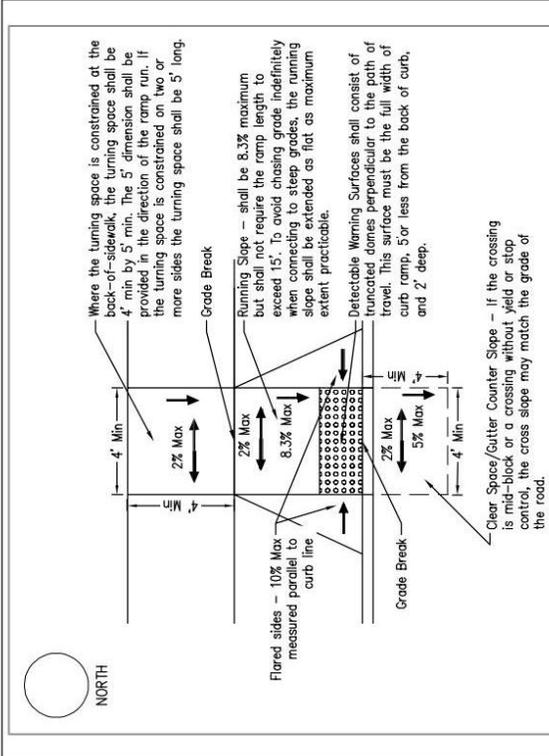
\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Perpendicular



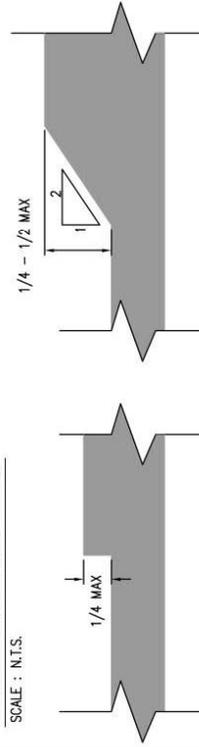
**COMMENTS:**

ADA Curb Ramp Documentation  
Type: Perpendicular



**Vertical Surface Discontinuities**

SCALE : N.T.S.



Vertical surface discontinuities shall be 0.5" maximum. Vertical discontinuities between 0.25" and 0.5" shall be beveled with a slope not steeper than 50%. The bevel shall be applied across the entire vertical surface discontinuity.

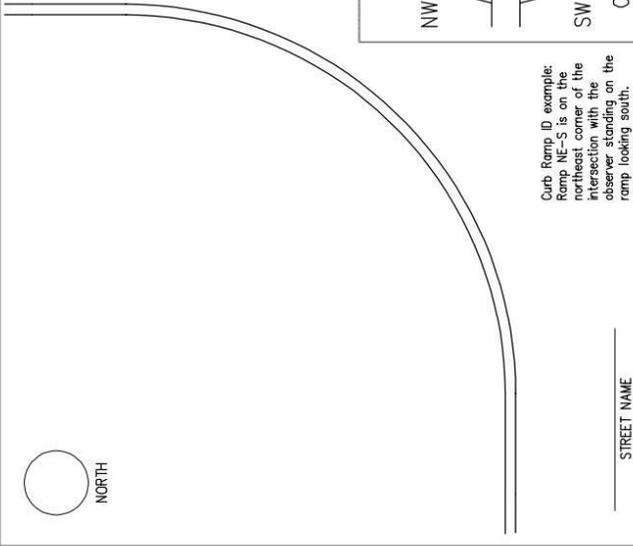
ADA Curb Ramp Documentation  
Type: Blank Curb Ramp



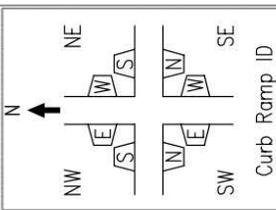
Constructed Inspection



NORTH



STREET NAME \_\_\_\_\_



Curb Ramp ID

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NM DOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NM DOT PROJECT #: \_\_\_\_\_

NM DOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

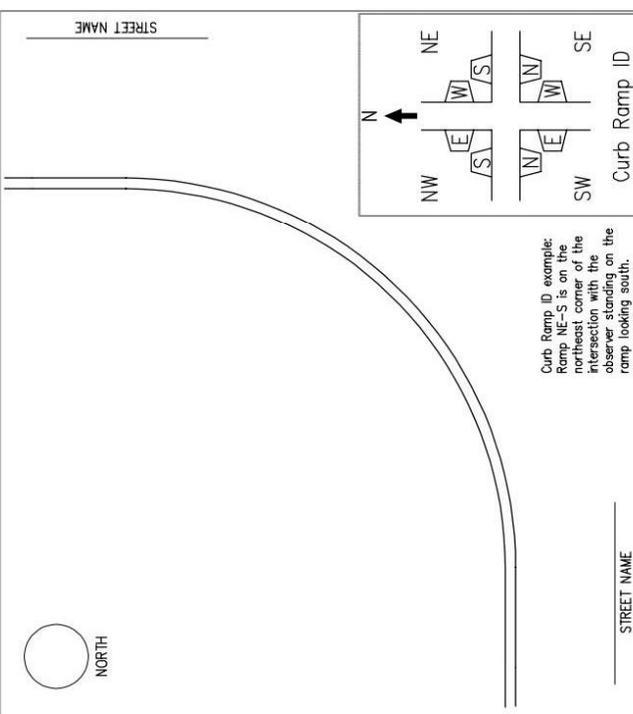
ADA Curb Ramp Documentation  
Type: Blank Curb Ramp



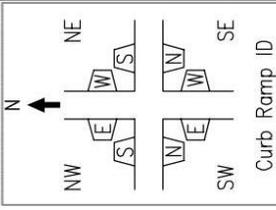
Pre-Pour Inspection



NORTH



STREET NAME \_\_\_\_\_



Curb Ramp ID

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NM DOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NM DOT PROJECT #: \_\_\_\_\_

NM DOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Blank Curb Ramp

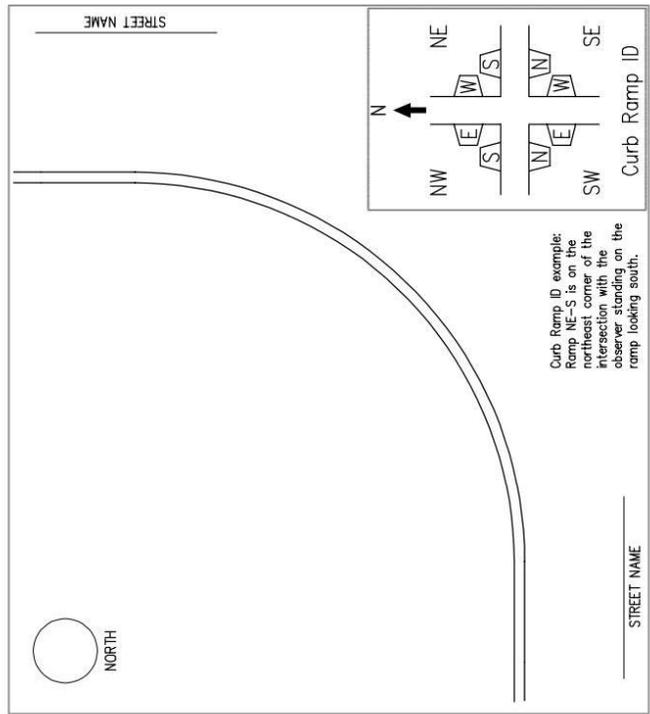
Constructed Inspection





NORTH

STREET NAME \_\_\_\_\_



STREET NAME \_\_\_\_\_

Curb Ramp ID \_\_\_\_\_

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

ADA Curb Ramp Documentation  
Type: Blank Curb Ramp

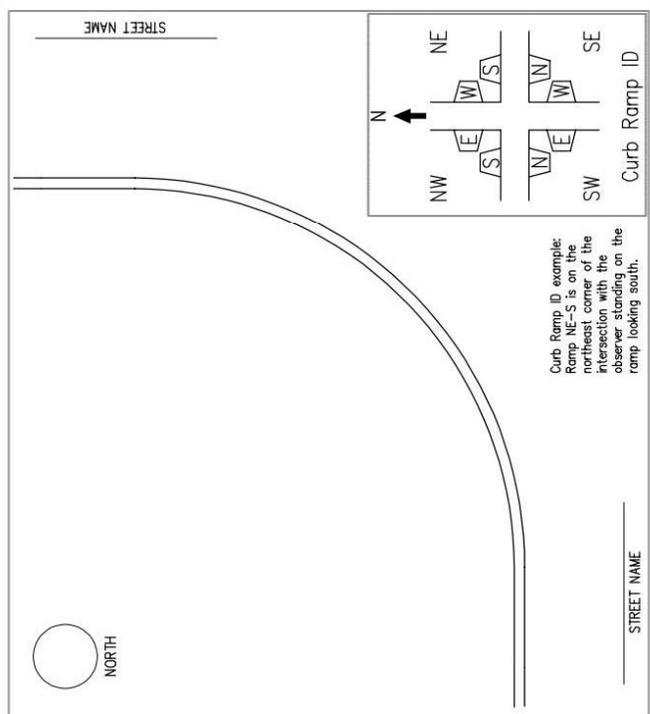
Pre-Pour Inspection





NORTH

STREET NAME \_\_\_\_\_



STREET NAME \_\_\_\_\_

Curb Ramp ID \_\_\_\_\_

Curb Ramp ID example:  
Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDOT PROJECT #: \_\_\_\_\_

NMDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*



ADA Pedestrian Access Route (PAR) Documentation  
Type: Typical PAR  
Constructed Inspection

NE  
NW  
SE  
SW

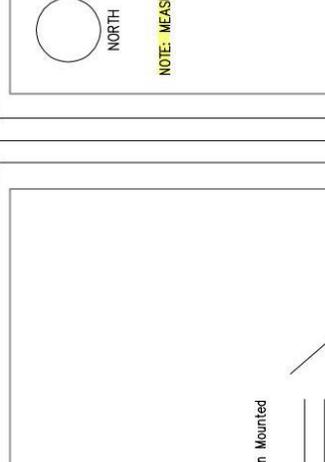
Curb Ramp ID

Curb Ramp ID example: Ramp NE-S is on the northeast corner of the intersection with the observer standing on the ramp looking south.

**NOTE: MEASURE RUNNING AND CROSS SLOPE EVERY 10'**

Post/Pylon Mounted Objects

Type of Sign \_\_\_\_\_  
Height to Base \_\_\_\_\_  
Protrusion in Walk \_\_\_\_\_  
Base Dimensions \_\_\_\_\_



STREET GRADE NOT TO EXCEED OR 5% MAXIMUM

FT

8%

8%

OBJECT

\_\_\_\_\_ STREET NAME

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDOT PROJECT #: \_\_\_\_\_

NMDDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

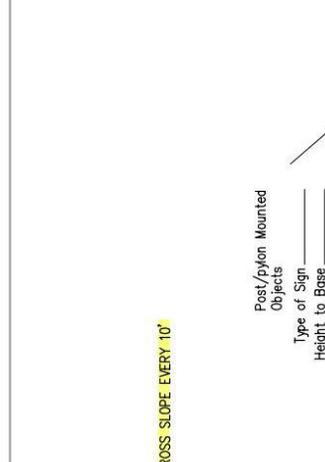


ADA Pedestrian Access Route (PAR) Documentation  
Type: Typical PAR

**NOTE: MEASURE RUNNING AND CROSS SLOPE EVERY 10'**

Post/Pylon Mounted Objects

Type of Sign \_\_\_\_\_  
Height to Base \_\_\_\_\_  
Protrusion in Walk \_\_\_\_\_  
Base Dimensions \_\_\_\_\_



STREET GRADE NOT TO EXCEED OR 5% MAXIMUM

FT

8%

8%

OBJECT

\_\_\_\_\_ STREET NAME

INSPECTOR SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACTOR SIGNATURE: \_\_\_\_\_

LEVEL CALIBRATION

NMDDOT INSPECTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACTOR INITIAL \_\_\_\_\_ DATE \_\_\_\_\_

NMDDOT PROJECT #: \_\_\_\_\_

NMDDOT DISTRICT #: \_\_\_\_\_

CURB RAMP MP#: \_\_\_\_\_

STA: \_\_\_\_\_ OFFSET: \_\_\_\_\_

CORNER: \_\_\_\_\_

CITY/STATE: \_\_\_\_\_

DATE: \_\_\_\_\_

\*FINAL ACCEPTANCE OF CURB RAMP DOES NOT OCCUR UNTIL THE FINAL INSPECTION OF THE PROJECT\*

**D.3. MONTHLY ASPHALT BINDER PRICE ADJUSTMENT PROCEDURES****NOTICE TO CONTRACTORS****Monthly Asphalt Binder Price Adjustment Procedures****CN S100130**

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, WMA 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).

$$\text{Equation (1):} \quad A = (B - (1.1 \times C)) \times D$$

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).

$$\text{Equation (2):} \quad A = (B - (0.9 \times C)) \times D$$

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.

**D.4. RAMP-UP TIME****NOTICE TO CONTRACTORS**

Ramp-Up Time

CN S100130

Ramp-Up Time is defined as the time between the date of award of the construction agreement and the Notice to Proceed. The Contractor shall commence Work on this Contract on the date(s) specified in the Notice to Proceed. Date selected for commencement must be coordinated and approved by the Project Manager. The Contractor may use this ramp-up period for initial project ramp-up Work such as obtaining necessary permits, environmental clearances, stockpiling of materials, development of shop drawings, crushing operations, pre-construction utility survey/coordination and/or other activities that do not impact traffic within the Project limits. No additional time extensions or Project suspensions will be granted beyond May 13, 2017 unless for reasons caused by conditions beyond the control of and not the fault of the Contractor.

**D.5. NON-MANDATORY PRE-BID CONFERENCE****NOTICE TO CONTRACTORS****Non-Mandatory Pre-Bid Conference****CN S100130**

A Pre-Bid Conference (NON-MANDATORY) for CN S100130 will be held on October 29, 2015 in the Roundhouse conference room at the Market Station Offices of the City of Santa Fe at 500 Market Street, Suite 200 at 2:00p.m. The purpose of this Non-Mandatory Pre-Bid is to discuss: (a.) General Overview of Project; (b.) Utility Coordination with PNM for the relocation of the overhead line prior to notice to proceed (c.) Other issues related to project. For additional information regarding the Pre-Bid Conference, contact Desirae Lujan at 505-955-6672.

**D.6. ITEMIZED LIST****NOTICE TO CONTRACTORS**Itemized List – Water System, Sewer System, and Landscape, Complete

CN S100130

Itemized lists which include all WATER SYSTEM, SEWER SYSTEM, AND LANDSCAPE COMPLETE items are required on this project. The Contractor shall submit the completed itemized lists to the Project Manager at the Pre-Construction Conference.

The total Lump Sum costs derived from the completed itemized list shall be entered in the Bid Schedule for the following Bid Items

Item Number 663206 – WATER SYSTEM (LUMP SUM)  
Item Number 663207 – SEWER SYSTEM (LUMP SUM)  
Item Number 664000 – LANDSCAPE COMPLETE (LUMP SUM)

The total amount bid for this Lump Sum item shall reflect all costs associated with the completion of the WATER SYSTEM, SEWER SYSTEM, AND LANDSCAPE COMPLETE. Only the total Lump Sum item price submitted in the Bid Schedule will be considered.

The sum of all itemized prices must equal the total Lump Sum price submitted in the Bid Schedule. The itemized list will be used to determine payment to the Contractor for any change orders involving this Work.

If additional Work is needed and there are no established bid items on the itemized list, the Contractor shall prepare and submit a line-item cost estimate to the Project Manager for approval.

The quantities appearing in the itemized lists are approximate only and are prepared for the comparison of Bids. Payment to the Contractor will be made only for the actual quantities of Work performed and accepted, or materials furnished, in accordance with this Notice to Contractors.

**D.7. PAVEMENT SMOOTHNESS MEASUREMENT****NOTICE TO CONTRACTORS****Pavement Smoothness Measurement****CN S100130**

In accordance with the Standard Specifications for Section 401 - Pavement Smoothness Measurement, this Project will utilize the following categories for pavement smoothness measurement:

Straightedge in every driving lane and auxiliary lane parallel to centerline of each lane at a location directed by project manager or designee.

<u>Category</u>	<u>Location</u>
Category III	All Areas

**D.8. UTILITY NOTICE TO CONTRACTORS**

October 22, 2015

**NOTICE TO CONTRACTORS****Coordination of Utility Relocations / Installations**

CN S100130

**WORK DESCRIPTION**

The highway contractor's work shall include coordination efforts with respective utility owners, including the time required for utility facilities located within the project limits to be relocated. 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 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 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.

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

UTILITY OWNER: PNM

Contact Donald Ferris  
Phone: (505) 473-3279  
[Donald.Ferris@pnm.com](mailto:Donald.Ferris@pnm.com)

Utility Work By: PNM

Work Location:

Aerial

Cerrillos Road, sta. 140+00 to 172+00 along west right-of-way (parallel) – Relocate existing overhead three phase distribution line. Currently thirty-two (32) in-line wood poles support this line within the project limits. Of these poles twenty-one (21) will be relocated, four (4) will remain in place, and seven (7) will be removed from the system; eleven (11) will be newly installed. The poles to be installed are: 45' self-supporting dead-end or angle poles; 50' wood, 45' wood, and 40' wood poles. PNM will reconnect services.

Pole stations and work descriptions are as follows:

141+32, 59' LT, Relocate to 141+32, 64' LT, 50' Wood pole  
142+70, 66' LT, Existing Wood pole, Remain in Place  
143+20, 65' LT, Existing Wood pole, Remain in Place  
144+05, 64' LT, Existing Wood pole, Remain in Place  
144+90, 63' LT, Existing Wood, Remain in Place  
146+95, 60' LT, Relocate to 146+60, 60' LT, 45' Wood  
147+30, 59' LT, Relocate to 147+30, 67' LT, Steel  
148+76, 62' LT, Relocate/Replace with Steel to 148+76, 70' LT  
149+40, 60' LT, Existing To be removed  
149+89, 58' LT, Relocate to 150+09, 68' LT, 45' Wood  
151+55, 58' LT, Relocate to 151+54, 66' LT, 45' Wood  
152+22, 66' LT, New 45' Wood  
153+47, 57' LT, Relocate to 153+37, 66' LT, 45' Wood  
153+62, 57' LT, Relocate/Replace with Steel to 153+62, 66' LT  
154+69, 64' LT, New 45' Wood  
155+54, 53' LT, Relocate to 155+99, 62' LT, 45' Wood  
155+60, 79' LT, New 40' Wood Pole  
155+80, 51' LT, Existing To be removed  
156+55, 63' LT, New 45' Wood Pole  
157+73, 56' LT, Relocate to 157+73, 66' LT, 45' Wood  
158+39, 56' LT, Relocate to 158+54, 66' LT, 45' Wood  
159+83, 55' LT, Relocate to 159+83, 65' LT 45' Wood  
160+40, 55' LT, Existing To be removed  
161+20, 55' LT, Existing To be removed

161+26, 66' LT, New 45' Wood  
 161+23, 80' LT, New 40' wood Pole  
 162+45, 55' LT, Relocate to 162+45, 64' LT, 45' Wood  
 162+56, 104' LT, New 40' Wood Pole  
 163+36, 56' LT, Relocate to 162+99, 65' LT, 45' Wood  
 163+78, 63' LT, New 45' Wood Pole  
 163+49, 64' LT, New 45' Wood Pole  
 164+35, 54' LT, Existing To be removed  
 164+63, 52' LT, Relocate to 164+63, 61' LT, 45' Wood  
 165+95, 46' LT, Relocate to 165+95, 55' LT, 45' Wood  
 166+95, 56' LT, Existing To be removed  
 167+95, 44' LT, Relocate/Replace with Steel to 167+67, 55' LT  
 169+10, 51' LT, New Steel Pole  
 168+20, 118' LT, Existing To be removed  
 169+49, 40' LT, Relocate/Replace with Steel to 169+49, 51' LT  
 170+58, 41' LT, Relocate/Replace with Steel to 170+58, 50' LT  
 171+45, 39' LT, Relocate to 171+45, 48' LT, 45' Wood  
 172+10, 40' LT, Replace with Steel to 172+10, 40' LT

Cerrillos Road, sta. 136+42, 148+78, 153+50, 165+90 (crossing) – Four (4) existing crossings will be replaced. The last three crossing poles on the northeast side of Cerrillos Road will be relocated at the same angle and southeast pole.

**Start Date and Work Days:**

Engineering, Installation and relocation work of facilities will be accomplished prior to construction. Will take approximately 8 weeks.

**UTILITY OWNER: NMGCO**

Contact Frank Aragon  
 Phone: (505) 473-7202  
 Frank.Aragon@nmgco.com

**Utility Work By: NMGCO**

**Work Location:**

Subsurface

Cerrillos Road, sta. 162+40 to 166+55 right (parallel) – Abandon existing 2" VHP line in-place. The following existing gas services that are currently connected to the 2" line will be replaced and connected to the existing 8" line along the east side of Cerrillos Rd.:

- 162+20, replace existing gas service.
- 163+25, replace existing gas service.

**Start Date and Work Days:**

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. Will take approximately 3-days.

UTILITY OWNER: CenturyLink

Contact Doug Dale  
Phone: (505) 473-2194  
Doug.Dale@CenturyLink.com

Utility Work By: Kelly Cable  
Terra Technologies

Work Location:

Aerial

Cerrillos Road, sta. 140+00 to 172+00 along west right-of-way (parallel) – Relocate existing overhead line on PNM poles. See PNM section for additional details.

Pole stations and work by others (PNM) is described below:

141+32, 59' LT, Relocate to 141+32, 64' LT, 50' Wood pole  
 142+70, 66' LT, Existing Wood pole, Remain in Place  
 143+20, 65' LT, Existing Wood pole, Remain in Place  
 144+05, 64' LT, Existing Wood pole, Remain in Place  
 144+90, 63' LT, Existing Wood, Remain in Place  
 146+95, 60' LT, Relocate to 146+60, 60' LT, 45' Wood  
 147+30, 59' LT, Relocate to 147+30, 67' LT, Steel  
 148+76, 62' LT, Relocate/Replace with Steel to 148+76, 70' LT  
 149+40, 60' LT, Existing To be removed  
 149+89, 58' LT, Relocate to 150+09, 68' LT, 45' Wood  
 151+55, 58' LT, Relocate to 151+54, 66' LT, 45' Wood  
 152+22, 66' LT, New 45' Wood  
 153+47, 57' LT, Relocate to 153+37, 66' LT, 45' Wood  
 153+62, 57' LT, Relocate/Replace with Steel to 153+62, 66' LT  
 154+69, 64' LT, New 45' Wood  
 155+54, 53' LT, Relocate to 155+99, 62' LT, 45' Wood  
 155+60, 79' LT, New 40' Wood Pole  
 155+80, 51' LT, Existing To be removed  
 156+55, 63' LT, New 45' Wood Pole  
 157+73, 56' LT, Relocate to 157+73, 66' LT, 45' Wood  
 158+39, 56' LT, Relocate to 158+54, 66' LT, 45' Wood  
 159+83, 55' LT, Relocate to 159+83, 65' LT 45' Wood  
 160+40, 55' LT, Existing To be removed  
 161+20, 55' LT, Existing To be removed  
 161+26, 66' LT, New 45' Wood  
 161+23, 80' LT, New 40' wood Pole

162+45, 55' LT, Relocate to 162+45, 64' LT, 45' Wood  
 162+56, 104' LT, New 40' Wood Pole  
 163+36, 56' LT, Relocate to 162+99, 65' LT, 45' Wood  
 163+78, 63' LT, New 45' Wood Pole  
 163+49, 64' LT, New 45' Wood Pole  
 164+35, 54' LT, Existing To be removed  
 164+63, 52' LT, Relocate to 164+63, 61' LT, 45' Wood  
 165+95, 46' LT, Relocate to 165+95, 55' LT, 45' Wood  
 166+95, 56' LT, Existing To be removed  
 167+95, 44' LT, Relocate/Replace with Steel to 167+67, 55' LT  
 169+10, 51' LT, New Steel Pole  
 168+20, 118' LT, Existing To be removed  
 169+49, 40' LT, Relocate/Replace with Steel to 169+49, 51' LT  
 170+58, 41' LT, Relocate/Replace with Steel to 170+58, 50' LT  
 171+45, 39' LT, Relocate to 171+45, 48' LT, 45' Wood  
 172+10, 40' LT, Replace with Steel to 172+10, 40' LT

Cerrillos Road, sta. 136+42, 148+78, 153+50, 165+90 (crossing) – Four (4) existing crossings will be replaced as needed. The last three crossing poles on the northeast side of Cerrillos Road will be relocated by others (PNM) at the same angle and southeast pole.

#### Subsurface

Cerrillos Road, sta. 140+00 to 172+00 left (parallel) – Install precast concrete Terra Cap over existing duct bank.

Relocate pedestals and minor conflicts due to storm drain construction.

#### Start Date and Work Days:

Engineering, Installation and relocation work of aerial facilities will be accomplished prior to construction. Relocation will take approximately 15-days following Comcast facility relocations. Note this work CANNOT proceed until the following has been completed: the installation of the new poles by PNM, the relocation of power lines by PNM and the relocation of cable lines by Comcast.

The installation of the TerraCap will take approximately 35 work days, this work is contingent upon the removal of the asphalt paving over the CenturyLink duct and an adequate operating area in the construction zone.

Pedestal relocations and minor cable crossings at storm sewer installations are estimated to take 15 days.

UTILITY OWNER: Comcast

Contact David Aikin  
 Phone: (505) 438-1930  
 david\_aikin@cable.comcast.com

Utility Work By: Cable Com

Work Location:

Aerial

Cerrillos Road, sta. 140+00 to 172+00 along west right-of-way (parallel) – Relocate existing overhead line on PNM poles. See PNM section for additional details.

Pole stations and work by others (PNM) is described below:

141+32, 59' LT, Relocate to 141+32, 64' LT, 50' Wood pole  
 142+70, 66' LT, Existing Wood pole, Remain in Place  
 143+20, 65' LT, Existing Wood pole, Remain in Place  
 144+05, 64' LT, Existing Wood pole, Remain in Place  
 144+90, 63' LT, Existing Wood, Remain in Place  
 146+95, 60' LT, Relocate to 146+60, 60' LT, 45' Wood  
 147+30, 59' LT, Relocate to 147+30, 67' LT, Steel  
 148+76, 62' LT, Relocate/Replace with Steel to 148+76, 70' LT  
 149+40, 60' LT, Existing To be removed  
 149+89, 58' LT, Relocate to 150+09, 68' LT, 45' Wood  
 151+55, 58' LT, Relocate to 151+54, 66' LT, 45' Wood  
 152+22, 66' LT, New 45' Wood  
 153+47, 57' LT, Relocate to 153+37, 66' LT, 45' Wood  
 153+62, 57' LT, Relocate/Replace with Steel to 153+62, 66' LT  
 154+69, 64' LT, New 45' Wood  
 155+54, 53' LT, Relocate to 155+99, 62' LT, 45' Wood  
 155+60, 79' LT, New 40' Wood Pole  
 155+80, 51' LT, Existing To be removed  
 156+55, 63' LT, New 45' Wood Pole  
 157+73, 56' LT, Relocate to 157+73, 66' LT, 45' Wood  
 158+39, 56' LT, Relocate to 158+54, 66' LT, 45' Wood  
 159+83, 55' LT, Relocate to 159+83, 65' LT 45' Wood  
 160+40, 55' LT, Existing To be removed  
 161+20, 55' LT, Existing To be removed  
 161+26, 66' LT, New 45' Wood  
 161+23, 80' LT, New 40' wood Pole  
 162+45, 55' LT, Relocate to 162+45, 64' LT, 45' Wood  
 162+56, 104' LT, New 40' Wood Pole  
 163+36, 56' LT, Relocate to 162+99, 65' LT, 45' Wood  
 163+78, 63' LT, New 45' Wood Pole  
 163+49, 64' LT, New 45' Wood Pole  
 164+35, 54' LT, Existing To be removed  
 164+63, 52' LT, Relocate to 164+63, 61' LT, 45' Wood  
 165+95, 46' LT, Relocate to 165+95, 55' LT, 45' Wood  
 166+95, 56' LT, Existing To be removed  
 167+95, 44' LT, Relocate/Replace with Steel to 167+67, 55' LT  
 169+10, 51' LT, New Steel Pole  
 168+20, 118' LT, Existing To be removed  
 169+49, 40' LT, Relocate/Replace with Steel to 169+49, 51' LT

170+58, 41' LT, Relocate/Replace with Steel to 170+58, 50' LT  
 171+45, 39' LT, Relocate to 171+45, 48' LT, 45' Wood  
 172+10, 40' LT, Replace with Steel to 172+10, 40' LT

Cerrillos Road, sta. 136+42, 148+78, 153+50, 165+90 (crossing) – Four (4) existing crossings will be replaced as needed. The last three crossing poles on the northeast side of Cerrillos Road will be relocated by others (PNM) at the same angle and southeast pole.

**Start Date and Work Days:**

Engineering, Installation and relocation work of aerial facilities will be accomplished prior to construction. Relocation will take approximately 15-days following PNM aerial facility relocations.

**UTILITY OWNER:** City of Santa Fe Water Division

Contact Robert  
 Jorgensen Phone: (505)  
 955-4265  
 njorgensen@ci.santa-fe.nm.us

Utility Work By: Project Contractor

**Work Location:**

Subsurface

Cerrillos Rd. Station 141+27.85, 62.49' LT to 168+36.00, 39.00' LT, (parallel) Replace existing 8" diameter waterline.

Cerrillos Rd. 141+11.54, 41.55 RT, existing pressure reducing valve (PRV) in line with the existing 12" line from station will be replaced at station 141+58.16, 81.00' RT.

Cerrillos Rd., sta. 141+58.16, 81.00' RT To 141+37.00, 36.06' RT, (parallel) install new 12" diameter water line.

Cerrillos Rd. station 141+37.00, 36.06' RT to 142+32.37, 56.30 LT., (crossing) build 8" water line to the new 8" water line.

Cerrillos Rd. at Maclovía St. (146+92.58), connect new 8" dia. waterline with a tee to existing 8" dia. Waterline.

Cerrillos Rd. at Luana St (149+78.22), connect new 8" dia. waterline with a tee to existing 6" dia. Waterline.

Cerrillos Rd. at Declovina (152+54.38), connect new 8" dia. waterline with a tee to existing 6" dia. Waterline.

Cerrillos Rd. at Lujan St. (155+44.67), connect new 8" dia. waterline with a tee to existing 6" dia. Waterline.

Vitalia (158+22.04), connect new 8" dia. waterline with a tee to existing 6" dia. Waterline.

Cerrillos Rd. at Apache Ave. (161+06.54), connect new 8" dia. waterline with a tee to existing 8" dia. Waterline.

Cerrillos Rd. station 168+39.26, 20.02' RT to station 172+10, (parallel) a new 12" dia. waterline parallel with the roadway will replace an existing 8" dia. line and make two side street connections to St. Michael's Drive and Llano Street.

Osage Ave. station 9+55, 11.76' LT to 7+30, 16.77' LT, (parallel) replace existing 8" diameter line and connect to existing 8" line.

St. Michael's Drive station 10+06 to 15+39 LT, (parallel) build new 12" dia. Line.

Cerrillos Rd. at Llano St., (171+11.28, 11.50' RT) connect 12" dia. Line in Cerrillos Rd. to existing 6" dia. Line in Llano St. with 50' of 6" dia. pipe.

Cerrillos Rd. sta. 141+28, 62' LT; 163+58, 61.50' LT; 172+00.86, 52.72' LT install four (4) new fire hydrants. St. Michael's Drive, station 15+38.70, 67.61'LT., install new fire hydrant.

Cerrillos Rd., remove and relay/adjust to grade six (6) fire hydrants as shown below:

141+13.43, 83.23 RT, #269

145+11, 77' LT, #2213

147+10.98, 77.28 LT, #262

152+83.64, 115.51 LT, #1960

157+80.48, 57.88 LT, #263

162+68.32, 49.91 RT, #943

St. Michaels Dr., sta. 15+39, 68' LT, replace existing fire hydrant.

Cerrillos Rd., replace (12) water meter replacements on the new 8" waterline:

142+33.01, 62.49 LT., 5/8" or 3/4"

143+50.16, 63.71 LT., 5/8" or 3/4"

144+87.42, 77.70 LT., 1"

145+70.73, 73.05 LT., 5/8" or 3/4"

148+27.39, 62.99 LT., 1"

149+91.88, 55.71 LT., 5/8" or 3/4"

151+45.42, 61.28 LT., 1-1/2"

163+65.76, 56.00 LT., 5/8" or 3/4"

165+61.62, 62.85 LT., 5/8" or 3/4"

165+76.93, 61.44 LT., 2"

169+69.60, 37.90 RT., 5/8" or 3/4"

170+79.79, 38.82 LT., 5/8" or 3/4"

Start Date and Work Days:

Engineering, Installation and relocation work of facilities will be accomplished by Contractor as part of the project.

UTILITY OWNER: City of Santa Fe Wastewater Management Division

Contact Douglas Flores

Phone: (505) 955-4613

Utility Work By: Project Contractor

Work Location:

Subsurface

Cerrillos Rd. station 162+04.50, 8.72' RT to 171+21.19, 22.79' RT, (parallel) replace 920' of existing 10" sewer line by pipe bursting and reconnect to the existing.

Cerrillos Rd. station 154+44.59, 8.29' RT and 167+07.80, 20.63' RT build two (2) new manholes on the existing 10" sanitary sewer line.

Cerrillos Rd., 12 existing manholes will be adjusted and new frame and covers installed. These are located as follows:

141+07.81, 20.53' RT, Manhole C1/6B

142+07.40, 13.24' RT, Manhole C1/6

144+26.39, 8.05' RT, Manhole C1/7A

148+91.20, 9.05' RT, Manhole C1/7B

152+06.02, 8.57' RT, Manhole C1/7

158+30.34, 7.84' RT, Manhole C1/8A

160+79.34, 1.87' LT, Manhole B3/6

162+04.49, 8.72' RT, Manhole C1/8

164+86.96, 3.84' LT, Manhole B3/7

168+02.43, 0.67' LT, Manhole B3/8

171+21.27, 21.69' RT, Manhole C1/9

171+27.95, 0.26' RT, Manhole B3/9  
Cerrillos Road, sta. 154+44, 8' rt. and 167+08, 21' rt. – new manholes on existing sanitary sewer.

Start Date and Work Days:

Engineering, Installation and relocation work of facilities will be accomplished by Contractor as part of the project.

## **D.9. FEDERAL FUNDED PROJECTS CONTRACT PROVISIONS**

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**NOTICE TO CONTRACTORS****DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM  
RACE-CONSCIOUS MEASURES  
FORM No. A-644  
May 14, 2015****CN «cn»**

This Project is subject to race-conscious measures. The established DBE Goal for this project is 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 1570 Pacheco Street, Suite A10, Santa Fe NM, 87505. OEOP can be contacted at Telephone No. 1-800.544.0936 or 505.827.1774 and FAX No. 505.476.0910. 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.**



State Maintenance Bureau  
October 16, 2014

## NOTICE TO CONTRACTORS

### Approved Products List (APL)

Products used on New Mexico Department of Transportation (NMDOT) Projects must be approved by the NMDOT's Product Evaluation Program and listed on the NMDOT's Approved Products List (APL).

**The Contractor's Bid Item Unit Price for the Project shall be deemed to rely on the use of the Products listed on the APL.** The Contractor shall comply with all APL procedures required by the hyperlink below.

Link: <http://dot.state.nm.us/en/APL.html>

As used in this notice, "Product" means any manufactured item, material, traffic operational device or other feature used in the maintenance or construction of a NMDOT project. All Products must meet requirements found in the current edition of the "New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction" and as may be amended by the current Supplemental Specifications, Special Provisions, Standard Drawings or Price Agreement Specifications at the time of Bid.

Approval to use a non-APL Product will not be granted by the Project Manager. The Contractor shall remove any non-APL Product. Removal and replacement will be made at the sole expense of the Contractor if a non-APL Product is used. Any disruption to the Project schedule related to the Contractor's use of a non-APL Product is solely the Contractor's responsibility and no additional contract time will be granted.

Products as defined in the NMDOT AD 206, Directive 4.08 (a-g) may not be required to be approved by the Product Evaluation Program. The Product Evaluation Engineer will make final determination on which Products meet these criteria. Products not on the APL and not addressed by AD 206 will be evaluated consistent with the processes described in the above hyperlink.

## **NOTICE TO CONTRACTORS**

**May 14, 2014**

### **SPECIALTY ITEMS**

Reference is made to New Mexico Department of Transportation's 2014 Edition of the Standard Specifications for Highway and Bridge Construction, Subsection 101.4 – Terms and Definitions. The following is provided as clarification of the definition of "Specialty Items":

The cost of Work, identified as Specialty Items, may be deducted from the Total Bid Amount before computing the Work required to be performed by the Contractor and will not be used in determining the 40% requirement noted in Section 108.1 - SUBCONTRACTING. The Contractor shall obtain the Project Manager's Approval to Subcontract Specialty Items prior to starting Work.

For the purpose of this notice, all Technician Training and Certification Program (TTCP) requirements for testing of materials shall be considered a Specialty Item and shall require a Subcontract but will not be used in the determination of the 40% requirement noted in Section 108.1 - SUBCONTRACTING.

## NOTICE TO CONTRACTORS

January 15, 2014

### Department Supplied Electronic Data Files

The New Mexico Department of Transportation ("Department") will only provide electronic data files in the format and software version in which the files were produced and subject to the conditions set out in this Notice to Contractors. The Department will make available the following electronic data files for this Project:

A) Survey Data, in accordance with the New Mexico Department of Transportation's 2014 Edition of the Standard Specifications for Highway and Bridge Construction, Subsection 801.1.2 - Department Supplied Documents and Services:

1. Existing Computer Aided Design Drafting (CADD) Survey files;
2. Any Supplemental CADD Survey files; and,
3. Existing Digital Terrain Model files (DTM).

B) Design Files, subject to the terms and conditions below:

1. Centerline Alignment Files ("CAF"), including horizontal and vertical alignment files for all alignments referenced in the plans; and,
2. Portable Document Format (PDF) copies of the sealed plan set.

The electronic data provided in sub-section "B" is for information purposes only. **The data is furnished in "as is" condition without any warranty as to fitness for a particular use beyond information purposes. The requestor accepts all risks associated with the use of the data provided in sub-section "B" as modifications may have been made to the official hard copy Contract documents which do not appear in the electronic data files.** The Contractor is solely responsible for confirming, conforming and correlating the accuracy and completeness of the electronic data files to the official Contract documents.

This Notice to Contractors does not alter the definition of the Contract. In accordance with the New Mexico Department of Transportation's 2014 Edition of the Standard Specifications for Highway and Bridge Construction, Subsection 105.4 - Coordination of Contract Documents, the official Contract documents are exclusively the printed hard copy drawings, specifications, special provisions, notices, documents, and addenda issued for the project.

The electronic data referenced in sub-sections "A" and "B" will be available to the requestor on discs and will be available at the P.S&E. Bureau Office, NMDOT General Office, Room 223.

The provision of this electronic data files under this Notice to Contractors the Contractor's obligations found in the New Mexico Department of Transportation's 2014 Edition of the Standard Specifications for Highway and Bridge Construction, Subsection 102.7 - Examination of Contract, Plans, Specifications, Special Provisions, and Site of Work. Any omissions or errors found by the Contractor in the electronic data files should be immediately brought to the attention of the Department in accordance with Subsection 102.7.

## **NOTICE TO CONTRACTORS**

**March 7, 2014**

### **Professional Services**

Reference is made to New Mexico Department of Transportation's 2014 Edition of the Standard Specifications for Highway and Bridge Construction, 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.

A Professional Service provider shall be pre-qualified in accordance with NMAC 18.27.5 when utilized as a Subcontractor as indicated above.

## 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](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.

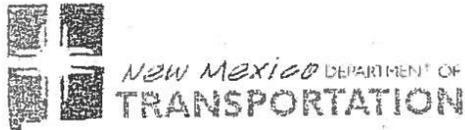
If, as a result of failure by the Contractor or Sub-Contractor to accurately reestablish previously placed line markings damage occurs to any NMDOT-owned utility infrastructure (including but not limited to electrical service lines, DSL lines, and fiber optics communication lines, associated conduits/pull 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**

### **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.



## MEMORANDUM

**To:** All Contractors working on NMDOT and federally supported projects for NMDOT

**From:** Alvin Dominguez PE, Cabinet Secretary NMDOT *Alvin Dominguez*

**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](http://nmshtd.state.nm.us/upload/images/Contracts_Unit/IDD-2009-02.pdf)

**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

2. IDD-2009-05- Temporary Traffic Control Devices Rule- Subpart - K

[http://nmshtd.state.nm.us/upload/images/Contracts\\_Unit/IDD-2009-05.pdf](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

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://insurenemexico.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**

**June 6, 2014**

### **Subcontractor Payment and Performance Bonds**

Senate Bill 814, passed during the New Mexico 47<sup>th</sup> Legislature 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

### Borrow and Surfacing Status

June 6, 2014

This Project may be eligible for free use Materials in accordance with 23 CFR 710.601 Federal Land Transfer.

There is no assurance that a Federal Land Transfer will be granted

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 (Annette Duran at 505-827-5639 or 505-490-5385) 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.

Borrow and surfacing Material may be obtained from any acceptable source where the Materials conform to the requirements indicated on the Plans and/or Specifications.

The New Mexico Department of Transportation ("NMDOT") is under no obligation to purchase excess Material from the Contractor that is not required for the completion of the Project.

The NMDOT will not provide additional time or compensation to the Contractor for the Federal Land Transfers or for developing alternate source locations in accordance with Section 106.1 "Contractor / Furnished Aggregate Borrow Sources".

A free use permit will **not** be considered valid to secure a federally funded NMDOT Project. **Only** an FHWA/NMDOT approved Federal Land Transfer will be considered valid.

**INFORMATION TO CONTRACTORS**

Control Number S100130

This project is located in **Santa Fe County** and is situated in the **Rio Grande Basin**. The Contractor is required to abide by the water laws of the State and the rules and regulations of the Office of the State Engineer when appropriating water.

**The project will require approximately one million one hundred seventy thousand (1,170,000) gallons of water, therefore, a three point six (3.6) acre-foot OSE permit should supply ample water for the contractor's needs. The contractor shall locate a source of water and/or a well near the project and contact **John M. Lopez** at (505) 827-7531 with the legal description by Section, Township and Range, down to a forty (40) acre subdivision, **unless otherwise prescribed by the State Engineer.** If more water is required, please contact **John M. Lopez** and necessary arrangements will be made with the appropriate Office of the State Engineer.**

All water used from State Engineer permitted water source on this project must be metered by an accurate totalizing meter furnished and installed by the contractor under the supervision of the project manager. **The project manager will be responsible for reporting each month the amount of water used by the contractor to the Office of the State Engineer in accordance with the special provisions of the water permit.**

The water reports will be numbered. The first report will indicate that it is the "Initial Report". The last report will indicate that it is the "Final Report". The water report will include the control number and project number, name of the contractor and the State Engineer's water permit number. **An informational copy of the water report will be forwarded by mail to the New Mexico Department of Transportation, Right of Way Bureau, San Mateo Plaza, P.O. Box 1149, Attn: John M. Lopez, Santa Fe, New Mexico 87504-1149, by fax at (505) 827-5614 or e-mail at [JohnM.Lopez@state.nm.us](mailto:JohnM.Lopez@state.nm.us) and the water vendor, if applicable.**

Surface water of any kind may not be used anywhere within the State without first making application to and obtaining a permit from the Office of the State Engineer.

The New Mexico Department of Transportation and its project manager will act as coordinators with the Office of the State Engineer and/or private water vendors relative to all water matters on this project, if called upon.

**The New Mexico Department of Transportation assumes no responsibility or provides no assurance to its contractors that water and/or water rights will be available on any particular project, either prior to or after the letting.**

**The contractor shall hold the New Mexico Department of Transportation and private water vendors harmless from any and all claims or causes of action that may arise as a result of the use and services provided the contractor relative to water on this project.**

Prepared: August 12, 2015

## **NOTICE TO CONTRACTORS**

**September 12, 2001**

### **Patents On Milling Equipment And Operations**

Each Contractor is hereby notified that the milling equipment and processes used by the Contractor to perform any and all milling work required under this Contract may be subject to one or more of the following United States patents: 4,701,069; 5,607,255; 2,574,090; 2,826,128; 3,094,046; 3,407,005; 3,529,517; 3,801,211; 3,868,146; 3,874,806; 3,929,377; 4,575,278; 5,391,017; 3,094,047; 3,807,634; 4,701,069; 4,744,604; 4,793,732; 4,797,025; 4,824,516; 4,896,995; 4,900,094; 4,938,537; 4,943,199; 4,986,604; 5,046,890; 5,059,061; 5,094,565; 5,161,910; 5,259,692; 5,297,894; 5,391,017; 5,415,495; or other patents not listed here. It is the responsibility of the Contractor to investigate the applicability of such patents to the Contractor's milling work, and pay such royalties or other related charges as are lawfully imposed by the patent holders. Royalty payments or other related costs, if any, will be deemed incidental to the amount bid for the item(s) requiring milling. It is therefore incumbent on the Contractor to factor such costs, if any, into its bid for those items. The Department will not otherwise reimburse the Contractor for such patent royalties or other related charges.

## **NOTICE TO CONTRACTORS**

**June 6, 2014**

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**

**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**

**November 17, 2003**

Pursuant to Section 13-1-108 NMSA 1978 (1987 Cum. Supp.) you are hereby notified that all bids submitted are to exclude the applicable state gross receipts tax or applicable local option tax. The New Mexico Department of Transportation will pay the applicable tax including any increase in the applicable tax becoming effective after the date the contract is entered into. The applicable gross receipts tax or applicable local option tax will be shown as a separate amount on each billing or request for payment made under the contract.

## **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**

### **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.

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 \_\_\_\_\_ 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:

Construction Civil Rights Bureau  
August 13, 2015

## NOTICE TO CONTRACTORS

### Civil Rights Obligations

- I. TITLE VI
- II. DISADVANTAGED BUSINESS ENTERPRISE (DBE)
- III. SUBCONTRACTOR PROMPT PAYMENT PROVISIONS - CLARIFICATION OF GOOD CAUSE AND PROHIBITION OF CROSS-PROJECT OFFSET
- IV. REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS AND SUPPLEMENTS (FHWA-1273)
- V. SUPPLEMENTAL EEO REQUIREMENTS
- VI. INDIAN PREFERENCE
- VII. NMDOT ON THE JOB TRAINING (OJT) PROGRAM
- VIII. WAGE RATES
- IX. LABOR REPORTING AND SUBMISSION OF WEEKLY PAYROLLS
- X. TITLE VI ASSURANCES APPENDIX A AND APPENDIX E

Any reference made to the New Mexico Department of Transportation ("NMDOT") web page can be accessed through the following link: <http://dot.state.nm.us/en.html>.

#### I. TITLE VI

The NMDOT, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged 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, or national origin in consideration for an award.

The NMDOT's Title VI Assurances, Appendix A and E and are included in Section X. at the end of this NTC.

For further information, contact the Title VI coordinator for the NMDOT by accessing the web page listed above.

#### II. DISADVANTAGED BUSINESS ENTERPRISE ("DBE")

In accordance with 49 CFR 26.13 (b), the Contract NMDOT signs with the Contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: "The contractor, sub recipient 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 recipient deems appropriate, which may include, but is not limited to: (1) Withholding of monthly progress payments; (2) Assessing sanctions; (3) Liquidated damages; and/or (4) Disqualifying the contractor from future bidding as non-responsible.."

#### Terms and Definitions (pursuant to 49 CFR 26.5)

Terms and Definitions are incorporated by reference to 49 CFR 26.5 or the New Mexico State Department of Transportation Standards Specifications for Highway and Bridge Construction.

### Pre Award Procedures

For Projects with DBE Goals (race-conscious measures)), the following DBE forms are required to be submitted for Award of Contract:

- a) All Bidders will complete and sign Form A-585 and submit it with the Bid. All DBE firms listed on Form A-585 must be listed on the NMDOT DBE Directory before the date of submission. The Directory is available on the NMDOT web page referenced in this NTC, the web page can be accessed through the following link: <https://nmdot.dbesystem.com/FrontEnd/VendorSearchPublic.asp?TN=nmdot&XID=4599>. Each DBE firm's NAICS Code may be found in the DBE Directory. The information required by Form A-585 DBE A-1 and form A-585 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
- b) All Bidders will complete and notarize Form A-644 for each listed Subcontractor, Supplier and/or manufacturer on the submitted Form A-585 within seven (7) Days after the Bid opening. The information required by Form A-644 must be complete and accurate in every detail and in final form at the time it is submitted to the NMDOT for approval.

In the event the successful Bidder is a certified DBE Contractor. The Bidder shall list itself and any other DBE subcontractor on Form A-585.

In the event the Bidder cannot meet the established DBE Goal. The Bidder shall submit evidence of its good faith efforts taken to meet the goal. These good faith efforts must be submitted within seven (7) Days after the Bid Opening.

These forms shall be submitted in a manner as provided on the Form. Failure to timely submit the form(s), meet the goal or demonstrate good faith efforts will render the Bid non-responsive and the Bid shall be rejected.

The 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.

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.)
  - 1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at the pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of the Notice of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the NMDOT DBE directory of firms that specialize in the areas or work desired and which are located in the area or surrounding areas of the project.
  - 2) The bidder should solicit this interest as early in the acquisition process as possible as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should 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.) 1) Negotiating in good faith with interested DBEs. It is the Bidder's or offeror'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 AFP and subconsulting; and evidence as to why additional agreements could not be reached for DBEs to perform the Work.
- 2) 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 offeror'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.
- e.) 1) Prime Contractors and consultants will not reject DBEs as being unqualified without sound reasons 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. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for Work was not the lowest received. However, nothing in this paragraph will be construed to require the bidder or prime Contractor to accept unreasonable quotes to satisfy contract goals.
- 2) A prime Contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the Contractor has the ability and/or desire to perform the contract the Work with its own forces does not relieve the Contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.
- 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 has made good faith efforts, the NMDOT must take into account the performance of other Bidders in meeting the Contract. For example, when the apparent successful Bidder 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 could have met the goal. If the apparent successful Bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other Bidders, the NMDOT may view this, in conjunction with other factors, as evidence of the apparent successful Bidder having made GFES. NMDOT requires the Contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the Bidder when a non-DBE subcontractor was selected over a DBE for Work on the Contract to review whether DBE prices were substantially high; and contact the DBEs listed on a Contractor's solicitation to inquire as to

whether DBE prices were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

A promise to use DBEs after Contract award is not considered to be responsive to the Contract solicitation or to constitute good faith efforts.

When the NMDOT determines that the Bidder has failed to meet the GFE requirements, the NMDOT will, provide the Bidder notice and the opportunity for administrative reconsideration before awarding the Contract. Failure to timely request reconsideration shall result in the determination that the Bid is non-responsive and shall be rejected. Within seven (7) Days of a timely request for reconsideration the NMDOT shall conduct a hearing on the matter.

As part of this reconsideration, NMDOT shall follow Standard Specifications Section 103.3 "Bidding Disputes and Resolution Procedures".

#### Counting DBE Participation Toward Goals

This section in no way alters the obligations in Standard Specification 108.1 "Subcontracting" and is only used to determine DBE participation levels for each Bidder. The Contractor must still comply with 108.1 and perform with its own forces at least 40% of the Work based on the Total Bid Amount.

NMDOT shall verify Bidders commitment to meeting or exceeding the established DBE goal in accordance with 49 CFR part 26.55 and as referenced in the NMDOT DBE Program Manual. Only the value of the Work actually performed by the DBE will be credited towards DBE Project goals. DBE participation shall be credited as follows:

- 1) Count the entire amount of that portion of a construction contract that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE of the Work of the contract, including supplies purchased or equipment leased by the DBE. Supplies and equipment purchased or leased by Contractor shall not be counted toward the DBE goal.
- 2) Count 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 of the performance of a NMDOT Contract, toward DBE goals, provided NMDOT determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- 3) When a DBE subcontracts part of the Work of its Contract to another firm, the value of the subcontracted Work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- 4) When a DBE performs as a participant in a joint venture, count 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 own forces toward DBE goals.

NMDOT shall verify performance during the course of the Project and count expenditures to a DBE Contractor toward DBE goals only if the DBE is performing a Commercially Useful Function ("CUF") on that Contract.

A DBE performs a CUF 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 CUF, 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 CUF, an evaluation by the NMDOT, 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 CUF 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 by the NMDOT.

If a DBE Contractor or Subcontractor does not perform or exercise responsibility for at least 30% 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 CUF.

When a DBE is presumed not to be performing a CUF 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 CUF matters are not administratively appealable to USDOT.

#### DBE Trucking

Per the Standard Specifications 2014 Edition states 108.1 states, "A Trucker is not a Subcontractor unless the Contractor is using the Trucker to meet the DBE requirement associated with the project."

The following factors shall be used to determine whether a DBE trucking subcontractors are performing a commercially useful function:

- 1) 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 meeting DBE goals.
- 2) The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- 3) 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.
- 4) 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.
- 5) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement.

*Example):* DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks equipped with drivers from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

- 6) The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

*Example):* DBE Firm X uses two of its own trucks on a contract. It leases two additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all four trucks.

- 7) For purposes of this paragraph (d), a lease must 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 must display the name and identification number of the DBE.

The following factors shall be used to determine how to count expenditures with DBEs for materials or supplies toward DBE goals:

- 1) If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies toward the DBE goal. A DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises the materials, supplies, articles, or equipment required under the Contract and of the general character describes by the Specifications.
- 2) If the materials or supplies are purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE goals. A DBE regular dealer is 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 describes 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. The DBE 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 DBE firm 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 DBE firm both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement and not on ad hoc or contract-by-contract basis.

Packagers, brokers, manufacturers' representatives, or other person who arrange or expedite transactions are not regular dealers.

- 3) With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, count the entire amount of fees and commissions charges for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials and supplies required on a job site, toward DBE goals, provided you determined the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials or supplies themselves is not creditable toward DBE goals.

Credit for Work performed shall not be counted toward the DBE project goal until the amount committed has been paid to the DBE firm.

#### Termination/Substitution/Replacement of DBE Firms for Projects Having a DBE goal (Race Conscious Measures)

The Contractor shall use the DBE firms listed on Form A-585A to perform specific Work identified. The prime contractor shall not terminate a DBE subcontractor listed on Form A-585A (or an approved substitute DBE firm) without the prior written consent of NMDOT. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, or with a non-DBE firm, or with a substitute DBE firm. Unless NMDOT consent is provided, the Contractor shall not be entitled to any payment for Work or materials unless it is performed by the listed DBE.

NMDOT will provide written consent to the termination request only if NMDOT agrees, for reasons stated in its concurrence document, that the prime contractor has good cause to terminate the DBE firm. For purposes of this paragraph, good cause includes the following circumstances:

- 1) The listed DBE subcontractor fails or refuses to execute a written contract;
- 2) The listed DBE subcontractor fails or refuses to perform the work consistent with normal industry standards, provided, however, that good cause does not exist if the failure or refusal to perform results from the bad faith or discriminatory action of the prime contractor;
- 3) The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- 4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- 5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension or debarment proceedings pursuant to 26 CFR Parts 180, 215 or 1200 or applicable state law;
- 6) The listed DBE subcontractor is not a responsible contractor;
- 7) The listed DBE subcontractor voluntarily withdraws from the project and provides to NMDOT written notice of its withdrawal;
- 8) The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required;
- 9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the project; or
- 10) Other documented good cause that NMDOT determines compels the termination of the DBE subcontractor. Provided that good cause does not exist if the prime contractor seeks to terminate a DBE it relied on to obtain the contract so that the prime contractor can self-perform the work for which the DBE subcontractor was engaged or so that the prime contractor can substitute another DBE or non-DBE contractor after contract award.

The prime contractor shall, before transmitting to NMDOT its request to terminate or substitute a DBE subcontractor, give notice in writing to the DBE subcontractor, with a copy to NMDOT, of its intent to terminate and/or substitute, and the reason for the request.

The prime contractor must give the DBE subcontractor 5 Days to respond to the prime contractor's notice and advise the prime contractor and NMDOT of the reasons, if any, why it objects to the proposed termination of its subcontract and why NMDOT should not approve the prime contractor's request.

As soon as possible, after receipt and review of the DBE subcontractor's response, or after the expiration of the 5 Day response period, NMDOT shall provide a written response to the prime contractor's request. NMDOT may seek additional information as necessary to formulate its response. NMDOT's decision is not appealable to USDOT.

If termination of the DBE subcontractor does not result in a DBE contract goal shortfall, NMDOT strongly encourages the prime contractor to make good faith efforts to subcontract with a substitute DBE firm which can perform the same type of work on the project as the terminated DBE firm or to subcontract with a replacement DBE firm which can perform other types of work remaining on the project.

If termination of the DBE subcontractor results in a DBE contract goal shortfall, the prime contractor shall either:

- 1) Make good faith efforts to obtain sufficient DBE participation to meet the contract goal by subcontracting with a substitute DBE firm which can perform the same type of work on the project as the terminated DBE firm; or
- 2) Make good faith efforts to obtain sufficient DBE participation to meet the contract goal by subcontracting with a replacement DBE firm which can perform other types of work remaining on the project.

The prime contractor shall document its good faith efforts to find another certified DBE subcontractor to substitute for or replace the terminated DBE firm. (Refer to 49 CFR Appendix A to Part 26 for guidance in determining the adequacy of good faith efforts.)

The prime contractor shall, in writing, request approval from NMDOT to utilize a substitute or replacement DBE firm to meet the contract goal. In its request, the prime contractor shall detail the work items to be performed and the estimated dollar amount to be subcontracted.

As soon as possible, after receipt and review of the prime contractor's request, NMDOT shall provide a written response to the prime contractor. NMDOT may seek additional information as necessary to formulate its response. NMDOT's decision is not appealable to USDOT.

If the prime contractor is unable to secure a substitute or replacement DBE subcontractor to perform the work to meet the contract goal, the prime contractor shall immediately notify NMDOT in writing, and request to be relieved of meeting the contract goal. The prime contractor shall include with this request a justification, including the documented good faith efforts made to find another certified DBE firm.

As soon as possible, after receipt and review of the prime contractor's request, NMDOT shall provide a written response to the prime contractor. NMDOT may seek additional information as necessary to formulate its response. NMDOT may allow a DBE contract goal waiver, adjust the DBE goal, or assess construction contract liquidated damages or design contract liquidated damages as may be appropriate, depending on the individual project's overall circumstances. NMDOT's decision to waive or adjust the contract goal is not appealable to USDOT.

Failure of the Contractor carry out the requirements of the above is a material breach of Contract and may result in the termination of the Contract or such other remedies set forth in this NTC if the Contractor fails to comply with these requirements..

#### Record Keeping Requirements

The Contractor shall keep such records as necessary to ensure compliance with its DBE utilization obligations, in accordance with Standard Specification Section 107.28 "Contractor Records".

#### Compliance Procedures

The Contractor is solely responsible and obligated to ensure DBE compliance at all tiers until the final payment is made in accordance with Standard Specification Section 109.10 "Project Closure". Additionally, the Contractor shall take any necessary corrective measure necessary to fully comply with this NTC.

Whenever NMDOT believes the construction contractor 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, NMDOT will conduct an investigation. If it is found that the construction contractor or any subcontractor or supplier is not in compliance with the DBE Program, NMDOT will notify the non-compliant party in writing. NMDOT may conduct a compliance conference with the non-compliant party or parties to discuss the area(s) of non-compliance. In the event that the non-compliant party or parties fails or refuses to perform in compliance with the DBE Program or the Selected DBE Program Provisions, NMDOT will send the non-compliant party or parties a "Notice of Non-Compliance". If the non-compliant party or parties corrects the deficiencies, NMDOT will rescind the "Notice of Non-Compliance" and notify the party or parties. If the deficiencies are not corrected, NMDOT will initiate administrative action against the non-compliant party or parties, which may include but not be limited to:

- 1) Termination of the contract.
- 2) Withhold monthly progress payments.
- 3) Initiation of appropriate suspension or debarment or decertification proceedings.
- 4) Referral of any unlawful actions to the appropriate enforcement agencies.

- 5) Other actions as appropriate, at the discretion of NMDOT.

### III. SUBCONTRACTOR PROMPT PAYMENT PROVISIONS

To ensure that all obligations to promptly pay Subcontractors are met Contractors shall pay all Subcontractors, Suppliers and Fabricators their respective subcontract amount by electronic transfer, if available, for NMDOT undisputed Acceptable Work within the timeframes specified in the Standard Specification Section 108.1 "Subcontracting".

The Contractor is solely responsible and obligated to ensure prompt payment obligations and compliance reporting through all tiers until the final payment is made in accordance with Standard Specification Section 109.10 "Project Closure". Contractors at all tiers shall be required to submit payment information, as provided for in the B2GNow supporting software system, indicating when payments are made to any Subcontractor, Supplier and or Fabricator, regardless of DBE status. The Department may recognize supporting documentation of such payment(s) in one or more of the following forms:

- 1) Proof of the timely deposit of funds into the Subcontractor, Supplier and or Fabricator bank account;
- 2) Proof of hand delivery of timely payment to the Subcontractor, Supplier and or Fabricator; or
- 3) Proof of mailing payment to the Subcontractor, Supplier and or Fabricator postmarked no less than three (3) Days prior to the expiration of the ten (10) Day prompt payment period.

The Contractor's prompt payment obligation is triggered when the Subcontractor's, Supplier's and or Fabricator's Work is satisfactorily completed when the associated Pay Item has been accepted by NMDOT. If the NMDOT makes an incremental Acceptance of a portion of the Work, the Work of a Subcontractor, Supplier and or Fabricator is covered by that Acceptance is deemed to be satisfactorily completed, triggering the Contractor's obligation to promptly pay for that portion of the Work.

A Contractor will be required to fully document any alleged disputes with its Subcontractors, Suppliers and or Fabricators. The Contractor shall ensure that all situations in which regularly scheduled payments are not made to Subcontractors, suppliers and or Fabricators are reported to the NMDOT.

A Contractor must demonstrate good cause to NMDOT for any failure to full or partially provide prompt payment.

Good cause recognized by the Department to excuse a failure to promptly pay, is a claim concerning the Subcontractor's or Supplier's Work, failure to provide certified payrolls, and other required project documentation. The amount withheld cannot exceed the amount in dispute between the Contractor and Subcontractor or Supplier. Within a Project, the Contractor may only withhold a Subcontractor's or Supplier's payment for Work Accepted by the NMDOT upon proof of a claim between the Contractor and Subcontractor for the Work at issue. 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.

The Contractor is further advised that due to federal highway administration (FHWA) interpretations of 49 CFR Part 26, concerning prompt payment obligations to Subcontractors and Suppliers:

- 1) The NMDOT will not Accept cross-Project offsets as "good cause" excusing untimely payment for Accepted Work.

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.

This Notice does not alter the sole discretion of the NMDOT to make good cause determinations concerning Contractor prompt payment matters.

- 2) The NMDOT will require Contractor's to pay all retainage owed to the Subcontractor or Supplier within 30 days of the progress payment indicating Acceptance of the Work. The Contractor may request Partial Acceptance in accordance with Standard Specifications 105.18.1 "Partial Acceptance" upon satisfactory completion of the entire Subcontractor's Work.

IV. REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS AND SUPPLEMENTS

FHWA-1273 -- Revised May 1, 2012

REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated 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 Government-wide 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 than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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.
3. 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.

#### V. SUPPLEMENTAL EEO REQUIREMENTS

Incorporated in this Contract are three (3) supplemental requirements on Equal Employment Opportunity ("EEO"). These are as follows:

- (1) Specific EEO Responsibilities (23 USC 140 and 23 CFR 230);
- (2) Notice of Requirements for Affirmative Action to Ensure EEO (Executive Order 11246);
- (3) Standard Federal EEO Construction Contract Specifications (Executive Order 11246).

- 1) Specific EEO Responsibilities (23 USC 140 and 23 CFR 230)

The Contractor shall Work with the Federal Government and the NMDOT in carrying out EEO obligations and in their review of the Contractor activities under this NTC or the Contract.

The Contractor and all Subcontractors at all lower tiers holding subcontracts not including material Suppliers, of \$10,000 or more, shall comply with the following minimum requirements of EEO. The EEO requirements of Executive Order 11246 as amended, 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 and Subcontractors. The Contractor shall 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) Notice of Requirement for Affirmative Action to Ensure EEO (Executive Order 11246)

This NTC shall be applicable in all Bids on all Federal-Aid construction Contracts or subcontracts in excess of \$10,000.

The goals and timetables for minority and female participation are measured according to the Standard Metropolitan Statistical Area (SMSA) and expressed in percentage terms for the Contractor's aggregate workforce in each trade on all Work in the geographical area.

As used in this NTC the "geographical area" means the area described in the Invitation for Bid for this Contract and 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.)

Whether the Contract is Federal or federally assisted, the goals are applicable to all the Contractor's Work performed in the counties listed above. If the Contractor performs construction Work in two (2) counties, then the goals established for the county where the Work is actually performed shall apply.

The Contractor shall comply with Executive Order 11246 and the regulations in 41 CFR Part 60-4 et seq. The hours of minority and female employment and training by Project must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a GFE to employ minorities and women. 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.

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within ten (10) Days of award of any construction subcontract in excess of \$10,000 at any tier for construction Work. To notify the Director of OFCCP the Contractor shall use the form correspondence provided by the Office of Equal Opportunity Programs Contractor Compliance Section.

### 3) Standard Federal EEO Construction Contracts Specifications (Executive Order 11246)

The Executive Order 11246 is available by accessing the link provided and is incorporated here via reference.

<http://www.dol.gov/>

## VI. INDIAN PREFERENCE

The Contractor, or its Subcontractor at any tier, may without violating 41 C.F.R. § 60-1.5 (a) (7), extend a publically 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 word "near" includes all areas where a person seeking employment could reasonably expected to commute in the course of a work day. Contractors or Subcontractors, at any tier, shall not discriminate among Indians on the basis of religion, sex, tribal affiliation, and the use of such a preference shall not excuse compliance with the remaining EEO provisions of this NTC.

If the Contractor extends an Indian preference, then this NTC requires that Contractors shall afford preference to initial hiring, reassignment, transfer, competitive promotion, reappointment, reinstatement, or any personnel action to fill a vacant position to qualified and enrolled members of federally recognized Indian tribe. The Contractor shall establish a liaison with local tribe employment offices and provide this individual's name and contact information to the Project Manager at the Pre-Construction Conference per Standard Specification Section 108.2 "Notice to Proceed and Pre-Construction Conference". The tribe's

employment office may then assist the Contractor in identifying qualified and tribally enrolled individuals. Verification of available, qualified and enrolled individuals will be provided to the Contractor by the tribe's employment office.

This Contract preference requirement is an expansion of the provisions of the equal employment opportunity responsibilities for Contractors contained elsewhere in this NTC and the provisions contained under FHWA-1273.

## VII. NMDOT ON THE JOB TRAINING (OJT) PROGRAM

### I. PROGRAM DESCRIPTION

#### A. Purpose

The New Mexico Department of Transportation (NMDOT) created its On the Job Training Program and Special Provision (OJT Program) to fulfill the Training Special Provision requirements of federal-aid construction contracts included in 23 CFR 230, Appendix B to Subpart A. The purpose of the OJT Program is to address the underrepresentation of minority and female workers in the construction trades through the assignment of OJT goals. To that end, the primary objective of the OJT Program is the training and upgrading of minorities and females to journeyman status on NMDOT federal-aid contracts.

#### B. Program Summary

The OJT Program fulfills its objective by:

- 1) fostering long-term relationships between contractors and trainees;
- 2) encouraging contractors to assist trainees in fully attaining journeyman status, and;
- 3) offering contractors abundant flexibility in fulfilling their training obligations. The OJT Program assigns contractors an annual training goal based on past dollar amounts awarded to the contractor as an NMDOT federal-aid prime contractor.

Contractors may assign eligible trainees that are enrolled in an approved training program, as outlined in Section II A, to any construction project on which the contractor is a prime, including non-NMDOT projects. Contractors may also assign trainees to be trained by subcontractors on any project, so long as the prime contractor retains the primary responsibility for fulfilling its federal-aid training requirements.

Contractors shall make every effort to meet their OJT Program goals by enrolling minority and female trainees (i.e. by conducting systematic and direct recruitment through public and private sources likely to yield minority and female trainees) to the extent that such persons are available within a reasonable area of recruitment. When a contractor cannot meet its annual training goal with minorities and females, it is responsible for demonstrating its Good Faith Efforts taken to meet the goal. Examples of what actions constitute Good Faith Efforts are set forth in Section III below. NMDOT will make compliance determinations regarding the OJT Program based upon either attainment of the annual goal or the Good Faith Efforts to meet it.

No employee shall be employed as an apprentice or trainee in any classification in which he or she has successfully completed a training course leading to journeyman status or in which he or she has been employed as a journeyman. The contractor shall satisfy this requirement by including appropriate questions in the employment application or by other suitable means. Regardless of the method used, the contractor's records shall document the findings in each case. Such records shall be available for inspection by authorized representatives of NMDOT and the Federal Highway Administration (FHWA).

The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the approved training program being utilized. When a specific ratio is not provided, the ratio of apprentices and trainees to journeymen expected to be on the contractor's work force during normal operations shall, pursuant to 23 CFR 230.111(c)(10), fall between 1:10 and 1:4.

#### C. Annual Training Goal

The NMDOT Office of Equal Opportunity Programs will notify contractors assigned an annual training goal prior to the beginning of the calendar year (January 1 to December 31) within which they must participate. Contractors are assigned an annual training

goal based on the dollar amount awarded to the contractor as an NMDOT federal-aid prime contractor during the previous state fiscal year (July 1 through June 30). More specifically, each contractor cumulatively awarded ten million dollars or more as a prime contractor on NMDOT federal-aid projects during the previous state fiscal year is assigned and shall commit to train, certify and advance one trainee to journeyman worker status during and before the expiration of the calendar year. The trainee must begin training during the calendar year within which the contractor must participate and trainee time cannot "roll-over" from one calendar year to another for purposes of meeting the annual goal.

While NMDOT strongly encourages contractors to independently provide on the job training on their projects, only those contractors who have reached the above-mentioned threshold are required to participate in and are bound by the provisions of this OJT Program. When a contractor is not assigned an annual training goal but still utilizes trainees/apprentices on a federal-aid project, the contractor will not be reimbursed for training hours under the OJT pay item, but the contractor may pay the trainees/apprentices the wages allowed in the approved training program, which may be less than the minimum pay rate for the classification. The contractor is still required to use an approved training program, register its trainees in the program, pay trainees according to the program, and show trainees on its payrolls as required by FHWA-1273, Sections IV and V.

## II. PROGRAM REQUIREMENTS

### A. Use of Approved Training Program

NMDOT recognizes four types of contractor based training programs. Those programs are: contractor in-house training programs that have received prior approval from both FHWA and NMDOT; training programs approved in other states subject to proof of approval; the approved Workforce Development Program provided through the Associated Contractors of New Mexico (ACNM); and the New Mexico Department of Workforce Solutions' State Apprenticeship Council programs (e.g. union apprenticeships, if the contract employees are otherwise eligible). If a contractor wants to use a training program other than one of the four mentioned above, the contractor must have the program approved by NMDOT and FHWA prior to commencing work. All training programs must be administered in a manner consistent with the equal employment obligations of federal-aid highway construction contracts. NMDOT reserves the right to request documentation that a program fulfills these obligations. Contractors must ensure that each trainee does not exceed the maximum number of training hours required for the completion of the selected training program.

### B. Wage Requirements

Contractors must pay each approved trainee at the appropriate percentage of journeyman's wage rate based on the approved training program and consistent with applicable State and Federal regulations and guidance.

### C. Reporting Requirements

Contractors must submit the following documents to the administrator of the approved training program being utilized, the NMDOT Office of Equal Opportunity Programs, and, for NMDOT federal-aid projects, to the Project Manager:

- 1) Contractors shall complete and submit Form A-2201, Contractor OJT Enrollment Form, within seven business days of the contractor's intent to assign a trainee(s) to a project.
- 2) For NMDOT federal-aid projects, Contractors shall complete and submit form A-2203, OJT Program Labor Classification Request within seven business days of the contractor's intent to assign a trainee(s) to a project.
- 3) Contractors shall complete and submit Form A-2202, OJT Program Monthly Reporting Form, on or before the 10<sup>th</sup> of each month, reporting on the preceding month.

Contractors shall submit to the NMDOT Office of Equal Opportunity Programs an Annual Summary Report by January 20<sup>th</sup> of the following calendar year. The report must give an accurate account of all trainee hours; identifying each trainee by name, ethnicity and gender and identifying each project and/or contract and the trainee hours attributed thereto.

Contractors should also note that:

- 1) Monthly reports submitted after January 10th of the following year will not be accepted or considered towards goal attainment for the previous calendar year.
- 2) If a contractor did not attain its annual goal, it must submit, with its Annual Summary Report, documentation of its Good Faith Efforts to attain the goal (see Section III below).

Contactors should only submit paperwork for individuals accepted and enrolled in an approved training program as outlined in Section II A, and not for individuals participating in other training and/or apprenticeship programs.

#### D. Contractor Participation

The contractor's Equal Employment Opportunity Officer (EEO Officer) shall be responsible for monitoring and administering the trainees' progress. The EEO Officer shall serve as the point of contact for NMDOT representatives regarding information, documentation, and conflict resolution. The contractor shall furnish each trainee a copy of the Training Program and other documentation related to the training program. The contractor shall further make every reasonable effort to provide training that develops skills as required by the training program. The contractor shall furnish to each trainee, upon successful completion of their training program, a certificate showing the type and length of training satisfactorily completed.

#### E. Contractor Reimbursement

Except as otherwise noted below, NMDOT will reimburse the contractor 80 cents per hour of training given an employee on a State or Federal-aid project in accordance with an approved training program. Reimbursements will be made upon submission to and approval by the Project Manager of a request for change order with the properly completed OJT monthly reporting forms attached. Reimbursement will not be made for a trainee's hours that exceed the maximum number of training hours required for the completion of the selected classification in the training program.

### III. Good Faith Efforts

If a contractor does not or cannot achieve its annual training goal with female or minority trainees, it must produce adequate Good Faith Efforts documentation. Good Faith Efforts are those efforts designed to achieve equal opportunity through positive, aggressive, and continuous result-oriented measures. (23 CFR 230.409(g)(4)). Good Faith Efforts should be taken as trainee hiring opportunities arise. Whenever a contractor requests NMDOT approval of someone other than a minority or a female for credit towards its annual training goal, the contractor must submit documented evidence of its Good Faith Efforts to fill that position with a minority or female.

NMDOT will consider all contractors' documentation of Good Faith Efforts on a case-by-case basis, and take into account the following:

- Availability of minorities and females for training;
- The potential for effective training;
- Duration of the contract;
- Dollar value of the contract;
- Total normal work force that the average bidder could be expected to use
- Geographic location;
- Type of work;
- The need for journey level individuals in the area.

Good Faith Efforts may include, but are not limited to, documentation of efforts to:

- Contact minority and female employees to gain referrals on other minority and female applicants;
- Upgrade minority and female unskilled workers into the skilled classifications when possible;
- Accept applications at the project site or at the contractor's office;
- Review and follow up on previously received applications from minorities and females when hiring opportunities arise;
- Maintain evaluations that monitor efforts made to achieve diversity on federal-aid projects and the contractor's workforce in general (i.e. significant numbers of minorities and females employed on a company wide basis);

NMDOT may reject utilization of non-minority male trainees for credit toward meeting the annual goal if it determines that the contractor failed to make sufficient Good Faith Efforts to hire minorities or female trainees and/or the contractor failed to document or submit evidence of its Good Faith Effort to do so.

#### IV. NMDOT PROGRAM MONITORING

##### A. Site Visits

NMDOT may conduct periodic site visits to a contractor's worksite to review OJT Program compliance along with other contract compliance issues related to the project. NMDOT will make every effort to ensure minimal disruption to a contractor's work.

##### B. End of Year Audits and Sanctions for Non-Compliance

NMDOT will perform an end of year audit of each contractor to verify attainment of the annual OJT goal. If a contractor, through its Annual Summary Report, can demonstrate that it attained its annual OJT Program goal or made adequate Good Faith Efforts to do so, then NMDOT will determine that the contractor is in compliance with the OJT Program requirements.

If a contractor has neither attained its goal nor submitted adequate Good Faith Efforts documentation, NMDOT will issue a Show Cause Notice outlining its findings of non-compliance and providing its determination of sanctions attributed thereto. Within thirty (30) days of receiving the Show Cause Notice, the contractor may submit a written response to the Show Cause Notice providing argument and evidence in opposition to the NMDOT findings of non-compliance and/or its determination of sanctions.

If a contractor fails to submit a written response to the Show Cause Notice within the specified period or the written response to the Show Cause Notice does not cause NMDOT to change its findings of non-compliance and/or its determination of sanctions, NMDOT will issue its Final Order to the contractor regarding the non-compliance and assessing sanctions.

Sanctions for non-compliance may include, but are not limited to: liquidated damages, suspension of any payment in whole or in part, termination or cancellation of contracts in whole or in part, and/or suspension or debarment of the contractor.

#### VIII. WAGE RATES

In the event of a discrepancy between the minimum wage rates in the Wage Decision of the DWS, and the U.S. Department of Labor Wage Decision applicable as of Project letting, the higher wage rates shall govern.

#### IX. LABOR REPORTING AND SUBMISSION OF WEEKLY PAYROLLS

Davis-Bacon and related acts mandate that federally funded projects require weekly certified payrolls must be generated and submitted for all portions or segments of the contract. The New Mexico Department of Workforce Solutions ("DWS") mandates tracking a construction Project's 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 by the Department. If rejected, the Contractor Subcontractors will be required to submit the current DWS forms.

The following requirements apply to those Contractors and Subcontractors performing Work subject to this Contract's prevailing wage rates:

The Contractor and Subcontractor(s) at all tiers shall complete an original DWS "Statement of Intent to Pay Prevailing Wages" form prior to starting Work on the Project. The Contractor shall provide a copy of all forms to the Project Manager in accordance with the Standard Specification Section 108.2 "Notice to Proceed and Pre-Construction Conference". For Subcontracts established later on in the Project, the Contractor shall ensure that the Subcontractor's "Statement of Intent to Pay Prevailing Wages" form is submitted to the Project Manager.

Once construction begins, the Contractor shall submit weekly payroll information. The Contractor shall ensure that all Subcontractors at all tiers submit weekly payroll information.

Weekly payroll information shall be submitted as follows:

- On all Projects, the Contractor shall submit and shall ensure all Subcontractors submit weekly payroll information into the LCPTracker software program.
- All payrolls for the Project shall be submitted no later than seven (7) Days following the close of the second payroll period.

Prior to release of the Final Payment, the Contractor and Subcontractor(s) at all tiers shall fully comply with Standard Specification Section 109.10.7 "Contractor Submittal of Final Documentation".

The Contractor and Subcontractor(s) at all tiers shall preserve its weekly payroll records in accordance with Standard Specification Section 107.28 "Contractor Records".

On solely 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.

#### EEO Software Programs

The Contractor and Subcontractors at all tiers Working on federal-aid Projects shall use the following EEO Software Programs to report specific EEO, Labor Compliance and DBE information as required by the Contract and as specified by this NTC. 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 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. Information related to the use of the software is available at the NMDOT web page referenced in this NTC.

LCPTracker - (Labor Compliance Program Tracker) is a web-based software program used to collect, verify and manage prevailing wage certified payrolls and related labor compliance documentation for Contractors and Subcontractors on federal-aid Projects. Information related to the use of the software is available at the NMDOT web page referenced in the NTC.

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 a "Non-Conformance".

Information on access to the software programs, log-on information, use of the programs, available training, user manuals, etc. can be obtained by accessing the web page referenced in this NTC.

X. TITLE VI Assurances Appendix A and Appendix E

## Appendix A of the Title VI Assurances

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of

Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time-to-time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate either directly or indirectly in the discrimination prohibited by THE Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of the 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the New Mexico Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the New Mexico Department of Transportation (NMDOT), or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of the contractor's non-compliance with the nondiscrimination provisions of this contract, the New Mexico Department of Transportation (NMDOT) will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
  - a. withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. cancelling, terminating or suspending the contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the NMDOT or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the NMDOT to enter into any litigation to protect the interests of the NMDOT. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

## Appendix E of the Title VI Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

### **Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (29 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 U.S.C. § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the program or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your program (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (U.S.C. 1681 *et seq.*)

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**E. STANDARD SPECIFICATIONS, SPECIAL PROVISIONS,  
SUPPLEMENTAL SPECIFICATIONS, AND SUPPLEMENTAL  
GENERAL CONDITIONS**

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**E.1. STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS, AND SUPPLEMENTAL GENERAL CONDITIONS FOR**

Cerrillos Road Reconstruction, Phase IIC Project, CIP #810A

The “New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction,” 2014 Edition, and the New Mexico Standard Specifications for Public Works Construction, are incorporated by reference, the same as if fully rewritten therein, in the contract, proposal, bond, and other contract documents for work to be performed under this contract for the City of Santa Fe. Said “New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction,” 2014 Edition, and the New Mexico Standard Specifications for Public Works Construction, are for the purpose of the contract, proposal, bond, and other contract documents, supplemented, modified, and amended as follows, and as may be hereinbefore and hereinafter provided.

Whenever, in the Special Provisions and Supplemental Specifications the word “Section” is followed by a number and a caption (such as “Section 102.4 – Bid Package”) reference is made to that specific section of the “New Mexico Department of Transportation Standard Specifications for Highway and Bridge Construction,” 2014 Edition. The Supplemental General Conditions, Special Provisions and Supplemental Specifications shall govern over the Standard Specifications and are hereby made a part of the Contract Documents.

Where a conflict occurs between NMDOT and City of Santa Fe Special Provisions or City of Santa Fe Instructions to Bidders, the City of Santa Fe Special Provisions and Instructions to Bidders shall control.

New Mexico Department of Transportation Standard Specifications, Special Provisions, and Supplemental Specifications shall be interpreted using the following list where not covered by the Supplemental General Conditions contained herein. References listed to the right are to replace those on the left where those on the left appear in the text.

REFERENCE:

REPLACE WITH:

Commission, Department, District,  
Engineer, The State  
Commission or Department,  
Cabinet Secretary or Secretary

The City of Santa Fe except where District  
such reference is to rules, codes, Highway  
or regulations, or pre-qualification  
of bidders of the New Mexico Department  
of Transportation

Department

The City or its Consultant as  
applicable

Engineer

The City of Santa Fe Roadway &  
Trails Engineering Division Director  
acting through his duly authorized  
representative who is normally the  
Project Engineer, Project Manager  
or Consulting Engineer.

Project Manager

The individual designated by the  
Engineer who is responsible for  
observing construction and the  
administration of the project.

State

City or Owner

The Supplemental Specifications listed herein modify the New Mexico Department of Transportation Standard Specification for the City of Santa Fe Projects.

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<b>GENERAL PROVISIONS</b>	
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### **SPECIAL PROVISIONS**

Contractor Quality Control Plan (2-12-14)	
Delete Reference to 304 Replace with 303 (2-24-14)	
Section 201 – Clearing and Grubbing (2-12-14)	
Section 203-C – Unstable Subgrade Stabilization (8-11-15)	
Section 206 – Excavation and Backfill for Culverts and Minor Structures (8-14-15)	
Section 403 – Open Graded Friction Course (4-7-14)	
Section 405 – Detour Pavements (2-13-14)	
Section 423 – Hot Mix Asphalt – Superpave (QLA and Non-QLA) (3-4-15)	
Section 663-C – Pre-Construction Utility Survey (8-11-14)	
Section 664 – Landscape Planting	
Item No. 664990 – Landscape Irrigation	
Section 702-C – Traffic Control Devices During Construction (7-20-15)	
Section 704-B - Retroreflective Preformed Patterned Pavement Markings (3-3-97)	
Section 706 A – Power Service Installation (4-4-06)	
Section 713 – Advanced Traffic Management System (8-13-15)	
Section 716 A – Internally Illuminated Signs (5-15-08)	
Section 750 A – Fiber Optic Cable (2-1-13)	
Section 750 C – Pullbox and Manhole (4-19-13)	
Section 750 H – ITS Acceptance Testing (5-7-09)	
Section 901 – Quality Control Quality Assurance (QCQA) (1-29-15)	

**E.2. SUPPLEMENTAL SPECIFICATIONS  
TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION  
2014 EDITION**

All provisions of the “New Mexico Department of Transportation Standard Specifications for Road and Bridge Construction” – 2014 Edition shall apply except as modified herein.

**DIVISION 100 - GENERAL PROVISIONS**

**SECTION 101 – ABBREVIATIONS, SYMBOLS, TERMS, AND DEFINITIONS**

**SECTION 101.4 – TERMS AND DEFINITIONS.**

Add the following definitions:

AS-BUILT PLANS - Final drawings reflecting work and quantities performed under the contract.

CITY - The City of Santa Fe, New Mexico.

CONDUIT - A pipe of tube used for receiving and protecting utility lines.

CONTRACT ITEM (PAY ITEM) – A specifically described unit of work for which a price is provided in the contract.

COST REDUCTION PROPOSALS. Contractor –provided alternates to the work methods or materials specified in the contract that establish 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 owner.

OWNER - The contracting agent. "City of Santa Fe".

RIGHT OF WAY AGREEMENT - A contract with a property owner to sell specific rights to the City for real property necessary to construct or maintain roadways.

UNIT BID PRICE - The Price established by the Contractor for an individual item of work on the bid form.

Modify the following definitions:

ASSISTANT DISTRICT ENGINEER – Delete entire definition.

AWARD - Delete the entire sentence and replace with: "The written acceptance by the owner of the complete set of Contract Documents as set forth in the Instructions for Bidders, Article 6".

BID FORM - Replace the word "Department" with "Owner".

BID GUARANTY - Replace the word "Department" with "Owner".

CABINET SECRETARY - Delete entire definition.

CONSTRUCTION MAINTENANCE EASEMENT - Replace the word "Department" with "Owner".

CONTRACT - In the first sentence replace the word "Department" with "Owner".

CONTRACTOR - Replace the word "Department" with "Owner".

DEPARTMENT - Delete entire subsection.

DISTRICT - Delete entire definition.

DISTRICT ENGINEER - Delete entire definition.

DISTRICT CONSTRUCTION ENGINEER - Delete entire definition.

ENGINEER - Delete entire definition and replace with "Roadway & Trails Engineering Division Director acting through and duly authorized representative, who is normally the Project Engineer, Project Manager or Consulting Engineer".

ENVIRONMENTAL SPECIALIST – At the beginning after "The individual" add "designated by the Engineer,"

GENERAL OFFICE - Delete entire definition.

INSPECTOR - Replace the wording "project manager's" with "Engineer's".

LABORATORY - Delete entire definition and replace with "an approved testing laboratory under the supervision and responsibility of a New Mexico Registered Professional Engineer".

LANDSCAPE ARCHITECT – Replace the words "Cabinet Secretary's" with "Engineer's".

LIGHTING AND SIGNING ENGINEER - Replace the word "Department" with "Owner".

PAY ADJUSTMENT - Replace the word "Department" with "Owner".

PROFILE GRADE - Replace the word "Department" with "Engineer".

PROJECT MANAGER - Delete entire definition and replace with "The individual designated by the Engineer who is responsible for observing construction and the administration of the project".

SECRETARY - Delete entire definition.

SUBSTANTIAL COMPLETION – Replace the words "District Construction Engineer" with "Engineer".

SUPPLEMENTAL AGREEMENT - Replace the word "Department" with "Owner".

SUSPENSION AND DEBARMENT - Replace the word "Department" with "Owner".

UNBALANCED BID - Replace the word "Department" with "Owner".

VALUE ENGINEERING COST PROPOSAL - Replace the word "Department" with "Owner", replace the words "Project Manager" with "Engineer".

WORKING DAY - Replace the word "Department" with "Owner".

**SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS**

102.2 PREQUALIFICATION OF BIDDERS - Replace the word "Department" with "New Mexico Highway and Transportation Department".

102.3 SUSPENSION AND DEBARMENT. Delete the paragraph in its entirety and substitute the following:

102.3 SUSPENSION FROM BIDDING. The Owner may suspend for a period of up to thirty-six months any person and any subsidiary or affiliate of any person from bidding on City projects and from being a subcontractor or supplier on City projects if that person or any officer, director, employee or agent of that person is debarred under New Mexico State Highway and Transportation Department Regulations or City of Santa Fe Purchasing provisions. Under that section, "a person" means any individual, partnership, Corporation, association or other entity formed for the purpose of doing business as a contractor, subcontractor or supplier."

102.4 BID PACKAGE. First paragraph, first sentence replace the word "Department" with "Owner". Delete the second numbered sentence.

102.5 REFUSAL OR REJECTION OF BIDS. First paragraph, first sentence and in subsections (2.), (7.), (9.), and (10.), replace the word "Department" with "Owner".

102.7 EXAMINATION OF CONTRACT, PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK. Replace the word "Department" with "Owner" throughout entire subsection.

102.8 Delete Subsection 102.8 - PREPARATION OF BID and substitute the following:

102.8 PREPARATION OF BID. The bidder shall submit his proposal on the forms furnished by the Owner. The blank spaces in the proposal shall be filled in correctly where indicated, for each item given and the bidder shall state both in words and numerals, written or printed in ink or typewritten, the unit bid prices for which he proposes to do each item of the work contemplated. In case of a discrepancy between the prices written in words and those written in numerals, the prices written in words shall govern.

In the event that either the unit bid price written in words or the unit bid price written in numerals is inadvertently omitted, the unit bid price that is shown for that item shall govern. If both the written and numerical unit bid price is omitted, the extended total shall be divided by the estimated quantity thereby establishing a unit bid price. If the written price, numerical unit bid price and extended total are omitted, the bid proposal shall be rejected.

The bidder shall specify a unit bid price for each item, except when a unit bid price is established by the Owner. The unit bid price will be taken to include any and all insurance and overhead expense necessary to complete that bid item.

The bidder shall show the products of the respective unit bid prices and quantities and shall also show the total amount of his bid in the space provided in the proposal form. Said total amount bid shall be the total sum obtained by adding the amounts of the individual items.

The bidder is permitted to show the amount(s) for the respective unit bid price(s) written in words and written in numerals to a maximum of two decimal places. Any additional decimal places in excess of two shall be truncated and will not be considered in the processing of the proposal.

- 102.9 INNOVATIVE CONTRACT INCENTIVES. Replace the word "Department" with "Owner".
- 102.12 DELIVERY OF BIDS. Replace the word "Department" with "Owner" throughout.
- 102.13 REVISION OF BIDS. Replace the word "Department" with "Owner".
- 102.14 WITHDRAWAL OF BIDS. Replace the word "Department" with "Owner".
- 102.15 BID OPENING. Replace the word "Department" with "Owner".
- 102.16 ENGINEER'S ESTIMATE. Replace the word "Department" with "Owner".

**SECTION 103 - AWARD AND EXECUTION OF CONTRACT.**

- 103.1 CONSIDERATION OF BIDS. Replace the word "Department" with "Owner" throughout the subsection.
- 103.2 AWARD OF CONTRACT - Replace the word "Department" with "Owner" throughout the subsection. Change the time to award contract from thirty-(30) calendar days to sixty-(60) calendar days.
- 103.3 BIDDING DISPUTE RESOLUTION PROCEDURES - Replace the word "Department" with "Owner" throughout the subsection. Replace the word "Secretary" with "Engineer" throughout the subsection.
- 103.4 CANCELLATION OF AWARD. Replace the word "Department" with "Owner" throughout.
- 103.5 RETURN OF BID GUARANTEE - Delete entirely.
- 103.6 REQUIREMENT OF CONTRACT BOND. Replace the word "Department" with "Owner".
- 103.7 EXECUTION AND APPROVAL OF CONTRACT. Replace the word "Department" with "Owner".
- 103.8 FAILURE TO EXECUTE CONTRACT. Replace the word "Department" with "Owner".

**SECTION 104 - SCOPE OF WORK.**

- 104.1 INTENT OF THE CONTRACT. Replace the word "Department" with "Owner" throughout.
- 104.2 SIGNIFICANT CHANGES IN THE CHARACTER OF THE WORK. Replace the word "Department" with "Owner" throughout the subsection.
- 104.3 DIFFERING SITE CONDITIONS. Replace the word "Department" with "Owner".
- 104.5 MAINTENANCE OF TRAFFIC - Replace the word "Department" with "Owner" throughout the subsection.
- 104.6 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK - Replace the word "Department" with "Owner" throughout the subsection.
- 104.8 VALUE ENGINEERING COST PROPOSAL (VECP). Replace the word "Department" with "Owner" throughout the subsection.

**SECTION 105 - CONTROL OF WORK.**

- 105.1 RESPONSIBILITY AND AUTHORITY OF THE DEPARTMENT - Replace the word "Department" with "Owner" in the subsection heading and throughout the subsection.
- 105.2 PLANS AND WORKING DRAWINGS. Replace the word "Department" with "Owner" throughout the subsection.
- 105.3 COMPLIANCE WITH PLANS AND SPECIFICATIONS. Replace the word "Department" with "Owner" throughout the subsection.
- 105.4 COORDINATION OF CONTRACT DOCUMENTS. Replace the word "Department" with "Owner" throughout the subsection.
- 105.5 COOPERATION BY CONTRACTOR. Replace the word "Department" with "Owner" throughout.
- 105.6 COOPERATION WITH UTILITIES. Replace the word "Department" with "Owner" throughout.
- 105.7 COOPERATION BETWEEN CONTRACTORS. Replace the word "Department" with "Owner" throughout.
- 105.8 AUTHORITY AND DUTIES OF PROJECT MANAGER. Delete entire subsection and substitute the following:
- "105.8 AUTHORITY AND DUTIES OF PROJECT MANAGER. The Project Manager, as a project representative of the Engineer, shall have the authority to conduct on-site observations of the work in progress. Such on-site observation may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used.
- The Project Manager will not be authorized to alter or waive the provisions of the contract, issue instructions contrary to the plans or specifications, or act on or undertake any responsibilities of the Contractor.
- The Project Manager shall refer to the Engineer all defects and deficiencies occurring in the work and shall be the liaison between the Engineer and the Contractor regarding such defects and deficiencies."
- The Project Manager will be responsible for determining constructed quantities and for administration of monthly progress payments.
- 105.9 DUTIES OF THE INSPECTOR. Delete entire subsection.
- 105.10 INSPECTION OF WORK. Replace the word "Department" with "Engineer" throughout the subsection.
- 105.11 REMOVAL OF UNACCEPTABLE AND UNAUTHORIZED WORK. Replace the word "Department" with "Engineer" throughout the subsection.
- 105.12 LOAD RESTRICTIONS - Replace the word "Department" with "Owner" throughout the subsection.
- 105.13 HAUL ROADS - Replace the word "Department" with "Owner" throughout.
- 105.15 MAINTENANCE DURING CONSTRUCTION - Replace the word "Department" with "Owner" throughout the subsection.

- 105.16 FAILURE TO MAINTAIN ROADWAY OR STRUCTURE - Replace the word "Department" with "Owner" throughout the subsection.
- 105.17 CONTRACT ADJUSTMENT FOR SUSPENSION OF WORK - Replace the word "Department" with "Owner" throughout the subsection.
- 105.18 ACCEPTANCE. Subsection (105.18.2) Final Acceptance, replace the wording "and the District Construction Engineer" with "Engineer and Owner". Replace the word "Department" with "Owner" throughout the subsection.
- 105.20 ADMINISTRATIVE REMEDY. Delete this entire Subsection.

### **SECTION 106 - CONTROL OF MATERIALS.**

- 106.1 CONTRACTOR-FURNISHED AGGREGATE AND BORROW SOURCE. Replace the word "Department" with "Owner" throughout.
- 106.2 SUPPLIER PLANT INSPECTION. Replace the word "Department" with "Owner" throughout the subsection.
- 106.3 SAMPLES, TESTS, CITED SPECIFICATIONS. Replace the word "Department" with "Owner" throughout the subsection. Delete the second paragraph. Add to this subsection the following:

Sampling and testing of materials and manufactured items incorporated into the work shall be accomplished as designated in the invitation for bid package. All sampling and testing shall be performed by an approved testing laboratory, on the Department's approved list, under the supervision and responsibility of a New Mexico Registered Professional Engineer. Materials and items manufactured outside the State of New Mexico shall be accompanied by a Certificate of Compliance prepared in accordance with requirements of subsection 106.4 - Certificate of Compliance.

Job mix formulae and design mixes shall be prepared by an approved testing laboratory, on the Department's approved list, under the supervision and responsibility of a New Mexico Registered Professional Engineer. All formulae and design mixes shall be approved by the Engineer prior to materials being incorporated into the work. The Engineer shall determine the type, number, and location of tests to be performed.

Copies of all laboratory and field test results shall be forwarded to the Engineer and the Owner, as soon as reasonably possible after the tests are complete. No subsequent work shall be accomplished until such time that test results have been received and approved by the Project Manager.

The Contractor shall bear the cost of all re-testing due to the first test or subsequent tests failing to show results meeting the specifications.

- 106.4 CERTIFICATE OF COMPLIANCE - Delete in its entirety and replace with the following:

Submittals include the furnishing of all manufacturer's data, shop drawings, samples, certifications, guarantees, lab and field test reports, operation manuals, maintenance manuals, lubrication charts, design mixes, spare parts lists, special tools, and factory representative required for installation of special items, in full compliance with the Contract Documents. All submittals shall be submitted for Engineer's review before installation or incorporation into work or within 30 days after effective date of Notice to Proceed, unless the Engineer approves a different schedule. Each submittal shall include reference to project and date, general summary

description of items being submitted and a certificate of compliance signed by the appropriate company official.

Should any requirements pertaining to submittals not be complied with, including but not limited to submittal time and procedure, Contractor waives any right of claim for loss of time or money purporting to have occurred as a result of any delay in obtaining review of submitted data or shop drawings.

On the following pages are listed items, which will be required to complete the work for which submittals shall be required. The schedule of submittals is for the convenience of the Contractor, and shall not be considered as complete or final. Additional submittals may be required as the Work progresses, which shall be submitted within 15 days of notification.

The following is a general explanation of some of the terms used in the schedule of submittals chart included herein:

Manufacturer's Data: Catalog type literature on the item.

Shop Drawings: Detailed drawings with all dimensions and locations shown.

Samples: The item that will be supplied.

Certifications: Any certifications required by these Specifications or standard specification and/or requirements for that item, to cover raw materials and testing of the final product.

Guarantees: A copy of the guarantee to be given to the Owner on a particular item.

Lab Test Reports: Laboratory test reports required to show that the item meets all specified requirements, or required for the preparation of a design mix or job mix formula.

Field Test Reports: Reports of tests that have been conducted on the item as installed or constructed in the field.

Design Mix: Design or job mix formulae, prepared by a qualified testing laboratory, under the direct supervision of Registered Professional Engineer, stating a recommended mix or combination of materials to produce a specified product. If permitted by the Contract Documents, a design or job mix formula submitted which is not prepared specifically for this Project shall have been prepared within one year of the date of the Agreement and shall be accompanied by a certification from the testing laboratory stating that the materials proposed for use have the same properties as those previously tested.

Computations: Calculation required to arrive at the design of a particular item submitted as a shop drawing.

<b>Schedule of Submittals:</b>  Cerrillos Road Reconstruction, Phase IIC  (All submittals shall be in 2 copies)			Manufacturer & Data & Source	Shop Drawings	F Samples	Certificates	Guarantees	Lab Test Reports	Maintenance Manuals	Special Tools	Lubrication Charts & Grease Specs	Spare Parts List Recommended	Factory Representative Req. for Install.	Field Test Reports	Design Mix & Supporting Documents	Computations
	Backfill & Subgrade								X						X	
Borrow								X						X		
Gravel Base Course Aggregate								X						X	X	
Plant Mix Bituminous Pavement								X						X	X	
Bituminous Material & Hydrated Lime						X										
Tack Coat																
Prime Coat						X										
Concrete				X				X						X	X	
Aggregate for Concrete								X								
Cement						X										
Concrete Admixtures						X										
Reinforcing Steel						X		X								
MH Ring & Cover Set																
Sign Posts						X										
Signs Materials / Reflective Tape, etc.						X										
Paint & Striping						X		X								
Silicone Acrylic Concrete Stain																
Seeding						X									X	
Signal & Lighting Items				X		X										
Irrigation Items				X		X								X		

- 106.5 FOREIGN MATERIALS - Replace the word "Department" with "Owner" throughout the subsection.
- 106.6 STORAGE OF MATERIALS - Replace the word "Department" with "Owner" throughout the subsection.
- 106.8 DEPARTMENT-PROVIDES MATERIAL. Delete this title and replace with "NON-CONTRACTOR FURNISHED MATERIAL". Replace the words "the Department" with "others".
- 106.9 MATERIALS DESIGNATED BY TRADE NAME - Replace the word "Department" with "Owner" throughout the subsection.
- 106.10 EQUIPMENT GUARANTEES AND WARRANTIES. Replace the word "Department" with "Owner" throughout. In the second sentence replace the wording "one year" with "two years", and add to this subsection the following:
- "General Guaranty"
- Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the Owner, shall constitute an acceptance of work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. **The Contractor shall remedy any defects in the work and pay for any damage to other work resulting there from, which shall appear within a period of two years from the date of final acceptance of the work unless a longer period is specified. The Owner will give notice of observed defects with reasonable promptness.**
- 106.12 PREFERENCE FOR DOMESTIC MATERIALS - Replace the word "Department" with "Owner" throughout the subsection.

## **SECTION 107 - LEGAL RELATIONS, ENVIRONMENTAL REQUIREMENTS, AND RESPONSIBILITY TO THE PUBLIC.**

- 107.1 LAWS TO BE OBSERVED. First paragraph, last sentence, replace "state" with "Owner".
- 107.3 COMPLIANCE WITH PAYMENT OF TAXES. Replace the word "Department" with "Owner".
- 107.4 GROSS RECEIPT TAXES, INDIAN BUSINESS ACTIVITY, AND TRIBAL EMPLOYMENT RIGHTS ORGANIZATION TAXES. Replace the word "Department" with "Owner" throughout the subsection.
- 107.5 PATENTED DEVICES, MATERIALS, AND PROCESS. Replace the word "Department" with "Owner" throughout the subsection.
- 107.6 RESTORATION OF SURFACES OPENED BY PERMIT. First paragraph replace "Department with "Owner" and delete "municipal or County authorities,". Second paragraph, delete the last sentence and replace with "Individuals, firms or corporations wishing to make an opening in the highway surface must secure a permit from the New Mexico State Highway and Transportation Department and the Owner. The Contractor shall allow parties bearing said permits, and only those parties, to make openings in the highway.
- 107.7 FEDERAL AID PROVISION. Replace the word "Department" with "City".
- 107.8 SANITARY, HEALTH, AND SAFETY PROVISIONS. Replace the word "Department" with "City".
- 107.10 RAILROADS. Replace the word "Department" with "Owner" throughout the subsection.

- 107.12 ENVIRONMENTAL, HAZARDOUS MATERIALS AND CULTURAL RESOURCE DISCOVERIES. Replace the word "Department" with "Owner" throughout the subsection.
- 107.13 CONTRACTOR'S RESPONSIBILITY FOR DAMAGE TO ENVIRONMENTAL AND CULTURAL RESOURCES. Replace the word "Department" with "Owner".
- 107.14 CONTRACTOR'S RESPONSIBILITY FOR ENVIRONMENTAL AND CULTURAL RESOURCE PROTECTION. Replace the word "Department" with "Owner".
- 107.18 PROTECTION AND RESTORATION OF PUBLIC AND PRIVATE PROPERTY. Replace the word "Department" with "Owner".
- 107.19 RESPONSIBILITY FOR THIRD PARTY CLAIMS AND DUTY TO DEFEND. Replace the word "Department" with "Owner".
- 107.20 CONTRACTOR'S RESPONSIBILITY. Replace the word "Department" with "Owner" throughout the subsection.
- 107.21 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICES. In the fourth paragraph replace the word "State" with "City".
- 107.22 FURNISHING RIGHT OF WAY. Replace the word "Department" with "Owner".
- 107.23 PERSONAL LIABILITY OF PUBLIC OFFICIALS. Replace the word "Department" with "Owner" throughout the subsection.
- 107.24 NO THIRD-PARTY LIABILITY. Replace the word "Department" with "Owner" throughout the subsection.
- 107.25 INSURANCE REQUIREMENTS. Replace the word "Department" with "Owner" throughout the subsection.
- 107.26 NO WAIVER OF LEGAL RIGHTS. Replace the word "Department" with "City" throughout the subsection.
- 107.27 CONTRACTORS RESPONSIBILITY FOR THE TRAVELING PUBLIC. In the subsection second paragraph replace the word "Department" with "City".

#### **SECTION 108 - PROSECUTION AND PROGRESS.**

- 108.1 SUBCONTRACTING. Replace the word "Department" with "Owner" throughout the subsection.
- 108.2 NOTICE TO PROCEED AND PRE-CONSTRUCTION CONFERENCE. Replace the word "Department" with "Owner" throughout the subsection.
- 108.3 SCHEDULE. Replace the word "Department" with "Owner" throughout the subsection.
- 108.4 UNSATISFACTORY PROGRESS OF WORK. Replace the word "Department" with "Owner" throughout the subsection.
- 108.6 DETERMINATION AND EXTENSION OF CONTRACT TIME. Replace the word "Department" with "Owner" throughout the subsection.
- 108.7 FAILURE TO COMPLETE ON TIME. Replace the word "Department" with "Owner" throughout

the subsection.

- 108.8 LIQUIDATED DAMAGES. Replace the word "Department" with "Owner" throughout the subsection.
- 108.9 DEFAULT OF CONTRACT. Replace the word "Department" with "Owner" throughout the subsection.
- 108.10 TERMINATION OF CONTRACT; NO FAULT OF CONTRACTOR. Replace the word "Department" with "Owner" throughout the subsection.

#### **SECTION 109 - MEASUREMENT AND PAYMENT.**

- 109.1 MEASUREMENT OF QUANTITY. Replace the word "Department" with "Owner" throughout the subsection.
- 109.2 APPROVED EQUIPMENT RENTAL RATES. Replace the word "Department" with "Owner" throughout the subsection.
- 109.3 SCOPE OF PAYMENT. Replace the word "Department" with "Owner" throughout the subsection.
- 109.4 COMPENSATION FOR OVERRUN / UNDERRUN QUANTITIES. Replace the word "Department" with "Owner" throughout the subsection.
- 109.5 PAYMENT FOR CHANGES, DIFFERING SITE CONDITIONS, AND EXTRA WORK. Replace the word "Department" with "Owner" throughout the subsection.
- 109.6 FORCE ACCOUNT. Replace the word "Department" with "Owner" throughout the subsection.
- 109.7 ELIMINATED ITEMS. Replace the word "Department" with "Owner" throughout the subsection.
- 109.8 PROGRESS PAYMENTS. Replace the word "Department" to "Owner" throughout. Fourth paragraph after "Accepted by the Project Manager" add "and Owner".
- 109.10 PROJECT CLOSURE. Replace the word "Department" with "Owner" throughout the subsection.
- 109.11 COMPENSATION FOR CLAIMS. Replace the word "Department" with "Owner" throughout the subsection.

#### **End of Division 100 – General Provisions**

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## **F. SPECIAL PROVISIONS**

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NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS MODIFYING

**F.1. CONTRACTOR QUALITY CONTROL PLAN**

**SECTIONS:**

**303 BASE COURSE**

**403 OPEN GRADED FRICTION COURSE (NON-QLA)**

**412 HOT IN-PLACE RECYCLING OF ASPHALT PAVEMENT**

**413 SINGLE-MACHINE HOT IN-PLACE SURFACE REPAVING**

**415 PAVEMENT SURFACE RESTORATION**

**416 MINOR PAVING**

**417 MISCELLANEOUS PAVING**

**451 PORTLAND CEMENT CONCRETE PAVEMENT**

**517 PRECAST CONCRETE STRUCTURES**

**518 PRE-STRESSED CONCRETE MEMBERS**

All provisions of these sections in the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**303.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

**403.5.2 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

**412.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

**413.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to

901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **415.5.2 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **416.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **417.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **451.5.2 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **517.5.1 WORK INCLUDED IN PAYMENT**

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

#### **518.5.1 WORK INCLUDED IN PAYMENT**

Add the following:

The development of the Contractor Quality Control Plan shall be included in the payment and is considered incidental to the completion of this Bid Item. All references to 901.2 "Contractor Quality Control" is for reference only and no separate measurement will be made.

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS MODIFYING

**F.2. DELETE REFERENCE TO 304 REPLACE WITH 303**

**SECTIONS:**

**203 EXCAVATION, BORROW, AND EMBANKMENT**

**405 DETOUR PAVEMENTS**

**408 PRIME COAT**

**605 DRAINS**

**608 SIDEWALKS, DRIVE PADS AND CONCRETE MEDIAN PAVEMENT**

**609 CURB AND GUTTER**

All provisions of these sections in the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

Delete reference to **304 Base Course** and replace with **303 Base Course** for the following subsections:

**203.3.3 Rock Cuts**

**405.3.1 General**

**408.3.3 Preparation of Surface**

**605.2.3 Granular Materials**

**608.2.3 Bed Course Material**

**609.2.3 Bed Course Material**

**609.3.1 Foundation**

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**F.3. SECTION 201 – CLEARING AND GRUBBING**

All provisions of SECTION 201 – CLEARING AND GRUBBING of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

Add the following to **201.3 CONSTRUCTION REQUIREMENTS**

**201.3.1 GENERAL**

The Contractor shall comply with Section 620 of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction 2014 Edition for herbicide application.

**201.5.1 Work Included in Payment**

Selective / Non-Selective Herbicide Application will be paid only if the Plans list this item in the Estimated Quantities table.

**NEW MEXICO DEPARTMENT OF TRANSPORTATION  
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**F.4. SECTION 203-C – UNSTABLE SUBGRADE STABILIZATION**

All provisions of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

1.0 DESCRIPTION

These specifications cover the requirements for correcting unstable subgrade encountered in non-borrow sections such as cuts or existing grades, due to no fault or neglect of the Contractor. The work includes all materials, labor, equipment, storage, private lab testing, mix-design, sampling, handling, excavation, disposal, tools, removal, placement, hauling, processing with the subgrade, shaping, compacting, surveying, finishing to grade, curing, fees, permits, test-rolling and/or proof-rolling the subgrade including all appurtenances and incidentals necessary to complete the work.

For purpose of this specification, unstable subgrade is defined as subgrade that is soft, gummy, pumping, and/or displaces with applied loading.

When the top 2 feet of the subgrade is stable, but is below Design R-Value, sub-excavation and backfill with Design R-Value material or better shall conform to and be paid as per SECTION 203 - EXCAVATION, BORROW, & EMBANKMENT as subexcavation.

Subgrade modified by this specification is for stabilization only and is not considered in the structural design of the pavement structure; thus no modification of the pavement structure shall be made.

Prior to stabilization, the subgrade shall be proof rolled with a roller having a minimum weight of 30 tons (27 metric tons) to identify unstable subgrade locations. Areas lacking sufficient stability in the opinion of the Project Manager shall be treated as unstable subgrade.

Prior to placement of the base material, the stabilized subgrade shall be proof rolled with a roller having a minimum weight of 30 tons (27 metric tons) and shall exhibit no displacement when proof rolled.

The Contractor may choose any of the options contained in this specification unless otherwise indicated on the plans or in the contract documents and at the contractors option, change to the other option during that project at no additional cost to the Department.

- Option A - Chemically Stabilized Subgrade - This work shall consist of Chemical Stabilization to stabilize the subgrade. Chemically Stabilized Subgrade includes, but is

not limited to, Portland Cement, Lime, etc. or combinations thereof. Chemical testing shall include sulfate content of the subgrade by a testing lab approved by NMDOT Materials Lab. Where sulfate content of the subgrade reaches 2,000 or more parts per million (ppm), chemical stabilization shall not be utilized. Results of the sulfate content lab testing and mix design shall be provided to the NMDOT prior to utilization of the chemical stabilized subgrade alternative. The contractor shall allow the NMDOT 3 working days to review and comment on the sulfate content lab testing and mix design prior to commencing the chemical subgrade stabilization.

- Option B – Mechanically Stabilized Subgrade - This work shall consist of Mechanical Stabilization to stabilize the subgrade. Mechanically Stabilized Subgrade includes, but is not limited to, ripping/drying/replacing, excavation and replacement (replacement material shall meet the design R-value or better within the top 2 feet of subgrade), aggregates, rock, underdrains, in-situ pulverization of existing pavement, reuse of existing pavement materials by processing and blending with suitable soils or base course per Section 302, or combinations thereof. Geotextiles or geogrid base will not be allowed.

Quantities shown in the plans are an estimate only. The Project Manager shall adjust quantities as field conditions warrant.

## 2.0 MATERIALS

Materials used must be on the list of Department approved products for its intended use, or be currently accepted under either the Department's Standard Specifications for Highway and Bridge Construction, special provisions, supplemental specifications, serial drawings or standard drawing.

## 3.0 CONSTRUCTION REQUIREMENTS

Where unstable subgrade is due to the failure of the Contractor to maintain adequate surface drainage, or is damaged due to the operations or any other fault or neglect of the Contractor, the unstable condition shall be corrected at no expense to the Department.

The Contractor is responsible for making the necessary adjustments in the equipment or operation so that underground utilities and permanent structures are not damaged.

The Contractor shall handle the processing of material in such a manner that the dust or debris created by the operation will not be hazardous to the public or workers.

Stabilized subgrade shall be constructed in such a manner that water will not gather and that proper drainage is assured.

When within the top 6 inches (150 mm) of the subgrade elevation, the stabilized subgrade shall meet the grade and compaction requirements of Section 207 Subgrade Preparation. Additional payment will not be made under Item Number 207000 – "Subgrade Preparation" and quantities will be adjusted as field conditions warrant.

#### 4.0 ACCEPTANCE

The stabilized subgrade shall meet the requirements of SECTION 303 - BASE COURSE subsection 303.3.1 Preparation of Subgrade. Prior to placement of the base material, the stabilized subgrade shall be proof rolled with a roller having a minimum weight of 30 tons (27 metric tons) and shall exhibit no displacement when proof rolled. Stabilized subgrade locations that continue to exhibit displacement are to be corrected at no additional cost to the Department.

#### 5.0 METHOD OF MEASUREMENT

Unstable subgrade stabilization shall be measured by the square yard

#### 6.0 BASIS OF PAYMENT

Unstable subgrade stabilization shall be paid for by the square yard

The unit price bid per square yard shall include all materials including replacement material, labor, equipment, storage, private lab testing, sampling, handling, excavation, disposal, tools, removal, placement, hauling, processing with the subgrade, shaping, compacting, surveying, finishing to grade, curing, fees, permits, and proof-rolling the subgrade including all appurtenances and incidentals necessary to complete the work. Test rolling and/or Proof rolling shall be considered incidental to the contract and will not be measured or paid for separately.

Payment will be made under:

#### PAY ITEM

#### PAY UNIT

Unstable Subgrade Stabilization

Square Yard

Note: Excavation and replacement of existing base course to reach the unstable subgrade shall also be considered as included in the payment for the main item and will not be measured or paid for separately.

**August 19, 2015**

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS MODIFYING

**F.5. SECTION 206 – EXCAVATION AND BACKFILL FOR CULVERTS AND MINOR STRUCTURES**

All provisions of SECTION 206 – EXCAVATION AND BACKFILL FOR CULVERTS AND MINOR STRUCTURES of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**206.2 MATERIALS**

Add the following subsection:

**206.2.4 Pea Gravel**

Pea Gravel shall be rounded gravel, graded with less than 10% passing a No. 200 sieve, less than 50% passing a No. 4 sieve, and having a maximum particle size of ½ inch. Pea Gravel will extend 2 feet above top of pipe and filter fabric shall be used on top. Filter fabric installation shall be specified herein and in Section 604 of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction.

**206.5 BASIS OF PAYMENT**

Include the following to **206.5.1 Work Included in Payment**

Bedding Material

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**F.6. SECTION 403 – OPEN GRADED FRICTION COURSE (NON-QLA)**

All provisions of SECTION 403 – OPEN GRADED FRICTION COURSE (NON-QLA) of the New Mexico State Highway and Transportation Department Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply except as modified herein:

Delete Subsection **403.2.5 Mix Design** and replace with the following:

**403.2.5 Mix Design**

A Department approved Private Testing Lab will develop the OGFC mix design in accordance with ASTM D 7064, "Standard Practice for Open Graded Friction Course (OGFC) Mix Design", as modified by the New Mexico Department of Transportation State Asphalt Engineer. The mix design shall be signed by a professional Engineer licensed by the NM Board of Registration for Professional Engineers and Land Surveyors. The JMF gradation will be within the master range for the specified type of OGFC. The mix design will establish a single percentage of aggregate passing each required sieve size and a single percentage of asphalt Material to be added to the aggregate. The mix design will specify whether to add hydrated lime or anhydrite based material and how much to use. The Mix Design shall identify the minimum and maximum mixing and placement temperatures of the mix. Add a minimum of one percent (1%) hydrated lime or anhydrite based material, include it in the gradation for establishing the mix design.

Delete Subsection **403.3.6.1.1 Suspension of Operations** and replace with the following:

**403.3.6.1.1 Suspension of Operations**

If one (1) or more properties listed in Subsection 403.3.6.2, Department Quality Assurance, fail to meet the specification requirements for a period of one (1) Day or a maximum production of 1000 tons; the production will be halted by the Project Manager. Use the gradation information to determine causes or factors that may be a contribution to the problem and prepare a plan to solve the problem. Approval of the plan must be obtained from the Project Manager before resumption of paving operations. Upon approval of the proposed plan, the Contractor may resume operations to determine if the actions taken have corrected the problem. Limit production to 1000 tons that will be tested in 500 ton increments. If that testing indicates that the problem has been corrected, the Contractor may resume full operations. If the problem has not been corrected, further trial runs and testing as described herein will be required. Take corrective action to remedy any property of the mix that is out of specification. Contractors who elect to produce Material that is not within the specification limits do so at their own risk. Price reductions due to out of specification Material being placed will be deducted from the unit price of the item in accordance with the Department's current Acceptance and Price Reduction Procedures. All Material that is rejected shall be

removed and replaced with specification Material at the Contractor's expense. Material that is improperly graded or segregated or fails to meet the requirements herein provided shall be corrected or removed and disposed of immediately as directed by the Project Manager at the Contractor's expense.

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**F.7. SECTION 405 – DETOUR PAVEMENTS**

All provisions of SECTION 405 – DETOUR PAVEMENTS of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply except as modified herein:

Amend Subsection **405.3 CONSTRUCTION REQUIREMENTS** to include the following:

**405.3.1 General**

Construct the Detour pavement in accordance with the following applicable Specifications:

6. Section 423 Hot-Mix Asphalt – Superpave (QLA & NON-QLA);”
7. Section 424 Warm Mix Asphalt.”

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**F.8. SECTION 423 – HOT MIX ASPHALT – SUPERPAVE (QLA AND NON-QLA)**

All provisions of SECTION 423 – HOT MIX ASPHALT – SUPERPAVE (QLA AND NON-QLA) of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply except as modified herein:

Delete Subsection **423.3.4.2 Haul Equipment** in its entirety and replace with the following:

**423.3.4.2 Haul Equipment**

Haul asphalt mixtures with trucks that are tarped and have tight, clean, smooth metal beds and a thin coat (a minimal amount) of 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.

Delete Subsection **423.3.5.7 Test Strip & Shakedown Period** in its entirety and replace with the following:

**423.3.5.7 Test Strip & Shakedown Period**

Construct a test strip for each HMA mix design to be incorporated in the project prior to placing the material on mainline. The test strip will consist of a maximum of 1,000 tons, the minimum test strip size will be 500 tons or as approved by the Project Manager. Construct the test strip on shoulders, low volume segments of the pavement, or area approved by the Project Manager.

Obtain a minimum of three (3) Contractor and three (3) agency samples to evaluate the JMF, process control, and placement operations. If necessary, based on the results obtained from the test strip, develop a revised JMF, modify placement operations, and/or implement adjustments to process control procedures. Production and placement operations performed prior to approval of a revised JMF are at the Contractor's risk.

The test strip will be evaluated for acceptance according to Table 423.3.5.7:1 "Test Strip Acceptance Limits". If accepted, the test strip will be paid at the unit price for HMA Complete or HMA per Section 423.5 "Payment". 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 rejected 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 accepted, continue to evaluate the mix properties and the JMF during the placement of the first two (2) sublots in the first lot. Changes may be made to the JMF or the mix proportions and/or properties with the concurrence of the State Materials Bureau, Project Manager, and Assistant District Engineer for Construction. For changes made prior to the completion of the first two (2) 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 (2) 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 the JMF or the mix proportions and/or properties with the concurrence of the State Materials Bureau, Project Manager, and the Assistant District Engineer for Construction.

**Table 423.3.5.7:1**  
**Test Strip Acceptance Testing Limits <sup>a,c</sup>**

<b>Characteristic</b>	<b>Allowable Tolerances from TV</b>
Air Voids, %	± 2.0
Pavement Density % <sup>c</sup>	90% to 97%
Hydrated Lime or Anhydrite Based Material %	±0.2%
Voids in the Mineral Aggregate (VMA), % <sup>a</sup>	± 2.0
Asphalt Content % <sup>a,b</sup>	± 0.50

<sup>a</sup> Asphalt Content will be determined using AASHTO T308 as modified by TTCP.

<sup>b</sup> HMA will not be rejected based on Asphalt Content Determined by AASHTO T 308

<sup>c</sup> Acceptance will be based on the average test values.

Include the following to Subsection **423.3.7 Dispute Resolution**:

#### **423.3.7 Dispute Resolution**

The most current “NMDOT REFEREE TESTING POLICY” will be used to coordinate the efforts of managing Dispute Resolution. This policy is made available by accessing the NMDOT website, and navigating within the State Construction Bureaus link.

Include the following to the list of possible Laboratory selections:

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:

3. State Materials Bureau Laboratory

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2015**

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**F.9. SECTION 570 – PIPE CULVERTS**

All provisions of SECTION 570 – EXCAVATION AND BACKFILL FOR CULVERTS AND MINOR STRUCTURES of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**Table 570.2:1 CULVERT MATERIAL APPLICATIONS.** Revise the table to not allow the use of any Polypropylene, Thermoplastic, HDPE, or Thermoplastic PVC for Storm Drains.

**F.10. CITY OF SANTA FE WATER DIVISION SPECIFICATIONS  
SPECIAL PROVISION FOR  
METERED PRESSURE REDUCING STATION –  
MANUFACTURED 8” X 4” PRV CONFIGURATION  
OCTOBER 5, 2015**

**GENERAL**

The Manufacturer shall furnish a metered pressure reducing station as shown on the referenced plans and as specified herein. The station shall be designed for underground placement of a welded steel enclosure with corrosion protection and shall have access hatches and ladders, forced air ventilation, dehumidifier, sump pump, heat, power, lighting, and meter and pressure reducing equipment. The metering and pressure reducing equipment shall include all piping, piping supports, valving with manual and electric actuators, magnetic flow meter, hydraulic pressure reducing control valves, power, instrumentation and control wiring and sensing lines, pressure transmitters and gages, temperature sensors, terminal landings for SCADA interface and enclosures, and other necessary appurtenances required for a fully functional station.

The metered pressure reducing station shall be factory tested and fully functional prior delivery to the site. The Manufacturer shall coordinate delivery and startup with the Contractor. The Manufacturer shall perform station startup, commissioning, and training.

The Contractor shall perform all site work including excavation, shoring, construction of the reinforced concrete foundation, provide any required access improvements to site, provide crane service to remove and set station on foundation slab, provide and install anchors to secure station to foundation slab, and to make connections to the station for: 1) electric service conduit and wiring from an above grade electric meter pedestal to the dedicated station electric service conduit with all wiring and connection to service panel inside station; 2) telemetry conduit and antenna cable from above grade antenna enclosure adjacent to electric meter pedestal to dedicated station antenna entrance conduit with antenna cable to the station telemetry interface panel; 3) water line connections at the station inlet and outlet piping; and 4) sump pump discharge piping from external station connection, to provide select backfill with compaction and other work as shown on the pressure reducing station site plan.

**MANUFACTURER'S RESPONSIBILITY FOR PERFORMANCE**

The referenced plans and specifications herein for the manufactured metered pressure reducing station do not necessarily include all the details for the design and fabrication for the factory-built equipment. The plans are generally schematic but the specifications do call out strict requirements to known methods, components and assemblies that must be in a full, complete and functional pressure reducing station. As such, the Manufacturer shall accept and hold complete responsibility for the functionality of the pressure reducing station and its workings.

## BASIS OF DESIGN

The BASIS OF DESIGN of the metered pressure reducing station equipment is by Engineered Fluid, Inc. having been deemed to represent the minimum level of quality, performance and service acceptable for this equipment. Engineered Fluid, Inc. is represented by Mr. Wick Baker of Border Marketing, telephone 602-620-2206.

## APPROVED MANUFACTURERS

Manufacturers may propose on the equipment set forth in these documents provided these alternate Manufacturers take no exceptions to the contract documents and these manufacturers provide the PRELIMINARY SUBMITTAL information as listed below:

1. "D" sized only, station mechanical drawing sheets fully to scale and fully annotated showing;
  - a. A PLAN VIEW of all mechanical equipment, piping and devices necessary to system operation and with NEC Electrical Clearances;
  - b. A lengthwise SECTION VIEW;
  - c. A Sidewise SECTION VIEW;
  - d. A complete STRUCTURAL PLAN VIEW of the steel base for the pressure reducing station.
2. "D" sized only sheets showing;
  - a. A POWER ONE LINE DIAGRAM annotated and showing all power components;
  - b. A PROCESS & INSTRUMENTATION DIAGRAM (P&ID) showing all components, devices and circuit for the controls and instrumentation for the control and monitoring equipment including the PLC equipment.
3. A detailed drawing of the steel capsule to house the metered pressure reducing station including anchoring and assembly methods.

The Water Division Engineering Section shall review the PRELIMINARY SUBMITTALS for adherence to these specifications.

The PRELIMINARY SUBMITTAL shall be provided in One (1) hard paper copy bound in a three ring binder with a Table of Contents and tabs for the pressure reducing station and with One (1) electronic copy on CD placed inside the three ring binder in a suitable pocket.

The Approved Manufacturers that are approved for proposing on the specified equipment based on their PRELIMINARY SUBMITTAL shall be required to provide a full set of submittal documents being in full conformance to the contract documents for detailed review by the Engineer post bid.

The PRELIMINARY SUBMITTAL may contain a separate section that outlines alternatives to referenced plans and specifications. The Water Division shall be the sole judge as whether to alternates will be considered and it shall be the responsibility of the Manufacturer to provide a detailed engineering review for any proposed alternates.

## PRODUCT FINAL SUBMITTAL

Equipment submittals shall be bound and in a minimum of two (2) hard paper copy bound and two (2) electronic copies on CD. The submittals shall contain a minimum of two (2) full size drawings, size 24" x 36"; one (1) each covering the metered pressure reducing station and the electrical control schematic. The metered pressure reducing station drawing shall be specific to this project, in at least three (3) different views, be to scale and illustrate the National Electrical Code (NEC) clearances per Section 110-26 of the Code. The submittal booklets will be complete with data sheets covering all major components that make up the booster pump station and the UL file number under which the manufacturer is listed, service department personnel statement as detailed in the specifications and be complete with the Manufacturer's formal warranty policy. **The submittal booklets shall be complete with a full size photocopy of the manufacturer's combination UL/manufacturer logo Packaged Pumping Systems label.**

Two (2) submittal reviews of this item will be accomplished at no cost to the submitting contractor. However, all subsequent reviews will be charged to the submitting contractor at the design engineer's standard hourly billing rate.

## QUALITY ASSURANCE

The equipment furnished shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactorily when installed as shown on the contract drawings and operated per Manufacturer's recommendations.

## THIRD PARTY INSPECTION LISTING (STATIONS 600V MAX.)

The Manufacturer shall be required to affix to the station an UNDERWRITERS LABORATORIES (UL) LABEL attesting to the compliance of the station equipment under the PACKAGED PUMPING SYSTEMS (QCZJ) UL Listing Category.

## SHIPPING AND DELIVERY

The specified equipment shall be delivered by the Manufacturer FOB DESTINATION and thereby the station Manufacturer shall hold the full responsibility for the condition and completeness of the equipment upon its delivery.

The Engineer shall hold the right to inspect the equipment prior to unloading and setting so as to assure the quality and condition of the equipment is in no way deficient.

If in the view of the Engineer or Engineer's inspector, the equipment is deficient when delivered, delivery shall be refused.

## SPECIFIED COMPONENTS

Within the body of this specification and on the drawings, certain components are listed by name and/or model number for at least One (1) manufacturer's specific product.

As such, no "OR EQUAL" is listed or allowed where at least the one manufacturer is listed.

These listed components have been chosen because of the Engineer's and Owner's knowledge of and experience with these listed components.

No other components other than those listed are acceptable.

### FACTORY START-UP AND TRAINING SERVICE

Without exception, the station Manufacturer (Manufacturer's employee and/or authorized Manufacturer's factory trained local representative) is directly responsible for station start-up and operator training services. The Manufacturer shall provide two (2) copies of the complete Operation & Maintenance Manual in bound paper and electronic form.

### MANUFACTURER'S WARRANTY

The warranty is the sole responsibility of the station Manufacturer and that manufacturer's warranty shall be provided in written form, being placed in both the Submittal documents covering the specified equipment and the O&M manuals provided with that equipment.

It is required the station warranty provide the Owner with a single source responsibility for all components specified herein and the system as a whole. That single source shall be none other than the station Manufacturer.

Said Manufacturer's warranty shall at a minimum cover:

1. A period of one (1) year commencing upon successful start-up, after Manufacturer's start-up, not to exceed eighteen (18) months from the date of shipment.
2. The warranty period shall be inviolate regardless of any component Manufacturer's warranty for equipment and components within the station.
3. The Manufacturer's warranty shall cover all equipment, components and systems provided in or with the station by the Manufacturer of the station, exclusive of those components supplied by and/or installed by others independent of the Manufacturer of record for this station.
4. The warranty shall provide for the station Manufacturer to bear the full cost of labor and materials for replacement and/or repair of faulty or defective components so there shall be no cost incurred by the Owner for this work during the warranty period.

5. The Manufacturer's warranty policy is amended only by the items considered consumable, i.e., light bulbs, pump seals, pump packing, lubricants and other maintenance items consumed by usage.
6. No assumption of contingent liabilities for any component failure during Manufacturer's warranty is made.
7. The warranty pertains only where the equipment has been operated in strict accordance with the Manufacturer's instructions and requirements. Evidence of misuse or modification to the equipment voids the warranty.

If the submitted written Manufacturer's warranty does not meet the minimum requirements set forth above, that submittal will forthrightly be rejected.

### GENERAL LIABILITY INSURANCE

The water distribution station Manufacturer shall furnish premises/operations and products/completed operations general liability insurance from an insurance company with a rating of A-V according to the most recent Best's Key Rating Guide, in an amount equal to \$10,000,000 per occurrence or as required by the City of Santa Fe.

The insurance certificate must be included with the manufacturer's submittal. The coverage must be provided by an insurance carrier licensed and admitted in the state of manufacture.

### PART 2: PRODUCTS AND COMPONENTS

#### EQUIPMENT CAPSULE DESIGN STANDARDS

The equipment capsule shown is suitable by construction and materials for direct burial with water-tight integrity.

The size shown for the capsule is appropriate for National Standard mandated clearances and for proper clearances above, below and around equipment to provide for safe servicing, removal and reinstallation of that equipment.

The entrance man way and equipment hatch in the locations shown shall be sized to provide eventual removal and replacement of any component within the station without altering the station to accomplish that task.

The drawing for this equipment illustrates equipment centerline and clearance/maintenance dimensions about the major equipment items. These dimensions are a minimum.

#### EQUIPMENT CAPSULE - CONSTRUCTION

The plate steel employed throughout the capsules shall be 1/4" as minimum thickness and meet or exceed the requirements for ASTM A-36.

The structural shapes, channels and angles used shall be of the thickness/weight as shown on the plans for this item and shall meet or exceed the requirements for ASTM A-36.

The side sheet, if pieced, shall have only vertical piecing seams and no horizontal piecing seams. For capsules under 96" in diameter there shall be no more than three (3) vertical piecing seams.

The end sheets for tanks of 96" diameter or less, if pieced shall be made up of no more than three (3) pieces.

Piecing seam welds shall be only full penetration, double sided butt welds. The piecing seam welds shall ground smooth both inside and outside the capsule

### CAPSULE DIMENSIONS

The capsule shall be a rolled, vertical cylinder steel capsule of sealed welded construction with top and bottom and side sheets and with appropriate supporting structure.

The capsule shall be sized as shown on the drawings.

### CAPSULE REINFORCEMENT

The top, bottom and sides of the equipment capsules shall be supported and reinforced by a combination of standard structural shapes of the sizes and weights as shown on the plans for this item.

The structural rectangular or square tubing shall be of the wall gauge as shown on the plans for this item and shall meet or exceed the requirements for ASTM A-500 Grade.

### PLATE/SHEET CAPSULE JOINTS – LAP SEAM OR "T" SEAM WELD

The construction of the capsule as a buried system requires construction techniques necessary to ensure a long service life. The side sheet – top sheet joint construction is specified to provide maximum coating effectiveness and minimal corrosion potential by the elimination of sharp edges or abrupt transitions where coating process cannot maintain full film thickness and so promote corrosion and undercutting.

The plate forming the top and bottom of the capsules shall be rolled edge, cold formed prior to assembly so as to form a lap joint with the side wall.

The lap joint shall be continuously full fillet welded on the capsule interior by hand and the exterior by machine to form an airtight seal.

The lower side wall continuous weld shall be an average 1-1/2 inches above the capsule floor.

The lap joint shall be in full conformance with Steel Tank Institute (STI) P-3 specifications Section 4.2.6 and Underwriters Laboratories (UL) 58 Construction Section 6, Figure 6.1 Head Joint #23 specifications for steel vessels in buried service.

The use of a "T" joint that is continuously full fillet welded on both sides of the "T" with a suitable weld shape and finish that equals a lap seam strength and corrosion protection may be considered by the Water Division. It is the Manufacturer's sole responsibility to submit an engineering analysis to the Water Division proving that the "T" joint weld is equal to the lap seam weld in both strength and corrosion resistance. The Water Division has sole discretion on approval of an alternate to the lap seam.

### TANK SHEET PENETRATION WELDS

Any ferrous metal device, namely water transmission piping and conduits passing through the capsule wall shall be welded fully long its circumference or length, being welded on both sides of the capsule wall using a metal-added, MIG shielded arc welding process.

### LIFTING PLATES AND EQUIPMENT LIFTING EYES

Four (4) lifting plates of 3/8 inch minimum thickness shall be placed about the perimeter of each capsule to facilitate the lifting and handling of the station.

Interior lifting eyes shall be placed over each piece of equipment in excess of 60 pounds in weight.

### FLOOR SUMP

The capsules will be complete with a sump. The sump shall be a minimum of eighteen (18) inches in diameter x eight (8) inches deep; the sump shall be provided with a four (4") inch plugged outlet for gravity outflow as required.

### ENTRANCE MAN-WAYS - RAISED MOUNTED SCUTTLES

The entrance man-way and equipment hatch shall be Bilco Model MS-50 roof scuttle, with a minimum clear inside opening of thirty (30) inches by thirty-six (36) inches.

The scuttle covers shall be made of 11 gauge aluminum on the exterior. The scuttle covers shall be insulated with a minimum of one (1) inch of fiberglass insulation, covered and protected by an 18 gauge aluminum liner.

The entry locks shall be flush mounted, in the scuttle riser in position to be protected from the elements by the cover skirt as detailed on Bilco Drawing 6184. The locks will be of the pin tumbler type, dead bolt, with an inside safety release. Two (2) keys will be provided for each station, on a key ring complete with the manufacturer's identification. No locking devices or other penetrations of the cover shall be allowed.

The hatch shall be bolted to a hatch extension of the capsule. Bolted connection should stay above the surface of the finished grade to allow changing out the hatch. Non-shrink closed cell foam gasket shall be used to make positive seal between the top of the hatch extension and the bottom flange on the hatch.

### ACCESS LADDER

An all aluminum access ladder will be provided for each station. The ladders shall be a Type 1A with 300 lbs. load rating and meet ANSI A14.3 fixed ladder standard. The ladders will have serrated rungs with 3" full I-Beam side rails.

The uppermost ends of the side rails will be protected by plastic caps bolted into place. The complete access ladder will be bolted into place at a minimum of two (2) points both top and bottom so as to be easily removable to facilitate equipment maintenance.

### LADDER ASSIST DEVICE

A Bilco Model LU-1 ladder-up safety post shall be installed on the vertical centerline of each ladder.

### CAPSULE CATHODIC PROTECTION

The station shall have a cathodic protection system with a test station. The Manufacturer shall furnish for the Contractor's proper installation four (4) seventeen pound packaged magnesium anodes for cathodic protection.

The anodes shall be H-1 alloy cast to meet ASTM B-80, alloy AZ-63. The anode lead wires shall be silver soldered and potted to be waterproof.

The anodes shall be buried equally spaced around the station and connected by heavy copper wire to lugs on the station provided for that purpose.

### PIPING-TRANSMISSION

The piping shall conform to AWWA Standard C-200.

Piping shall be steel and conform to material specification ASTM A-53(CW) for nominal pipe size four (4) inch and smaller and ASTM A-53(ERW) Grade B for nominal pipe size five (5) inches and larger. Steel butt-welding fittings shall conform to material specification ASTM A-234 Grade WPB and to the dimensions and tolerances of ANSI Standards B16.9 and B16.28 respectively.

Forged steel flanges shall conform to material specification ASTM A-105 Class 60 and/or ASTM A-181 for carbon steel forgings and to the dimensions and tolerances of ANSI Standards B16.5 as amended in 1992 for Class 150 and Class 300 flanges.

The piping sizes shall be as shown on the drawing.

- Size 10 inch and below - Schedule 40
- Size 12 inch thru 20 inch - Standard weight (.375" wall)
- Size 24 inch and above - Standard weight (.500" wall)

### PIPE WELDING

All pipe welds shall be performed by certified welders employed by the station Manufacturer. As part of the equipment submittal, the Manufacturer shall provide copies of the welding certificates of the employees who are to perform the pipe welds.

Shop welders shall be certified in accordance with ASME BPVC Section IX or AWS D1.1. Certification shall be done by an independent testing laboratory giving certification for the weld positions for which the tests were performed.

### PIPE SURFACE PREPARATION

All piping inside and outside surfaces shall be prepared by grit blasting, or other abrasive blasting, prior to any welds taking place to minimum SP-6 finish.

### PIPE CUTTING

Piping of 4" diameter and smaller may be cut by saw.

Piping of 6" diameter and larger shall be bevel cut, and Oxyfuel or Plasma-arc cutting techniques shall be used to assure and facilitate bevel pipe cuts.

### SADDLE CUTS AND WELDS

Saddle cuts in pipe made in preparation for a saddle weld of a pipe at an angle to a pipe shall be made with numerically controlled, plasma cutting machines. Similarly, saddle end cuts to pipes to make a saddle mating piece shall be done with the same numerically controlled plasma cutting equipment.

When the two saddle cut pieces are mated and welded with the MIG process, the internal finished weld shall be smooth and free of inclusions, crevices and other corrosion sites.

### PIPE WELDING TECHNIQUES

Pipe welds shall be performed by metal added, inert gas shielded arc welding (MIG) techniques wherein the weld heat settings, the wire feed speed and the traverse speed of the work below the welding are numerically set to assure proper weld fusion and penetration and repeatable welds.

In all cases, short circuit transfer, spray transfer or pulse-arc transfer modes of the gas metal arc welding process shall be used.

When utilizing the short circuit mode, shielding gas consisting of 50% carbon dioxide and 50% argon gas shall be used. When utilizing the spray or pulse-arc transfer modes, a shielding gas consisting of 5% carbon dioxide and 95% argon shall be used.

In all cases, welding wire with a minimum tensile strength of 70,000 psi shall be employed.

All flange welds and butt welds of equal size pipe shall be a single continuous nonstop weld around the complete circumference of the pipe. Whenever possible, vertical up weld passes will be applied to all pipe welds. No vertical down weld passes will be allowed.

Completed pipe welded assemblies shall create no internal obstruction, restriction or create any unintended sources of water deflection.

Piping of six (6) inch diameter and larger shall require a minimum of two (2) weld passes to complete each weld. The first pass, or root pass, shall be applied at the bottom of the bevel cut using the short circuit transfer welding mode, and the second pass, or cap pass, shall be applied over the root pass using the spray or pulse arc transfer welding modes to insure that at a minimum the total weld thickness shall be equal to thinnest of the two pieces being welded together.

The pipe shall be sand blasted, as specified elsewhere, before pipe weld and after pipe weld, before fusion bonded epoxy is applied.

#### WELD STANDOFFS

No welding shall be performed on fusion bonded coated piping after the coating process has been performed.

Where any piping is to be welded after the application of fusion bonded epoxy coating to the inside of the pipe, at the point of the weld, a weld standoff must be welded to the pipe prior to the coating. The weld shall be made to the standoff and not onto the pipe.

#### TANK / WALL PENETRATION COATING PROTECTION SLEEVE

Where a fusion bonded epoxy interior coated pipe passes through the steel tank shell or a steel wall section, prior to fusion bonded coating of that pipe, a pipe sleeve shall be welded over the pipe in the area where the pipe passes through the steel sheet.

The sleeve shall be one-half (1/2") inch thickness and fit closely over the transmission pipe. The sleeve shall be seal welded to the transmission pipe at each end with a full and continuous fillet weld.

Following the welding of the sleeve to the transmission piping, the sleeve welds and the sleeve shall be grit blasted to an SP-6 finish so the pipe is prepared for fusion bonded epoxy coating by the process specified elsewhere in these documents.

## PIPE SUPPORTS

Pipe supports by minimum sizing for:

- 8" and smaller piping shall be 2" x 3" x 3/16" wall rectangular tubing;
- 10" and larger piping shall be 3" x 4" x 1/4" wall rectangular tubing;
- 6" and larger piping shall be provided with "kick" bracing projecting fully from the underside of the pipe to the floor at an angle of no less than 15E from vertical out at a right angle to the run of the pipe being supported. These "kick" braces shall be in addition to the vertical pipe supports called out above.

Pipe supports are to be fully welded at both end points to the pipe and steel floor where required.

Where components are to be supported and may require disassembly at some time, the supports for these components shall be welded at the bottom and bolted at the top by use of a bolt yoke welded to the top of the support and bolted into the flange connection picking up at least three bolts.

## FUSION BONDED EPOXY INTERNAL PIPE COATING

The internal surfaces of piping to be fusion bonded coated shall be grit blasted to an SP-10 finish with the finish profile required by the coating material manufacturer.

The internal, wetted surfaces of the steel transmission piping shall have applied to it a Fusion Bonded Epoxy Coating on the interior pipe surface. The coating shall be applied and meet the testing requirements of Table 1 and Table 2 with the exception of Table 2 section 7 per AWWA C-213.

The powder coating product shall be National Sanitation Foundation (NSF) Standard 61 certified material.

The epoxy powder coating shall be Powdura NSF-61 ELS8-80003 from Sherwin Williams.

Prior to shipment of the station, the station manufacturer shall provide in writing to the Engineer certification that the fusion bonded epoxy coating has been applied to all internal surfaces of the steel piping using the proper method. Said certification shall show under the station manufacturer's letterhead:

- Date of application;
- Material manufacturer and product designation including a product data sheet for the coating;
- Applier of the fusion bonded coating, name, address and phone number;
- Notarized signature of an officer of the station manufacturing company stating the fusion bonded epoxy coating was applied to AWWA Standard C213-91 or the latest revision.

## COATINGS - CORROSION PROTECTION

All interior and exterior surfaces of the exposed steel structure, transmission piping, and fittings shall be gritblasted equal to commercial blast cleaning (SSPC-SP6). Following fabrication all exposed surfaces of the station, interior and exterior, shall be coated according to the following requirements.

### WELDMENT PRIME COATING

All weldments will be pretreated by hand to provide additional corrosion protection using the same product as the base coat. Following the pretreatment full coating application shall take place.

### BASE COATING

The base coating shall take place immediately after surface preparation. The protective coating shall consist of a two-component, high solids, high build, fast drying epoxy system for protection and finishing of steel and having excellent corrosion resistant properties. The epoxy system shall be self-priming and require no intermediate coatings.

### TOP COATING

Following the base coating application, a full finish coating application shall take place. The protective coating shall consist of a two-component, high solids, high build, fast drying epoxy system for protection and finishing of steel and having excellent corrosion resistant properties. The epoxy system shall be self-priming and require no intermediate coatings. The base and finish coats shall provide a total dry mil thickness of 8.0 mils.

### POST-ASSEMBLY COATING

Following assembly and just prior to shipping, there shall take place a thorough cleaning of the floor of the station followed by a rolled on coating of the two part epoxy coating to cover over any scuffing or scaring that might have occurred during assembly.

## SERVICE CONNECTIONS ON INTERNAL PIPING

All plumbed devices within the station eventually requiring service, such as meters, control valves, pumps and like equipment, shall be easily removed from the piping by the presence of appropriately placed and sufficient quantity of adaptors and couplings as shown on the drawings; no less than the quantity of couplings and adaptors shown shall be allowed.

## RESTRAINING POINTS

The main inlet and outlet piping to the station shall each be provided with restraining points as welded on "eyes" or similar device welded to the exterior piping as

shown to facilitate the attachment of joint restraint tie rods or other device to be used in retarding any pipe movement at the connections.

### COMPRESSION COUPLINGS

The station piping shall include a variety of compression type, flexible coupling to prevent binding and facilitate removal of associated equipment. These couplings are to be where shown on the plans. In lieu of a compression coupling, a flanged coupling adapter (FCA) may be used.

Grooved fittings may not be used under any circumstance.

All compression couplings or flanged coupling adapters (FCA), and flexible connectors/expansion joints shall include a minimum of two (2) zinc coated steel threaded rods across the joint with appropriate bolted restraining points.

### LINE PRESSURE GAUGES

Combination pressure gauges shall have a built-in pressure snubber and have 4-1/2" minimum diameter faces and turret style case, black fiberglass-reinforced thermoplastic with a clear acrylic window with Buna-N gasket. The movement shall be rotary; the bourdon tube shall be copper alloy C-type. The gauge shall have a 1/4" MNPT lower mount process connection and contain a 0.6mm copper alloy restrictor. Combination pressure gauge range and scale graduations shall be in psi and feet of water as follows:

Gauge ranges shall be established by the Engineer for each of the intake and discharge gauges for the pressure reducing station.

All gauges will be panel mounted off the pipeline and be connected to their respective sensing point. The gauge trim tubing shall be complete with both isolating and vent valves and the tubing shall be so arranged as to easily vent air and facilitate gauge removal. Gauges mounted directly to the pipeline or at the sensing point will not be accepted.

Gauge ranges, markings and gauge location shall be identified in the submittal documents.

### STATIC AND SENSING LINES

All gauge, switch and transmitter sensing lines shall be minimum 1/4" OD white polypropylene tubing run from the sensing point and a ball valve to the point of device mounting.

The pilot tubing shall be run in a workmanlike manner with elastomeric/stainless steel mounting straps to securely hold the tubing to be free of stress and vibration. The alignment and organization of the sensing lines shall be continuously rising.

### SAMPLE TAP

A single, right angle outlet, smooth nose, brass sample tap shall be affixed to the manual vent ball valve for the low suction lockout and suction pressure gauge assembly.

### HOSE BIBB WITH VACUUM BREAKER

There shall be provided a standard hose bibb with valve and vacuum breaker on the suction piping. The hose bibb connection shall be through a pressure regulator if the header pressure would exceed 60 psi.

### BALL VALVES

For piping of less than 3" size ball valves shall be used. The ball valves shall meet or exceed ASTM Spec B124 No. C37700. The ball valves will be 2-piece forged brass body, blow out proof stem, TFE seats, TFE packing with adjustable stem packing gland. The valves will be NPT threaded pattern complete with lever operators. Maximum working pressure shall be 600 psi.

### BUTTERFLY VALVES

The butterfly valves shall be provided in accordance with AWWA Standard AWWA C504, latest revision, as Class 150B, 150 psi working pressure.

The flanged body shall be ASTM A125 cast iron for 150 psi working pressure.

The flanged valves shall be full faced and drilled in accordance with ANSI Standard B16.1, Class 125.

The valve disk shall be Class B cast iron or ductile iron for 150B valves.

The valve disk shall be ASTM A536 ductile iron for 250B valves.

Valve seals shall be either seat-on-body or seat-on-disk.

Valve shafts shall be through shafts and be of the stainless steel.

The valve body shall be coated internally with two-part alkyd epoxy conforming to NSF061.

Valves shall be by Mueller Linesal III.

### MANUAL VALVE ACTUATORS

Manually operated butterfly valves size 6" and smaller shall be equipped with lever style operators capable of withstanding 450 ft. lbs. of input torque and mounted to the valve trunnion with 4 bolts.

Manually operated butterfly valves size 8" and larger shall be equipped with travelling nut style handwheel operators capable of withstanding 450 ft. lbs. of input torque and mounted to the valve trunnion with 4 bolts.

### ELECTRIC ONE QUARTER TURN ACTUATORS

There shall be included on each of the isolation valves as shown on the drawing, an electric open/close service electric valve actuator as shown.

The actuator shall consist of an electric motor, mechanical gear reduction, absolute position encoder with redundancy, electronic torque sensor, solid state motor controller, electronic control, protection, and monitoring package, manual override handwheel, valve interface bushing, 32-character graphical Liquid Crystal Display (LCD), and local control switches all contained in an enclosure that is sealed to NEMA 4.

The power transmission shall be completely bearing-supported, and consist of a hardened alloy steel worm and alloy worm gear, and spur gear reduction, all immersed in a oil-bath lubricated using a synthetic oil designed specifically for extreme pressure worm and worm gear transmission service.

The motor shall be able to energize on either single phase/60 Hertz (110/125).

A handwheel and declutch lever shall be provided for manual operation. The handwheel shall not rotate during electric operation nor can a seized motor prevent manual operation. Changing from motor to manual operation is accomplished by engaging the declutch lever. Energizing the motor shall return the actuator to motor operation. The lever shall be padlockable to permit motor operation only.

The valve shall be equipped with limit switches for indication of fully open and close.

The electric valve actuators shall be Rotork IQT Pro Range.

### HYDRAULIC ACTUATED CONTROL VALVES - GENERAL

The valve configuration as shown shall be hydraulically operated, single diaphragm actuated. The valve shall consist of three major components: the body with seat installed, the cover with bearing installed, and the diaphragm assembly. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the main valve or pilot controls. Valve body and cover shall be epoxy coated. The stainless steel seat with integral bearing shall be of the solid, one piece design.

The diaphragm assembly shall contain a non-magnetic stainless steel stem of sufficient diameter to withstand high hydraulic pressures. The stem shall be fully guided through its complete stroke by a removable bearing in the valve cover and an integral bearing in the valve seat. No center guides shall be permitted. The stem shall be drilled

and tapped in the cover end to receive and affix such accessories as may be deemed necessary.

The flexible, non-wicking, FDA approved diaphragm shall consist of nylon fabric bonded with synthetic rubber compatible with the operating fluid. The diaphragm shall be fully supported in the valve body and cover by machined surfaces which support no less than one-half of the total surface area of the diaphragm in either the fully open or fully closed position.

The pilot control system shall include CK2 isolation valves and wye strainer.

The valve shall be equipped with a CRD-33 electronic actuated pressure reducing pilot for main control of the valve. The CRD-33 pilot shall accept set-point command signals from SCADA using analog 4-20 mA signals or by contact closure for cc/ccw rotation.

The pressure reducing valve shall also be equipped with a 120VAC solenoid valve, energized to close (fail open). The solenoid valve shall be trimmed upstream of a 20-105PSI CRD reducing pilot. On power fail the CRD shall take over control at a pre-set downstream pressure set point. The CRD pilot shall be a direct-acting, adjustable, spring-loaded, normally open, diaphragm valve designed to permit flow when controlled pressure is less than the spring setting. The pilot control is held open by the force of the compression on the spring above the diaphragm and it closes when the delivery pressure acting on the underside of the diaphragm exceeds the spring setting. The pilot control system shall include a fixed orifice.

A valve position indicator shall be installed on the main valve cover and shall consist of a brass indicator rod fastened to the main valve stem which moves up and down inside a clear Pyrex tube contained in a bar brass housing open on two sides to permit clear vision of the brass indicator rod (V option).

The 8" pressure reducing valve shall be supplied with the fluted Dura-Kleen® stem (KD option).

The 4" pressure reducing valve shall be supplied with anti-cavitation trim (KO option).

Both valves shall be supplied with X141 pressure gauge packages on the main valve inlet and outlet (P option).

The 4" Control Valve shall be a Cla-Val Model 393G-09BYPVKOKXSSMBJCH with 316SS main valve body, trim tubing and fittings.

The 8" Control Valve shall be a Cla-Val Model 393G-09BYPVKCKDKXJCH with 316SS trim tubing and fittings.

#### LINE STRAINER

Each hydraulic control valve shall be equipped with a line strainer in the location and of the size shown on the drawings. The strainer shall be ANSI Class 150 flanged rated for 250# operating pressure.

The strainer body material shall be ANSI 16.42 Ductile iron with epoxy coating. The strainer shall 316 stainless steel 10 mesh/2000 micron/0.078 inch openings.

The cap hardware shall be stainless steel with a lid sealing gasket of Buna N. The strainer shall include one (1) inlet port equipped with a drain valve.

The strainer shall be a CLA-VAL Model X43H.

### MAGNETIC FLOW METER

The magnetic flowmeter shall be microprocessor-based, and flanged. It shall indicate, totalize, and transmit flow in full pipes.

The magnetic flowmeter shall utilize DC bi-polar pulsed coil excitation, automatically re-zeroing after every cycle.

The accuracy shall be  $\pm 0.25\%$  of rate for velocities greater than 1.64 feet per second.

The electrode material shall be 316 stainless steel, liner material shall be hard rubber; pipe spool shall be 316 stainless steel; meter housing material shall be carbon steel welded classification NEMA 4X. The meter mounted junction box shall be NEMA 6P rated. The meter shall be supplied with 30 feet of cable.

Flanges shall be ANSI B16.5 class 150 raised flange carbon steel.

Coil power shall be pulsed DC.

The flowmeter shall be furnished with stainless steel grounding rings.

A 4 x 20 character display with backlight shall indicate user-defined flow units and total flow (NEMA 4X). The amplifier shall be unidirectional or bidirectional with two separate totalizers. Analog output shall be 4-20 mA along with four (4) digital outputs. The meter shall have empty pipe detection. The meter shall have RS232/RS485 Modbus RTU, Hart, and Profibus DP communication. All programming of the meter shall be through three buttons on the amplifier.

The magnetic flow meter shall be Badger Meter Model M2000.

### METER TEST PORT

The meter installation shall be complete with a meter test port as shown on the plans for this item. The test port shall consist of a NPT coupling in the pipe downstream

of the meter capable of accommodating a threaded by hose connection adapter. The connection shall be plugged.

### PRESSURE TESTING

When the station plumbing is completed, the pressure piping within the station (including valves, pumps, control valves, and fittings), connections as make up the entire system shall be hydrostatically tested at a pressure of 150 psi or a pressure equal to the lowest test pressure rating of the equipment within the tested system, whichever is lesser pressure. The test pressure shall be applied for a minimum of 20 minutes, during which time all joints, connections and seams shall be checked for leaking. Any deficiencies found shall be repaired and the system shall be retested.

The results of this testing shall be transmitted in writing to the Engineer prior to shipment of the station and shall note test pressure, time at full pressure and be signed by the Quality Control Manager or test technician.

### ELECTRICAL DESIGN, ASSEMBLY & TEST

The electrical apparatus and control panel design, assembly, and installation, and the integration of component parts will be the responsibility of the Manufacturer of record for this booster pumping equipment. That manufacturer shall maintain at his regular place of business a complete electrical design, assembly and test facility to assure continuity of electrical design with equipment application.

### CONFORMANCE TO BASIC ELECTRICAL STANDARDS

The manufacturer of electrical control panels and their mounting and installation shall be done in strict accordance with the requirements of UL Standard 508A and the National Electrical Code (NEC), NFPA 70 latest revision so as to afford a measure of security as to the ability of the eventual owner to safely operate the equipment.

No exceptions to the requirements of these codes and standards will be allowed; failure to meet these requirements will be cause to remove the equipment and correct the violation.

### U.L. LISTING

All service entrance, power distribution, control and starting equipment panels shall be constructed and installed in strict accordance with Underwriter's Laboratories (UL) Standard 508A "Industrial Control Equipment." The UL label shall also include an SE "Service Entrance" rating stating that the main distribution panel is suitable for use as service entrance equipment. The panels shall be shop inspected by UL, or constructed in a UL recognized facility. All panels shall bear a serialized UL label indicating acceptance under Standard 508A and under Enclosed Industrial Control Panel or Service Equipment Panel.

A photocopy of the UL labels for this specific project shall be transmitted to both the project engineer and the contractor for installation within their permanent project files, prior to shipment of the equipment covered under these specifications.

### EQUIPMENT GROUNDING

Each electrical equipment item in the station shall be properly grounded per Section 250 of the National Electrical Code. Items to be grounded include, but are not limited to, pump motor frames, control panel, transformer, convenience receptacles, dedicated receptacle for heater, air conditioner, dehumidifier, lights, light switch, exhaust fans and pressure switches.

All ground wires from installed equipment shall be in conduit and shall lead back to the control panel to a copper ground buss specific for grounding purposes and so labeled. The ground buss shall be complete with a lug large enough to accept the installing electrician's bare copper earth ground wire. The bus shall serve as a bond between the earth ground and the equipment ground wires.

### PANEL MOUNTING HARDWARE

Metal framing channel and hangers shall be used exclusively for mounting of electrical panels and electrical components except for those specifically designated otherwise.

### ELECTRICAL SERVICE

The electrical service provided for this station will be 240 volt, 1 phase, 60 Hertz, 3 wire. All electrical panels shall have a minimum of NEMA 4 rating. Electrical panels installed in corrosive environment shall be NEMA 4X.

### CIRCUIT BREAKER (LIGHTING) PANEL

All secondary circuit breakers shall be incorporated into one (1), separate NEMA 4 circuit breaker panel. Electrical panel shall have a 16 breaker space minimum.

There shall be provided, thermal-magnetic trip circuit breakers as follows:

- One (1) Main Breaker, 100 amps;  
Ten (10) Auxiliary Circuit Breakers, as follows:
1. 1p,15amp Telemetry
  2. 1p,15amp Lights
  3. 1p,15amp Convenience Outlets
  4. 1p,20amp Dehumidifier/sump pump
  5. 2p,20amp Heater
  6. 1p,15amp Ventilation Fan
  7. 2p, 20amp, (MOV)-Motor Operated Valve

8. 1p, 15amp Spare

### TELEMETRY CONTROL INTERFACE PANEL

It will be the responsibility of the station manufacturer to provide the following as an adjunct to the supplied telemetry equipment.

1. 1" telemetry entrance conduit complete to telemetry panel.
2. Size 30H" x 24W x 8D"NEMA 4 telemetry interface panel. Control Panel shall have a lockable 3 point handle.
3. Separate 120 volt single phase power circuit in conduit to the telemetry interface panel.
4. Telemetry control circuits made up and in conduit from main control panel to telemetry interface panel terminal strip.
5. Metal framing channel to mount telemetry equipment.
6. All conduit penetrations shall be from bottom of enclosure.
7. Control panel shall have a NEMA 4 rating minimum unless installed in corrosive environment then shall be NEMA 4X.

### SURGE PROTECTION DEVICE

A secondary surge arrester shall be provided. Housing shall be Noryl and be ultrasonically sealed. Valve blocks shall be metal oxide with an insulating ceramic collar. Gap design shall be annular. The lead wire shall be permanently crimped to the upper electrode forming part of the gap structure.

Arresters shall be UL and CSA listed Lightning Protective Devices.

### ELECTRICAL CONDUIT AND WIRING

All service entrance conduits power and signals, shall be rigid steel conduit, individually sized to accept the inbound service conductors and telemetry/telephone/radio cables.

These service entrance conduits shall be installed from the main power or control panel through the capsule steel sidewall or the building floor and terminate exterior to the equipment enclosure as a thread hub. The service entrance exterior conduit connection points shall be capped or plugged for shipment. All conduits penetrations shall be from the bottom of the circuit breaker or control panel enclosure.

All wiring within the equipment enclosure and outside of the panel enclosures shall be run in conduit except where watertight flexible conduit is properly used to connect pump drivers, fan motors, solenoid valves, limit switches, etc., where flexible connections are best utilized. All conduits shall have low point drain installed at the lowest part of conduit run.

Devices and appliances where furnished by the original manufacturer and being equipped with a UL approved rubber cord and plug, may be plugged into a receptacle.

Equipment enclosure conduits shall be rigid, heavy wall, Schedule 80 PVC with solvent weld moisture-proof connections, in minimum size 3/4" or larger, sized to handle the type, number and size of equipment conductors to be carried.

The conduiting shall be in compliance with Article 347 of the National Electrical Code and NEMA TC-2, Federal WC-1094A and UL-651 Underwriters Laboratory Specifications.

Where flexible conduit connections are necessary, the conduit used shall be Liquid-tight, flexible, totally nonmetallic, corrosion resistant, nonconductive, U.L. listed conduit sized to handle the type, number and size of equipment conductors to be carried - in compliance with Article 351 of the National Electrical Code.

Motor circuit conductors shall be sized for load. All branch circuit conductors supplying a single motor of one (1) horsepower or more shall have an ampacity of not less than 125 percent of the motor full load current rating, rated type XHHW2.

Control and accessory wiring shall be sized for load, type MTW/AWM (Machine tool wire/appliance wiring material) as set forth in Article 310 and 670 of the National Electrical Code, Schedule 310-13 and NFPA Standard 79 for flame retardant, moisture, heat and oil resistant thermoplastic, copper conductors in compliance with NTMA and as listed by Underwriters Laboratories (AWM), except where accessories are furnished with a manufacturer supplied UL approved rubber cord and plug.

All field wiring shall have rated type XHHW2 insulation. Control panel wiring shall have rated type MTW/AWM insulation. All instrumentation twisted shield pair wiring shall Belden 9342 or equal.

All wiring shall have heat shrink label at terminated ends. Analog twisted shielded pair shall have heat shrink wire label and black heat shrink at terminated ends.

I&C Wire Color Code:

120V Control- (L) Red, (N) White  
24VDC- (+) Blue, (-) White/Blue Stripe

### GAUGE PRESSURE TRANSMITTERS

Pressure transmitters shall be supplied to measure outlet pressure, one (1) on each control valve. The transmitters shall sense gauge pressure and transmit a 4-20 mA dc signal. The instruments shall measure pressure of a predetermined span. The accuracy shall be  $\pm 0.20\%$  of span.

Each transmitter shall provide a 4-digit alphanumeric display, LEDs and programming buttons.

All process-wetted parts of each instrument shall be Type 316L stainless steel. The transmitter shall have IP67/68 protection.

The pressure transmitter shall have a G1 quick disconnect with IFM U30033 adapter G1-3/4" NPT to connect the transmitter to NPT connections. An M12 cable assembly with right angle connector IFM EVT005 shall be supplied for electrical connections to the transmitter.

The Pressure Transmitter shall be IFM Efactor model PI2793.

### WATER TEMPERATURE TRANSMITTER

Temperature transmitter shall be supplied to measure process water pressure. The transmitter shall sense process water temperature and transmit a 4-20 mA dc signal. The instruments shall measure pressure of a predetermined span. The accuracy shall be  $\pm 0.3\%$  of span and measure in increments of 0.1 degrees Fahrenheit.

Each transmitter shall provide a 4-digit alphanumeric display, LEDs and programming buttons.

All process-wetted parts of each instrument shall be Type 316L stainless steel. The transmitter shall have IP67/68 protection.

The temperature transmitter shall have a M18 internal threaded process connection with IFM E40107 adapter M18 x 1.5 – 1/2" NPT to connect the transmitter to NPT connections. An M12 cable assembly with right angle connector IFM EVT005 shall be supplied for electrical connections to the transmitter.

The Temperature Transmitter shall be IFM Efactor model TN2531.

### INTRUSION SWITCH

Access hatch(s) shall be equipped with a magnetic intrusion switch.

1. Intrusion switch shall be magnetic type (Sentrol 2507A or equal)
2. Intrusion switch shall have contact closure to report Intrusion Alarm back to RTU.

### FLOOD SWITCH

1. Float/Flood switch shall be installed near vault flood with a NO/NC contact available to report Flood Indication back to RTU.

### STATION INTERIOR LIGHTING

There shall be one or more two-tube, 32 watt per tube, electronic start, enclosed and gasketed, forty-eight (48) inch minimum length fluorescent light fixtures installed within the equipment enclosure, as shown on the plan for this item. The light switch shall be of the night glow type and be located conveniently adjacent to the door.

Open fluorescent or incandescent fixtures **will not** be accepted.

### DEHUMIDIFIERS

1. One (1) each, installed as shown.
2. Capacity 30 pints per 24 hours.
3. Compressor rated 115 volts, 60 Hz, 4.3 operating amps.
4. 106 CFM fan, 2 fan speed.
5. Humidity range 35 to 80% RH, ambient temperature range of 41 to 95 F, Type R410A refrigerant.
6. Washable filter.
7. Condensate piped direct to drain.
8. UL listed rubber cord.

### HEATERS

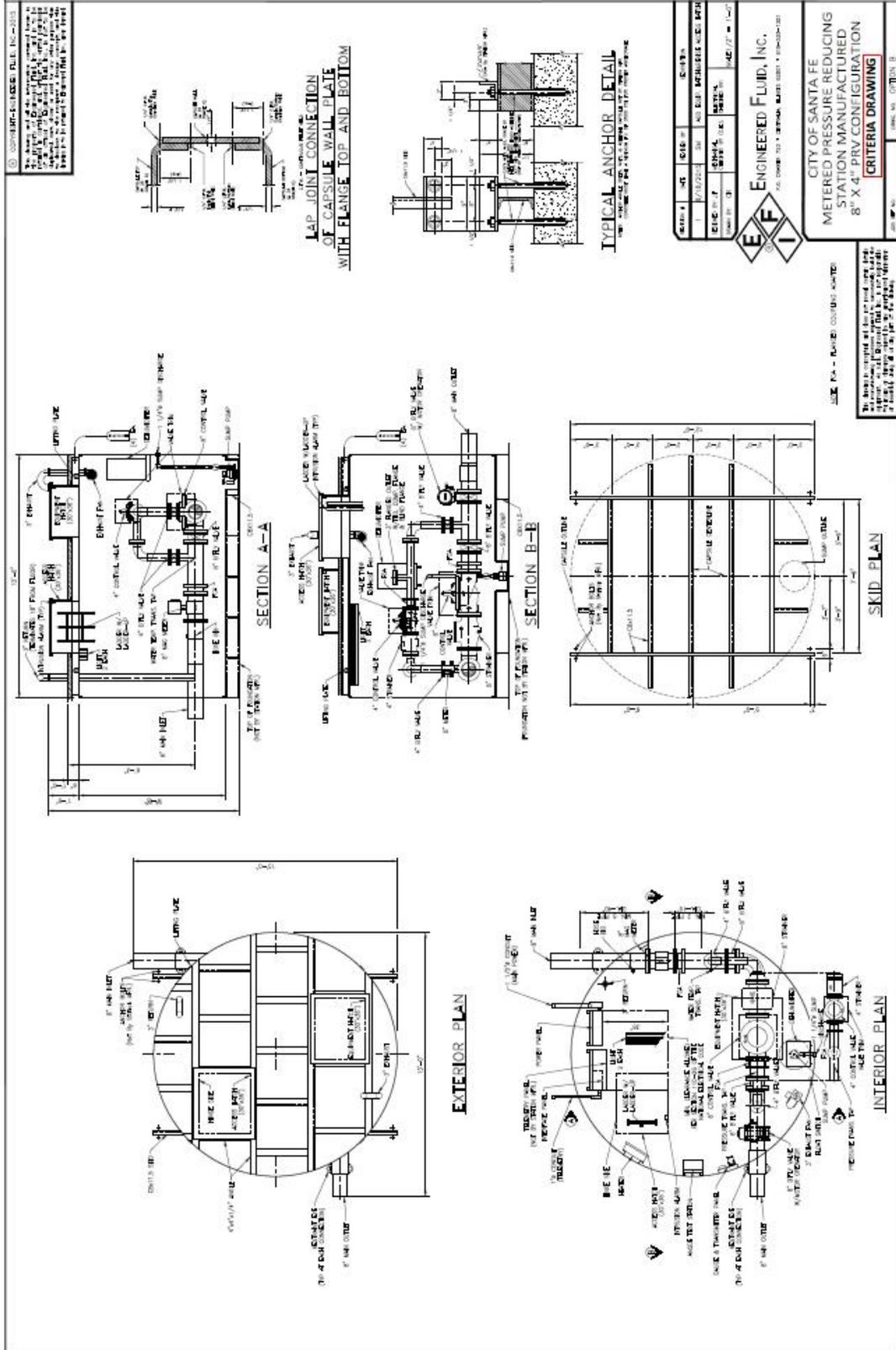
1. One (1) each, wall mounted as shown.
2. Rating - 10,239 BTU/HR - 3000 watts, 240 volt.
3. Enclosed resistance wire within steel finned element.
4. Control - thermostat.
5. UL listed.
6. Fan forced.
7. Hard wired in conduit per UL 400-1.

### EXHAUST FAN

1. One (1) each, installed as shown.
2. Capacity each 230 cfm at .2 inch static pressure.
3. Shaded pole motor - squirrel cage blower.
4. Hard wired in conduit to conduit box on motor per UL 400-1.
5. 120 volt A.C. operation from wall mount thermostat and HAND/AUTO switch on main control panel.
6. Hatch installed limit switch to activate exhaust fan whenever the entrance hatch is open.
7. Exhaust air piping - **3** inch minimum.
8. Air return piping - **3** inch minimum.
9. Exhaust and return piping protected by 180° PVC return bend with removable insect screen.
10. Exhaust Fan shall have auxiliary contact to report Run Status back to RTU.

## SUMP PUMP

1. One (1) each, installed as shown.
2. Capacity 19 gpm at 15 feet TDH.
3. Vortex type Impeller - plastic, glass filled with metal insert.
4. Cast iron motor shell, switch case and pump housing.
5. UL listed submersible oil filled motor - UL listed rubber power cord - 120 volt AC operation.
6. Float operated, submersible (NEMA 6) mechanical switch.
7. Completely submersible, hermetically sealed.
8. Auto reset thermal overload protection.
9. PVC pump discharge piping 1 1/2" x 1 1/4" with single check valve - union both sides.
10. Provision for dewatering drain system for freeze protection.
11. Sump pump shall have an auxiliary contact to report Run Status back to RTU.



NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS FOR

**F.11. SECTION 663-C – PRE-CONSTRUCTION UTILITY SURVEY**

All provisions of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**1.0 DESCRIPTION.**

**1.1 General.** This work shall consist of, but not necessarily be limited to, identifying and establishing locations of existing underground and overhead utilities within the project limits of New Mexico Department of Transportation (the Department) construction project and determining how those utilities will be impacted by the project. This work shall include all necessary research, field investigations, test holes, plotting, and recommendations relative to impacts on existing or proposed utility systems by highway and/or bridge construction. The Contractor shall comply with the requirements set forth in the Department's Survey Manual, Railroad and Utilities Manual, NMAC17.4.2, and the Manual for Highway Construction. This work shall be complete prior to any subsurface excavation unless authorized by the Project Manager.

The Contractor shall provide all equipment, personnel and supplies required to perform their research, designating, and locating services. The Contractor shall obtain all necessary permits from city, county or other municipal jurisdictions to allow the Contractor to work in existing streets, roads and right-of-ways for the purpose of marking, measuring and recording of existing utilities. The Contractor shall notify Blue Stake or One Call, prior to any fieldwork and will be responsible for any fees incurred.

**1.2 Scope of Subsurface Utility Engineering Services.** The Contractor shall perform all the necessary tasks required to research, designate, locate, plot and tie existing and/or proposed utilities within project construction. The scope of services shall be conducted in four (4) work activities described as follows:

**1.2.1 Research of Records.** The Contractor shall coordinate with utility owners and others, as required, in researching the location(s) of existing utilities and the approximate location(s) of any planned utilities. While the Contractor is obtaining the information from the utility owners, the Contractor shall be required to ascertain the age and general condition of the utility facility. After the Contractor has researched all available "as-builts" from the utility owners and other available utility information, the Contractor shall perform a field review and survey to correlate all researched utilities and field utility identities and locations.

**1.2.2 Designate.** For the purpose of this contract, "designate" shall mean to determine the existence and accurate horizontal location of underground utilities, using geophysical prospecting techniques including, but not limited to, electromagnetic and sonic methods. Accurate shall mean within 1 ft. to 2 ft., unless the Project Manager specifies a more precise tolerance for the location(s). The Contractor shall also designate water wells and septic drain fields. While performing the designating service, the Contractor may excavate preliminary test holes, at no extra cost to the State, for the purpose of determining the general depth of the utility line. Any markings on the sidewalks or roadway for survey identification shall be of a temporary nature (Kiel, chalk, spray chalk, nails, etc.) and shall not damage the surface in any manner. This work shall be coordinated with the Project Manager and completed prior to and presented at the pre-construction meeting. Work shall be presented in a plan format relative to new construction to be installed.

**1.2.3 Locate.** For the purpose of this contract, "locate" shall mean to obtain precise horizontal and vertical positions of the utility facility by excavating test holes (Level A SUE). The Contractor shall locate utilities at all locations where potential conflicts have been identified as determined by the Project Manager. The test holes (pits) shall be done by a vacuum excavation system and in a manner so as not to cause damage to the utility facilities or other underground structures. Test holes shall be completed as needed to determine utility depth and assist in location of new conduit or light pole foundation locating and installation so as to avoid any impact to existing utilities.

The Contractor shall record these locations onto the construction plans as directed by the Project Manager. The Contractor shall also plot horizontal locations on a plan sheets and vertical elevation on a profile and cross-section sheets.

## **2.0 MANPOWER.**

**2.1** Subsurface utility engineering services shall be provided by personnel who are qualified and experienced in subsurface utility engineering. These personnel must be pre-approved by the Department's Railroad and Utilities Section or the Project Manager prior to providing services. Experience in utility design, highway engineering and storm drainage design are important factors.

**2.2** The Contractor shall list three (3) key staff personnel. The key staff shall include:

- 1) A Professional Engineer registered in the State of New Mexico with expertise in subsurface utility engineering.
- 2) A Professional Land Surveyor registered in the State of New Mexico with expertise in surveying utilities.
- 3) An experienced Subsurface Utility Engineering Services Project Manager.

## **3.0 EQUIPMENT.**

The Contractor shall list the quantity and different types of equipment that will be used for designating and locating services. This listing shall be submitted to the Project Manager prior to beginning work.

**4.0 METHOD OF MEASUREMENT.**

Pre-Construction Utility Survey will be measured by Lump Sum.

**5.0 BASIS OF PAYMENT.**

**5.1** Pre-Construction Utility Survey will be paid for at the Lump Sum contract price.

Payment will be under:

<b>Pay Item</b>	<b>Pay Unit</b>
Pre-Construction Utility Survey	Lump Sum

**5.2 Work Included in Payment.** The following work will be considered as included in the payment for Pre-Construction Utility Survey and will not be measured or paid for separately:

Equipment and supplies required for the work; research, designating and surveying, locating, excavating test holes, surface identification and monumentation, plotting and tying, analysis and recommendations; personnel; sub-consulting; travel, accommodations and expenses incurred by personnel and sub-consultants for the required work; necessary permits; fees incurred from notifying Blue Stake or One Call; Contractor Liability Insurance.

**5.3 Pertinent Stipulations.** The SUE Contractor shall have and maintain professional liability insurance that covers their subsurface utility operations and insurance for their professional services that will hold the Department harmless for errors and omissions which shall remain in effect for a minimum of three (3) years after the construction of this project is complete.

**NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS**

**F.12. SECTION 664 – LANDSCAPE PLANTING**

The following are special provisions to Section 664 and are included herein as part of the contract.

**1.0 GENERAL**

**1.01 DESCRIPTION OF WORK**

**1.01.1** Work under this section consists of the planting of trees, shrubs, and ground covers, including the furnishing of all labor, equipment, and materials and performing all work in connection therewith in accordance with the drawings and specifications.

**1.01.2** The scientific and common names used for the plants called for on the drawings are generally in conformity with the approved names given in CRC World Dictionary of Plant Names 1999 Ed. The names of varieties not included therein are generally in conformity with the names accepted in the nursery trade.

**1.02 REFERENCES**

**1.02.1** U.S.A. Standard for Nursery Stock, 2004, published by Committee on Horticultural Standards of the American Association of Nurserymen, Inc.

**1.02.2** Western Garden Book, 2001, published by Sunset Publishing Corp.

**1.03 QUALITY ASSURANCE**

**1.03.1** Installer Qualifications: Licensed landscape-contracting firm with not less than 5 years experience in the type and amount of work required in the Section.

**1.03.2** Source Quality Control

**1.03.2.1** General: Ship landscape materials with certificates of inspection required by governing authorities. Comply with regulations applicable to landscape materials.

**1.03.2.2** Do not make substitutions. If specified landscape materials are not obtainable, submit to the OWNER'S REPRESENTATIVE proof of nonavailability and proposal for use of equivalent material.

**1.03.2.3** Analysis and Standards: Package standard products with manufacturer shall have certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agricultural Chemists, wherever applicable.

**1.03.2.4 Trees and Shrubs:**

**1.03.2.4.1** Label each tree, shrub and ground cover with securely attached waterproof tag bearing legible designation of botanical or common name.

**1.03.2.4.2** Grade plant material in accordance with the current codes and standards of American Association of Nurserymen. Use nomenclature conforming to References above. If names are not present in these listings, conform to accept botanical nomenclature in the nursery trade.

**1.03.2.5 Import Soil/Organic Matter**

**1.03.2.6 Backfill Planting Mix.** Tree and shrub shall be backfilled with 85%-90% native soil and 10%-15% planting soil mix. Planting soil mix shall be composed of 60 percent sand and 40 percent organic amendment, uniformly mixed and approved by the Project Manager. The sand shall be unwashed concrete sand, sub-angular to rounded, No. 200 and approximately 1.25 tons per loose cubic yard. The organic amendment added to the mix shall be composed, clean, fertile, and uncontaminated "Rio Grande Compost" or approved equal, free from clay sub-soil, stones, lumps, plants, or their roots, sticks, weed stolans, seeds, high salt content and other materials harmful to plant life. The organic amendment shall have an acidity in the range of 5.5 - 8.5. The Contractor shall verify compliance of the mix by submitting an analysis from an approved testing lab to the Project Manager. Should point-source conditions change for the sand or organic amendment in the mix, then the Contractor may have to submit a new analysis, at the discretion of the Project Manager.

**1.03.2.6.1** Test import soil and/or portion of the planting backfill mixture at an approved soil testing laboratory. Test to verify characteristics listed under "Products" portion of this specification and include recommendation from the testing laboratory. The OWNER'S REPRESENTATIVE may also test the final product as delivered or installed to verify the mixture matches the listed characteristics and the submitted soil report. Test data may be utilized up to one year.

**1.03.2.7 Inspection:** The OWNER'S REPRESENTATIVE may inspect trees, shrubs and ground covers either at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size and quality. The OWNER'S REPRESENTATIVE retains right to further inspect plant material for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from project site.

**1.04 SUBMITTALS**

**1.04.1 Samples:** Submit a one-eighth cubic foot sample of each type of mulch or planting soil material for approval.

**1.04.2 Plant and Material Certifications:**

**1.04.2.1** Manufacturers or vendor's certified analysis and materials safety data sheets for any soil amendments, herbicides, and fertilizer materials.

**1.04.2.2** Planting Backfill Mixture: Submit test results, at the OWNER'S REPRESENTATIVE request, prior to delivery.

**1.04.3 Maintenance Manuals:** Submit two copies of typewritten instructions of any required landscape maintenance procedures to be followed by the OWNER for one full year during LANDSCAPE CONTRACTOR warrantee period. Write instructions specifically for this project and note tasks by site area. Submit prior to final inspection for approval.

**1.05 DELIVERY AND STORAGE AND HANDLING**

**1.05.1** The OWNER'S REPRESENTATIVE will inspect and accept plant materials prior to delivery to site and incorporation into the work.

**1.05.2 Packaged Materials:** Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.

**1.05.3 Plant Backfill Materials:** Collect and provide load tickets to the OWNER'S REPRESENTATIVE upon delivery. List the following information on the ticket:

**1.05.3.1** Source of material.

**1.05.3.2** Approximate volume of load.

**1.05.3.3** Date of delivery or loading.

**1.05.3.4** Typed name of individual representing the source.

**1.05.3.5** Inked original signature of individual representing the source.

**1.05.3.6** Area of site of the product delivery.

**1.05.4 Trees and Shrubs:** Provide freshly dug or containerized trees and shrubs. Do not prune prior to delivery. Do not bend or bind/tie trees or shrubs in such manner as to damage bark, break branches or destroy natural shape. Provide protective covering during delivery. Do not drop balled and burlapped stock during delivery. Handle container-grown materials by container only.

**1.05.5** Deliver trees and shrubs after preparations for planting have been completed and plant immediately. If planting is delayed more than 8 hours after delivery, set trees and shrubs in shade, protect from weather and mechanical damage, and keep roots moist.

**1.05.6 Handling Materials**

**1.05.6.1** Lift trees only by methods that will not damage bark or root balls. Lift trees 3 inches in caliper and larger with chains triangulated around the rootball. Do not lift tree 3 inches in caliper or larger by straps around the trunk.

**1.05.6.2** Do not remove container-grown stock from containers until planting time.

**1.06 JOB CONDITIONS**

**1.06.1 Existing Conditions:**

**1.06.1.1** Utilities: Determine location of underground utilities and perform work in manner which will avoid possible damage. Hand excavate as required. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.

**1.06.1.2** Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify the OWNER'S REPRESENTATIVE before planting.

**1.06.2 Sequencing and Scheduling:**

**1.06.2.1** Planting Time: Proceed with and complete planting work as rapidly as portions of site become available, working within seasonal limitations for each kind of planting work required.

**1.06.2.2** Plant or install material during normal planting seasons for each type of work required. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion until final acceptance.

**1.06.2.3** Determine the acceptability of subgrade preparation prior to the start of landscaping work. Protect all existing items to remain and new work of other trades to ensure proper timing of each phase of work.

**1.07 WARRANTY**

**1.07.1** Warranty trees, shrubs and ground cover through specified maintenance period and until final acceptance.

**1.07.2** Warranty trees, shrubs and ground cover for a period of one year after date of final acceptance, against defects including death and unsatisfactory growth as determined by the OWNER'S REPRESENTATIVE, unless defects are due to OWNER'S negligence in following the CONTRACTOR'S recommended maintenance procedure.

**1.07.3** Remove and replace trees, shrubs or other plants found to be dead or in unhealthily condition during warranty period. Replace plant materials during the dormant season following the end of warranty period or as directed by the OWNER'S REPRESENTATIVE. The dormant season is defined as September 30 through April 1. Replace trees and shrubs which are in doubtful condition at the end of the warranty period; unless in opinion of the OWNER'S REPRESENTATIVE, it is advisable to extend warranty period for the remainder a full-growing season.

**2.0 PRODUCTS**

**2.01 PLANT MATERIALS**

**2.01.1** A complete list of plants, including a schedule of quantities, sizes and other requirements is shown on the drawings. In the event that discrepancies occur between quantities of plants indicated in the schedule of plants and the planting plan, the plant quantities indicated on the planting plan shall govern. Plant material substitutions shall not be made

without the written permission of the project LANDSCAPE ARCHITECT, CONSTRUCTION MANAGER, OR OWNERS REPRESENTATIVE. The use of materials differing in kind, quality, or size from that specified will be allowed only after the CONSTRUCTION MANAGER is convinced that all means of obtaining the specified materials have been exhausted. At the time bids are submitted, the CONTRACTOR is assumed to have located the materials necessary to complete the job as specified. All requests for substitutions must be submitted no later than five days prior to the opening of bids.

**2.01.2** Plant material quality, size, and condition shall be in accordance with U.S.A. Standard for Nursery Stock, 2004, as published by the Committee on Horticultural Standards of the American Association of Nurserymen, Inc., the drawings and the following requirements:

**2.01.3** All plants shall be typical of their species or variety. All plants shall have normal, well developed branches and vigorous root systems. They shall be sound, healthy, vigorous, and free from defects, disfiguring knots, abrasions of the bark, sunscald injuries, plant diseases, insect eggs, bores, and all other forms of infections.

**2.01.4** Unless otherwise stated on the drawings or approved by OWNER'S REPRESENTATIVE, all plants shall be nursery grown and shall be tagged with nursery labels indicating species and variety. See planting plan for acceptable collected plants.

**2.01.5** Container grown plant material shall have been established in its delivery container for not less than six months, but for not more than two years. Any root bound material will not be accepted.

**2.01.6** Balled and burlapped plant material shall have a solid ball of earth of minimum specified size and held in place securely by burlap and a stout twine or rope. Broken or loose balls will be rejected.

**2.01.7** Unless otherwise indicated on plans, standard plant material shall have a uniform shape around its complete circumference. Plant material with irregular branching patterns or with branching patterns more highly developed on one side than on other sides shall not be acceptable, unless approved by OWNER'S REPRESENTATIVE.

**2.01.8** The OWNER'S REPRESENTATIVE shall inspect all plant material at the CONTRACTOR'S yard prior to delivery to the job site. All materials shall then be inspected at the job site prior to planting and after planting.

**2.01.9** At the option of the CONTRACTOR, the OWNER'S REPRESENTATIVE will inspect plant material at a wholesale nursery of the CONTRACTOR's choice prior to delivery of materials to the CONTRACTOR's yard. However, at no additional expense to the OWNER, the CONTRACTOR shall be responsible for all travel expenses incurred by the OWNER'S REPRESENTATIVE for any travel outside of the Santa Fe/Albuquerque Metropolitan Area..

**2.01.10** The OWNER'S REPRESENTATIVE shall be the judge of the quality and acceptability of all plant materials. All rejected material shall be immediately removed from the site and replaced with acceptable material at no additional cost to OWNER.

**2.02 MISCELLANEOUS LANDSCAPE MATERIALS**

**2.02.1** Landscape Filter Fabric: Dewitt Pro 5 Filter Fabric (or approved equal).

**2.03 WATER**

**2.03.1** The water shall be clean and free from pollutants which would be harmful to plant growth or contaminate the environment.

**3.0 EXECUTION**

**3.01 PREPARATION**

**3.01.1** Planting operations as specified herein shall begin only when other work including placing of topsoil to finished grade has progressed sufficiently to permit planting and shall be performed only during favorable weather conditions in accordance with accepted practice.

**3.01.2** In any one day, only those plant materials intended to be planted that day shall be delivered to the project site, unless otherwise approved by OWNER'S REPRESENTATIVE. All plant materials shall be located where it is shown on the drawings except when adjustments due to field conditions are required. The location of all trees and shrubs shall be staked by the CONTRACTOR before making any excavations, and locations shall be inspected by the OWNER'S REPRESENTATIVE prior to installation. All plants shall be placed as specified except for minor adjustments made necessary by underground obstructions or other unforeseen causes.

**3.02 INSTALLATION**

**3.02.1** All planting and backfilling shall be performed in accordance with accepted nursery practice, the drawings, and the following requirements:

**3.02.1.1** Prepare all planting pits and planting beds as shown on the drawings. Set all plants plumb and straight unless otherwise indicated on drawings and in the center of pit such that the top root flare sits flush with finish grade. No filling will be permitted around trunks or stems.

**3.02.1.2** Backfill for planting pits shall consist of the planting soil mixture as specified in these specifications. The plant shall be positioned in the hole and backfilled no more than halfway up the rootball. The backfilling shall be completed, and material tamped. When pit is nearly filled, water thoroughly and allow water to soak away. If settling of the backfill occurs after watering, add more backfill to bring to finish grade.

**3.02.2** Mulching: Mulch shall be applied to all planting bed areas as indicated on the plans and details.

**3.03 FIELD QUALITY CONTROL**

**3.03.1** The following inspections shall be the minimum required inspections during the course of construction. Additional inspections shall be made at any time at the discretion of the OWNER'S REPRESENTATIVE.

**3.03.2** It shall be the responsibility of the CONTRACTOR to notify the OWNER'S REPRESENTATIVE, in writing, 48 hours in advance of each required inspection.

**3.03.3** The sequence of required inspections shall not be changed from the sequence listed below. The CONTRACTOR shall not proceed with work of the next sequence without written approval of the work of the previous sequence. Payment will not be approved for items which have not been inspected and approved in writing.

**3.03.3.1** Inspect plant material at CONTRACTOR's yard prior to delivery to job site.

**3.03.3.2** Inspect staked locations of material prior to planting.

**3.03.3.3** Inspect material at the job site prior to and during planting and mulching.

**3.03.3.4** Inspect at final walkthrough by City Project Manager and Parks & Recreation Dept staff.

**3.03.3.5** Inspect at end of maintenance and/or warranty period.

**3.04 MAINTENANCE AND PROTECTION**

**3.04.1** Maintenance and protecting of trees, shrubs, and groundcover shall begin immediately following the last operation of installation for each plant and shall continue until final acceptance. Maintenance shall include watering, weeding, cultivating, removal of dead material and debris, resetting of trees to upright positions, restoration of earth basins, and such other operations as may be necessary for the health of the planted stock and the general appearance of the landscaped areas. Protection shall include care of the planted stock from damages resulting from trespass, erosion (including watering), weather, vandalism, disease and the like.

**3.04.2** The CONTRACTOR shall not prune any plant material except under the specific direction of the OWNER'S REPRESENTATIVE.

**3.05 METHOD OF MEASUREMENT:**

**3.05.1** Measurement for acceptance will include the actual number of tree, shrubs, or other plants furnished and planted as specified. All plants must meet or exceed the minimum size requirements as shown on the plans and specified in this section.

**3.06 BASIS OF PAYMENT:**

**3.06.1** All accepted trees, shrubs, and other plants, mulches, and soil amendments identified in the plans or on the specifications will be paid for as a Lump Sum amount, under Bid Item 664000 – LANDSCAPE COMPLETE, as listed in the Bid Proposal. That lump sum price and such payment shall be full compensation for furnishing, transporting, planting, watering, staking, and maintaining for the duration of the project all plant materials; and furnishing and installing all related mulches and groundcovers, including labor, tools, and incidentals necessary to complete the work herein provided.

**END OF SECTION**

**NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS  
FOR**

**F.13. ITEM NUMBER 664200 – LANDSCAPE IRRIGATION**

**1.0 GENERAL**

**1.01 RELATED DOCUMENTS**

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

**1.02 SUMMARY**

**1.02.1** The work consists of installing a complete underground sprinkler system as shown on the drawings and as specified hereafter. The CONTRACTOR performing this work shall furnish all labor, equipment, materials, and permits necessary for the completion of the system, except those specified to be furnished by others. Unless otherwise specified or indicated on the drawings, the construction of the irrigation systems shall include the furnishing, installing, and testing of a new 1” water meter and all pipe, fittings, valves, heads, controllers, wires, air release and vacuum valves, backflow preventers, inlet and discharge piping, automatic drain valves, manual drain valves, valve boxes, and all other components pertinent to the drawings and specifications of this system. The CONTRACTOR shall perform all trenching, excavating, boring, backfilling, compacting, concrete pouring, electrical work, welding, and any other work necessary for the completion of the project.

**1.03 REFERENCES**

**1.03.1 ASTM**

- D 1784      D 2564
- D 1875      D 2774
- D 2241      D 3139
- D 2466      D 2467

**1.04 QUALITY ASSURANCE**

**1.04.1 Installer Qualification:** Licensed landscaping contracting firm with not less than 5 years experience in the type and scale of work required in this Section.

**1.04.2 Manufacturer Qualifications:** Provide irrigation system as a complete unit produced by acceptable manufacturers, including heads, valves, piping circuits, controls and accessories.

**1.05 SUBMITTALS**

**1.05.1 Material Product Data Sheets:** Submit material product data sheets for backflow prevention devices, controllers, weather sensors, filters, valve boxes, manual valves, automatic valves, pipe/fittings, heads, nozzles, bubblers and automatic drain valves.

**1.05.2 Operation and Maintenance Manual:** Submit an Operation and Maintenance Manual for the irrigation system prior to final acceptance. Include a table of contents of material and copies of material product data sheets. Cross out irrelevant information. Include exploded drawings of equipment components where available, source of materials, copies of CONTRACTOR and material vendor business cards, copy of controller manual and diagrams, and a schedule of suggested watering times by month for each station for the first year of operation. Provide materials in three-hole punched format, ready for insertion into a three-ring binder. Review operation and maintenance with Owner staff prior to final acceptance. Type or clearly print written information.

**1.05.3 Record Drawings:** On a print of the irrigation plan, clearly mark the exact arrangement of the system, including the arrangement and sizes of all valves and main lines, intermittent pressure lines, splices, control wires, and lines under paved surfaces. Locate features of the irrigation system using a system of specific measurements from easily identified, permanent features such as buildings, roads and walks. As work progresses, note on the plans in red pencil any variations in work noted. Maintain and store record drawings on-site at all times. No inspections will be conducted or approvals granted if record drawings are not on-site or current. Provide final record drawings on mylar to the OWNERS REPRESENTATIVE for approval prior to final acceptance.

**1.05.4 Controller Diagrams:** Prepare a waterproof, color-coded diagram for each controller keying station of the controller to valve zones. Mount diagram inside the automatic controller door. Provide one copy of each diagram in the Operation and Maintenance Manual.

**1.05.5** Submit all of the above in accordance with Provisions of "Submittal Procedures" section of the specifications.

## **1.06 DELIVERY, STORAGE AND HANDLING**

**1.06.1 Delivery and Storage:** Coordinate delivery and on-site storage location with the OWNERS REPRESENTATIVE. Do not store PVC pipes in direct sunlight or freezing exposures.

**1.06.2 Product Handling:** Follow manufacturer's recommended procedures for loading, unloading, stacking transporting and handling materials and equipment.

## **1.07 JOB CONDITIONS**

### **1.07.1 Existing Conditions:**

**1.07.1.1 Utilities:** Verify the locations and sizes of stubouts for water sources indicated on drawings as the source of water supply to the underground irrigation system. Prior to excavation, determine the locations of all newly constructed and existing cables, conduits, sewers, water lines, and other underground utilities. Do not damage or disturb underground utilities with the proposed work, notify the OWNER'S REPRESENTATIVE in writing and arrange for relocations. Proceed in the above manner if a rock layer or other unanticipated conditions are encountered underground. Repair utility damage in-kind without additional compensation and as directed by the OWNER'S REPRESENTATIVE.

**1.07.1.2 Digging Permit:** Contact OWNER'S REPRESENTATIVE for Digging Permit requirements.

**1.07.1.3 Construction:** Use extreme caution when working near existing construction. Do not damage existing features not specifically indicated to be removed. Repair any accidental damage in kind without additional compensation and as directed by the OWNER'S REPRESENTATIVE.

**1.07.1.4 Sequencing/Scheduling:** Coordinate irrigation system with related work. Grade site within 1 inch of finish grade or depth of mulch material to be applied prior to trenching. Install irrigation system prior to plant installation.

**1.08 WARRANTY**

**1.08.1** For a period of one (1) year from final acceptance of the system, the CONTRACTOR will promptly furnish and install, without cost to the OWNER, any and all parts or materials which prove defective in material or workmanship. Damage due to irrigation system line breaks caused by defective material or workmanship shall be repaired and brought to original condition by the CONTRACTOR at no expense to the OWNER. The CONTRACTOR shall complete all repairs within 24 hours of receipt of notification from the OWNER of system failure.

**1.08.2** Minor maintenance and adjustment of the system shall be the responsibility of the OWNER.

**1.08.3** For a period of one year from final acceptance of the system, the CONTRACTOR shall repair any settlement of the trenches by one of the following methods as directed by the OWNER or the OWNER'S REPRESENTATIVE.

**1.08.3.1** Bring to grade by top dressing (raking appropriate material into settled area).

**1.08.3.2** Bring to grade with structural fill and/or paving materials.

**1.08.4** Repair by any of the above methods must result in a smooth, level area. Minor maintenance of repaired areas shall be the responsibility of the OWNER. Repair shall be completed by the CONTRACTOR within 48 hours after notification from the OWNER of trench settlement problems.

**1.09 MAINTENANCE**

**1.09.1 Extra Materials:** Provide four extra emitters and/or extra nozzles of each type irrigation head indicated and two sets of special wrenches for each type of head or nozzle. Provide wrenches from the same manufacturer as heads and nozzles, designed for installing, removing, and adjusting heads and nozzles.

**2.0 PRODUCTS**

**2.01 ACCEPTABLE MANUFACTURERS**

**2.01.1** All materials shall be new and without flaws or defects of any type and shall be the best of their class and kind. All materials shall have a minimum guarantee of one year against material defects or defective workmanship.

**2.01.2** All materials shall be of the brands and types noted on the drawings or as specified herein, or approved as equal.

**2.01.3** The irrigation system was designed around equipment manufactured by specific companies as a standard. Approved as equal equipment by other manufacturers may be used only with the approval of the OWNER'S REPRESENTATIVE and/or the OWNER five days prior to the opening of bids.

**2.02 MATERIALS**

**2.02.1 Plastic Pipe**

**2.02.1.1** All mainline plastic pipe which is 2" or smaller, shall be Schedule 40 PVC and shall conform to ASTM D 1785. All mainline pipe which is larger than 2" diameter shall be PVC 1120 or 1220 (SDR-PR) pipe, SDR-21 with a 200 psi pressure rating and conforming to ASTM D 2241, with flexible joints conforming to ASTM D 3139. All lateral lines plastic pipe shall be Schedule 40 PVC and shall conform to ASTM D 1785.

**2.02.1.2** PVC pipe shall be continuously marked with identification of the manufacture, type, class, size and material and shall conform to ASTM D 1784. Solvent joints shall meet ASTM D 2774 and D 2855 requirements. Pipe shall be produced in 20-foot lengths. Pipe shall be free of holes, foreign material, blisters, wrinkle dents, or sun scald.

**2.02.1.3 PVC Fittings:** Fittings on PVC lines shall be Schedule 40 PVC, Type 1, Cell Classification 12454-B, and shall comply with ASTM D 2466, D 2467, and D 1784.

**2.02.1.4 Risers and Threaded Nipples:** All threaded PVC nipples and risers shall be Schedule 80 PVC pipe. All galvanized nipples and risers shall be Schedule 40 galvanized steel pipe.

**2.02.2 Valves and Valve Boxes**

**2.02.2.1 Valves:** Valves for use in electrically controlled automatic control systems shall be diaphragm activated and hydraulically operated solenoid valves: Rainbird GB (or approved equal).

**2.02.2.2 Valve Boxes:** Valve boxes shall be as specified on plans (or approved equal), with lid to match color of adjacent mulch.

**2.02.2.3 Equipment Enclosures:** Enclosure for inline pressure regulators shall be as specified on plans (or approved equal), with lid to match color of adjacent mulch.

**2.02.3 Streams and Bubblers:**

**2.02.3.1** Stream Heads as specified on plans.

**2.02.3.2** Bubblers as specified on plans

**2.02.3.3** Install bubbler and spray heads on swing joints

**2.02.4** Cements, Cleaner/Primers and Joint Compounds

**2.02.4.1** Cement shall be No. 2200 series Uni-Weld, Rectorseal Gold (or approved equal) low temperature plastic pipe cement for use on all sizes and schedules of PVC pipe and fittings. Cement must be NSF approved and meet ASTM D 2564 specifications.

**2.02.4.2** Cleaner/primer shall be No. 8700 United Elchem (or approved equal) hi-etch cleaner/primer. Cleaner/primer must be any color other than clear.

**2.02.4.3** All threaded connections between PVC and metal pipe shall be made using Rectorseal No. 100 virgin heavy duty sealing paste or plastic-joint stick as manufactured by Lake Chemical Company (or approved equal) and teflon tape.

**2.02.4.4** All metal to metal connections shall be made using Rectorseal No. 5, slow dry, softset pipe thread compound or approved equal. All PVC to PVC threaded connections shall use teflon tape.

**2.02.4.5** "O"-ring gasket and pipe spigot ends shall be lubricated using the lubricant recommended or supplied by the pipe manufacturer. If the pipe manufacturer does not provide a lubricant for the pipe, use IPS Weld-On No.787 gasket lube as manufactured by Industrial Polychemical Service or approved equal.

**2.02.5** Wire (120 VOLTS)

**2.02.5.1** Wire for the 120-volt wiring shall be solid copper (or stranded copper in larger wire sizes) underground feeder for direct burial and PVC insulated. Size of wire shall be No.12 AWG.

**2.02.6** Wire (24 volts)

**2.02.6.1** Wire for the 24 volt wiring shall be solid copper wire, PVC insulated, UL approved underground feeder wire for direct burial in ground. Common wires shall be No.12, white, except as noted otherwise. Other wires shall be sized as required by valve manufacturers for lengths shown on plans.

**2.02.7** Wire Splicing Materials

**2.02.7.1** All wire splices shall be made watertight using 3M Scotchlok wire connectors or approved equal. All wiring installed under sidewalks, roadways, parking lots, etc., shall be installed in a minimum 1 1/4 inch or larger as shown on plans Class 200 PVC sleeve.

**2.02.8** Other Miscellaneous Fitting and Materials

**2.02.8.1** All other miscellaneous fittings and materials shall be consistent with existing system components.

**2.02.9** Backflow Preventer

**2.02.9.1** Backflow Preventer shall be as specified on plans.

**2.02.10** Irrigation Controller

**2.02.10.1** Irrigation Controller shall be as specified on plans. Install in a locking outdoor all weather metal enclosure, wall mounted if possible or to back of bus shelter.

**3.0 EXECUTION**

**3.01 SYSTEM DESIGN**

**3.01.1** This section includes installation specifications for all items installed as a part of the irrigation system. Certain construction procedures or minor equipment installation procedures may have been omitted from these specifications that are necessary for the proper installation of the system. In any case, all materials and equipment shall be installed in a neat and workmanlike manner according to manufacturer's published recommendations and specifications, local, and state codes, and as specified herein.

**3.02 IRRIGATION POINT OF CONNECTION**

**3.02.1** For new city water meter - Install meter as per the size and type indicated on drawing. The Contractor shall be responsible for all costs associated with the water meter installation including, but not limited to: permits, fees, utility expansion charges, taps, asphalt/concrete patching, vaults and meter installation.

**3.02.1.1** Install water meter as per the specifications, requirements and instructions of the governing water authority. Report any conflict pertaining to water authority instructions and drawing instructions to the A/E prior to installation.

**3.02.2** Prior to any irrigation related construction, the Contractor shall verify and test the irrigation system point of connection.

**3.02.2.1** Install a properly sized test assembly consisting of a connection fitting, water pressure gauge, flow meter and shutoff valve to downstream side of point of connection. The test assembly should allow the Contractor to measure the dynamic water pressure at a particular gallon-per-minute flow and have the ability to shut-off water flow.

**3.02.2.2** The Contractor shall provide or construct an appropriate drainage area sized to accommodate the volume of water necessary and required for proper testing without discharging into public right-of-way or onto private property.

**3.02.2.3** Initiate a water flow equal to the highest gallon-per-minute flow demand of the irrigation system as indicated on the drawings. Record the dynamic water pressure reading at the highest system flow demand. Shut off test assembly valve. Record static water pressure at zero flow. Document all recordings and test assembly make-up with digital photographs.

**3.02.2.4** Report findings in writing to the Owner's Representative. The report should indicate the dynamic water pressure at the highest system flow and the static water pressure at zero flow. The report shall also include a photograph of the test assembly and a photograph for each gauge reading.

**3.02.3** The Owner's Representative shall issue a written notice to proceed upon acceptable test results or issue further instructions upon unexpected results. Do not install any part of the irrigation system without written notice to proceed.

### **3.03 PRODUCT HANDLING**

**3.03.1** The CONTRACTOR shall be responsible for correct procedures in loading, unloading, staking, transporting, and handling all materials to be used in the system. The CONTRACTOR shall avoid rough handling which could affect the useful life of equipment. Pipe shall be handled in accordance with the manufacturer's published recommendations on loading, unloading, and storage.

### **3.04 INSTALLATION**

#### **3.04.1 Excavation and Trenching:**

**3.04.1.1** The CONTRACTOR shall stake out the location of each run of pipe and all sprinkler heads and valves prior to trenching. Each run of the system shall be approved by the OWNER'S REPRESENTATIVE before actual installation is started. Prior to trenching the CONTRACTOR shall contact OWNER and /or NM One Call to spot all utility lines.

**3.04.1.2** Excavation and trenching for pipe lines shall be true to line with the trench banks as nearly vertical as practicable. The width of the trenches shall not be greater than necessary to permit proper jointing, tamping, backfilling, bedding or any other installation procedures that maybe necessary. Trench widths shall also be wide enough so that there will be a minimum horizontal separation of 4 (four) inches between pipes in the same trench.

**3.04.1.3** In areas where trees are present, trench lines will be adjusted on the site to install trenches beyond the drip line of the tree or shall otherwise be bored.

**3.04.1.4** Trench depths shall be sufficient to provide the specified pipe cover as described elsewhere in these specifications or as noted on the drawings. In rocky areas the trenching depth shall be 6 (six) inches below normal trench depth to allow for pipe bedding as described in other portions of these specifications.

#### **3.04.2 Depth of Bury:**

**3.04.2.1** There shall be a minimum of 36" and a maximum of 38" of cover for all constant pressure mainline and quick coupling valve supply lines. There shall be a minimum of 18" and a maximum of 20" of cover for all mainline located downstream of the master valve. There shall be a minimum of 18" and a maximum of 20" of cover for all lateral lines. There shall be a minimum of 4" of cover (not including mulch material) for all 1/2" drip poly tubing.

#### **3.04.3 Pipe and Fittings:**

**3.04.3.1** Installation of plastic pipe and fittings shall be in accordance with the manufacturer's published recommendations and procedures and is mentioned in the specifications. Manufacturer's published recommended procedures for making solvent weld fittings shall be strictly adhered to.

**3.04.3.2** Caution shall be exercised by the CONTRACTOR in handling, loading, unloading and storing of PVC pipe and fittings. All PVC pipe shall be stored and transported in a vehicle with a bed long enough to allow the pipe to lie flat without subjecting it to undue bending or concentrated external load at any point. Any section of pipe that has been dented or damaged or in any other

way found to be defective, either before, or after laying shall be replaced with sound pipe without additional expense to the OWNER.

**3.04.3.3** Before installation, the inside of the pipe shall be cleaned of all direct and foreign matter and shall be kept in a cleaned condition during and after laying of the pipe. When work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other foreign substances will enter the pipe or fittings. Where pipe ends are left for future expansion or connections, they shall be valved and/or capped.

**3.04.3.4** All PVC pipe and fittings shall be assembled to permit the pipe or fittings to be joined at the true parallel position of the fitting. Placement of pipe in curving trenches which causes bending and stress on pipe and fittings will not be permitted. No excess piping or fittings shall be permitted in the installation of the system, which may increase pressure loss or potential blockage.

**3.04.3.5** Excavation and trenching shall be true to line and at the width and depth specified in other sections of these specifications. Before installing the pipe, all rubbish and rocks shall be removed from the trenches. If the soil is extremely rocky, the trenches shall be padded with dirt or sand as outlined in other portions of these specifications. Material used for pipe padding shall be approved by the OWNER'S REPRESENTATIVE. The full length of each section of the pipe shall rest solidly upon the pipe bed.

**3.04.3.6** Pipe shall not be laid in water or when trench or weather conditions are unsuitable for the work. Any water which may be encountered or may accumulate in the trenches or excavation shall be pumped out or otherwise removed as necessary to keep the bottom of the trench or excavation free and clear of water during the progress of the work.

**3.04.3.7** When more than one pipe is installed in the same trench, in no case shall one pipe be installed above or below another. Pipe can be installed in the same trench if pipes are laid side by side. In no case shall constant pressure mainline and lateral pipe be installed in the same trench.

**3.04.3.8** After all sprinkler piping, risers, valves, thrust blocks, etc., have been installed and partially backfilled as specified in other parts of these specifications, the control valve shall be opened and a full head of water used to flush out the system. After the system is thoroughly flushed, risers shall be capped off and the system pressure tested in accordance with the testing section of these specifications. At the conclusion of the pressure test the heads shall be installed and the backfill operation completed.

**3.04.4** Solvent Welding Procedure:

**3.04.4.1** PVC plastic pipe shall be squarely cut.

**3.04.4.2** Burrs left from cutting shall be wiped off with a clean, dry cloth.

**3.04.4.3** Utilizing a cleaner/primer, thoroughly clean the mating pipe end and the fitting socket with a clean dry cloth.

**3.04.4.4** Apply a uniform coat of solvent cement to the outside of the pipe end with a non-synthetic brush or dauber.

**3.04.4.5** In like manner, apply a thin coating of solvent cement to the inside of the fitting socket.

**3.04.4.6** Re-apply a light coat of solvent cement to the pipe and quickly insert it into the fitting to the full depth of the fitting socket.

**3.04.4.7** Rotate the pipe or fitting approximately 1/4 turn to insure even distribution of the solvent cement.

**3.04.4.8** Hold in position for approximately 30 seconds.

**3.04.4.9** Wipe off any excess solvent cement that forms as a bead around the outer shoulder.

**3.04.4.10** Care should be taken so as not to use an excess amount of solvent cement that could cause burrs or obstructions to form on the inside of the pipe joint.

**3.04.4.11** Solvent weld joints shall be allowed to cure for at least 24 hours before pressure is applied to the system.

**3.04.5 Backfilling:**

**3.04.5.1** Upon completion of a particular section of the irrigation system, and after sufficient time has elapsed for the curing of solvent weld joints, partial backfilling can begin, leaving all joints, risers and connections exposed for visual inspection during the hydrostatic test. After completion and acceptance of the hydrostatic test for a particular section of the irrigation system the backfill operation can be completed.

**3.04.5.2** All backfill material shall be subject to approval by the OWNER'S REPRESENTATIVE. Backfill material shall be free from rubbish, rock, large stones, brush, sod, frozen material or other unsuitable substances that may damage pipe during the backfilling operations.

**3.04.5.3** In the event that the material from the excavation or trenching is found to be unsuitable for use in backfill, it shall be removed from the site and properly disposed of by the CONTRACTOR and at his own expense. The CONTRACTOR shall then, at no additional cost to the OWNER, arrange for, purchase, and furnish suitable backfill material consisting of earth, loam, sandy clay, sand, or other approved materials free of large clods of earth or sharp stones.

**3.04.5.4** In rocky areas, the trench depth shall be 6 (six) inches below the normal trench depth to allow for 6 (six) inches of suitable backfill as padding for the pipe. In like manner, there shall be at least 6 (six) inches of padding on either side of the pipe as a padding against the rock wall of the trench.

**3.04.5.5** Backfill shall be placed in horizontal layers not exceeding 10 (ten) inches in depth and shall be thoroughly tamped, rolled or otherwise compacted to near original density or so that a minimum of settling will result. Backfill shall be placed to the original ground level or to the limits designated on the drawings. If settlement of trenches occurs within one year from date of completion, it shall be the CONTRACTOR'S responsibility to refill trenches and pave the repaired areas.

**3.04.6 Saddle Taps:** No saddle taps shall be permitted.

**3.04.7** Sleeved Crossing:

**3.04.7.1** Unless otherwise noted on drawings, all piping installed under roadways, parking lots, etc., shall be sleeved in a Class 200 PVC pipe two sizes larger than the pipe to be sleeved. Wiring shall be placed in a separate sleeve from that of the pipe crossing and shall be 1 1/4 or larger as required Class 200 PVC pipe.

**3.04.7.2** Every effort shall be made by the CONTRACTOR to install sleeving prior to the pouring or construction of the sidewalks, roadways, parking lots, etc., if at all possible. If prior sleeving is not possible, all crossings must be bored unless authorization for an open cut is obtained from the OWNER'S REPRESENTATIVE.

**3.04.7.3** Sleeving ends, with the inner pipe or wire installed, shall be temporarily capped or taped closed using a good quality duct tape to prevent the entrance of dirt into the sleeve.

**3.04.8 Thrust Blocks:** Concrete thrust blocks shall be provided where necessary to resist system pressure. Thrust blocks shall be constructed at all direction changes, size changes, valves and terminations, or at any other points of the system that will result in an unbalanced thrust line for equipment 2 (two) inches and larger. Do not obstruct the outlets of fittings which are intended for future connections. Thrust blocks shall be poured against undisturbed earth and in accordance with the drawings.

**3.04.9 Sprinkler Heads:**

**3.04.9.1** Sprinkler heads shall be the type and make specified and shall be installed to grade unless otherwise specified. Sprinkler heads shall be installed 8 inches from walls, walkways, and mowstrips or as noted on plans. Sprinkler heads shall be installed 12 inches from back of street curb or as noted on plans. Heads shall be installed in the vertical positions, hand backfilled and compacted to near original density.

**3.04.9.2** Sprinkler head spacing shall not exceed the spacing shown on the drawings and shall be in the approximate locations and configuration as shown on the drawings. CONTRACTOR shall verify area dimensions while staking sprinkler head location. Sprinkler heads shall be spaced so that they are equidistant from one another for the given lengths and widths of the area to achieve uniform coverage.

**3.04.9.3** After all piping and risers are in place and connected and before installation of the sprinkler heads, all control valves for a given section shall be fully opened and a full head of water shall be used to flush out the system.

**3.04.9.4** If water pressure without the heads installed is not sufficient to provide adequate water flow from end risers, the CONTRACTOR shall cap off enough heads closest to the water source to provide adequate flushing of the end riser assemblies.

**3.04.10 Controller:**

**3.04.10.1** The CONTRACTOR shall familiarize himself with the requirements of the controller and shall include the cost to complete any connections.

**3.04.10.2** The connections shall be wired according to the manufacturer's recommended procedures and as specified in these specifications.

**3.04.10.3** Electric control valves shall be connected to controller in the numerical sequences consistent with existing zones.

**3.04.11 Electric Control Valves:**

**3.04.11.1** All electric control valves shall be of the type and size consistent with plans, following the published recommendations of the manufacturer and in accordance with these specifications.

**3.04.11.2** Valve boxes shall have bolt down lids and of the size and type as required on plans.

**3.04.11.3** Valve wire splices shall be waterproofed using 3M Scotchlok Connectors (or approved equal) and the CONTRACTOR shall leave 24 (twenty-four) inches of coiled slack to facilitate raising splices to ground level without cutting wires.

**3.04.12 24-Volt Control Valve Wiring:**

**3.04.12.1** All wire installation procedures as described herein shall be checked to conform to local electrical codes.

**3.04.12.2** All wire used for the 24 volt wiring from the controller to the electric control valves shall be type "UF", 600 volt, solid copper, single conductor, PVC insulated and bear UL approval for direct burial underground feeder cable. Unless otherwise specified on the drawings, the 24 volt common wires shall be white color insulated wire No.12 A.W.G., or approved equal. The remaining 24 volt control wires shall be No. 12 A.W.G. (or approved equal), or as specified by valve manufacturer, and of colors other than white. These colors shall be noted on the "as-built" record drawings.

**3.04.12.3** Whenever possible, the CONTRACTOR shall install the 24-volt control valve wiring in the same trench as the irrigation system mainline piping. All wires shall be laid on the bottom on one side of the pipe only and 2 (two) inches below the pipe. The wires shall be laid loose in the trench to allow for contraction of the wire. Control wires shall be taped together in 10'0" increments. When trenches used for piping are not appropriate for routing of wire, a trench, 18" deep, shall be provided by the CONTRACTOR for 24-volt wires and shall be identified with dimensions on the "as-built" record drawings.

**3.04.12.4** Wire splices, other than at valve box locations, shall be kept to a minimum and if needed shall be made only at common splice points and placed in a wire splice box as shown on the drawings. The location of these wire splice boxes shall be shown on the "as-built" record drawings. There shall be a 24" coil in the wires placed in the wire splice boxes so that the splices can be pulled out above ground level to facilitate testing and trouble shooting. No buried wire splices shall be permitted. All wire splices shall be made waterproof using 3M Scotchlok Connectors or approved equal.

**3.04.12.5** In no case shall wires of different colors be spliced together.

**3.04.12.6** Control wires shall be identified with E-Z Coder WDR Series Tape (or approved equal) at each valve and at the Controller and at splices. Valves shall be numbered on the "as-built" record drawings.

**3.04.13 120 Volt Controller Power Wiring:**

**3.04.13.1** The CONTRACTOR shall familiarize himself with the work required to complete this portion of the installation. Any required 120 volt wiring shall be installed in accordance with local electrical codes. Coordinate with GENERAL CONTRACTOR and/or other trades. The 120-volt service shall consist of one black and one white wire. The neutral wire must be bonded.

**3.04.13.2** 120 volt power shall be provided by a licensed electrician.

**3.04.14 Backflow Preventer**

**3.04.14.1** Backflow Preventer shall be installed as per manufactures recommendations and shall comply with all local and state cross connection regulations.

**3.05 FIELD QUALITY CONTROL**

**3.05.1 Testing:**

**3.05.1.1** Upon completion of the irrigation system's mainline, the entire mainline shall be tested for a 4 (four) hour period at 150 psi. Prior to testing the mainline shall be partially backfilled leaving all joints and connections exposed for visual inspection. All dirt shall be flushed from the system and the line filled with water to remove air. The mainline shall be brought to static pressure. A pressure gauge and temporary valve shall be installed at the end of the mainline to permit hydrostatic pressure to be applied to the main. A pressure of 150 psi must be retained for a 4 (four) hour period. Any leaks resulting in the 4(four) hour pressure test shall be repaired and the system retested until the system passes the test.

**3.05.1.2** Upon completion of the irrigation system's lateral sections and after sufficient time has been allowed for solvent weld joints to cure, the entire system shall be hydrostatically tested by capping off all sprinkler head risers. On systems using flex nipples, or swing joints, the lateral line shall be tested prior to installation of the flex nipples or swing joints. Prior to capping, all air and dirt shall be flushed from the system and the pipe partially backfilled by center loading, leaving all joints, risers, swing joints and connections exposed for visual inspection. All lateral irrigation piping must be pressure tested for 1 (one) hour at 100 psi. The procedure shall be the same as used for the main line. If after one hour no visual leakage has occurred and the 100 psi pressure has been retained, the heads shall be installed, and the backfill operation completed. Any leaks resulting from the hydrostatic test shall be repaired and the system retested until the system passes the test.

**3.05.2 Inspections:**

**3.05.2.1** The following inspections shall be the minimum required inspections during the course of construction. Additional inspections shall be made at any time at the discretion of the OWNER or OWNER'S REPRESENTATIVE. It shall be the responsibility of the CONTRACTOR to notify the OWNER'S REPRESENTATIVE in writing 48 hours in advance of each required inspection. The sequence of required inspection shall not be changed from the sequence listed below. The CONTRACTOR shall not proceed with work in the next sequence without written acceptance of the previous sequence. Payment will not be approved for items which have not been inspected and approved in writing.

**3.05.2.1.1** Inspect staked locations of mainline, valves, laterals, and sprinkler heads. All trees irrigated with sprinkler bubbler heads must be staked at this time to verify proper location.

**3.05.2.1.2** Inspect 24-volt control wire installation.

**3.05.2.1.3** Inspect and pressure test mainline and electric control valve installation.

**3.05.2.1.4** Inspect and pressure test lateral irrigation line installation.

**3.05.2.1.5** Inspect automatic controller operation.

**3.05.2.1.6** Inspect sprinkler and bubbler head placement, coverage and operating pressure prior to planting.

**3.05.2.1.7** Inspect at final walkthrough by Project Manager of City and Manager from City Parks and Recreation Department

**3.06 COVERAGE AND ADJUSTING OF SYSTEM**

**3.06.1** Upon completion of the installation, the CONTRACTOR shall adjust all heads and valves and program controller to provide optimum system performance. The CONTRACTOR shall provide and install nozzles other than those specified as instructed by the OWNER'S REPRESENTATIVE at no additional cost to the owner. It will be the OWNER'S responsibility to make any minor adjustments to the system during the warranty period.

**3.07 CLEAN UP AND PROTECTION**

**3.07.1** The CONTRACTOR shall continuously keep a neat and orderly area in which he is installing the system. Disposal of rubbish and waste material resulting from the installation shall be continual. Upon completion of the system, the CONTRACTOR shall remove from the OWNER'S property at his own expense, all temporary structures, rubbish, waste material, tools, and equipment resulting from or used in the installation of the underground irrigation system.

**3.07.2** The CONTRACTOR shall be responsible for locating all cables, conduits, piping, and any other utilities or structures that may be encountered either above or below ground. All necessary precautions must be taken by the CONTRACTOR to prevent any damage to these existing improvements. In the event that such damage should occur from his operations, the CONTRACTOR shall repair or replace or bring to original condition the damaged utilities or improvements at his own expense.

**3.07.3** The CONTRACTOR shall be responsible for protection of on going work from the public and vice versa. Any necessary barriers, warning signs, etc. are the responsibility of the CONTRACTOR and considered incidental to the irrigation contract.

**3.07.4** If the CONTRACTOR encounters rock or other unfavorable trenching conditions, no additional compensation will be paid. When material from the excavation or trenching is unsuitable for use as backfill, additional backfill material suitable for this purpose shall be brought in an expense of the CONTRACTOR. It shall also be the CONTRACTOR'S responsibility to remove and dispose of all unsuitable materials removed from the trench that cannot be used in the backfill operation.

**3.08 FINAL ACCEPTANCE**

**3.08.1** When the CONTRACTOR is satisfied that the system is operating properly, that it is balanced and adjusted, that all work and cleanup is completed, he shall issue notice of completion to the OWNER and the OWNER'S REPRESENTATIVE requesting a system review at a given date and time. The OWNER and/or the OWNER'S REPRESENTATIVE will respond to the notice by the CONTRACTOR and shall appear at the given time for a tour of the Project. At that time, the CONTRACTOR shall demonstrate each system in its entirety. In judging the Work, no allowance for deviation from the specifications will be made unless prior approval has been obtained. This system review must be completed prior to beginning planting operations.

**3.08.2** The OWNER'S REPRESENTATIVE shall note any inconsistencies to the specifications and a written copy of corrections shall be given to the CONTRACTOR. Any work deemed not acceptable shall be reworked to the complete satisfaction of the OWNER and the OWNER'S REPRESENTATIVE.

**3.08.3** When all work is completed to the satisfaction of the OWNER, and OWNER'S REPRESENTATIVE a written acceptance of the project work will be given to the CONTRACTOR upon furnishing by the CONTRACTOR of a complete record drawing of the system, which is acceptable to the OWNER.

**3.08.4** PAYMENT for the irrigation system shall be included in the LUMP SUM payment made for Bid Item Number 664000 – LANDSCAPE COMPLETE, and shall be considered full compensation for furnishing and installing all pipes, sleeving, valves, controllers, wiring, irrigation heads, and all related appurtenances.

**END OF SECTION**

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS  
FOR  
**F.14. SECTION 702-C – TRAFFIC CONTROL DEVICES DURING CONSTRUCTION**

All provisions of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**1.0 DESCRIPTION.**

**1.01** This work shall consist of implementing the necessary traffic control during construction in conformance with the contract and the Manual of Uniform Traffic Control Devices. The Contractor shall submit all proposed traffic control changes to the contract traffic control plan detailed in the construction plans to the Project Manager, for review and approval by the District Traffic Engineer/or Local Government Agency Engineer or designee, prior to beginning construction operations.

**1.02** The Contractor shall furnish all materials, tools, labor, equipment and all other appurtenances necessary to complete the work. The materials shall include, all interim and temporary signing, temporary stripe removals, construction signing, steel posts, base posts, portable sign supports, barricades, drums, sequential arrow displays, and flaggers as necessary to complete the traffic control detailed in the construction plans or modifications to the plan details as approved by the District Traffic Engineer including all setups and resetting of devices.

**1.03 Submittals.** The Contractor shall submit a summary of all necessary traffic control devices for this project in the format shown as TABLE 1 to the Project Manager at least two (2) weeks prior to the pre-construction conference. A minimum of five (5) copies shall be provided to the Project Manager. The summary shall be complete with appropriate supporting sections referenced, device descriptions, units of measure, quantities required, unit costs, and total costs for each type of device. The itemized costs for each device shall include all associated work and materials defined in the appropriate supporting section of the standard specifications, including all revisions. The Contractor will not be allowed to initiate any work on the project until TABLE 1 has been provided to the Project Manager.

TABLE 1

SUPPORTING SECTION	DEVICE DESCRIPTION	UNIT OF MEASURE	QTY.	UNIT COST	TOTAL COST
SECTION 702 - TRAFFIC CONTROL DEVICES FOR CONSTRUCTION					
SS 702	CONSTRUCTION SIGNING	SQ. FT.			
SS 702	STEEL POSTS AND BASE POSTS FOR CONSTRUCTION SIGNING	LIN. FT.			
SS 702	BARRICADE, TYPE I	EACH			
SS 702	BARRICADE, TYPE II	EACH			
SS 702	BARRICADE, TYPE III-1.8 m	EACH			
SS 702	BARRICADE, TYPE III-2.4 m	EACH			
SS 702	VERTICAL PANEL, TYPE SINGLE	EACH			
SS 702	VERTICAL PANEL, TYPE BACK TO BACK	EACH			
SS 702	CONSTRUCTION TRAFFIC MARKER	EACH			
SS 702	PORTABLE SIGN SUPPORT	EACH			
SS 702	CHANNELIZATION DEVICES TYPE DRUM	EACH			
SS 702	TRAFFIC CONES	EACH			
SS 702	SEQUENTIAL ARROW DISPLAY	EACH			
SECTION 704 - PAVEMENT MARKINGS					
SS 704	RETROREFLECTORIZED PAINTED MARKINGS	LIN. FT.			
SS 704	REMOVABLE MARKING TAPE	LIN. FT.			
SS 704	TEMPORARY REFLECTIVE RAISED PAVEMENT MARKER TYPE TD	EACH			
SS 704	TEMPORARY REFLECTIVE RAISED PAVEMENT MARKER TYPE TG	EACH			
SS 704	TEMPORARY REFLECTIVE RAISED PAVEMENT MARKER TYPE TH	EACH			
SS 704	TEMPORARY REFLECTIVE RAISED PAVEMENT MARKER TYPE TJ	EACH			
SECTION 721 - PAVEMENT MARKING REMOVAL					
SS 721	REMOVAL OF PAVEMENT STRIPE	LN. FT.			
SS 721	REMOVAL OF PAVEMENT MARKING	EACH			
TOTAL FOR ITEM # 702810 TRAFFIC CONTROL DEVICES FOR CONSTRUCTION (LUMP SUM)				\$	

**2.0 MATERIALS.**

**2.01** All materials shall conform to the applicable requirements of SECTION 701 - TRAFFIC SIGNS AND SIGN STRUCTURES, SECTION 702 - CONSTRUCTION TRAFFIC CONTROL DEVICES, and SECTION 704 - PAVEMENT MARKINGS.

**3.0 CONSTRUCTION REQUIREMENTS.**

**3.01** All construction shall be effected by the Contractor in accordance with the applicable plan details and specifications shown in the contract or modifications to the plan details as approved by the District Traffic Engineer.

**3.02** All materials and devices shall be maintained and replaced if necessary for the duration of the project in conformance with these specifications.

**3.03** Traffic control shall be maintained in conformance with all specifications of SECTION 618 - TRAFFIC CONTROL MANAGEMENT, for the duration of the project.

**4.0 METHOD OF MEASUREMENT.**

**4.01** When specifically designated for measurement and payment in the contract, traffic control devices during construction will be measured as a lump sum unit.

**5.0 BASIS OF PAYMENT.**

**5.01** The accepted work for traffic control devices during construction will be paid for at the contract unit price lump sum. Payment shall be full compensation for furnishing all materials, tools, labor, equipment, hauling, and any other appurtenances necessary to satisfactorily complete and maintain adequate and safe traffic control until completion of the project.

This shall include all interim and temporary signing, temporary striping, temporary stripe removals, construction signing, steel posts, base posts, portable sign supports, barricades, drums, sequential arrow displays, traffic cones and flaggers as necessary to complete the traffic control detailed in the construction plans or modifications to the plan details as approved by the District Traffic Engineer. Setting and resetting of devices shall also be included in payment of this item.

**5.03** Traffic Control Devices During Construction shall not be considered as eligible for a cost savings suggestion.

**Payment will be made under:**

<b>PAY ITEM</b>	<b>PAY UNIT</b>
Traffic Control Devices During Construction	Lump Sum

NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISIONS FOR

**F.15. SECTION 704-B – RETROREFLECTIVE PREFORMED PATTERNED PAVEMENT  
MARKINGS**

All pertinent provisions of the New Mexico State Highway and Transportation Department's Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

**1. DESCRIPTION**

1.1 This work shall consist of furnishing and installing durable retroreflective pre-formed patterned pavement markings or stripes in accordance with these Special Provisions and in compliance with the dimensions and lines shown on the plans or as established by the Project Manager.

1.2 The Contractor shall furnish all materials, labor, tools, equipment and any other appurtenances necessary to complete the work.

**2. MATERIALS.**

2.1 General. The retroreflective preformed patterned markings shall consist of white or yellow materials with pigments selected and blended to conform to standard highway colors through the expected life of the markings. Ceramic beads shall be incorporated to provide immediate and continuing retroreflection.

2.11 Preformed Patterned words and symbols shall conform to the applicable shapes and sizes as specified in the current edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways".

2.12 The retroreflective preformed patterned markings shall be capable of being adhered to asphalt concrete or portland cement concrete by a pre-coated pressure sensitive adhesive. A primer may be used to precondition the pavement surface. The retroreflective preformed patterned markings shall conform to pavement contours by the action of traffic. The pavement markings shall be capable of application on new, dense and open graded asphalt concrete wearing courses during the paving operation in accordance with the manufacturer's instructions. After application the retroreflective preformed patterned markings shall be immediately ready for traffic.

2.13 The markings shall be highly durable retroreflective pliant polymer materials designed for longitudinal markings subjected to high traffic volumes and severe wear conditions such as shear action from crossover or encroachment on typical longitudinal configurations such as edge lines, barrier lines and lane lines.

2.14 The bidder, when bidding, shall identify proper solvents and primers (where necessary) to be applied at the time of application, all equipment necessary for proper application, and recommendations for application that will assure effective product performance. The retroreflective preformed patterned markings shall be suitable for use for at least one year after the date of receipt when stored in accordance with the manufacturer's recommendations.

2.2 Physical Requirements.

2.21 Composition. The retroreflective preformed patterned markings shall consist of a mixture of high quality polymeric materials, pigments and glass beads distributed throughout its base cross sectional area, with a reflective layer of ceramic beads bonded to a durable polyurethane topcoat surface. The patterned surface shall have fifty percent (50%), plus or minus fifteen percent ( $\pm 15\%$ ), of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free from exposed beads or particles.

2.22 Reflectance. The white and yellow markings shall have the following initial expected reflectance values as measured in accordance with the testing procedures of ASTM D 4061. The photometric quantity to be measured shall be specific luminance (SL), and shall be expressed as millicandelas per square foot per foot-candle  $[(mcd * ft^{-2}) * fc^{-1}]$ . The metric equivalent shall be expressed as millicandelas per square meter per lux. The test distance shall be 50 ft. (15m) and the sample size shall be a 2.0 ft. x 2.5 ft. rectangle (0.61m x 0.76m).

TABLE 1

Entrance Angle	Observation Angle	Specific White	Luminance Yellow
86.0°	0.2°	1100	800
*86.5°	1.0°	700	500

Specific Luminance (SL) values indicate initial expected reflectance values and are not intended to represent minimum values.

\* These retroreflectance values are based on dark room photometric readings in accordance with ASTM D 4061.

2.23 Beads. The size and quality of the beads shall be such that the performance requirements for the retroreflective pavement markings will be met. Bead adhesion shall be such that beads are not easily removed when the film surface is scratched firmly with a thumbnail.

a. Index of Refraction. All ceramic beads bonded to the polyurethane coated patterned surface of the material shall have a minimum index of refraction of 1.70 when tested using the liquid oil immersion method. The glass beads mixed into the pliant polymer shall have a minimum index of refraction of 1.5 when tested by the liquid oil immersion method or equivalent.

b. **Acid Resistance.** The beads shall show resistance to corrosion of their surface after exposure to a 1% solution (by weight) of sulfuric acid. The 1% acid solution shall be made by adding 5.7cc of concentrated acid into 1000cc of distilled water. **CAUTION: Always add the concentrated acid into the water, not the reverse.** The test shall be performed as follows:

1. Take a one (1) inch x two (2) inch (25 mm x 50 mm) sample, adhere it to the bottom of a glass tray and place just enough acid solution to completely immerse the sample. Cover the tray with a piece of glass to prevent evaporation and allow the sample to be exposed for 24 hours under these conditions. Then decant the acid solution (do not rinse, touch or otherwise disturb the bead surfaces) and dry the sample while adhered to the glass tray in a 150°F (66°C) oven for approximately 15 minutes.

2. Microscopic examination (20X) shall show no more than 15% of the beads having a formation of a very distinct opaque white (corroded) layer on their entire surface.

2.24 **Color.** The retroreflective preformed patterned markings shall consist of white and yellow films with pigments selected and blended to conform to standard highway colors.

2.25 **Skid Resistance.** The surface of the retroreflective pavement markings shall provide an initial average skid resistance value of 45 BPN when tested according to ASTM E-303-83, except that values will be taken at downweb and 45 degrees to downweb, and these values will be averaged.

2.26 **Patchability.** The pavement marking material shall be capable of use for patching worn areas of the same type in accordance with manufacturer's recommendations.

2.27 **Thickness.** The material without adhesive shall have a minimum caliper of 0.065 inch (1.651 mm) at the thickest portion of the patterned cross section and a minimum caliper of 0.02 inch (0.508 mm) at the thinnest portion of the cross section.

2.3 **Effective Performance Life.** The materials when applied according to the recommendations of the manufacturer shall provide neat, durable markings that will not flow or distort due to temperature if the pavement surface remains stable. The markings shall be weather resistant and, through normal traffic wear, shall show no appreciable fading, lifting or shrinkage throughout its useful life, and shall show no significant tearing, roll back or other signs of poor adhesion.

### 3. CONSTRUCTION REQUIREMENTS.

3.1 **Installation Requirements.** The markings shall be applied in accordance with the manufacturer's recommendations. Marking configurations shall be in accordance with the "Manual on Uniform Traffic Control Devices".

3.11 The markings shall be applied before public traffic is allowed on the freshly paved surface unless otherwise approved by the Project Manager. Preferably, the markings should be inlaid in the fresh surface during final rolling of the mat, but in any case they shall be applied before the close of shift on the day which the surface is paved. These markings can also be overlaid on existing pavement surfaces.

3.2 A visual night inspection will be made with a manufacturer's representative and a Department representative to identify areas of the installation which appear substandard, and corrective measures shall be taken to correct the substandard areas.

4. METHOD OF MEASUREMENT.

4.1 Linear pavement stripes will be measured by the linear foot of four(4) inch, eight(8) inch, twelve(12) inch, or twenty four(24) inch (100 mm, 200 mm, 300 mm, or 600 mm) width complete in place.

4.2 Word and symbol pavement markings will be measured by the unit per each complete in place.

5. BASIS OF PAYMENT.

5.1 Retroreflective Preformed Patterned Pavement Stripe will be paid for at the contract unit price per meter (linear foot) for linear applications. Retroreflective Preformed Patterned Pavement Marking Words/Symbols shall be paid for at the contract unit price per each. Payment shall be full compensation for cleaning and preparing the pavement surface, for furnishing and placing all materials and for all materials, labor, tools, equipment and incidentals necessary to complete the work.

Payment will be made under:

PAY ITEM	PAY UNIT
Retroreflective Preformed Patterned Pavement Stripe_____ in (mm)	meter (linear foot)
Retroreflective Preformed Patterned Pavement Marking Words/Symbols	Each

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS FOR

**F.16. SECTION 706A – POWER SERVICE INSTALLATION**

All provisions of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**1. DESCRIPTION.**

The Contractor shall pay the local power company to bring electricity to the project. The Contractor shall obtain a detailed estimate from local power company. The local power company will be paid the actual amount of this estimate.

**2. METHOD OF MEASUREMENT.**

Power Service Installation will be paid for complete in place.

**3. BASIS OF PAYMENT.**

The Contractor shall be paid the actual amount charged by the local power company for the work.

Payment will be made under:

<b>PAY ITEM</b>	<b>PAY UNIT</b>
Power Service Installation	Lump Sum

**NOTE:** For the purpose of bidding, the Department will enter into the Bid Schedule a fixed amount for Power Service Installation.

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS  
FOR

## F.17. SECTION 713-C – ADVANCED TRAFFIC MANAGEMENT SYSTEM

All pertinent provisions of the New Mexico State Highway and Transportation Department's Standard Specifications for Highway and Bridge Construction shall apply in addition to the following:

### 1.1 DESCRIPTION

**1.1.1.** The system shall be a Commercially-available Off-the-Shelf (COTS), National Transportation Communication for ITS Protocol (NTCIP) compliant, Advanced Transportation Management System (ATMS) software application.

**1.1.2.** The software shall provide, as a base, an intersection control and traffic management software platform, from which additional ITS applications can be integrated.

**1.1.3.** All additional ITS features and functionalities shall be modular and integrated seamlessly into a single user interface.

**1.1.4.** The system shall utilize the following Microsoft® products for each aspect of the system:

- Core Database: SQL 2008 or newer
- Server OS: Server 2008 or newer
- Workstation OS: Vista or Windows 7 Professional or newer
- Laptop OS: Vista or Windows 7 Professional or newer

#### 1.1.5. System Functional Requirements

##### 1.1.5.1. Center-to-Field Communications

**1.1.5.1.1.** The system shall communicate to the field devices using Ethernet or serial communications, using the agency's LAN, licensed band or spread-spectrum radios, private twisted-wire-pair copper (TWP), or fiber-optic cabling.

**1.1.5.1.2.** The system shall communicate with field devices using NTCIP protocols, or established proprietary protocols.

**1.1.5.1.3.** The system shall be capable of controlling, receiving status and data from, uploading and downloading field data, and applicable control parameters to and from each device.

**1.1.5.1.4.** The system shall maintain a copy of each field device's database of applicable operational parameters.

##### 1.1.5.2. Database Administration, Security, and System Access

**1.1.5.2.1.** The system shall provide, at the top level, the ability to manage the ATMS and all device databases to monitor and control all field devices from one central location and optional remote facilities.

**1.1.5.2.2.** Each system client workstation or laptop shall require a username and password for any user, this is assigned by the system administrator. The username and password may be the same as that used by the operating system, but shall be required to be entered for each new system session.

**1.1.5.2.3.** The system shall allow for user and group privileges to be defined and assigned by the Administrator.

**1.1.5.2.4.** Operating privileges should be available for the following:

- System Administrator Configuration – full access to all system functions
- Inter-jurisdictional control – full access, partial access, read-only access to other agencies field devices, status, and logs.
- User Profile Configuration – full access or read-only access to functions below (at a minimum), regardless of device type:
  - Device configuration – adding, editing, deleting devices, and properties
  - Device control – sending commands and instructions to devices
  - Database configuration – access to modifying or editing segments (all or portions) of existing device databases
  - Database maintenance – backup, restore, archiving, etc
  - Database report creation and generation – includes standard and custom reports
  - Map display characteristics– base map controls and intersection display editing
  - GUI settings and editing – modifying desktop settings
  - Communications configurations – modifying communications to the field

### **1.1.5.3. Controller Database Management**

**1.1.5.3.1.** Database management shall allow programming of the intersection controller databases.

**1.1.5.3.2.** Each device shall have separate database programming pages. These pages shall contain all the programming options unique to each device.

**1.1.5.3.3.** Programming entries shall primarily consist of numerical or text values, YES/NO or ON/OFF entries, or appropriate values for each type of device. Check boxes shall be used for flags as appropriate. Hexadecimal or binary code shall not be used as entry values unless the data is represented in a similar encoded form on the controller's front panel display.

**1.1.5.3.4.** During program entry, the new data shall overwrite the old data. If the data entered is out of range, changes shall not be permitted and an error message shall alert the user.

**1.1.5.3.5.** When a user is editing data for a specific device, that database shall be "locked" and unavailable for edit by other users.

**1.1.5.3.6.** Standard industry accepted traffic engineering terminology shall be used throughout the programming displays.

**1.1.5.3.7.** Mnemonic usage shall be minimized and limited to recognized traffic engineering terms.

#### **1.1.5.4. Controller Database Upload/Download**

**1.1.5.4.1.** Upload/download shall transfer the programmable database from/to the selected device.

**1.1.5.4.2.** All upload/download data shall be verified for integrity using CRC techniques.

**1.1.5.4.3.** Following an upload, it shall be possible to compare the controller configuration to the database on file.

**1.1.5.4.4.** The system shall provide the ability for users to schedule a database comparison. Based on operator command or TOD/DOW schedule, the system shall automatically upload databases from devices and compare to database versions stored in the central database. The results of this comparison shall be available in a device comparison log. The log shall contain the following information on a per controller basis:

- Device number
- Status (upload failed, databases differ, databases match, no upload present)
- Date and time of last database comparison

**1.1.5.4.5.** It shall be possible to switch between the uploaded data and the central data with a simple menu selection. The differences shall be highlighted on the uploaded data.

**1.1.5.4.6.** It shall be possible to revert a controller database configuration to any previously saved version for that location.

**1.1.5.4.7.** The system's device database management shall provide an operator menu selection interface that is similar to the controller's menu selections.

**1.1.5.4.8.** When the operator of the ATMS selects either an upload or a download of a field device database, it shall be possible for the operator to select only the segments of the database to upload or download provided the field device can accept data transfer in this manner.

#### **1.1.5.5. Alert and Event Notification**

**1.1.5.5.1.** At a minimum, the system shall be capable of automatically sending alphanumeric messages (SMS –text messaging) to cellular telephones and email addresses upon detecting problems with the system or from any device.

**1.1.5.5.2.** Alert notifications shall also appear as a pop-up alarm, or similar notification, on each workstation logged into the system, provided a user has been configured to receive pop-up alarms, and that user is logged onto the system.

**1.1.5.5.3.** Alert notifications shall consist of at least three (3), user configurable, priority levels, to include “informational” (low priority), “warning” (medium priority) and “critical” (high priority) alerts.

**1.1.5.5.4.** Acknowledgements of incoming alerts shall be required for all medium and high priority on-screen notifications. Low priority alarm notifications shall not require acknowledgements.

**1.1.5.5.5.** The system shall be capable of sending alerts via text (SMS) or email and shall be configurable by TOD/DOW, allowing recipients to be selected based upon severity or priority of event and to issue text/email messages sent to multiple devices or addresses.

**1.1.5.5.6.** Notifications shall allow a confirmation to assure that the malfunction has been acknowledged.

**1.1.5.5.7.** If no acknowledgement is received upon expiration of a user programmable time-out period, subsequent notifications shall be configurable to be sent (or escalated) to alternate devices.

**1.1.5.5.8.** The system shall log all malfunction notifications, retries, and acknowledgements with time and date stamps. The first acknowledgement shall be recorded; all others shall be ignored.

#### **1.1.5.6. System Analysis and Engineering Tools**

**1.1.5.6.1.** The system shall include engineering and analysis tools, providing users the ability to comparatively evaluate current system and field operation, historical operation, or proposed changes to operation. These tools shall include, but not limited to:

- Interface to third party traffic plan optimization software
- Time-space diagrams
- Split monitor displays
- Traffic system and operational analysis reports
- Traffic Responsive Report
- Raw Detector Report

#### **1.1.5.7. System Device Integration**

**1.1.5.7.1.** Devices shall be added or deleted from the system by right-clicking on the main map display or entity tree and selecting the proper menu item.

**1.1.5.7.2.** When adding a device, a dialog box shall be used to enter all the required and optional parameters to allow the device to be integrated into the system and all displays.

**1.1.5.7.3.** Each device shall be configured to communicate through a communications server and allowed to be on-line or off-line to reduce failures and alerts for devices not currently connected to the system.

#### **1.1.6. NTCIP Requirements**

**1.1.6.1.** In order to provide NTCIP consistency throughout the application, NTCIP 1201 and 1202 communications protocol standard shall be implemented in such a manner that the system can adapt to changes in technology and increase functionality over time with minimal impact on individual system components. The system developer and the controller manufacture shall verify that the system and controller firmware are NTCIP compliant and compatible.

**1.1.6.2.** The primary communications standards shall be NTCIP 1202 and 1202 based for communicating from Center-to-Field (C2F) and the developer shall document the standards to which the systems level of conformity of each standard is developed.

## **1.2. DEFINITIONS**

ATMS – Advanced Transportation Management System

COTS – Commercial Off-the-Shelf

CRC – Cyclical Redundancy Check

GIS – Geographic Information System

ITS – Intelligent Transportation System

LAN – Local Area Network

NTCIP – National Transportation Communications for ITS Protocol

PTZ – Pan/Tilt/Zoom

SMS – Short Message Service (text messaging for cellular phones)

TOD/DOW – Time-of-Day/Day-of-Week

TWP – Twisted-Wire-Pair copper interconnect

VOS – Volume/Occupancy/Speed

VPN – Virtual Private Network

## **2. OPERATIONAL INTERFACE**

### **2.1. GENERAL DISPLAY FEATURES**

**2.1.1.** The main application window shall be divided into multiple rectangular areas or “containers”. It shall be possible to drag and drop most status windows into one of these container areas.

**2.1.2.** Upon being dropped, or docked in a container, the window shall automatically resize to fill the area.

**2.1.3.** It shall be possible to click on the title bar of a docked window and drag it out of the container at which point it will become a free-floating window.

**2.1.4.** It shall also be possible to float or to un-dock windows by clicking a button in the window’s title bar.

**2.1.5.** It shall be possible to drop multiple windows into any container area. When this occurs, the container area shall provide a tabbed layout for the container with a tab for each contained window such that clicking on a tab will bring the associated window into view in the container.

**2.1.6.** It shall be possible to open multiple application windows, each of which shall include container areas as previously described for the main application window.

**2.1.7.** It shall be possible for the user to select different arrangements or numbers of container areas in the main application windows.

**2.1.8.** It shall be possible to change the size of container areas by clicking and dragging the border between container areas.

**2.1.9.** A user's main window configuration, referred to as a "preference set" shall be restored to its last known state when the user logs into the system. A user may also opt to have the system restore to a default preference set instead of the last known display configuration.

**2.1.10.** The restoration at login, of a user's last known preference set shall be independent of the most recent workstation used by the user.

**2.1.11.** It shall be possible for a user to save and name the current preference set allowing others to open and view the same sets of displays from another workstation.

## **2.2. MAIN MAP DISPLAY**

**2.2.1.** The system shall incorporate an agency-wide map as the major portion of the main graphics display.

**2.2.2.** The main map may be docked in any or all of the available "containers" with any maps docked into multiple containers shall be refreshed simultaneously.

**2.2.3.** The map displays shall have pan and zoom capabilities.

**2.2.4.** Zoom level ranges shall be configurable.

**2.2.5.** Users shall be able to save a map's pan and zoom levels to a named map that may be loaded again at a later time

**2.2.6.** Users shall be able to specify a current map, with its pan and zoom levels as a default map that will be loaded any time a new map is opened for viewing.

**2.2.7.** At each zoom level range, the display of different dynamic status and real-time status data shall be configured.

**2.2.8.** It shall be possible for a user to interactively enable or disable the display of defined map layers.

**2.2.9.** A GIS database shall be used for the purpose of displaying roadway Level of Service (LOS) links and other map elements.

**2.2.10.** The system shall be capable to employing multiple map sources for the base map. These sources shall include, but not limited to:

- Navtec
- ESRI shape files
- Bing Maps
- WMS Maps

**2.2.11.** The system shall update the status of all devices on all map display at least once per second, with no more than four seconds latency, once data is retrieved from a field device.

**2.2.12.** At a minimum, at all zoom levels the agency-wide map display shall dynamically identify the following status for each traffic signal, in real or near-real time:

- Free Operation
- Coordinated Operation
- Transitioning between Free and Coordinated or from one Coordination pattern to another
- Flash
- Preemption
- Transit Signal Priority (TSP) Service
- Loss of Communications

**2.2.13.** When zooming in, the main map shall automatically provide a greater level of detailed information, at user-set and configured zoom levels, including, but not limited to:

- Signal colors or overlaps (green, yellow, red)
- Active Coordination pattern (if in Coordination Operation)
- Active Preemption plan (in Preemption only)
- Signal colors for all pedestrian phases in use
- Graphical representation of demand on vehicle phases and pedestrian phases
- Graphical representation of active special function outputs
- Detailed timing and controller information to include (when zoomed to intersection level):
  - Coordination Status
  - Programmed and actual cycle length
  - Programmed and actual offset
  - Programmed and actual phase timings
  - Alarm status
  - Overlap timings and status
  - Phase Next

### **2.3. SCHEDULER**

**2.3.1.** A means shall be provided by which a user can schedule events and functions to be implemented or terminated by TOD/DOW, and shall include means by which the events can be called with the following frequencies:

- Daily
- Weekly
- Annually
- Seasonally
- Holidays
- Special – an event for any situation not described above (IE. sporting events, concerts, etc.)
- One-Time Event – provide the ability to run an event once and only once.

**2.3.2.** The scheduler shall provide a means by which alerts can be configured to be delivered to different individuals via email or text (SMS) messages by TOD/DOW.

### **2.4. MANUAL COMMANDS**

**2.4.1.** Manual commands shall offer the same functionality for initiating or terminating events and functionality as the Scheduler, but with the following exceptions:

- Manual commands shall override any normally scheduled event.
- Manual commands shall be implemented using the following modes:
- Immediate and full manual
- Immediate with limited duration
- Scheduled with limited duration

## **2.5. ADDITIONAL DISPLAYS**

**2.5.1.** The system shall allow additional displays, each of which can be opened or closed at any time, and float or be docked into a container. The system shall include the following displays, at a minimum:

### **2.5.2. Entity Tree**

- All devices configured in the system shall be displayable on an “entity tree”.
- The entity tree shall allow the user to sort and filter by device type, allowing the user to easily locate any device.
- The user shall be able to add any device to the entity tree by right-clicking in the window and selecting the appropriate device type to add.
- The device shall then be added to the main map by clicking on the device in the entity tree and dragging and dropping the device onto the main map display. The device does not have to be placed on the main map to be useable.
- The Entity Tree shall list all the installed devices on the system, and shall be common across all workstations.

### **2.5.3. Alerts**

- The system shall provide an alert indicator which is always visible on the main window, providing real-time details on the number of open alerts and the criticality of each alert.
- The system shall provide an alerts window, displaying all alerts from the system or field devices, along with specific details including alert aging.
- This display shall be updated in real time with the event details, along with a time and date stamp and any acknowledgement information.
- Alerts shall provide three levels of user-definable criticality:
  - Critical (highest level)
  - Warning (medium level)
  - Information (lowest level)
- The alert window shall provide a means by which users can acknowledge, unacknowledge, and close individual critical and warning alerts.
- All acknowledgements, un-acknowledgements, and closures shall be time and date stamped with the user’s credentials upon change of status.

### **2.5.4. Intersection Display**

- The system shall provide a display where intersection timings, phase details, and ring information is presented in graphical form.

- Any intersection display shall easily be accessed by selecting the device on the main map or device tree and double-clicking over the selection. The intersection display shall then float over the containers or be attached to a container by dropping it into the container of the user's choice.
- The intersection display, when floating, shall be able to be stretched to any size for better visibility, and all components of the display shall resize accordingly without pixilation (shall employ vector drawing).
- Phase indication arrows shall be programmable for up to 16 phases, including protected/permissive movements and overlaps.
- Protected/permissive indications shall be configured as one of the following: MUTCD flashing left turn yellow arrow, 5 section left protected/permissive left turn, or Canadian Fast-Flash left turn
- All intersection-level graphics shall be placed on a zoomed-in portion of the main map or graphical image of the intersection by selecting the graphic from a menu and dropping it on the intersection.
- All intersection-level graphics shall be associated with a phase, overlap, or function (preemption, status, alarms, etc.), and shall change color or appearance upon change of status at the intersection.
- Intersection graphics configurations shall be transferrable from one intersection to another.
- Animations of some display components shall be provided for better visibility, recognition, and attention.
- Users shall be able to place a remote vehicle and/or pedestrian call to any enabled phase through controls placed on the Intersection Display Window.

## **2.6. DEVICE GROUPING**

**2.6.1.** All devices shall be added and configured within a common Entity Tree. Any device shall be allowed to be assigned as a stand-alone entity, not associated with any other entity or device, System, Section, Subsection or Group.

**2.6.2.** Any device in the Device Tree, shall be assigned to one of the following static groups:

- System – associated with an agency or jurisdiction. System events shall have the lowest priority control over all other scheduled events.
- Section – associated with a portion of a system. Section events shall have higher priority than System Events, but lower priority than events scheduled on Subsections.
- Subsection – associated with a portion of a Section. Sub-section events have higher priority than events scheduled on Sections, but lower priority than those scheduled for flexible Grouped intersections.

**2.6.3.** Any device in the Device Tree shall also be included into one or more flexible groupings. These Groups shall allow users to associate entities with common requirements for TOD scheduling, action plan control or manual command operation, and placed into their own unique grouping. Group commands override System, Section or Subsection events. Events scheduled on Groups have higher priority than all the groupings in the section above, but lower priority than a Stand-alone device.

**2.6.4.** Devices shall also be capable of being added to the entity tree as a Stand-alone device, not associated with any Static or Flexible Grouping. Scheduled events to these devices have highest priority of all, over all other scheduled events.

**2.6.5.** Devices, Systems, Sections, Subsections and Groups shall also be capable of being dynamically grouped by TOD schedule or by manual commands. Any static group, flexible group, device, or combination thereof shall be configured into a single scheduled event, action plan, or manual command and operate as a single entity.

**2.6.6.** Manual commands shall follow the same prioritization as above for scheduled events with respect to grouping, but they shall override any currently scheduled event for the devices being commanded.

## **2.7. INTERSECTION CONTROL FUNCTIONS**

### **2.7.1. Intersection Controller Access**

**2.7.1.1.** Access to the intersection controllers shall be controlled by privileges associated with system user logon IDs.

**2.7.1.2.** Any field located intersection controllers, connected to the system shall be capable of being represented by objects on the system map.

**2.7.1.3.** The system shall provide database management with full upload, download and control to Econolite ASC/2, ASC/3 controllers, 2070 controllers running the Econolite ASC/2070, ASC/3 2070 or Eagle EPAC ver. 4.01D or ver. 4.01F controllers using NTCIP 1202 communications protocols, or Oasis™ firmware, controllers and 170 controllers running Wapiti W4IKS, rev. 55a (6800) or 15 (HC11) using Econolite ACT protocols.

### **2.7.2. Intersection Control Modes**

**2.7.2.1.** Traffic-Responsive (TR) - A controller shall be considered to be in the TR mode when it is operating on-line under central supervision and responding to system commands for plan selection based on the traffic-responsive algorithm.

**2.7.2.2.** Time-of-Day (TOD) - A controller shall be considered to be in the TOD mode when the controller is operating in a pre-determined timing plan based on a TOD schedule stored in the central database.

**2.7.2.3.** Manual - A controller shall be operating under the MAN mode when it is responding to system commands for plan selection issued from central control using manual override. From the perspective of the controller, this mode shall be identical to TR or TOD.

**2.7.2.4.** Failed - A controller shall be deemed "Failed" when the controller fails one or more monitoring checks. Once failed, a controller shall be in the failed mode until the problem has been corrected and the failure state has been cleared by periodic system retry commands.

**2.7.2.5.** Local - A controller shall be in the LOCAL mode when the local intersection controller makes the plan selection decision. The central system can command a local intersection to run in LOCAL mode, or LOCAL mode may result

from manual command at the intersection. Communication of detector data and other status information shall continue even when in LOCAL mode.

**2.7.2.6.** Flash - Flash mode status shall be logged for each entry or exit from flash. The system shall have the be capable of detecting and reporting Central Flash, Cabinet Flash and Conflict or MMU Flash events provided the controller is able to discriminate between them and report its mode.

## **2.8. TRAFFIC RESPONSE CONTROL**

### **2.8.1. General Description**

**2.8.1.1.** The system shall utilize a V+kO (volume plus scaled occupancy) algorithm developed by the US Department of Transportation for traffic-responsive operations.

**2.8.1.2.** System detector data shall provide the basis for all TR plan selections by the system.

**2.8.1.3.** The system shall utilize a threshold-based algorithm, utilizing computational channels to evaluate system congestion and traffic flows.

**2.8.1.4.** The TR operation shall automatically select the timing plans for which traffic flow parameters have been defined that exceed the user-defined threshold of traffic. The TR mode shall be selected by a manual user command or on a TOD basis.

**2.8.1.5.** TR database shall identify the system detectors that are to be used for TR plan selection for each section.

**2.8.1.6.** The detector data shall have smoothing factors to configure importance of most recent data vs. historical data

**2.8.1.7.** The detector data shall have scaling factors to accommodate loop placement and redundancy as well as establish ratio of detectors used to establish computational channel. A separate weighting factor is used for each detector but each shares the same "k" value.

### **2.8.2. Plan Implementation Techniques**

**2.8.2.1.** Plans shall be selected for implementation using the following process sequence:

- Process vehicle volumes and occupancies from defined system detectors.
- 5.2.1.2. Calculate weighted sum of volumes plus a factor of occupancies (V+KO).
- Compare the V+KO value with the programmed thresholds.
- Select the plan with the closest match to the calculated value and that satisfies the user configured change threshold.
- The selected timing plan shall be transmitted to the controllers. The plan will be invoked provided that it is available at each controller in the applicable section or system.

**2.8.2.2.** The duration of each TR sampling period shall be operator-selectable.

**2.8.2.3.** TR operation shall be capable of being overridden by manual selection.

**2.8.2.4.** TR operation shall be capable of operating in the background without selecting patterns until a user specified level of demand or occupancy is achieved at which point the user selected pattern will be commanded to the intersections and thus overriding the local or system time-of-day patterns.

**2.8.2.5.** System detectors shall provide volume and occupancy data for archived storage and analysis purposes.

**2.8.2.6.** Plan changes shall be implemented under TR only if the minimum change threshold has been exceeded.

**2.8.2.7.** Plan changes shall be implemented under TR only if the user-specified percentage of valid detection is met or exceeded.

## **2.9. SYSTEM ANALYSIS AND ENGINEERING TOOLS**

### **2.9.1. Time/Space Diagrams**

**2.9.1.1.** The system shall allow the operator to display time-space diagrams.

**2.9.1.2.** Display time-space diagrams for both programmed, real-time and historical coordination timings.

**2.9.1.3.** Display sloping progression bands for each direction of travel on the same diagram.

**2.9.1.4.** Dynamically adjust programmed (not real-time) offsets by “clicking” on an intersection’s time bars and “dragging” the bars in either direction.

**2.9.1.5.** The System shall be able to save time-space diagram offset adjustments to the database and download them to the controller.

**2.9.1.6.** Display the current offset as a numeric value next to each intersection.

**2.9.1.7.** Select the phases and/or overlaps for progression phases.

**2.9.1.8.** Time Space diagrams shall be capable of using GIS data to automatically calculate and display distances between signals.

### **2.9.2. Split Monitor**

**2.9.2.1.** The system shall include a real-time split monitor.

**2.9.2.2.** It shall be possible to present the operator with an analysis of the splits of an intersection per phase

**2.9.2.3.** The system user shall be able to view and process both programmed, historical and actual real-time data.

**2.9.2.4.** Programmed timing data for each phase shall be obtained from the current database of controller timings stored in the central system.

**2.9.2.5.** Actual real-time data for each phase shall be obtained by monitoring the controller status on a second-by-second basis.

**2.9.2.6.** Number of cycles analyzed shall be displayed.

**2.9.2.7.** It shall be possible to select the period for which the data shall be displayed by start and stop time and date, day of week, the last occurrence of a plan, or the last X minutes (where X is defined by the operator).

**2.9.2.8.** Actual splits shall be grouped together in “bins” and histograms used to graphically show the distribution of timings over the data collection period.

### **2.9.3. System and Operational Reports**

**2.9.3.1.** Each report shall allow users to select report parameters and to customize report filtering and data selection.

**2.9.3.2.** Users shall be able to save report parameter selections to a named report that the user can run again at a later time without re-selecting the parameters.

**2.9.3.3.** User Reports shall be able to marked as “private” or “public” thus controlling whether other users are allowed access to run the report.

**2.9.3.4.** Users shall be able to use the system scheduler or the manual command scheduler to run any user defined reports, as well as system defined reports.

**2.9.3.5.** Report output formats shall include at a minimum PDF, Microsoft Word and Microsoft Excel formats.

**2.9.3.6.** The system shall provide a list of reports, providing information compiled from data retrieved from the system and any field device capable of logging data. These reports shall include, but not be limited to the following:

- Alerts Log Report
- Raw Detector Reports
- Device Communications Configuration Report
- Scheduler Report
- Signal Changes Report
- Signal Detector Events Report
- Split Monitor Report
- System Events Report
- Upload and Compare Report
- Detector VOS Reports
  - Daily
  - Hourly
  - Multi-date / Hourly
  - Multi-date / Daily

## **3. CONSTRUCTION REQUIREMENTS**

### **3.1 WARRANTY, MAINTENANCE, AND SUPPORT**

**3.1.1.** The Contractor shall obtain and assign to the Department all manufacturers guarantees or warranties which are normally provided as customary trade practice for items and materials incorporated into the work. In the absence of a manufacturer's guarantee, the Contractor shall warrant that the software and material incorporated into the work are free from any defects or imperfections in workmanship and material for a period of one (1) year after final acceptance of the project. The Contractor shall be responsible for replacing any malfunction or defect in any such software or material, which develops during the one (1) year period.

**3.1.2.** The Contractor shall supply two (2) sets of installation guides and user manuals for the software incorporated in the project, one (1) of which shall be submitted to the Department with submittal of manufacturers specifications.

**3.1.3.** During the warranty period, technical support by toll-free telephone shall be provided by the manufacturer 24 hours per day, 365 days per year, and request for support by telephone shall be answered by manufacturer personnel within one (1) hour.

**4. METHOD OF MEASUREMENT**

**4.1.** An Advanced Transportation Management Software (ATMS) will be measured by the unit – lump sum. Each Advanced Transportation Management Software shall include:

Required software, system installation, system integration, documentation, licensing, training and instruction, acceptance testing, warranty, and a software maintenance agreement.

**5. BASIS OF PAYMENT**

An Advanced Transportation Management Software will be paid for at the contract unit lump sum.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
<b>Advanced Transportation Management Software</b>	<b>Lump Sum</b>

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS  
FOR

**F.18. SECTION 716-A – INTERNALLY ILLUMINATED SIGNS**

All provisions of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, shall apply in addition to the following:

**1. DESCRIPTION.**

**1.11** This work shall consist of furnishing and installing *LED Edge Lit Internally Illuminated Street Name Signs* on Type II or Type III standard mast-arms in compliance with the specification and details shown in the contract. Internally illuminated signs shall be mounted at a minimum height of sixteen (16.5) feet from the bottom of the sign/lamp housing to the finished roadway surface at a location on the mastarm of no more than two (2) feet from the nearest side of the housing to the pole shaft. The Contractor shall furnish and install the necessary LED lighting source, sign housing, reflectors, sign panel(s), seals, photoelectric control, conductors, terminal blocks, compartments, mounting assemblies, and paint.

**1.12** Illumination shall be LEDs that are mounted along top and bottom edge of the sign. The LEDs shall evenly illuminate a light panel that is the same dimension of the sign face. The LEDs shall have a minimum projected life of 50,000 hours. A maximum of two LEDs per square foot shall be used for single sided signs, and four LEDs per square foot for double sided signs. The sign shall be visible up to 600 feet.

**1.2 MATERIALS.**

**1.21 Housing.** The main sign unit housing shall be fabricated entirely from aluminum with durable finish. The overall exterior dimensions of the signs shall conform to details shown in the contract. The outer dimension of the sign assembly (Excluding the mounting bosses) shall be standard width of 18, 20, and 24 inches, and standard length of 48-96 inches, at 6" increments. The sign shall be designed and constructed to withstand 110 mph wind loads in conformance with the requirements of the AASHTO publication, "Standard Specifications for Structural Supports of Highway Signs, Luminaries and Traffic Signals, Latest Edition. The sign and power supply shall be able to withstand and operate at temperature extremes of -40 degree Fahrenheit to +140 degree Fahrenheit.

**1.22 Electrical.** The power shall be housed inside the sign frame assembly. Power shall be UL Class 2 limited output voltage and current plus isolation for safe operation, and UL outdoor damp location rated. Power supply shall be IP66 Outdoor rated.

**1.23 Sign Panels.** The sign panel shall have a polycarbonate panel that is UV, weather, abrasion, and impact resistant. The sign panel shall be replaceable. Sign legend and background shall be retro-reflective, ASTM type IX designation. Sign elements to be illuminated shall include the sign legend and background, per MUTCD (Latest edition). The exact legend and letter size shall be detailed in the contract. The Sign Face Layout submittal and manufacturer's shop drawings shall be sent to the Department for final approval. Sixty (60) days shall be given for review and approval by the Department.

**1.24. Mounting Assembly.** Each sign shall be of the following type:

A free swinging unit attached to the bottom of mast-arm for single and double faced sign applications. The sign mounting shall be designed to suspend the sign assembly from the mastarm and to permit the entire sign assembly to swing freely. Two mounting blocks shall be incorporated into the top of the sign housing. The hanging brackets shall be designed to permit leveling the sign assembly in the field to the exact "rise" of the mastarm. The illuminated sign mounting shall conform to the details shown in the contract.

### **1.3 CONSTRUCTION REQUIREMENTS.**

**1.31** Internally illuminated signs shall be mounted on the specified supports as called for and detailed in the contract. The Contractor shall level the internally illuminated signs after installing them, and after all other signal assemblies and signs are in place as detailed in the contract.

### **1.4 WARRANTY, MAINTENANCE, AND SUPPORT.**

- (a) The Contractor shall obtain and assign to the Department all manufacturers guarantees or warranties which are normally provided as customary trade practice for items and materials incorporated into the work. In the absence of a manufacturer's guarantee, the Contractor shall warrant that mechanical and electrical equipment and material incorporated into the work are free from any defects or imperfections in workmanship and material for a minimum period of one (1) year after final acceptance of the project. The Contractor shall be responsible for repairing any malfunction or defect in any such equipment or material, which develops during the one (1) year period.
- (b) The Contractor shall supply two (2) sets of installation guides and user manuals for the equipment incorporated in the project, one (1) of which shall be submitted to the Department with submittal of manufacturers shop drawings.
- (c) During the warranty period, technical support by toll-free telephone and e-mail shall be provided by the manufacturer 24 hours per day, 365 days per year, and request for support by telephone shall be answered by manufacturer personnel within twelve (12) hours.

### **1.5 METHOD OF MEASUREMENT.**

**1.51** Internally illuminated signs will be measured by the unit per each.

**1.6 BASIS OF PAYMENT.**

**1.61** Internally illuminated signs will be paid for at the contract unit price per each.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Internally Illuminated Signs	Each

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS  
FOR

**F.19. SECTION 750-A – FIBER OPTIC CABLE AND INTERCONNECT**

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:

**1.0 DESCRIPTION.**

**1.01** Furnish and install a fiber optic cable system as shown in the plans.

**2.0 MATERIALS.**

**2.01 Fiber Optic Cable.** Provide all-dielectric, gel-filled, loose-tube, SR 15E - bend-insensitive, single-mode fiber (SMF) with low water peak, and suitable for underground (i.e., in conduit) and aerial outside plant installation. All fiber optic cable shall be splice-compatible with the Department's existing SMF and require no electronic equipment for dispersion compensation between new and existing fiber. Ensure that all components that comprise a single length of cable are continuous and of the same material. Furnish only commercial off-the-shelf materials, equipment, and components.

**2.01.1 Optical Fiber.** Ensure that the optical fibers used in the cable meet or exceed the Telecommunications Industry Association (TIA) and Electronic Industries Alliance (EIA) TIA/EIA-492-CAAB specification. Use only optical fibers meeting the additional requirements as follows:

Mode field Diameter At 1310 nm	8.6±0.4µm
Cladding Diameter	125.0±0.7µm
Coating Diameter (uncolored)	245±5µm
Core concentricity error	≤ 0.8 µm
Cladding no-circularity	≤1.0%
Cladding/coating concentricity error	≤ 12.5 µm

Attenuation Coefficient	
At 1310 nm	≤ 0.35 dB/km
At 1550 nm	≤ 0.22 dB/km
At 1383 nm	≤ 0.31 dB/km (Type A)
Cable cut-off wavelength	≤ 1260 nm
Chromatic Dispersion Coefficient	
At 1285 – 1330 nm	≤ 3.5 ps/(nm·km)
At 1270 – 1340 nm	≤ 5.3 ps/(nm·km)
At 1550 nm	≤ 18 ps/(nm·km)
Zero-dispersion wavelength	1300 – 1324 nm

Zero-dispersion slope	$\leq 0.092 \text{ ps}/(\text{nm}^2 \cdot \text{km})$
PMD link design value	$\leq 0.08 \text{ ps}/\sqrt{\text{km}}$

Proof Test	150 kpsi
Dynamic Stress Corrosion Susceptibility Parameter	$\geq 20$
Coating Strippability	1.3 – 8.9 N
Fiber Curl Radius	$\geq 4.0 \text{ m}$
Permissible Bending Radius	$\geq 15 \text{ mm}$

Ensure that each optical fiber is glass and consists of a germania-doped silica core surrounded by concentric silica cladding. Ensure that all fiber in the buffer tube is usable fiber that complies with attenuation requirements. Ensure that fibers do not adhere to each other. Ensure that the fiber is free of surface imperfections and inclusions. Ensure that all fiber optic core glass is from the same manufacturer.

**2.01.2 Buffer Tubes.** Ensure that the fiber optic cable includes loose buffer tubes that isolate internal optical fibers from outside forces and provide protection from physical damage as well as water ingress and migration. Ensure that buffer tubes provide freedom of movement for internal optical fibers. Ensure buffer tubes allow for expansion and contraction of the cable without damage to internal optical fiber. Ensure that fiber does not adhere to the inside of the tube. Ensure that buffer tubes permit intentional scoring and breakout without damage to the fiber. Ensure that each fiber optic cable buffer tube contains 12 fibers per tube unless otherwise noted in the plans.

**2.01.3 Color Code.** Ensure that the marking and color-coding of the fibers and buffer tubes conforms to telecommunication industry requirements as detailed in the TIA/EIA-598-C standard. Ensure that colors are permanent and stable during temperature cycling, and not subject to fading or smearing onto each other or into the water-blocking material. Ensure that fibers are colored with UV curable inks that remain clearly distinguishable as the intended color.

**2.01.4 Strength Member.** Ensure that the fiber optic cable contains a dielectric central strength member and dielectric outside strength member to prevent buckling of the cable and provide tensile strength. Ensure that the fiber optic cable can withstand a pulling tension of 600 pounds during installation without increasing the fiber attenuation more than 0.8 decibel per mile, without changing other optical fiber characteristics after the tensile load is removed, and without damage to any components of the fiber optic cable.

**2.01.5 Water Blocking Compound.** Ensure that the fiber optic cable contains a dry water-blocking material to prevent the ingress of water within the outer cable jacket. Ensure that the water-blocking tapes and yarns are non-nutritive, dielectric, and homogeneous, and free from dirt and foreign matter. Use dry water-blocking material for fiber optic cables used for either aerial or underground installations. Apply dry water-blocking compound longitudinally around the outside of the central buffer tubes. Construct all cables with water-blocking tape that

complies with the requirements of the EIA/TIA-455-81B standard and is subjected to water penetration tests as defined in the EIA/TIA-455-82B standard.

**2.01.6 Ripcord.** Ensure that the cable contains at least one ripcord under the sheath. Ensure that the ripcord permits the removal of the sheath by hand or with pliers.

**2.01.7 Filler.** Fillers or rods may be included in the cable core to lend symmetry to the cable cross section if required.

**2.01.8 Outer Jacket.** Ensure that the fiber optic cable is jacketed with medium density polyethylene (MDPE) that is free of blisters, cracks, holes, and other deformities. Ensure that the nominal jacket thickness is a minimum of 0.03 inch. Apply the jacketing material directly over the tensile strength members and water-blocking material. Ensure that the MDPE contains carbon black to provide ultraviolet (UV) protection and does not promote the growth of fungus.

Mark the jacket with the cable manufacturer's name, fiber type, fiber count, and date of manufacture, the words "NMDOT FIBER OPTIC CABLE," and the sequential cable lengths marked in feet. Ensure that the actual length of the cable is within 1% of the length indicated by the marking. Provide legible marking with contrasting color to that of the cable jacket.

#### **2.01.9 Performance Requirements.**

**2.01.9.1 Operating Temperature.** Ensure that the shipping and the operating temperature range of fiber optic cable meets or exceeds -30° to 150° F as defined in the environmental requirements section of the NEMA TS 2 standard. Ensure that the installation temperature range of fiber optic cable meets or exceeds -22° to 150° F.

**2.01.9.2 Bend radius.** Ensure that the fiber optic cable is capable of withstanding a minimum unloaded bend radius of 10 times the cable diameter and a minimum loaded bend radius of 20 times the cable diameter when loaded to pulling tension of 600 pounds. Test the cable as required in the EIA-455-33A standard. Ensure that bending the fiber optic cable up to the minimum bend radius does not affect the optical characteristics of the fiber.

**2.01.9.3 Cable Strength.** Ensure that the fiber optic cable is capable of withstanding a pulling tension of 600 pounds during installation without increasing the fiber attenuation more than 0.8 decibel per mile and without changing other optical fiber characteristics after the tensile load is removed. Ensure that optical fiber is proof-tested by the fiber manufacturer at a minimum of 100 kilo pounds per square inch. Ensure that the cable will withstand 25 impact cycles and the change in attenuation does not exceed 0.2 decibel at 1,550 nanometers when tested according to the requirements as detailed in the TIA/EIA-455-25B standard. Ensure that the fiber optic cable can withstand a minimum compression load of 125 pounds per square inch when applied uniformly over the length of the sample at the rate of 0.15 to 0.8 inch per minute and maintained for 10 minutes as defined in the TIA/EIA-455-41A standard. Ensure that the change in attenuation will not exceed 0.15 decibel during loading at 1,550 nanometers, and that no fiber displays a measurable change in attenuation after load removal.

**2.01.9.4 Water Penetration.** Ensure that the fiber optic cable is capable of withstanding the tests for water penetration defined in the TIA/EIA-455-82 standard. Ensure that a one-meter length of cable is able to withstand a one-meter static head of water applied at one end for 24 hours without water leaking through the other open cable end.

**2.02 Splicing Materials.** Ensure that all splice enclosures, organizers, cable end preparation tools, and procedures are compatible with the fiber optic cable, and are approved by the Engineer.

**2.02.1 Splice Enclosures.** Contain all optical fiber splices within a splice enclosure. Ensure that the enclosures provide storage for fiber splices, nonspliced fiber, and buffer tubes. Ensure that the splice enclosure restores the mechanical and environmental integrity of the fiber optic cable, encases the sheath opening in the cable, and organizes and stores optical fiber. Ensure all hinges and latching devices are stainless steel. Ensure that the enclosure is airtight and prevents water intrusion. Ensure that the splice enclosure can accommodate pressurization and has the ability to be reentered without requiring specialized tools or equipment. Ensure that the enclosure provides fiber and splice organizers including splice trays and strain relief. Ensure that splice enclosures allow re-entry and are hermetically sealed to protect internal components from environmental hazards such as moisture, insects, and UV light. Fiber optic splice enclosures shall also comply with the Telcordia Technologies' GR-711-CORE standard and all applicable NEC requirements. Provide space for future expansion equal to 100% of the initial utilization. Provide fiber optic cable penetration end caps to accommodate a minimum installation of two trunk fiber optic cables and two fiber optic drop cables. Ensure that the enclosure end caps are factory-drilled to the proper diameter to accept and seal the fiber optic cable entries. Ensure that the cable entry locations can accommodate an assortment of cables with ODs ranging from 0.45 to 0.55 inch, +10%, without jeopardizing the waterproof characteristics of the enclosure. Provide fiber optic splice enclosures meeting the following requirements:

<b>Mechanical</b>
Resist compression deformation to a maximum of 400 pounds.
Withstand an impact energy to a maximum of 40 foot-pounds at 0° F.
Axial Tension: 100 pounds for 30 minutes.
Cable Torsion: ten 90-degree rotations.
<b>Cable Flexing: ten 90-degree bends.</b>
<b>Environmental</b>
Hydrostatic Pressure Head: Up to 20 foot-pounds (-9 pounds per square inch).
Withstand 40 freeze/thaw temperature cycles.
Ultraviolet resistant during a maximum 30-day exposure in compliance with the requirements detailed in the ASTM B117 standard.
<b>Chemical</b>
Withstand a 90-day exposure to solutions of 3% sulfuric acid, 0.2 normal of sodium hydroxide, 10% Igepal®, kerosene, and be fungus resistant as required in the ASTM G21 standard.

**2.02.2 Splice Trays.** Ensure that the splice trays are securely attached and accessible, and

provide adequate storage for the fiber cable. Ensure the splice trays provide access to individual fibers without disrupting other fibers in the tray. Ensure that the splice trays hold the buffer tubes rigidly in place and provide protection for fusion splices. Ensure that the raceway accommodates the minimum bend radius of the fiber. Ensure that splice trays allow visible inspection of the fiber. Ensure that the splice tray includes a cover with a locking mechanism to hold it in place.

**2.03 Cable Terminations.** Use Type ST, SC, LC, or FC connectors only, as specified in the plans or by the Engineer. Ensure that all ST-type fiber optic connectors, whether factory pre-terminated or field-installed, are 0.1 inch physical contact with preradiused tips. Ensure that ST and FC connectors include a ceramic ferrule and a metallic body, and provide a strain relief mechanism when installed on a single fiber cable that contains strength elements.

Ensure that the ST-type connector provides minimum 50 pound pullout strength. Ensure that the optical fiber within the body of all connectors is mechanically isolated from cable tension, bending, and twisting.

Ensure that all connectors are compliant with the TIA/EIA-568-A and TIA/EIA-604 standards, as applicable, and are tested according to the Telcordia/Bellcore GR-326-CORE standard. When tested according to the TIA and EIA's Fiber Optic Test Procedure (FOTP)-171 (TIA/EIA-455-171), ensure that the connectors test to an average insertion loss of  $\leq 0.4$  decibel and a maximum loss of  $\leq 0.75$  decibel. Test the connectors as detailed in FOTP-107 (TIA/EIA-455-107) to reflectance values of  $\leq -50$  decibels.

Ensure that the ST-type connectors have an operating and storage temperature range of  $-30^{\circ}$  to  $165^{\circ}$  F as per the NEMA TS 2 standard.

**2.03.1 Pre-terminated Connector Assemblies (pigtailed).** Ensure that pre-terminated connector assemblies are used for fiber termination. Ensure that the pre-terminated cable assemblies consist of fiber optic cables with factory-installed ST-type connectors on one end of the cable and an un-terminated optical fiber on the other. Ensure that the pre-terminated connector assemblies are installed with fusion splices. Ensure that all buffer tubes and fibers are protected once the attachment of pre-terminated connector assemblies is complete.

**2.03.2 Buffer Tube Fan-out Kits.** Ensure that a buffer tube fan-out kit is installed when fiber optic cables are terminated. Use a kit compatible with the fiber optic cable being terminated and that is color-coded to match the optical fiber color scheme. Ensure that the buffer tube fan-out kit supports 12 fiber strands. Ensure that output tubing and the fiber strands contained therein are of sufficient length for routing and attachment of fiber optic cable to connected electronics or as directed by the Engineer. Ensure that the kit and the connectors are supplied by the same manufacturer.

**2.04 Patch Panels.** Ensure that the patch panel is compatible with the fiber optic cable being terminated and color-coded to match the optical fiber color scheme. Ensure that the patch panel has a minimum of twelve ST-type panel connectors. Ensure that the patch panel does not exceed a 14 inches length by 6 inches width by 4 inch depth, and is suitable for mounting within an approved cabinet at the field device location.

**2.04.1 Pre-terminated Patch Panels.** Ensure that the pre-terminated patch panel is a termination panel that includes a factory installed all-dielectric SMF cable stub. Ensure that the panel includes factory-installed and terminated ST-type panel connectors. Ensure that the cable stub is of adequate length to splice the stub and provide a fiber connection between the panel and the backbone fiber cable or as directed by the Engineer.

**2.04.2 Field Assembled and Terminated Patch Panels.** Ensure that the field-assembled patch panel is a termination panel that includes a connector panel and the hardware required to mount the patch panel within an approved cabinet at the field device location and connect the panel to the backbone fiber cable.

**2.04.2.1 Connector Panel.** Ensure that the connector panel provides twelve ST-type, bulkhead-mount coupling connectors. Ensure that each coupling connector allows connection of a cable terminated on one side of the panel to a cable on the opposite side. Ensure that each bulkhead-mount coupling connector includes a locknut for mounting the connector in predrilled or punched holes in the connector panel.

## **2.05 Handling.**

**2.05.1 Cable End-Sealing.** Ensure that fiber optic cable ends are capped or sealed to prevent the entry of moisture during shipping, handling, storage, and installation. Equip one end of the fiber optic cable with flexible pulling eyes.

**2.05.2 Protective Wrap.** Ensure that the fiber optic cable is shipped and stored with a protective wrap or other approved mechanical reel protection device over the outer turns of the fiber optic cable on each reel. Ensure that the wrap is weather resistant and protects the cable reel from environmental hazards. Ensure that the cable reel remains wrapped until cable is to be installed.

**2.05.3 Packaging, Shipping and Receiving.** Ensure that the packaging and delivery of fiber optic cable reels comply with the following minimum requirements:

1. Ensure cable is shipped on reels of marked continuous length.
2. Ensure each cable is shipped on a separate, strongly constructed reel designed to prevent damage to the cable during shipment and installation.
3. Ensure each reel has a minimum of 6 feet on each end of the cable available for testing.
4. Ensure that all fiber optic cable is continuous and free from damage.
5. Ensure no point discontinuities greater than 0.1 decibel per reel.
6. Ensure that all cable delivered has been manufactured within 6 months of the delivery date.
7. Provide a copy of the transmission loss test results as required by the EIA/TIA-455-61 standard, as well as results from factory tests performed prior to shipping.
8. Ensure that the manufacturer provides the date of manufacture; product and serial numbers; cable data, including the reel length; refraction index; the project name and location; type of fiber and quantity of strands used; technical product data sheet(s); and reel number(s).

### 3.0 INSTALLATION.

**3.01 General.** Install all equipment according to the latest version of the manufacturer's installation procedures and the industry-accepted installation standards, codes, and practices, or as directed by the Engineer. Ensure that all materials and installation practices are in accordance with the applicable OSHA requirements as found in 29 Code of Federal Regulations (CFR) Part 1926, Safety and Health Standards for Construction. In addition, perform the following:

1. Ensure conduit and inner-duct is clean and free from damage prior to installing fiber optic cable.
2. Document the sequential cable length markings at each splice box and pull box wall that the cable passes through, and include the information with the as-built documentation. Provide all incidental parts needed to complete the installation, but not specified in the plans, as necessary for a complete and properly operating system.

**3.02 Fiber Optic Cable Installation.** Develop a nomenclature plan for identification of fiber optic cable. Submit the nomenclature plan to the Engineer for approval. Use approved cable nomenclature to create cable tags for the identification of fiber optic cable. Provide cable tag identification on all test results or fiber related documents provided to the Engineer.

Install cable tags within 1 foot of each splice and/or termination point indicating the cable type, fiber count, and each fiber optic cable's origination and termination points. Ensure that the cable tags are permanent labels suitable for outside plant applications and are affixed to all fiber optic cables. Ensure that lettering is in permanent ink and displays the phrase "NMDOT FIBER OPTIC CABLE".

**3.02.1 Pulling.** Install the fiber optic cable by hand or by using a mechanical pulling machine. If a mechanical pulling machine is used, equip the machine with a monitored or recording tension meter. Ensure that at no time the manufacturer's recommended maximum pulling tension is exceeded. Ensure that the central strength member and aramid yarn are attached directly to the pulling eye during cable pulling. Use pulling attachments, such as "basket grip" or "Chinese finger" type, to ensure that the optical and mechanical characteristics are not degraded during the fiber optic cable installation. Ensure that excess cable is coiled in a figure eight and fed manually when pulling through pull boxes and manholes by hand. If pulleys and sheaves will be used to mechanically pull through pull boxes and manholes, provide a drawing of the proposed layout showing that the cable will never be pulled through a radius less than the manufacturer's minimum bend radius. Use large diameter wheels, pulling sheaves, and cable guides to maintain the appropriate bend radius. Provide tension monitoring at all times during the pulling operation. Ensure that cable pulling lubricant used during installation is recommended by the optical fiber cable manufacturer.

**3.02.2 Blowing.** Use either the high-air-speed blowing (HASB) method or the piston method. When using the HASB method, ensure that the volume of air passing through the conduit does not exceed 600 cubic feet per minute or the conduit manufacturer's recommended air volume, whichever is more restrictive. When using the piston method, ensure that the volume of air passing through the conduit does not exceed 300 cubic feet per minute or the conduit

manufacturer's recommended air volume, whichever is more restrictive.

**3.02.3 Slack Cable Storage.** Provide and store fiber optic cable at each pull box and manhole to allow for future splices, additions, or repairs to the fiber network. Store the fiber optic cable without twisting or bending the cable below the minimum bend radius. Store a 50 feet of fiber optic cable in manholes and an additional 20 ft at each splice, with 10 feet of cable on each side of the cable splice point or as shown in the plans. Store 25 feet of spare fiber optic cable in pull boxes.

**3.03 Splicing.** Perform all optical fiber splicing using the fusion splicing technique, and according to the latest version of the manufacturer's cable installation procedures; industry-accepted installation standards, codes, and practices; or as directed by the Engineer. Ensure that all splices match fiber and buffer tube colors unless shown otherwise in the plans. Where a fiber cable is to be accessed for lateral or drop signal insertion, only open the buffer tube containing the fiber to be accessed and only cut the actual fiber to be accessed. If a fiber end is not intended for use, cut the fiber to a length equal to that of the fiber to be used and neatly lay it into the splice tray. Treat any fibers exposed during splicing with a protective coating and place in a protective sleeve or housing to protect the fiber from damage or contaminants.

**3.03.1 Splice Plan.** Provide a splice plan showing the location and configuration of splices in the system for approval by the Engineer. Perform all splicing according to the plan. Document each splice location and identify the source and destination of each fiber in each splice tray. Document all fiber colors and buffer jacket colors used during installation, and develop a sequential fiber numbering plan as required in the TIA/EIA-598-A standard for color-coding in the documentation. Neatly store all splice enclosures within an ITS manhole. Attach the splice enclosure to the interior wall to prevent the enclosure from lying on the bottom of the manhole.

**3.03.2 Splice Equipment Specifications:** Use a fusion splice machine to splice all optical fiber. Ensure that the unit is portable, and capable of 120 VAC and internal battery-powered operation. Ensure that the unit is able to splice fibers with a 250-micrometer coating. The fusion splice machine shall have the following capabilities:

1. Splice loss measurement.
2. Splice protection sleeve heater.
3. Battery with charging unit and power cable.
4. Spare electrodes, fuses, and lamps.
5. Power meter/light source with carrying case.

Ensure that the power meter/light source is a calibrated pair that is portable and battery operated. Ensure that the power meter/light source operates at selectable wavelengths of 850/1,300/1,550 nanometers. Ensure that the power meter has a decibel milliwatt measurement scale with a range of +3 to -45 decibel milliwatts for SMF operation and an accuracy of 0.5 decibel or better. Ensure that the splice machine is new from the factory, or serviced and certified by the factory or its authorized representative within the previous 6 months from the commencement of its use. Provide the Engineer with a letter from the manufacturer or his authorized representative certifying compliance. Clean all splicing equipment and calibrate according to the manufacturer's recommendations prior to each splicing session at each location.

**3.04 Cable Termination Installation.** Ensure that cables, buffer tubes, or strands are neatly routed, secured and terminated in a patch panel. Ensure all cable termination points include documentation regarding the identification, route, and function of each fiber installed at that location. Ensure that at least one copy of this information is placed alongside the installed equipment (for instance, in a document pouch or drawer within a field cabinet).

**3.05 Patch Panel Installation.** Ensure that patch panels neatly installed and secured in a weather proof enclosure. Ensure all patch panel connectors are clearly and permanently labeled. Ensure all installed patch panels include documentation regarding the identification, route, and function of each patch panel connector at that location. Ensure that at least one copy of this information is placed alongside the installed equipment.

#### **4.0 TESTING AND CERTIFICATION.**

In addition to these requirements, the Contractor shall be required to demonstrate compliance with special provision "ITS System Acceptance Testing". Where there is a difference between the two requirements the more conservative requirement must be met.

**4.01 Manufacturer's Testing.** Provide documentation of all factory tests performed by the manufacturer for all fiber optic cable, splicing material, cable terminations, and patch panels.

**4.02 Installation Testing.** Notify the Engineer of cable testing at least 14 calendar days in advance. Provide the testing procedures to the Engineer for approval prior to commencement of testing. Perform all tests at 1,310/1,550 nanometer wavelengths, and include the last calibration date of all test equipment with the test parameters set on the equipment in the test documentation. Test all installed fibers (terminated and un-terminated) using methods approved by the Engineer.

**4.02.1 End to End Attenuation Testing.** Perform test on all fibers to ensure that no discontinuities greater than 0.2 decibel per 300 feet exist. Repair or replace cable sections exceeding allowable attenuation at no cost to the Department.

**4.02.2 OTDR Tracing.** Test all fibers from both cable end points with an optical time domain reflectometer (OTDR) at wavelengths of 1310 and 1550 nm. Test the fibers that are not terminated at the time of installation using a bare fiber adapter. Present the results of the OTDR testing (i.e., traces for each fiber) and a loss table showing details for each splice or termination tested to the Engineer in an approved electronic format. Ensure all OTDR testing complies with the EIA/TIA-455-61 standard.

**4.02.3 Splice Loss Testing.** Ensure that the splice loss for a SMF fusion splice does not exceed a maximum bidirectional average of 0.03 decibel per splice. Repair or replace splices that exceed allowable attenuation at no cost to the Department.

**4.02.4 Connector Loss Testing.** Ensure that the attenuation in the connector at each termination panel and its associated splice does not exceed 0.35 decibel. Repair or replace connectors exceeding allowable attenuation at no cost to the Department.

## **5.0 CONSTRUCTION REQUIREMENTS.**

**5.01 Conduit and Locate System.** See special provisions for Multi-Duct Conduit System.

**5.02 Pull Boxes and ITS Manhole for Fiber Optic Cable.** See special provisions for “ITS Pull Box and Manhole”.

**6.0 Guaranty Provisions.** Ensure that the fiber optic cable, the splice enclosures, and termination points, have a two-year manufacturer’s warranty from the date of final acceptance by the Engineer. If the manufacturer’s warranties for the components are for a longer period, those longer period warranties will apply.

Ensure that the manufacturer’s warranties on the fiber optic cable, the splice enclosures, and termination points, are fully transferable from the Contractor to the Department. Ensure that these warranties require the manufacturer to furnish replacements for any part or equipment found to be defective during the warranty period at no cost to the Department within 10 calendar days of notification by the Department.

**7.0 Documentation.** As built documentation on fiber location must be provided in both shape files: (i.e., GIS – latest version of type specified by the Engineer) and pdf files. Shape files to 1 ft. accuracy.

## **8.0 METHOD OF MEASUREMENTS.**

**8.01 Furnish and Install.** Fiber optic cable shall be measured per foot of cable furnished, installed, warranted, tested and deemed fully operational. Splices and terminations as shown in the plans shall be measured per each fiber connection furnished and installed.

The Contract unit price, furnished and installed, will include furnishing, placement, and testing of all materials and equipment, and for all tools, labor, equipment, hardware, operational software package(s) and firmware(s), supplies, support, personnel training (when specified), shop drawings, documentation, and incidentals necessary to complete the work.

**8.02 Furnish.** The Contract unit price per foot of fiber optic cable, furnished, will include all equipment specified in the Contract Documents, plus all shipping and handling costs involved in delivery as specified in the Contract Documents.

**8.03 Install.** The Contract unit price per foot of fiber optic cable, installed, will include placement and testing of all materials and equipment, and for all tools, labor, equipment, hardware, operational software package(s) and firmware(s), supplies, support, personnel training (when specified), shop drawings, documentation, and incidentals necessary to complete the work.

**9.0 BASIS OF PAYMENT**

<u>Pay Item</u>	<u>Pay Unit</u>
1- ITS Fiber Optic Cable.....	Lin.Ft
2- ITS Fiber Optic Connection.....	Each
3- ITS Fiber Optic Connection Hardware.....	Lump Sum

**NOTE:** The Contractor shall make reference to the lump sum item, **INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**, and shall enter the unit cost and total amount bid for the above-described items in the table under the appropriate description.

- Fifty percent (50%) of the lump sum bid price for this item will be paid upon successful installation and completion of the approved on-site stand alone tests.
- Twenty percent (20%) of the bid price will be paid upon successful installation and completion of the approved TMC stand alone test
- Twenty percent (20%) of the bid price will be paid upon successful installation and integration and completion of the integrated system acceptance tests for all systems.
- Ten percent (10%) of the bid price will be paid upon successful completion of the 180 calendar day operational test period.

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
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**F.20. SECTION 750-C – ITS PULL BOX AND MANHOLE**

All provisions of the New Mexico Department of Transportation's (NMDOT) Standard Specifications for Highway and Bridge Construction shall apply except as modified herein.

**1.0 DESCRIPTION.**

**Furnish and install ITS Pull Boxes and Manholes of the type, size, and quantity as shown in the plans.**

**1.01** Use pull boxes and manholes that provide:

1. At-grade access to fiber optic cables housed within conduit systems used for Department ITS communications.
2. At-grade access to aid in the installation of fiber optic cable.
3. Protection for installed fiber optic cable.
4. Adequate space for cable storage and splice enclosures.

Ensure that pull boxes and manholes containing fiber optic cable do not contain power cables for ITS devices or other equipment unless otherwise specified in the plans.

**2.0 MATERIALS.**

**2.01 General.** Ensure that all pull boxes and manholes are compatible with the fiber optic cable and are approved by the Engineer. Use pull boxes and manholes that are stackable and are structurally designed to meet or exceed ANSI Tier 15 loading requirements. Ensure that pull boxes and manholes:

1. Are rated as having a minimum compressive strength of 20,000 pounds per square inch, and are suitable for installation and use through a temperature range of -40° to 194°F.
2. Are rated as having a flexural strength of 6,000 pounds per square inch as required in the ASTM D790 standard.
3. Are rated as having a tensile strength of 800 pounds per square inch as required in the ASTM C496 standard.
4. Are rated to withstand a minimum vertical load of 20,000 pounds and a lateral load on the pull box wall of 1,200 pounds.
5. Provide accelerated service as required in Procedure E of the ASTM D756 standard.
6. Provide water absorption as required in Sections 5, 6.1, and 6.5 of the ASTM D570 standard.
7. Provide an impact resistance of 72 foot-pounds when using a "C" tup as required in the ASTM D2444 standard.

8. Include covers that provide skid resistance with a 0.5 friction coefficient as required in the ASTM C1028 standard.
9. Comply with the flammability testing requirements as detailed in the ASTM D635 standard.
10. Comply with the ASTM G53 requirements for UV exposure using a 340-nanometer ultraviolet A (UVA) bulb.
11. Provide chemical resistance as required in Section 7, Procedure 1, of the ASTM D543 standard.

Ensure that all pull box and manhole covers are a single piece and provide a 20,000-pound gross vehicle weight capacity with a live load rating of 20,000 pounds as required for ANSI Tier 15 loading conditions. Ensure that pull box and manhole covers comply with the ASTM C857 standard. Ensure that all pull box and manhole covers include bolt holes and stainless steel hex head bolts to secure the cover to the box. Ensure that bolts are 0.375 inch in diameter with 16 unified coarse threads (UNC) for every 1 inch. Ensure that covers and bolts seat flush when installed on the box. Ensure that covers are equipped with a minimum 0.5 inch by 2 inch lifting slot with lift pin. Ensure that the pull box cover is constructed in compliance with the ASTM A48 Class 20 standard requirements. Ensure that the pull box and cover complies with the structural capacity requirements of the NMDOT specifications.

**2.02 ITS Pull Box.** Ensure that all pull boxes have an open bottom and are constructed of polymer concrete consisting of an aggregate matrix bound together with a polymer resin. Ensure that box construction includes internal reinforcement by means of steel or fiberglass, or a combination of the two. Ensure that the pull box is equipped with a nonskid cover secured by hex head bolts and any other miscellaneous hardware required for installation or as shown in the in the plans. The pull box covers may be of a two piece design and shall be furnished with deep recesses in 5 places, for total of 5 test points. Ensure that the pull box is large enough to house fiber optic cable without subjecting the cable to a bend radius less than 14 times the diameter of the cable.

**2.03 ITS Manhole.** Use manholes at all fiber optic splice locations, as shown in the plans, and at other locations as approved by the Engineer. Ensure that the ITS manholes are concrete box with internal steel reinforcement. Ensure that the manhole is equipped with a nonskid cover secured by hex head bolts; cable racks and hooks; pulling eyes; and any other miscellaneous hardware required for installation or as shown in the plans. The manhole covers may be of a two piece design and shall be furnished with deep recesses in 5 places, for total of 5 test points. Ensure that the manhole is large enough to house fiber optic cable without subjecting the cable to a bend radius less than 14 times the diameter of the cable.

**2.04 Marking.** Ensure that all pull box and manhole covers include the words "NMDOT COMMUNICATIONS" permanently cast into their top surface. Ensure that markings are permanently affixed and clearly visible after installation.

**3.0 INSTALLATION.** Install all pull boxes and manholes according to the manufacturer's recommendations and as shown in the plans. Complete the installation of pull boxes,

manholes, and conduit prior to cable installation. Provide all pull boxes and manholes a final finish grade elevation as shown in the plans. Excavate pull box and manhole installation sites to a depth of 1.5 feet below the bottom of the box, and replace with a 1.5 feet bed of NO. 57 aggregate as per AASHTO M 43 at the excavation base prior to installing the box. Ensure that the box cover is flush with the existing finish grade after installation. Taper the finish grade contour to provide drainage from the manhole.

**3.01 General Placement and Spacing.** Place pull boxes and manholes as detailed in the plans, and at the following locations, unless directed otherwise by the Engineer:

1. At all major fiber optic cable and conduit junctions.
2. Approximately every 1000 feet in rural areas with any continuous section of straight conduit if no fiber optic cable splice is required.
3. At a maximum of 500 feet in metropolitan areas.
4. On each side of an aboveground conduit installation, such as an attachment to a bridge or wall.
5. At all 90-degree turns in the conduit system.

Ensure that all pull boxes and manholes are flush mounted at grade level, and are located near the base of a service pole or near the communication equipment cabinet serving the ITS field device to provide:

1. A transition point between the fiber optic conduits extending from the fiber backbone and the conduit feeding the communication cabinet.
2. An assist point for the installation of fiber optic drop cable.
3. Storage of slack fiber optic drop cable.

Do not place the pull boxes in roadways, driveways, parking areas, ditches, or public sidewalk curb ramps. Avoid placing pull boxes and manholes on steep slopes where the cover cannot be leveled within a tolerance of 1 inch of drop to 1 foot of grade or in low-lying locations with poor drainage.

**3.02 Bonding and Grounding.** Ensure that pull box and manhole installation includes a bonding and grounding system including a driven rod that is a minimum of 8 feet in length and 0.75 inch in diameter. Ensure that grounding rod is constructed of copper clad steel and complies with the UL 467 standard. Ensure that bonding conductors are bare solid AWG #6 copper wire as required in the ASTM B1 standard. Ensure that splice and termination components meet or exceed the UL 467 requirements, and are clearly marked with the manufacturer, catalog number, and conductor size. Ensure that grounding system complies with the NEC.

**3.03 Material Removal and Restoration Specifications.** Provide all material, equipment and labor for the removal of turf, earth, concrete/asphalt pavement or other site specific material to be removed for box installation. Ensure that original turf, earth, concrete/asphalt pavement or other site specific material is restored to its original condition once box installation is complete.

**4.0 TESTING.** Inspect all pull boxes and manholes prior to installation, and again after installation prior to fiber optic cable installation.

Perform compaction tests for each soil type encountered. Provide sufficient in-place density tests to confirm the adequacy and uniformity of the compaction procedures as required by the governing authorities or ROW owners, or as shown in the plans.

**5.0 Documentation.** Provide manufacturer’s cut sheets and product specifications to the NMDOT ITS Engineer or designee for review and approval at least 30 days prior to ordering the materials.

**5.01 Data Collection.** Contractor shall provide following data included in GPS shape file of the system installed. GPS data shall be collected in WGS84 and decimal degrees format. In addition, the Contractor shall contact ITS Engineer to obtain the excel file template of documenting required data.

Project CN, Lat, Long, Size, service, comm, Fiber Slack length, and splice info (if any)

**6.0 WARRANTY.** Ensure that ITS pull boxes and manholes have a two-year manufacturer’s warranty from the date of final acceptance by the Engineer. If the manufacturer’s warranties for the components are for a longer period, those longer period warranties will apply.

Ensure that the manufacturer’s warranties on the ITS pull boxes and manholes are fully transferable from the Contractor to the Department. Ensure that these warranties require the manufacturer to furnish replacements for any part or equipment found to be defective during the warranty period at no cost to the Department within 10 calendar days of notification by the Department.

**7.0 METHOD OF MEASUREMENT.** ITS pull boxes and manholes will be measured by the unit per each.

**8.0 BASIS OF PAYMENT.** ITS pull boxes and manholes will be measured by the unit per each.

**8.01** The accepted quantities of ITS pull boxes and ITS manholes will be paid for at the contract unit price per installed each.

<u>Pay Item</u>	<u>Pay Unit</u>
ITS Pull Box .....	EACH
ITS Manhole .....	EACH

**7.02 Work Included in Payment.** The accepted quantity complete in place will be considered full compensation for furnishing and installing all materials, labor, tools, equipment, excavation, backfill, replacing any disturbed existing condition (pavement,

curb, riprap,...), testing, documentation, warranty and appurtenances necessary to complete the work as directed by the ITS Engineer or designee.

The documentation of the system shall be provided by and at the expense of the Contractor. All documents shall be provided to the ITS Engineer or designee at least 30 days in advance of final acceptance. The documentation shall be approved by the ITS Engineer or designee prior to final acceptance of the ITS Pull Boxes and Manholes.

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
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**F.21. SECTION 750-H – ITS SYSTEM ACCEPTANCE TESTING**

All provisions of the New Mexico Department of Transportation's (NMDOT) Standard Specifications for Highway and Bridge Construction shall apply except as modified herein.

**1.0 DESCRIPTION.**

This section describes the testing procedures the Contractor must perform to ensure that the ITS system elements installed and integrated under this contract meet the contract specifications, and are properly integrated in the existing systems at the NMDOT Traffic Management Center (TMC) located at 809 Copper Avenue NW in Albuquerque, NM.

Acceptance of the system and related integration shall be achieved through satisfactory completions of the acceptance testing as listed below and formal acceptance of all related reports. The Department retains the right to witness and/or assign a representative to witness any or all of the tests described in this section.

This specification is in addition to any testing requirements identified in specifications for each ITS device. Other testing requirements including, but not limited to, manufacturer testing and certification prior to shipment or any other testing prior to equipment arrival on-site is still applicable. Should test acceptance criteria differ between this special provision and specific device special provisions, the more conservative requirements shall be met.

Contractor will be required to coordinate with the NMDOT and or its designee (i.e., On-call provider of ITS Network Administration, Maintenance, Support and Operations). All such required coordination is considered incidental to the costs of ITS Systems Installation and Acceptance.

1. On-Site Stand-Alone Acceptance Tests (SAATs). On-site SAATs shall be conducted at each CCTV, DMS, and Vehicle Detector deployment location, and are intended to verify that each individual field subsystem can function as specified, as a complete assembly. These tests shall be conducted after the installation of the related subsystem is completed and the CCTV, DMS, and Vehicle Detector are powered up in the field, but prior to the device being connected via the telecommunications system(s) to the TMC.

2. TMC Stand-Alone Acceptance Tests (SAATs). TMC SAATs shall be conducted at each CCTV, DMS, and Vehicle Detector deployment location and at the TMC, and are intended to verify that each individual field subsystem can communicate with the intended remote site properly, and support the type of communication(s) expected for

the related field deployment. These tests shall be conducted after the installation of the related subsystem is completed, and after the related communication means is installed and terminated, but before the related communication circuit is integrated with the existing systems at the TMC. The field elements and related communication circuit shall be tested as complete assemblies.

3. Integrated System Acceptance Test (ISAT). Integrated System Acceptance Test shall be conducted at the TMC, and at field locations as required, to verify that communication between each field device and the related processing system in the TMC (as specified by the NMDOT and contract documents), and between field deployments where applicable, can be performed properly when all related deployments are in full operation. These tests shall be after the installation of the whole system included in the contract is completed and all new systems (CCTV, DMS, Vehicle Detector and Telecommunications) are integrated with existing systems both in the field (as applicable) and at the TMC.

4. 180-Day Operational Test (180DOT). The 180DOT shall be conducted at the TMC, and at field locations as required, to verify that the system elements as integrated into the existing system, together with the rest of the existing system, can function as specified as a single system continuously, 24 hours per day for an extended period of time. The choice of 180 days for the test duration is designed to predict the sustained performance of the system over the longer term. This test shall be conducted following the successful completion of all other acceptance tests for all systems under this contract and after the Department begins to use the new systems installed under this contract.

Conduct these tests in the order indicated above. Do not begin a later stage of testing until earlier stage(s) of testing have been successfully completed and approved by the Department. All work done for the testing shall adhere to applicable standards.

Complete stage testing as outlined at key points in time at the developmental, production, or installation stage in order to isolate unforeseen problems. The acceptance of each stage of testing should not imply that problems found at a later date or stage of testing will not require the contractor to return to an earlier stage of testing for a component or subsystem. Retesting may be required to the level necessary to isolate any problem and establish a course of action to remedy the situation. Retesting, if performed, shall be at no additional cost to the Department.

The Contractor shall prepare and submit a report to the Department for approval if a unit has been modified as a result of a system test failure. The report shall describe the nature of the failure and the corrective actions taken. If a failure pattern develops, the Department may direct that design and construction modifications be made to all similar units without additional cost to the Department.

All test tools used in the acceptance testing must have been calibrated by the tool manufacturer or a testing entity not directly affiliated with the Contractor and acceptable

by the Department. The calibration validity time must include the dates the testing is performed, and the calibration must be traceable to the National Bureau of Standards.

For all new systems that interface with existing systems, equipment, hardware or software at the TMC, testing of the existing systems should be performed to ensure that full functionality of the existing systems has not been compromised unintentionally by the new modifications. The contractor shall include the costs of integrating new additions and the costs of related modifications to the existing system in the contract price. The contractor shall be required to repair, to the satisfaction of the Department and at no additional cost to the Department, any damage caused by the contractor to the existing systems, hardware, or software at the TMC.

## **2.0 GENERAL.**

Unless a specific waiver is given by the Department, adhere to the following requirements for all acceptance tests:

1. Conduct the tests during regular daytime working hours, on weekdays.
2. Complete testing for each equipment unit in as few consecutive days as practical.
3. Ensure that the tests are well prepared and rehearsed.
4. Provide and submit test documentation for approval by the Department. Any testing, request for related payment, or acceptance performed before approval of the submitted test documentation shall not be considered by the Department.
5. Resubmit all test documentation that does not receive approval by the Department after relevant corrective measures are completed.
6. Schedule testing and notify the Department of the testing dates after the related test documentation is approved. The notification shall be provided at least 10 working days prior to all tests to allow ample time for the Department to respond and to make arrangements to witness the tests. Schedule testing with ample additional time allotted for the Department to request that certain portions of a test be repeated if necessary.
7. Provide the means for two-way wireless voice communications, portable computers, applicable test device(s) and tools, applicable test software packages, consumables, utilities, all appurtenances, and qualified personnel necessary to perform the testing. Any devices included in the scope of supply of the contract shall not be used as tools for such tests.
8. Provide the name of the manufacturer, model number, and calibration date of each piece of test equipment calibrated to industry standards or the Bureau of Standards. Calibration must be certified within two months prior to the actual time of use by a recognized testing facility.
9. At a minimum, perform tests on supplied equipment and systems in accordance with approved test procedures. Record and submit to the Department within three weeks after each test all pertinent quantitative and qualitative test results on data summary sheets for each piece of equipment tested. The test report shall be arranged so that all commands, stimuli, and responses are correlated to allow logical interpretation.

10. Analyze and categorize all defects as to whether they are limited to the specific unit being tested or could be potential problems in all such units. If a unit has been modified as a result of a system test failure, prepare and submit a report to the Department for approval. Describe in the report the nature of the failure and the corrective action taken. If a failure pattern is detected, the Department may direct that design and construction modifications be made to all similar units, without additional cost to the Department.
11. If any of the test results fail to conform to the requirements of the special provisions, the equipment, subsystem or system failing shall be considered a defective item, and be subject to rejection by the Department. Rejected equipment, subsystems, or systems may be offered again for a re-test, provided all the defects have been rectified by the Contractor and the required documentation thereof is submitted to the Department. Repeat the test until successful at no additional cost to the Department.

## **2.01 TEST PROCEDURES AND PLANS**

It is the responsibility of the Contractor to develop the detailed test procedures/plans based on all of the requirements set forth in the contract documents (plans and specifications). The Contractor shall design the test procedures and plans to confirm that the system elements and related systems meet all requirements specified in the contract documents, and specified in the approved design documents and shop drawings.

The results of each test will be compared with these requirements. Failure to conform to the requirements at any test will be considered a system defect, and related equipment will be subject to rejection by the Department.

1. Test documentation shall include, at a minimum, test procedures (identifying applicable correlated test standards), checklists, test forms, and data summary sheets for each item. The contractor shall tailor test documentation for each test and for each item, designed specifically for the project. Reference test procedures, test forms, and checklists to these special provisions, listing each requirement to be tested for each item. All test documentation shall be prepared by the contractor and submitted to the Department for review and approval prior to initiating any testing. All tests shall utilize approved test documentation only.
2. The results of each test shall be compared with the requirements specified in the project contract, and the requirements contained in the approved design documents. Failure to conform to the requirements of any test shall be considered a system defect, and equipment will be subject to rejection by the Department.
3. The contractor shall provide test forms which clearly describe the procedures for tests identified in the test plan. Use of test forms for individual components or units of equipment is subject to approval of the Department on a case-by-case basis.
4. At a minimum, the test procedures shall include the following:

- a. Test title, requirements to be tested, and procedure description.
- b. Test date and the signature of the tester.
- c. The purpose of the tests, including reference to the corresponding test plan, requirements and functions covered by the procedures, specified design and performance requirements, and cases and conditions tested by the procedures.
- d. Space to record the serial numbers of the equipment tested and the version numbers of the software tested for each procedure.
- e. The test and measurement equipment to be used, identified by manufacturer and model number. Include space to record test equipment serial numbers and calibration status and date.
- f. Individual functions to be tested, individual readings to be taken, and actual values measured or determined. Corresponding pass/fail records must be included for each test or reading.
- g. Description of the required test configuration setup, including target equipment and software, test equipment and software, measurement/monitoring tools, and diagrams illustrating configuration and test equipment connections.
- h. Enumerated step-by-step instructions for performing the procedure, identifying the points where data is to be recorded, the expected test results, and the limits for acceptable data.
- i. Provisions for recording pertinent test conditions and environment at time of test, and space to record the unique identifier of the defect problem as a result of faults/problems/variances detected during the test.

## **2.01 TEST REPORTS**

After the testing is completed, it is the responsibility of the Contractor to provide test documentation for each of the acceptance tests that are completed, including, at a minimum, performance requirements, test procedures, checklists, test forms for each item tested, and reference to the related specification and/or requirement from the contract documents. Tailor test documentation for each test and for each item. Acceptance by the Department for all tests will be made upon the basis of both the testing witnessed in the field by the Department and/or its representative and the test reports that are submitted following the testing.

At a minimum, provide testing procedures and test forms that meet the following requirements:

- a. The reports and records of each test and each inspection.
- b. The original records containing the original forms filled out by the persons performing the inspection/tests, and original signatures.
- c. A summary of the inspection/test. For inspection/test of components, equipment, and assemblies, include quantities inspected/tested, quantities that failed the inspection/test, and quantities that failed one or more individual procedures. A summary table shall be included showing the

serial number or lot number of each unit inspected/tested and the outcome for that unit to be included.

- d. All required data and reference drawing explanations to permit evaluation of test report without the necessity of securing this information from other sources.

### **3.0 ON-SITE STAND-ALONE TEST**

On-Site Stand-Alone Acceptance Tests (On-Site SAATs) shall be conducted at each field deployment location, and are intended to verify that each individual field subsystem can function as specified, and communicate with the intended remote site (the TMC) properly, and support the type(s) of communication methods expected for the related field deployment.

On-site SAAT for a subsystem shall be conducted only after the installation of the related subsystem is completed.

The On-site SAAT shall include the following entities and aspects, at a minimum:

- Conformance with the approved shop drawings, including bills of material, component layouts, general appearance of the assembled systems, measures for surge protection and system grounding, and measures for abatement against environmental challenges (shock, vibration, extreme temperatures, and protection against ingress of water and small animals).
- Explicit tests to demonstrate that the communication enclosures and communication subsystems contained as part of a larger subsystem, where applicable, are capable of re-establishing normal operation upon power up without human intervention.
- Testing of automated response to remote inquiries, and, if applicable, initiation of communication for automated reporting by the communication subsystems.
- Demonstration of repeatable communication performance, in terms of establishing communication and supported bandwidth, at least three consecutive times (three separate sessions) for each applicable communication mode.
- Demonstration that the communication system is fully functional, including network management, malfunction isolation/diagnosis of failed equipment, and performance monitoring.

The following test aspects and requirements are specific for each device type.

#### **3.01 Fiber-Optic Communication Circuit**

- Prior to shipment to the project site, all fibers in the FO cables shall be tested and certified at the factory prior to shipment using an Optical Time Domain Reflectometer, based on test method as per EIA/TIA-455-61 or EIA/TIA-455-78. Compile and store all test data on a CD or similar data storage medium, in a format compatible for viewing and printing using a personal computer. Compile

and print the test data also on paper medium. Submit the CD and the printouts to the Department. This must occur prior to shipment.

The On-site SAAT for the fiber-optic communication circuit deployment shall be designed and conducted to verify that all required fiber-optic communication circuits, as installed, meet the specified requirements, and that all splice closures installed in manholes, hand holes, and other outdoor installations meet the mechanical requirements. These tests shall be conducted after the installation of the related subsystem is completed.

#### Fiber-Assignment Tests.

A Fiber-Assignment test shall be required at each splice closure, FO patch panel, and where applicable un-terminated ends of each FO cable. The test shall include verification of complete and correct documentation of usage assignment of all fibers at the test points. The records shall include, as minimum grouping of fibers by color-coded buffer tubing, color of fiber coating, circuit description at the remote and local ends.

#### Electro-Optical Tests.

Conduct OTDR and optical power measurements, after installation of the fibers, based on EIA/TIA-455-59, EIA/TIA-455-60, EIA/TIA-455-61, and EIA/TIA-455-34, and submit related reports to the Department, for:

1. each spliced optical fiber, or
2. each optical fiber section longer than 200 feet.

Optical Time Domain Reflectometer (OTDR) tests shall involve tests using OTDR on the fiber-optic circuits, excluding any attenuators, and electronic devices. Perform all tests at 1310 and 1550 nm wavelengths.

Optical Power (Loss) tests shall involve tests using Optical Power meter on the fiber-optic circuits, excluding any attenuators, and electronic devices.

An optical fiber is considered acceptable if all of the following requirements are met:

- Individual splice loss is less than 0.03dB per splice for single-mode fiber, and less than 0.02dB per splice for multi-mode fiber.
- Connector loss is less than 0.5 dB per mated connector pair. Where the installed FO connector assembly terminates onto a connector at a FO device, and the said mating device connector is not separable from the device, then the insertion loss of the single installed FO connector assembly shall be less than 0.35dB.
- Connector return loss (connector reflectance loss) is less than -0.55dB per mated connector pair.
- Optical power loss introduced by unexpected loss events, such as those caused by micro-bending, pinching and sharp bends in fiber, is less than 0.5dB per cause, and the total loss introduced by such causes, combined, is less than 1dB. All power losses not attributable to planned connectors and splices are considered unexpected loss events.

For optical power tests, the test document shall list the expected range of power losses; measured power losses shall be compared to the related range for pass/fail criteria.

Optical Time Domain Reflectometer (OTDR), where used, shall meet the following requirements:

- a. Light source and detector: specific unit for each applicable wavelength
- b. Fiber type: 50/125  $\mu\text{m}$  and 60/125  $\mu\text{m}$  multi-mode, 9/125  $\mu\text{m}$  single-mode fiber.
- c. Minimum Event dead zone: 0.5m at 850nm, 1m at 1300nm and 1550nm
- d. Minimum attenuation dead zone: 4.5m at 850nm, 8m at 1300nm and 1550nm.
- e. Fiber length: minimum 3km at 850nm, 60km at 1300nm and 1550nm
- f. Dynamic range: typical 15dB at 850nm, 24dB at 1300nm and 1550nm
- g. Distance accuracy: 1.1m
- h. Reporting: include reporting software and interface to a personal computer.

Optical Power (Loss) meter, where used, shall meet the following requirements:

- a. Light source and detector: specific unit for each applicable wavelength
- b. Fiber type: 50/125  $\mu\text{m}$  and 60/125  $\mu\text{m}$  multi-mode, 9/125  $\mu\text{m}$  single-mode fiber.
- c. Measurement range 0 to -52dBm at 850nm, 0 to -60dBm at 1300nm and 1550nm.

Identified causes of excessive power losses, such as bad splices, may be corrected where feasible. If the excessive losses cannot be improved to acceptable levels after three attempts, the related fiber is considered not usable.

Submit test reports on all required optical fibers. OTDR tests shall include a graphical plot of the measurements, and distances and signal level at the detected loss and reflective events.

### **3.02 CCTV Camera System**

On-site SAAT for a CCTV camera deployment shall include:

- Where camera lowering system is involved, lowering and raising the camera assembly using the electric drive. Verify that the power and electronic connections between the camera assembly and the plug-receptacle block are re-established correctly after dis-engagement and re-engagement. Repeat this test three consecutive times to ensure that proper re-establishment of connections is repeatable.
- Where camera lowering system is involved, lowering and raising the camera assembly using manual winch. Verify that the power and electronic connections between the camera assembly and the plug-receptacle block can be re-established correctly after dis-engagement and re-engagement. Repeat this test three consecutive times to ensure that proper re-establishment of connections is repeatable.
- Where redundant means of communication (CDMA cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.

- Test quality of video image transmitted from the camera communication enclosure.
- For the CCTV camera assembly with Pan-Tilt-Zoom (PTZ) functions only, test camera response to the PTZ signals and video image quality using controller and viewing tools at the related camera communication enclosure in the field at each CCTV site. Tests shall confirm correct focusing and other responses to Pan changes, Tilt changes, Zoom changes, Preset changes for all required preset positions, and ability to transition automatically between presets in the correct sequence when "Tour" mode activated. Specific minimum PTZ functionality is detailed in the CCTV specifications under separate cover.
- Confirm that the video output from the camera, prior to further connection to encoder, modem, router or other transmission device, is of a full NTSC frame and streamed at a frame rate of 30 frames per second (FPS).
- For the CCTV camera system with digital video encoders only: verify the encoder functions using controller and viewing tools at the related camera communication enclosure. Verify that the encoder is capable of transmitting MPEG2 coded video stream with image size of 4CIF and at a frame rate of 15 frames per second (FPS); where applicable, verify that the encoder is capable of simultaneously transmit the MPEG2 stream stated above, and MJPEG coded images with image size of 1CIF and at a frame rate of 1 FPS.
- Verify for each camera that the produced video image is visible with the following lighting levels at the camera site: at the minimum lighting level as specified for monochrome video, and at the minimum lighting level as specified for color video.

### **3.03 Dynamic Message Sign**

On-site SAAT for a dynamic message sign deployment shall include

- All functional and performance tests as specified in the Testing section of the related pay item.
- Where redundant means of communication (CDMA cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and a testing tool (at the deployment site) over a fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and a testing tool (at the deployment site) over an RF (EVDO cellular) based Ethernet communication medium.

### **3.04 Vehicle Detectors**

On-site SAAT for a vehicle detector deployment shall include

- Verification of speed detection through use of calibrated radar gun and comparison to detector reading outputs. Readings should be within 5% over a sample of ten for each lane within the detection zone.
- Verification of lane occupancy through visual comparison of field conditions and detector reading outputs.

- Verification of volume through use of a manual counter and comparison to detector reading outputs. Readings should be within 5% over a sample of 100 vehicles for each lane within the detection zone.

#### **4.0 TMC STAND-ALONE TEST**

TMC Stand-Alone Acceptance Tests (TMC SAATs) shall be conducted at each deployment location and the TMC in Albuquerque, and are intended to verify that each individual field subsystem can function as specified, and communicate with the intended remote site (TMC) properly, and support the types of communication expected for the related field deployment. These tests shall be conducted after the installation of the related subsystem is completed, and after the related communication means is installed and terminated, but before the related communication circuit is integrated with the related processing units in the TMC. The tested field element and related communication circuit shall be tested as complete assemblies.

The TMC SAAT for a subsystem shall be conducted only after the successful completion and Department acceptance of the On-Site SAAT.

The TMC SAAT shall include the following entities and aspects, at a minimum:

- Conformance with the approved shop drawings, including bills of material, component layouts, general appearance of the assembled systems, measures for surge protection and system grounding, and measures for abatement against environmental challenges (shock, vibration, extreme temperatures, and protection against ingress of water and small animals).
- Explicit tests to demonstrate that the tested subsystem, related communication enclosures and communication subsystem contained as part of a larger subsystem, where applicable, are capable of re-establishing normal operation upon power up without human intervention.
- Testing of automated response to remote inquiries, and, if applicable, initiation of communication for automated reporting by the communication subsystems.
- Demonstration of repeatable communication performance, in terms of establishing communication and supported bandwidth, at least three consecutive times (three separate sessions) for each applicable communication mode.
- Demonstration that the communication system is fully functional, including network management, malfunction isolation/diagnosis of failed equipment, and performance monitoring.

The following test aspects and requirements are specific for each device type.

##### **4.01 Fiber-Optic Communication Circuit**

TMC SAAT for a fiber-optic communication circuit deployment shall include

- Where the FO communication circuit is intended as one of the redundant means of communication, verify system ability for automatic failover to the redundant path, and measure failover speed, on the complete FO communication circuits,

including any applicable patch assembly, splitters, attenuators, amplifiers, and transceivers.

- Where Ethernet is involved, verify switch provisioning, VLAN provisioning, Ethernet re-convergence, on the complete fiber-optic circuits, including any applicable patch assembly, splitters, attenuators, amplifiers, and transceivers.
- Where self-healing networking topology is involved, verify system ability for automatic failover to redundant path, and measure failover speed, on the complete fiber-optic circuits, including any applicable patch assembly, splitters, attenuators, amplifiers, and transceivers.
- Testing on VLAN throughput, packet loss, and packet latency, on the complete fiber-optic circuits, including any applicable patch assembly, splitters, attenuators, amplifiers, and transceivers.

#### **4.02 CCTV Camera System**

TMC SAAT for a CCTV camera deployment shall include:

- All functional and performance tests as specified in the Testing section of related pay item.
- Where redundant means of communication (CDMA cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and a testing tool (at the deployment site) over a fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and a testing tool (at the deployment site) over an RF (cellular) based Ethernet communication medium.
- Test quality of video image transmitted to the TMC.
- For the CCTV camera assembly with Pan-Tilt-Zoom (PTZ) functions only, test camera response to the PTZ signals and video image quality using controller and viewing tools at the related remote site (TMC). Tests shall confirm correct focusing and other responses to Pan changes, Tilt changes, Zoom changes, Preset changes for all required preset positions, and ability to transition automatically between presets in the correct sequence when "Tour" mode activated. Specific minimum PTZ functionality is detailed in the CCTV specifications under separate cover.
- For the CCTV camera system with digital video encoders only: verify the encoder functions using controller and viewing tools at the related remote site (TMC). Verify that the encoder is capable of transmitting MPEG2 coded video stream with image size of 4CIF and at a frame rate of 15 frames per second (FPS); where applicable, verify that the encoder is capable of simultaneously transmit the MPEG2 stream stated above, and MJPEG coded images with image size of 1CIF and at a frame rate of 1 FPS.

#### **4.03 Dynamic Message Sign**

TMC SAAT for a dynamic message sign deployment shall include

- All functional and performance tests as specified in the Testing section of related pay item.
- Where redundant means of communication (EVDO based cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed RF (cellular) based Ethernet communication medium.

#### **4.04 Vehicle Detectors**

TMC SAAT for a vehicle detector deployment shall include

- Verification of speed detection outputs at the TMC for each lane in the detection zone. If CCTV coverage is available at the detector a 'reasonability' check should be performed to ensure the detectors are providing accurate outputs.
- Verification of lane occupancy outputs at the TMC for each lane in the detection zone. If CCTV coverage is available at the detector a 'reasonability' check should be performed to ensure the detectors are providing accurate outputs.
- Verification of volume outputs at the TMC for each lane in the detection zone. If CCTV coverage is available at the detector, readings should be verified to be within 5% over a sample of 100 vehicles for each lane within the detection zone.

### **5.0 INTEGRATED SYSTEM ACCEPTANCE TEST**

The Integrated System Acceptance Test (ISAT) shall be conducted at the TMC and field deployment locations, as required, to verify that all individual field subsystems can function as specified, and that communication, stimuli and responses between system components integrated in the system meet the specifications, when all related deployments are in full operation.

Conduct Integrated System Acceptance Tests only after all equipment for a particular system is installed and interconnected for a particular phase of work, and only after the related On-Site and TMC SAATs have been completed and accepted by the Department.

The tests shall include the following entities and aspects, at a minimum:

- Explicit tests to demonstrate that the subsystems contained as part of a larger subsystem, where applicable, are capable of re-establishing normal operation upon power up without human intervention.
- Testing of automated response to remote inquiries, and, if applicable, initiation of communication for automated reporting by the communication subsystems.
- Demonstration of repeatable communication performance, in terms of establishing communication and supported bandwidth, at least three consecutive times (three separate sessions) for each applicable communication mode.

- Demonstration that the communication system is fully functional, including network management, malfunction isolation/diagnosis of failed equipment, and performance monitoring.

The following test aspects and requirements are specific for each device type.

### **5.01 Fiber-Optic Communication Circuit**

ISAT for a fiber-optic communication circuit deployment shall include

- Where the FO communication circuit is intended as one of the redundant means of communication, verify system ability for automatic failover to the redundant path, and measure failover speed, on the complete FO communication circuits, including any applicable patch assembly, splitters, attenuators, amplifiers, and transceivers
- Tests shall be conducted to verify that communication between transmission electronic units, through each fiber set, can be performed properly when all related deployments are in full operation.
- Design the test to demonstrate that the transmission devices connected directly to each fiber is able to support OC-192 or 10-Gigabit Ethernet (as applicable) communication networking platform, or the highest communication bandwidth used in the project, without exceeding the bit-error rate of  $10E-9$ .

### **5.02 Individual CCTV Camera System**

ISAT for a CCTV camera deployment shall include:

- All functional and performance tests as specified in the Testing section of related pay item.
- Where redundant means of communication (EVDO based cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed RF (cellular) based Ethernet communication medium.
- Test quality of video image transmitted to the TMC.
- For the CCTV camera assembly with Pan-Tilt-Zoom (PTZ) functions only, test camera response to the PTZ signals and video image quality using controller and viewing tools at the related remote site (TMC). Tests shall confirm correct focusing and other responses to Pan changes, Tilt changes, Zoom changes, Preset changes for all required preset positions, and ability to transition automatically between presets in the correct sequence when "Tour" mode activated. Specific minimum PTZ functionality is detailed in the CCTV specifications under separate cover.
- For the CCTV camera system with digital video encoders only: verify the encoder functions using controller and viewing tools at the related remote site (TMC). Verify that the encoder is capable of transmitting MPEG2 coded video

stream with image size of 4CIF and at a frame rate of 15 frames per second (FPS); where applicable, verify that the encoder is capable of simultaneously transmit the MPEG2 stream stated above, and MJPEG coded images with image size of 1CIF and at a frame rate of 1 FPS.

- For the CCTV camera system with digital video encoders only: verify that each incoming video stream is routed to a digital video decoder dedicated to the video stream. Verify that the digital video decoder is of model matching the related encoder, and that the PTZ control signal and analog video image generated by the decoder is integrated into the existing analog video matrix switch system. Verify that the matrix switch system is configured to integrate the PTZ control signal and video signal from the new CCTV cameras. Demonstrate that the new cameras can be controlled via any PTZ control interface device of the matrix switch system, and that the video image of the new cameras can be displayed on any of the video monitors connected to the matrix switch.

### **5.03 Integrated CCTV Video System**

Tests on the video system shall include the existing video-management (VM) system, all existing and newly installed CCTV cameras and systems, and related communication arrangements, which are added to and integrated into the existing system.

Verify the following performance aspects at a video monitor connected to the VM system:

- Verify that video image from each CCTV camera is received and displayed properly.
- Verify for each camera that the video image is visible with the following lighting levels at the camera site: at the minimum lighting level as specified for monochrome video, and at the minimum lighting level as specified for color video.
- Using the PTZ controller in the TMC, verify that each CCTV camera with PTZ functions respond properly for the following commands: Pan changes, Tilt changes, Zoom changes, Preset changes for all required preset positions, and ability to transition automatically between presets in the correct sequence when "Tour" mode activated. Specific minimum PTZ functionality is detailed in the CCTV specifications under separate cover.

Verify that the VM system, using a workstation in the TMC, can generate the following video patterns on one display involving the added video images:

- Live video image from any attached camera
- Play back of recorded video image from any attached camera
- Combination of live and recorded video image from any attached camera
- Sequencing of full-screen, 4, 7, 9, 10, 13 or 16 cameras or combinations of any attached cameras, and back.

Verify that the VM system respond as specified to the following conditions, involving the added video images:

- “Loss of image” detection in any of the attached camera: activation of related alarm contact output.
- Restoration of power after power down: automatic resumption of video recording and other configured operations.
- System freeze up: automatic reboot of the system.
- Sensor alarm input: automatically issue PTZ command for related camera to move to the related camera preset position.
- Arrange for tests to demonstrate setting and changing of PTZ presets, to adjust (retune) established PTZ presets.
- Arrange for tests to demonstrate the scheduling features of different scanning pattern of detection coverage (sets of PTZ presets) for each camera.

#### **5.04 Individual Dynamic Message Sign**

ISAT for a dynamic message sign deployment shall include

- All functional and performance tests as specified in the Testing section of related pay item.
- Where redundant means of communication (CDMA cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed RF (cellular) based Ethernet communication medium.

#### **5.05 Integrated Dynamic Message Sign System**

Tests on the DMS master control system at the TMC shall include the existing DMS control system, DMSs, and related communication arrangements, which are added to and integrated into the existing system.

Verify the following performance aspects of the DMS master control system, using a related workstation in the TMC, involving the added DMSs:

- Verify that DMS responses to stimuli generated from the control system are as specified.
- “Loss of Communication” detection with the attached DMS: activation of related alarm contact output.
- Restoration of power after power down: automatic resumption of video recording and other configured operations.
- System freeze up: automatic reboot of the system.
- DMS alarms: process and annunciate unusual signal status at the DMS, which may include controller door open, controller over-temperature, loss of primary power source at DMS site, DMS UPS battery charge level low, etc.

#### **5.06 Individual Vehicle Detectors**

ISAT for a dynamic message sign deployment shall include

- All functional and performance tests as specified in the Testing section of related pay item.
- Where redundant means of communication (CDMA cellular data service, and fiber-optic communication system) are involved, verify system ability for automatic failover to the redundant path.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed fiber-optic based Ethernet communication medium.
- Test stimuli and response between the related control/communication system and related workstation in TMC over the installed RF (cellular) based Ethernet communication medium.

### **5.07 Integrated Vehicle Detection System**

Tests on the VD system at the TMC shall include the existing VD system, and related communication arrangements, which are added to and integrated into the existing system.

Verify the following performance aspects of the VD system, using a related workstation in the TMC, involving the added VDs:

- "Loss of Communication" detection with the VD: activation of related alarm contact output.
- Restoration of power after power down: automatic resumption of video recording and other configured operations.
- System freeze up: automatic reboot of the system.
- Alarms: process and annunciate unusual signal status at the device, which may include controller door open, controller over-temperature, loss of primary power source, etc.

### **6.0 180-DAY OPERATIONAL TEST**

The 180-Day Operational Test (180DOT) shall be conducted at the TMC, and at and field locations as required, to verify that the system elements as integrated into the existing system, together with the rest of the existing system, can function as specified as a single system continuously, 24 hours a day over long periods. The choice of 180 days for the test duration is designed to predict the sustained performance of the system over the longer term. This test shall be conducted following the successful completion of all other acceptance tests for all systems under this contract

Provide the communications service to the Department by means of a local telephone number or by means of an answering service. Provide at least one local telephone number at which the Contractor can be reached at all times. Maintain records of stoppages and resumptions of the 180DOT. The records shall be verified against the records maintained by the Department for accuracy.

Maintain event/activity log for all related events taking place during the test period. The event log shall include the identity of equipment related to the malfunction, identified

cause of malfunction (if any), description of the work performed, description of used labor, materials, and special equipment, time and date the malfunction is reported, and time and date the malfunction is resolved.

In the event that any equipment malfunctions at any point during the test period, the contractor is to correct the failures within a) 48 hours when repair personnel are located within New Mexico; or b) 72 hours when repair personnel must travel from out of state. The 180-day period is suspended for the whole hours between the time the defect is reported, and the time the defect is resolved. The Contractor will be notified by the Department following the occurrence of the equipment malfunction. The Contractor's receipt of notification is defined as when the Contractor's personnel or the Contractor's answering service receives the call.

In addition to the suspension of the test period, the Department shall deduct one percent (1%) of the unit bid price for ITS Acceptance Testing per day from the payment due to the Contractor as a liquidated damage, for each malfunction lasting beyond the 48 or 72 hour notification period listed above.

During the test period, a system defect may also be declared as specified in the article for "SYSTEM DEFECTS". If a system defect is declared, the ongoing 180DOT shall be discontinued, and a new 180DOT shall be restarted for the entire system after the cause of the system defect is fully resolved, and related acceptance testing (On-Site SAAT, TMC SAAT, and ISAT) are completed satisfactorily and formally accepted by the Department.

#### **6.01 On-Site Operational Support**

The Contractor shall provide for the first 5 working days of the 180-day test period, personnel who are fully knowledgeable and capable of operating the ITS and communications subsystems installed under the contract, and who can exercise all functions in a normal working environment. These personnel shall be required to be on site from 8:00 a.m. to 5:00 p.m. every day except Saturdays and Sundays during this period. The personnel shall provide operating support for the installed system, training and guidance for the operators, exercise the system, and perform operational tests on the complete system on a day-to-day basis.

Operational support for all installed communication subsystems shall include troubleshooting, diagnostics, and component replacement of system elements not operating as specified.

#### **6.02 On-Call Operational Support**

During the 180-day test, Contractor shall provide on-call operational support for the supplied systems, including troubleshooting and diagnostics, and component replacement of system elements found not operating as specified. Provide telephone number(s) at which the on-call support personnel can be reached 24 hours a day.

The on-call support personnel are expected to respond to a call for the service, to be at the TMC or equipment site within four (4) hours after a call for the service is made, and to record all service calls on a maintenance form provided by the Department. The service record shall be submitted to the Department within one working day from the time the service call is received. The Department shall impose a liquidated damage at the rate of one percent (1%) of the unit bid price for ITS Acceptance Testing per day (or portion thereof) per event, for each 24-hour period beyond the indicated response that this requirement is not met.

**6.03 Close Out of Acceptance Testing**

After the completion of 180-day operational test, conduct complete system diagnostics for field and TMC equipment as follows:

- Equipment testing and adjustment of settings and parameter
- Check component operations with respect to these specifications
- Conduct all preventative maintenance activities for systems provided under this contract, as per each manufacturer’s standard recommendations.
- Submit a record of all events taking place in the 180DOT period.

**7.0 SYSTEM DEFECTS**

The Department retains the right to declare a system defect in the event that

- 20% of similar equipment malfunctions during the test period, or
- less than 20% of similar equipment malfunctions at any point during any test period, but one or more devices experiences a total of three failures of the same component, subsystem, or system.

When a system defect is declared on a particular item or system, the Contractor shall replace all affected equipment at no additional cost, in which case, all replaced equipment shall be retested starting with the phase that was most recently completed prior to the malfunction.

Delays caused by a System Defect will not absolve the Contractor from the obligation of completing the contracted scopes of work by the stated deadline.

**8.0 MEASUREMENT AND PAYMENT**

Payment shall be made on a Lump Sum basis in accordance with the itemized list of unit costs submitted for bid item 750000 – Intelligent Transportation System

**Pay Item**

**Pay Unit**

ITS Acceptance Testing.....Lump Sum

NOTE: The Contractor shall make reference to the lump sum item, **INTELLIGENT TRANSPORTATION SYSTEMS (ITS)**, and shall enter the unit cost and total amount bid for the above-described item in the table under the appropriate description.

Payment for ITS Acceptance Testing shall include satisfactory completion of the related acceptance testing, and shall be according to the follow schedule:

- Fifty percent (50%) of the lump sum bid price for this item will be paid upon successful installation and completion of the approved on-site stand alone tests for all systems (CCTV, DMS, Vehicle Detectors and Telecommunications).
- Twenty percent (20%) of the bid price will be paid upon successful installation and completion of the approved TMC stand alone test
- Twenty percent (20%) of the bid price will be paid upon successful installation and integration and completion of the integrated system acceptance tests for all systems.
- Ten percent (10%) of the bid price will be paid upon successful completion of the 180 calendar day operational test period.

NEW MEXICO DEPARTMENT OF TRANSPORTATION  
SPECIAL PROVISIONS MODIFYING

**F.22. SECTION 901 – QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)**

All provisions of SECTION 901 – QUALITY CONTROL/QUALITY ASSURANCE (QC/QA) of the New Mexico State Department of Transportation Standard Specifications for Highway and Bridge Construction, 2014 Edition, except as modified herein:

Add subsection **901.4.1 AGGREGATE INDEX** to follow **901.4 EVALUATION OF MATERIALS FOR ACCEPTANCE**.

**901.4.1 AGGREGATE INDEX**

**901.4.1.1 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.

**901.4.1.2 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 five 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 901.4.1.2:1  
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.

### 901.4.1.3 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 (20066)).

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.

### 901.4.1.4 Frequency of Testing

Submit samples at least once every year to maintain continuous approval of Commercial Material Sources.

### 901.4.1.5 Equation

Calculate the AI of a coarse aggregate to the nearest whole number in accordance with the following equation:

$$AI = \frac{1}{3} \sqrt{LA^{2.2} + SL^{3.0} + A^{4.0}} \quad (1)$$

## 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,  $1189.8 + 3375 + 81.0 = 4645.8$ ;
8. Determine the square root of Step 7 – that is,  $\sqrt{4645.8} = 68.2$ ;
9. Divide the result from Step 8 by 3 – that is,  $68.2 \div 3 = 22.7$ ; The A.I. for this sample is 22.7.

**901.7 BASIS OF PAYMENT**

Replace Table 901.7:5 with the following:

<b>Table 901.7:5</b>			
<b>Minimum Process Control Guidelines for Portland Cement Concrete Pavement (QC)</b>			
<b>Item</b>	<b>Property</b>	<b>Testing frequency</b>	<b>Test method</b>
Fresh Concrete for PCCP	Unit Weight	1 per 125 yd <sup>3</sup>	AASHTO T 121
	Air Entrainment	1 per 125 yd <sup>3</sup>	AASHTO T 121
	Slump	1 per 125 yd <sup>3</sup>	AASHTO T 119
	Compressive Strength	1 per 125 yd <sup>3</sup>	AASHTO T 22, 23, 231
PCCP in Place	Thickness <sup>a</sup>	2 per 2,500 yd <sup>2</sup> <sup>b</sup>	—
<sup>a</sup> Complete corrective Work specified in Section 450.3.5.2, "Surfacing Smoothness Requirements," before determining pavement thickness <sup>b</sup> Determine thickness by actual survey conducted before and after the construction of the PCCP at fixed, randomly selected locations.			

**G. SUPPLEMENTAL SPECIFICATIONS**

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## **H. NMDOT REQUIRED DOCUMENTS**

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## H.1. NMDOT REQUIRED DOCUMENTS FOR BID SUBMITTAL

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 (Disclosure of Lobbying Activities)
- Certification for Federal-Aid Contracts
- New Mexico Pay Equity Reporting Acknowledgement Executive Order 2009-049
- Disadvantaged Business Enterprise (DBE) Program Race-Conscious Measures
- Subcontractor List Form

**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.**

**H.2. NMDOT BID FORM**Form No. A-560  
Rev. 10/04**New Mexico Department of Transportation****BID FORM**

NAME \_\_\_\_\_ TELEPHONE No. ( ) \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 \*CONTRACTOR'S LICENSE No. \_\_\_\_\_ \* LICENSE CLASSIFICATION \_\_\_\_\_  
 \*RESIDENT BIDDER CERTIFICATE No. \_\_\_\_\_

\* Not Required for Bidding on Federal-Aid Projects

**TO THE NEW MEXICO DEPARTMENT OF TRANSPORTATION:**

The undersigned proposes to construct this New Mexico project in accordance with the current Standard Specifications for Highway and Bridge Construction, the plans, the Bid Schedule, the Special Provisions, Supplemental Specifications, the Disadvantaged Business Enterprise ("DBE") Program and all other contract documents of the New Mexico Department of Transportation ("Department"), the contents of which are incorporated by reference herein, and certifies to furnish and deliver all the materials and to do all work and labor required for the construction of New Mexico CN/Project No. «cn»/«proj\_no» in «counties» County, on Road No. «termini» being approximately «length» miles in length, at the prices stated in the Bid Schedule. The undersigned also certifies that it has examined the site of the proposed work, the material pits, the haul roads, the Standard Specifications, the plans, the Bid Schedule, the Special Provisions, Supplemental Specifications and all other contract documents before submitting the bid and is satisfied as to the requirements therein. As further consideration for the award of this contract, the undersigned agrees to the following terms, conditions and acknowledgments:

1. To execute the standard form contract and to furnish contract payment and performance bonds in the amount of One Hundred Percent (100%) of the total price of this bid within fifteen (15) days after receiving notification of the acceptance of this bid, and failing to do so, to forfeit the accompanying check or bid bond to the Department as liquidated damages, and the Department may proceed to award the contract to others.
2. To commence work within **15** days, or such additional time as may be allowed in writing by the Department, after notification of award of contract, and to complete the contract, as awarded, in «workdays» days.
3. The undersigned declares that it is the only entity or party interested in the bid as principal and that its officers, employees, subsidiaries or parent corporations (check box a. or b. as appropriate):
 

( ) a. have not in any way participated in any activities in restraint of trade, or been debarred with relation to public contracts either in the State of New Mexico or any other State of the United States or on any federally-assisted contract during the five-year period immediately preceding this bid or either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this contract.

( ) b. have participated in activities in restraint of trade with relation to public contracts either in the State of New Mexico or any other State of the United States or on any federally assisted contracts during the five-year period immediately preceding this bid or entered into collusion, or restraint of free competitive bidding on this contract, and are of the opinion that they are a responsible bidder entitled to the award of a contract involving public moneys and attach hereto an explanation of their activities in restraint of free trade, restraint of free competitive bidding, or collusion.
4. In accordance with the contract, plans and specifications to repair, maintain and guarantee all work performed thereunder until accepted by the Department.
5. The bidder, hereby certifies that it has ( ) has not ( ), participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 11246, 10925 and 11114 as amended, and that it has ( ), has not ( ), filed with the Office of Federal Contract Compliance Program all reports due under the applicable filing requirements.



### H.3. BID BOND

Form No. A-100  
Rev. 7/03

## New Mexico Department of Transportation BID BOND

Date of Bid Opening \_\_\_\_\_

Date Bond Executed \_\_\_\_\_

Principal: \_\_\_\_\_

Surety: \_\_\_\_\_

**KNOW ALL MEN BY THESE PRESENTS**, that we, the **Principal** and **SURETY** above named, are held and firmly bound unto the **NEW MEXICO DEPARTMENT OF TRANSPORTATION** in the sum of 5% of the amount bid as shown on the Bid Form prepared by the Principal and submitted by him concurrently with this bond, and for the payment of such sum we bind ourselves, our heirs, executors, administrators, successors, jointly and severally by these presents.

THE CONDITION OF THIS BOND IS THAT the Principal has submitted a sealed bid for the following highway construction project, to wit:

and this bid is incorporated herein by reference. **NOW THEREFORE**, if this bid submitted by the **Principal** is accepted, and the contract is awarded to the **Principal**, and if the **Principal** executes the contract and furnishes contract payment and performance bonds as required by the **NEW MEXICO DEPARTMENT OF TRANSPORTATION** within fifteen (15) days after being notified in writing of the award, then this obligation shall be null and void, otherwise it shall remain and be in full force and effect.

**IN WITNESS WHEREOF**, the **Principal** and **Surety** have caused this instrument to be signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Individual or Partnership Principal: \_\_\_\_\_

Corporate Principal: \_\_\_\_\_

Business Address: \_\_\_\_\_

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

Title: \_\_\_\_\_

Corporate Surety: \_\_\_\_\_

Business Address: \_\_\_\_\_

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

Title: \_\_\_\_\_

## H.4. NOTICE TO THE CONTRACTORS

SFPA-1  
Page 1 of 2

### NOTICE TO CONTRACTORS

#### SUBCONTRACTORS FAIR PRACTICES ACT COMPLIANCE

Revised 1-Sep-2005

This Project is subject to the Provisions of the Subcontractors Fair Practices Act, Chapter 18, Laws of 1988, NMSA 1978, Sections 13-4-31 through 13-4-43, ("the Act").

**THE LISTING THRESHOLD IS \$5,000.00.** The following categories of work on this project are subject to the provisions of the Act: **Lighting & Signalization (Items Pertaining to Sections 705 thru 716 in the Specifications where applicable).**

At the time the bid is submitted to the Department, the Contractor shall list, on SFPA-1, Page 2, one subcontractor for each category of work as specified in the preceding paragraph, that exceeds the listing threshold, using additional sheets as necessary. The listing shall include each subcontractor's name and business location. Only one subcontractor shall be listed for each category of work. **FAILURE TO COMPLY WITH THIS REQUIREMENT SHALL RENDER A BID NON-RESPONSIVE AND THE BID SHALL BE REJECTED.**

If a contractor fails to list a subcontractor in excess of the listing threshold and the contractor does not state that no bid was received or that only one bid was received, the contractor represents that it is fully qualified to perform that portion of the work itself and that it shall perform that portion of the work itself.

Providing the listing of subcontractors in compliance with the Act shall not be a substitute for the requirements of the Special Provisions regarding Disadvantaged Business Enterprise participation.

The apparent low bidder shall not allow a subcontract that exceeds the listing threshold amount to be voluntarily assigned or transferred or to be performed by anyone other than the original subcontractor listed in the original bid without the prior written approval of the Department.

No Contractor whose bid is accepted shall subcontract any portion of the work in any amount exceeding the listing threshold amount where the original bid did not designate a subcontractor, unless:

- The Contractor received no bid or received only one bid for the category of work and had indicated such on SFPA-1, Page 2.
- The work is pursuant to a change order that causes changes or deviations from the original Contract.

All approvals, consents or determinations made by the Department to a substitution of a subcontractor pursuant to the Act shall be made only to the extent that such approvals, consents or determinations are consistent with the Disadvantaged Business Enterprise provisions of the Special Provisions set forth in the contract documents between the Department and the Contractor.

In the event a hearing is required pursuant to the provisions of the Act and a delay in the work is caused as a result of a subcontractor protesting its substitution, the Contractor shall NOT be entitled to an increase in the Contract Price or Contract Time.

SFPA-1  
Page 2 of 2

**NOTICE TO CONTRACTORS**

**SUBCONTRACTORS FAIR PRACTICES ACT COMPLIANCE**  
Revised 1-Sep-2005

**CN /Project No. :**

**SUBCONTRACTOR(S) PERFORMING LIGHTING/SIGNALIZATION WORK**

NAME OF SUBCONTRACTOR AND LOCATION OF PLACE OF BUSINESS

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

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

**Title:** \_\_\_\_\_

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

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 12540. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those 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 is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the 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 \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss

\_\_\_\_\_ 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.)

<p>1. Type of Federal Action:</p> <ul style="list-style-type: none"> <li>a. contract</li> <li>b. grant</li> <li>c. Cooperative agreement</li> <li>d. loan                             <ul style="list-style-type: none"> <li>e. loan guarantee</li> <li>f. loan insurance</li> </ul> </li> </ul>	<p>2. Status of Federal Action:</p> <ul style="list-style-type: none"> <li>a. bid/offer/application</li> <li>b. Initial award</li> <li>c. post-award</li> </ul>	<p>3. Report Type:</p> <ul style="list-style-type: none"> <li>a. initial filing</li> <li>b. material change</li> </ul> <p>For Material Change Only:                  year _____ quarter _____                  _____ date of last report _____</p>
<p>4. Name and Address of Reporting Entity:</p> <p><input type="checkbox"/> Prime                      <input type="checkbox"/> Subawardee                  Tier _____, if known:                  Congressional District, if known: _____</p>	<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime                  Congressional District, if known: _____</p>	
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description                  CFDA Number, if applicable: _____</p>	
<p>8. Federal Action Number, if known: _____</p>	<p>9. Award Amount, if known:                  \$ _____</p>	
<p>10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):                   (attach Continuation Sheet(s))</p>	<p>b. Individual Performing Services (including address if different from No. 10a) (last name, first name, MI)                   SF-LLL-A, if necessary)</p>	
<p>11. Amount of Payment (check all that apply):                  \$ _____ <input type="checkbox"/> actual    <input type="checkbox"/> planned</p>	<p>13. Type of Payment (check all that apply):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> a. retainer</li> <li><input type="checkbox"/> b. one-time fee</li> <li><input type="checkbox"/> c. commission</li> <li><input type="checkbox"/> d. contingent fee</li> <li><input type="checkbox"/> e. deferred</li> <li><input type="checkbox"/> f. other; specify: _____</li> </ul>	
<p>12. Form of Payment (check all that apply):</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> a. cash</li> <li><input type="checkbox"/> b. in-kind; specify: nature _____ value _____</li> </ul>		
<p>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)</p>		
<p>15. Continuation Sheet(s) SF-LLL-A attached:                      Yes                      No</p>		
<p>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.</p>		<p>Signature: _____                  _____                  Print Name: _____                  _____                  Title: _____                  _____                  Telephone No.: _____ Date: _____</p>
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 or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with 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 change 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 \_\_\_\_

Authorized for Local Reproduction  
Standard Form-LLL-A

## New Mexico Pay Equity Reporting Acknowledgement Executive Order 2009-049

**Contractor:** \_\_\_\_\_  
**Control No.:** «cn»

Note: The Executive Order and required forms can be obtained from the following link:  
[http://www.generalservices.state.nm.us/spd/pay\\_e.html](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

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 «db est» 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
<b>Total DBE Participation</b>			<b>\$</b>

1. Control No. «CN»
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

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 \_\_\_\_\_ (name of firm) agrees to comply with the requirements of 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

