

CITY OF ALBUQUERQUE

REQUEST FOR BID

THE CITY OF ALBUQUERQUE, PURCHASING OFFICE IS REQUESTING OFFERS FOR THE FOLLOWING GOODS OR SERVICES:

REQUEST NUMBER: RFB2007-006-BH
TITLE: READY MIX CONCRETE
OPENING DATE: JULY 27, 2006 (1:30 PM)

FOR ADDITIONAL INFORMATION CONTACT:

BERNICE HUGHES, SENIOR BUYER, (505)768-3339
CITY OF ALBUQUERQUE PURCHASING OFFICE
ALBUQUERQUE/BERNALILLO COUNTY GOVERNMENT
CENTER
POST OFFICE BOX 1293
ONE CIVIC PLAZA
ALBUQUERQUE, NEW MEXICO 87103

THE CITY CLERK OF THE CITY OF ALBUQUERQUE WILL RECEIVE SEALED OFFERS FOR THE GOODS OR SERVICES DESCRIBED IN THIS REQUEST AT:

OFFICE OF THE CITY CLERK
CITY OF ALBUQUERQUE
POST OFFICE BOX 1293
ONE CIVIC PLAZA
ALBUQUERQUE, NEW MEXICO 87103

HAND CARRIED OFFERS WILL BE RECEIVED AT THE OFFICE OF THE CITY CLERK, ALBUQUERQUE/BERNALILLO COUNTY GOVERNMENT BUILDING, 11TH FLOOR, 1 CIVIC PLAZA, ALBUQUERQUE, NM.

OFFERS WILL BE RECEIVED UNTIL 1:30 PM JULY 27, 2006

NOTE: USE OF THE MAIL SERVICE IS AT YOUR OWN RISK FOR PROPER DELIVERY.

OFFERS WILL BE OPENED PROMPTLY AT 1:30 PM AT:

ALBUQUERQUE/BERNALILLO COUNTY GOVERNMENT
CENTER
7TH FLOOR CONFERENCE ROOM
ONE CIVIC PLAZA
ALBUQUERQUE, NEW MEXICO

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GENERAL INFORMATION AND REQUIREMENTS
REQUEST NUMBER: RFB2007-006-BH

ALL OFFERORS ARE RESPONSIBLE FOR READING AND UNDERSTANDING ALL INFORMATION CONTAINED IN THIS REQUEST. OFFERORS ARE RESPONSIBLE FOR CHECKING TO ASSURE THAT NO PAGES ARE MISSING. PLEASE CHECK THIS PACKAGE UPON RECEIPT. IF ANY PAGES ARE MISSING PLEASE CONTACT THE BUYER NAMED ON THE COVER PAGE.

THE FOLLOWING INFORMATION AND FORMS ARE REQUIREMENTS FOR THIS REQUEST.

- _____ OFFEROR COMPLIANCE FORM
COMPLETE ALL APPLICABLE INFORMATION, INCLUDING YOUR FEDERAL TAX IDENTIFICATION NUMBER, AND RETURN IT WITH YOUR OFFER.
- _____ PRICING DETAIL FORM(S)
COMPLETE ALL PRICING DETAIL, INCLUDING UNIT AND EXTENDED PRICES (THIS IS VERY IMPORTANT).
- _____ OFFEROR COMMENTS FORM
IF APPLICABLE, COMPLETE, SIGN AND RETURN WITH YOUR OFFER.
- _____ LOCAL PREFERENCE CERTIFICATION FORM
IF APPLICABLE, COMPLETE, SIGN AND RETURN WITH YOUR OFFER. THIS FORM MUST ACCOMPANY YOUR OFFER TO BE CONSIDERED FOR THE

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OFFEROR COMPLIANCE FORM

REQUEST NUMBER: RFB2007-006-BH
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FOR FURTHER INFORMATION
CALL BERNICE HUGHES
AT (505)768-3339

DELIVERY DATE: _____
(PLEASE SPECIFY)

FOB POINT: VARIOUS DEPARTMENTS

REQUISITION 220414

ALBUQUERQUE, NM

BID BOND AMOUNT: \$0.00

PERFORM BOND AMOUNT: \$0.00

BID BOND PERCENT: 0%

PERFORM BOND 0%

IF APPLICABLE, BID AND PERFORMANCE BOND INFORMATION CAN BE FOUND IN THE SUPPLEMENTAL TERMS AND CONDITIONS.

DISCOUNT: PLEASE INDICATE YOUR FIRM'S DISCOUNT FOR PROMPT PAYMENT:
(THE MINIMUM ACCEPTABLE PERIOD IS 20 CALENDAR DAYS)

20 CALENDAR DAYS: _____%

30 CALENDAR DAYS: _____%

OTHER: ____ CALENDAR DAYS: _____%

A 5% LOCAL PREFERENCE IS AVAILABLE FOR THIS BID. THE LOCAL PREFERENCE CERTIFICATION FORM MUST BE COMPLETED, CERTIFIED AND SUBMITTED WITH THE BID IN ORDER TO BE CONSIDERED.
LOCAL PREFERENCE REQUESTED: MFG? _____ BUSINESS? _____

A STATE RESIDENT PREFERENCE MAY BE AVAILABLE FOR THIS BID. A CURRENT STATE OF NEW MEXICO PURCHASING OFFICE ISSUED RESIDENT PREFERENCE NUMBER MUST BE SUBMITTED WITH THE BID IN ORDER TO QUALIFY FOR CONSIDERATION.

PLEASE ENTER THE STATE RESIDENT PREFERENCE NUMBER HERE: _____ MFG? _____
BUSINESS? _____

COMPLIANCE AGREEMENT

I, THE UNDERSIGNED, HAVE READ AND EXAMINED THE GENERAL TERMS , CONDITIONS, ANY SUPPLEMENTAL TERMS AND CONDITIONS, AND THE SPECIFICATIONS OF THIS REQUEST AND AGREE TO COMPLY WITH ALL OF THEM.

SIGNATURE: _____ DATE: _____/_____/_____

NAME: _____ TITLE: _____
(PRINT OR TYPE)

COMPANY NAME: _____ EIN: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE: (_____) _____ - _____ FAX: (_____) _____ - _____

DIRECT DEPOSIT PAYMENT TRANSFERS ARE STRONGLY ENCOURAGED.
TO ACCESS FORMS VISIT WWW.CABQ.GOV/ONLINESVCS/VENDORS/VENDORACH.HTML.

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 PRICING DETAIL FORM
 REQUEST NUMBER: RFB2007-006-BH

GROUP NO.	ITEM NO.	QUANTITY/UNIT	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE

			IN ACCORDANCE WITH THE ENCLOSED SPECIFICATIONS, TERMS AND CONDITIONS, FURNISH THE CITY WITH THE FOLLOWING: ONE YEAR CONTRACT FOR THE PURCHASE OF CONCRETE READY MIX, LEAN FILL MATERIALS AND CONCRETE COLORS WITH ONE (12) MONTH EXTENSION ALLOWABLE WITH MUTUAL AGREEMENT. A COPY OF THE STANDARD SPECIFICATIONS FOR READY MIX CONCRETE, LEAN FILL MATERIALS AND CONCRETE COLORS, SECTION 101, PORTLAND CEMENT CONCRETE IS ENCLOSED. THE ALLOWABLE WAIT TIME, WITHOUT CHARGE, WILL BE TEN (10) MINUTES PER CUBIC YARD. NO SHORT LOAD CHARGES WILL BE ALLOWED UNDER THIS CONTRACT.		
	1	1,200.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF READY MIX CONCRETE 3000 P.S.I. TO JOB SITE(S), 3/4" AGGREGATE, WITH A TYPE I-II CEMENT, AIR ENTRAINED.	_____	_____

	2	80.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF READY MIX CONCRETE 3000 P.S.I. TO JOB SITE(S), 1-1/2" AGGREGATE, WITH TYPE I-II CEMENT, AIR ENTRAINED.	_____	_____

	3	1,000.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF READY MIX CONCRETE 3000 P.S.I. TO JOB SITE(S), 1-1/2" TO 4", ALL AROUND STONE MATERIAL WITH TYPE I-II CEMENT,	_____	_____

	4	100.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF READY MIX CONCRETE TO JOB SITE(S), SEVEN (7) BAG SHOT-CRETE MIX	_____	_____

	5	2,000.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF LEAN FILL MIXTURE TO JOB SITE(S) WITH A MINIMUM ORDER OF A TRUCK LOAD	_____	_____

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 PRICING DETAIL FORM
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GROUP NO.	ITEM NO.	QUANTITY/UNIT	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE

	6	400.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR 4000 P.S.I., 3/8" MIX WITH CLASS F FLY ASH	_____	_____

	7	600.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR DELIVERY OF READY MIX CONCRETE 3500 P.S.I. TO JOB SITE(S), 3/4" AGGREGATE, WITH TYPE I-II CEMENT, AIR ENTRAINED	_____	_____

	8	1,000.00 CY ESTIMATED	CHARGE PER ONE MINUTE INCREMENT FOR WAITING TIME PAST THE ALLOWED TEN (10) MINUTES PER CUBIC YARD FOR UNLOADING OF BID ITEMS	_____	_____

	9	600.00 CY ESTIMATED	PRICE PER PERCENTAGE FOR THE ADDITION OF AN ASTM APPROVED NON- CALICUM CHLORIDE ACCELERATOR (PRICE PER CUBIC YARD)	_____	_____

	10	400.00 OZ ESTIMATED	PRICE PER OUNCE FOR THE ADDITION OF AN ASTM APPROVED HIGH RANGE WATER REDUCER PRICE PER CUBIC YARD \$ _____	_____	_____

	11	40.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR ADDING FIBER MESH	_____	_____

	12	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" SUNSET ROSE #160	_____	_____

	13	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" OMAHA TAN #5084	_____	_____

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 PRICING DETAIL FORM
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GROUP NO.	ITEM NO.	QUANTITY/UNI	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE
	14	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" SAN DIEGO BUFF #5237"	_____	_____
	15	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVID COLORS" MIAMI BUFF #5447	_____	_____
	16	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVID COLORS" BAJA RED #160	_____	_____
	17	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVID COLORS" MESA BUFF #5447	_____	_____
	18	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" BRICK RED #160	_____	_____
	19	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" TILE RED #1117	_____	_____
	20	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" DARK GRAY #860	_____	_____
	21	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLOR" PLUM #1395	_____	_____
	22	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" GRANITE RED #1395	_____	_____

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 PRICING DETAIL FORM
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GROUP NO.	ITEM NO.	QUANTITY/UNI	ITEM DESCRIPTION	UNIT PRICE	TOTAL PRICE
	23	1.00 CY ESTIMATED	PRICE PER CUBIC YARD FOR THE ADDITION OF "DAVIS COLORS" TAUPE #677	_____	_____
	24	400.00 CY ESTIMATED	PRICE FOR SPECIALITY CONCRETE, I.E. 6,000 P.S.I.	_____	_____
	25	600.00 CY ESTIMATED	PRICE PER PERCENTAGE FOR THE ADDITION OF AN ASTM APPROVED NON-CALCIUM CHLORIDE ACCELERATOR (PRICE PER CUBIC YARD)	_____	_____
	26	400.00 OZ ESTIMATED	PRICE PER OUNCE FOR THE ADDITION OF AN ASTM APPROVED HIGH RANGE WATER REDUCER. \$ _____ PER CUBIC YARD \$ _____ PER CUBIC YARD	_____	_____
	27	1.00 GL ESTIMATED	PRICE PER GALLON FOR COLOR SEAL II, MINIMUM PURCHASE WILL BE IN QUANTITIES OF TWO GALLONS	_____	_____
	28	1.00 EA ESTIMATED	PRICE FOR AFTER HOURS AND/OR EMERGENCY DELIVERIES.	_____	_____

QUESTIONS ABOUT HIS RFB SHOULD BE DIRECTED TO BERNICE HUGHES AT BHUGHES@CABQ.GOV.

*****LAST ITEM REQUESTED*****

**TECHNICAL SPECIFICATIONS
FOR READY-MIX CONCRETE AND LEAN FILL
FOR UTILITY EXCAVATIONS
RFB 2006-168-BH**

These specifications are for Ready-Mix Concrete for the purpose of sidewalk, drive pads, curb and gutter replacement and meter box concrete collars and leanfill for utility excavations.

I. Ready Mix Concrete

A. Specific Requirements and Materials Properties for Items 1 & 2 of Bid

1. The concrete to be supplied under this contract shall yield an unconfirmed compressive strength of 3000 P.S.I. or greater when test cylinders are prepared accordance with ASTM c-31 and tested in accordance with ASTM C-39. The concrete shall be produced in accordance with a mix design, which conforms with applicable subsections of the City of Albuquerque Standard Specifications for Public works Construction, Section 101 – Portland Cement Concrete. A copy of the specification is attached for reference. After introducing water into the mix, the concrete shall be delivered to the job site within a period not exceeding two (2) hours during winter months and 1 ½ hours during summer months. The concrete shall be delivered to the job site with a slump of 1 ½ to 4 inches with tested in accordance with ASTM C-143. Air entrainment shall be added to all concrete furnished in accordance with the approved concrete mix design unless otherwise requested by the City for a specific application.

B. Specific Requirements & Material Properties for Item 3 of Bid (Round Aggregate)

All Concrete shall conform to provision of ASTM Specifications for Ready-Mix Concrete (C-94). Alternate No. 1 of the Specification is hereby designated as the method for establishing minimum standards of quality:

1. At least five (5) bags of cement shall be used in each cubic yard of concrete. Type I shall be used.
2. The course aggregates (all round) shall conform to ASTM Specifications (C33) and shall meet gradation designations under Table II of that specification for size number 467 (1½ inch to number 4)
3. Slump requirements will be 4” to 5”.

2. Specific Requirements and material Properties for Item 4 of Bid (Shot Crete)

One (1) cubic yard material mixture for 7 Bag Shot Crete Mix

1. 455 lbs – 3/8” crushed aggregate
2. 2,445 lbs – concrete sand
3. Water Reducing – Add mixture in accordance with ASTM-494
4. 4 oz. air entraining agent
5. 4 inch – slump 7-sack mix, type I – II cement

II. Leanfill Mixture

A. General

Leanfill construction shall consist of filling shallow excavations and pipe zones in deep excavations with leanfill, a flowable mixture of Portland cement, concrete aggregates, air entrainment and water.

B. References

ASTM C31	Practice for Making and Curing Concrete Test Specimens in the field
ASTM C33	Specifications for Concrete Aggregates
ASTMC94	Specifications for Ready-Mix Concrete
ASTM C138	Test Method for Unit Weight, yield, and Air Content (Gravimetric) of Concrete
ASTM C143	Test Method for Slump of Portland cement concrete
ASTM C150	Specification for Portland cement concrete
ASTM C172	Method for Sampling of Freshly Mixed Concrete
ASTM C192	Practice for Making and Curing of Concrete Test Specimens in the Laboratory
ASTM C231	Test Method of Air Content of Freshly Mixed concrete by the Pressure Method
ASTM C260	Specification for Air-Entraining Admixtures
ASTM C685	Specifications for Concrete Made by Volumetric
ASTM D1633	Test Method for Compressive Strength of molded Soil-Cement Cylinders
ASTM D558	Test Method for Moisture Density Relations of Soil-Cement Mixtures

C. Portland Cement

C-1 Cement to be either used or furnished under this specification shall be Portland cement Conforming to the requirements of ASTM C150. The type of cement shall be either Type I or Type II, "low alkali" (LA) cement.

C-2 Cement shall be sampled and tested as prescribed in said ASTM specifications. The Contractor shall provide certification of compliance signed by the cement manufacturer identifying the cement and stating the cement delivered to the batching site complies with these specifications. When requested by the City, the Contractor shall furnish three (3) copies of said certifications.

D. Aggregates

D-1 Aggregates shall conform to the requirements of ASTM C33, and non shall be incorporated in the work unless they comply with these specifications.

D-2 Aggregates shall be sampled and tested as prescribed in said ASTM specification. The CONTRACTOR shall obtain a certification of compliance in accordance with the requirements of Section 13, identifying the aggregates, reporting test results, and stating the aggregates comply with this specification. When requested by the City, the Contractor shall furnish a minimum of three (3) copies of said certification.

E. Aggregate Grading

The aggregates shall meet the gradation limits as specified in ASTM C33. The maximum aggregate size shall be one (1) inch.

F. Water

Water shall conform to the requirements of ASTM C94.

G. Air Entraining Admixtures

Air entraining admixtures shall conform to the requirements of ASTM C260.

H. Proportioning

The determination of Lean Fill design mix shall be solely the Contractor's responsibility and shall be established in accordance with requirements of Section 13 and the following limits.

H-1 The materials shall be proportioned such that if placed at maximum slump, the maximum laboratory dry density, as determined from the molded specimens, at 20(+/-4) hours, is equal to or greater than 95 percent of the maximum dry density of the blended cement and aggregate, determined in accordance with ASTM D558. The maximum dry density of the laboratory molded Lean Fill specimens shall be computed based on average weight of the compressive strength specimens, corrected for the moisture content at the time of testing.

H-2 The cement content shall be a minimum of one-half (1/2) sack, 47 lbs, per cubic yard.

H-3 The aggregates shall be combined to provide a mixture with seventy-five (75) percent sand, based on sand to total aggregate ratio by weight, and the combined aggregate gradation complying with the following limits.

<u>SCREEN SIZE</u>	<u>% PASSING</u>
1 inch	100
¾ inch	95-100
3/8 inch	82-94
No. 4	70-85
No. 8	55-75
No. 16	38-64
No. 50	6-22
No. 100	2-8

The design mix gradation, when plotted on a U.S. Bureau of Public roads 0.45 Power Gradation Chart, shall be similar to the plots of the gradation limits in the shape of the characteristic.

H-4 Air entraining admixtures shall be proportioned to provide air entrainment of 205% in combined mixture.

H-5 Water shall be proportioned as required.

H-6 The design mix shall be proportioned to provide a slump of 5/8 inches.

H-7 the compressive strength of the design mix shall not exceed 60 psi at 28 days when sampled and tested in accordance with ASTM C172 and D1633.

Laboratory tests specimens shall consist of cylinders molded by pouring a sample of the design in two equal lifts, into molds conforming to the dimensional requirements ASTM D558, having a capacity of $1/30 \pm 0.0004$ cu. Ft. with an internal diameter of 4.0 ± 0.016 inches (4" diameter x 4.5" height, nominal dimensions). Molds specified in ASTM D558 may be used.

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SUPPLEMENTAL TERMS AND CONDITIONS

These Supplemental Terms and Conditions are in addition to the General Instructions, Terms and Conditions and in the event of a conflict between the General Instructions, Terms and Conditions and these Supplemental Terms and Conditions, the provisions of the Supplemental Terms and Conditions shall control.

1. **Contract Period**

The Contract period resulting from this request will be effective for a period of **12 months** from the date of issue of the purchase order.

2. **Extension of Contract Period**

The contract resulting from this request may be extended for an additional period of **12 months** after the initial 12 month period by a mutual agreement between the Contractor and the City.

3. **Delivery Point**

All prices quoted for concrete and backfill materials shall be **F.O.B. Albuquerque, NM** delivered to and accepted by the City at any designated location within the service area of the City. Unit prices shall include all applicable Federal, State, County and City taxes. The unit prices shall be firm for the term of the Contract.

4. **Quantities**

The quantities listed in RFB2007-006-BH are approximate quantities for the purpose of comparing bids only. The City does not imply or state any guarantee the quantities listed in the bid proposal will be purchased. The quantities could increase or decrease depending on the need of the City.

5. **Delivery Schedule**

- A. All deliveries of ready-mix concrete or backfill materials shall be made from **7:00 A.M.- 5:00 P.M., Monday through Friday**, except in the event of emergencies. **Emergency delivery outside the days and hours specified above will be paid at the rate specified in opening instructions.**
- B. The City will notify the Contractor at least one day or better, to schedule for delivery. The Contractor shall be required to make delivery of concrete or backfill **within fifteen (15) minutes** of the delivery time established.
- C. At the time delivery is scheduled, the Contractor shall provide the City department requesting delivery with a **confirmation number**. This is to be a number separate and apart from the work order number assigned by the contractor. This number will be used to identify date and time of order placement and scheduled time of delivery. A separate confirmation number will be assigned per delivery, per delivery site. This will enable the City to track deliveries of ready-mix concrete and backfill materials and to insure City crews are prepared and in place at time of delivery.

6. **Job Site**

The City is responsible for barricading and preparing the job site to be ready for the Contractor to place the materials.

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SUPPLEMENTAL TERMS AND CONDITIONS

7. **Warranty**

The Contractor shall warrant the concrete and backfill materials for a period of one (1) year from date of delivery to each job site.

8. **Billings**

The contractor shall only bill once a month unless otherwise requested by the City.

9. **Testing**

Testing of supplies material may be requested by the City at any time during performance of the contract. This testing should be conducted by an independent testing laboratory in accordance to **Section 101, PORTLAND CEMENT, CONCRETE, Subsection 101.152 – “QUALITY ASSURANCE SAMPLING AND TESTING”** (attached) of the City of Albuquerque Standard Specifications for Public Works Construction, at no cost to the City.

10. **Short Loads**

The City will not order loads under one (1) cubic yard. No short load charges are allowed under this contract.

11. **Unloading Time**

The Contractor's unit prices for concrete and backfill materials for all city departments and divisions shall include ten (10) minutes per cubic yard of unloading time after arrival at the job site. The contractor will be allowed to charge per minute of waiting time past the allowed ten (10) minute per cubic yard time per the bid. **No time charges allowed for travel to the job site or delivery by the same truck to various job sites.** Chargeable and nonchargeable time starts after arrival of concrete truck at each job site.

12. **Second Source**

The City will issue multiple contracts from this RFB. Should the primary vendor not be able to commit to the required delivery, the City will have the option to utilize the other vendors to meet the delivery schedule as specified by the requesting City department. Commitments to deliveries will be expected to be adhered to.

SECTION 101

PORTLAND CEMENT CONCRETE

101.1.1 GENERAL: Portland cement concrete, prestressed concrete, post tensioned concrete, shotcrete, gunite, and light weight structural concrete shall consist of a mixture of Portland cement, aggregates, water, and admixtures, proportioned, batched and delivered as specified herein. All materials and design mixes used in Portland cement concrete, either batched at or delivered to a project shall be certified in accordance with the requirements of Section 13 of these specifications. Each design mix submitted and authorized for use under this Specification shall be identified by a design mix number, unique to that design mix. If either a change in material(s) or material supplier(s) from that specified in the authorized design mix occurs during a project, authorized use of the job mix formula on the project may be canceled as directed by the ENGINEER. A concrete design mix shall not be used on a project without written authorization of The ENGINEER. A design mix, upon request by a concrete supplier, may be authorized by the Public Works Department Construction Division for use on City and City-related projects for a period of 14 months from the date of sampling of reference aggregates in the design mix.

101.1.2 For construction and reconstruction projects requiring portland cement concrete continuous placement(s) equal or greater than either 100 cubic yards of concrete per day, the CONTRACTOR shall have a full time portland cement concrete construction supervisor on site to direct the construction operations. The supervisor shall be certified either as an ACI certified Concrete Field Testing Technician Grade I, or the equivalent National Institute for Certification of Engineering Technologies Technician, with Specialty Concrete Work Elements Level I 82001, 82002, and Level II 84002, 84003, 84004, 84010. The supervisor shall be identified by the CONTRACTOR at the preplacement conference and shall be the contact person for the ENGINEER during concrete construction.

101.1.3 Pre-Placement Conference

A Pre-Placement Conference shall be held by the CONTRACTOR, as directed by the ENGINEER, no later than seven (7) calendar days prior to the start of construction for concrete continuous placement(s) equal or greater than either 100 cubic yards of concrete per day. The following meeting agenda/assigned responsibilities shall be accomplished at the conference.

I. ENGINEER/OWNER

- A. Scope of the project.
- B. Identify construction management team and contact telephone numbers.

- C. Review CONTRACT requirements for construction.
- D. Review Quality Assurance Program.

II. CONTRACTOR

- A. Review construction schedules.
 1. Placement schedules.
 2. Proposed construction schedule for duration of the project.
- B. Identify construction personnel and contact telephone numbers.
 1. Contractor Staff
 2. Sub-Contractor (s)
 3. Supplier (s)
 4. Safety Manger
- C. Present construction placement procedure plans.
 1. Equipment Schedule
 2. Concrete Design Mix
 3. Construction methodology
 4. Concrete pumping plan
 5. Traffic Control Plan
 6. Quality Control Plan

III. DISCUSSION AND COMMENT

101.2 REFERENCES

- 101.2.1 American Society for Testing and Materials (Latest Edition) (ASTM)
- C31 Making & Curing of Concrete Test Specimens in the Field
 - C33 Specification for Concrete Aggregates
 - C39 Test for Compressive Strength of Cylindrical Concrete Specimens
 - C42 Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
 - C78 Test for Flexural Strength of Concrete (Using Simple Beam With Third-Point Loading)
 - C94 Specification for Ready-Mixed Concrete
 - C125 Definition of Terms Relating to Concrete and Concrete Aggregates
 - C138 Air Content (Gravimetric), Unit Weight, and Yield of Concrete
 - C143 Test for Slump of Portland Cement Concrete specification. If required, certification
 - C150 Specification for Portland Cement
 - C172 Sampling Fresh Concrete
 - C173 Test for Air Content of Freshly Mixed Concrete by the Volumetric Method
 - C192 Making & Curing of Concrete Test Specimens in the Laboratory
 - C227 Test for Potential Alkali Reactivity of Cement-Aggregate Combinations (Mortar Bar Method)

- C231 Test for Air Content of Freshly Mixed Concrete by the Pressure Method
- C260 Specification for Air Entraining Admixtures for Concrete
- C330 Specification for Lightweight Aggregates for Structural Concrete
- C441 Test for Effectiveness of Mineral Admixtures in Preventing Excessive Expansion of Concrete Due to Alkali-Aggregate Reaction
- C494 Specification for Chemical Admixtures in Concrete
- C567 Unit Weight of Structural Lightweight Concrete
- C617 Capping Cylindrical Concrete Specimens
- C618 Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
- C685 Specification for Concrete Made by Volumetric Batching & Continuous Mixing
- C803 Test for Penetration Resistance of Hardened Concrete
- C805 Test for Rebound Number of Hardened Concrete
- D2419 Sand Equivalent Value of Soils and Fine Aggregates

101.2.2 American Concrete Institute (Latest Editions)

- ACI 211.1 Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
- ACI 211.2 Standard Practice for Selecting Proportions for Structural Lightweight Concrete
- ACI 318-89 Building Code Requirements for Reinforced Concrete

101.2.3 This Specification:

- SECTION 337 PORTLAND CEMENT CONCRETE PAVEMENT
- SECTION 340 PORTLAND CEMENT CONCRETE CURBS, GUTTERS, WALKS, DRIVEWAYS, ALLEYS, INTERSECTIONS, SLOPE PAVING, AND MEDIAN PAVING
- SECTION 346 TEXTURED CONCRETE
- SECTION 349 CONCRETE CURING
- SECTION 420 TRAFFIC SIGNAL AND STREET LIGHTING CONDUIT, FOUNDATIONS AND PULL BOXES
- SECTION 510 CONCRETE STRUCTURES
- SECTION 512 PRECAST PRESTRESSED MEMBERS
- SECTION 602 PORTLAND CEMENT CONCRETE FOR CHANNEL LINING AND DIKE AND DAM SURFACING

- SECTION 701 TRENCHING, EXCAVATION AND BACKFILL
- SECTION 800 INSTALLATION OF WATER TRANSMISSION, COLLECTOR AND DISTRIBUTION LINES
- SECTION 900 SANITARY AND STORM SEWER FACILITIES
- SECTION 915 STORM DRAINAGE APPURTENANCES
- SECTION 1500 MONUMENTS

101.3 PORTLAND CEMENT

101.3.1 Portland cement to be used or furnished under this Specification shall comply either with the requirements of ASTM C150, Types I LA, II LA, III LA, and V LA, cements, or as specified herein, in the Supplementary Technical Specifications, Drawings, or as approved by The ENGINEER. The CONTRACTOR shall submit certification of compliance signed by the cement manufacturer, identifying the cement type and source (plant location), stating the Portland cement furnished to the project, and or used in the concrete delivered to the project complies with this Specification. If required, certification of the Portland cement used for each day's concrete placement shall be submitted to The ENGINEER for each type of cement and each design mix used on the project.

101.3.2 Portland cement specified in an authorized design mix shall be of the same source and type for all concrete batched at and/or delivered to a project under the authorized design mix identification number.

101.3.3 When suitable facilities (such as those recommended by the Concrete Plant Manufacturer's Bureau and/or approved by The ENGINEER) are available for handling and weighing bulk cement, such facilities shall be used. Otherwise, the cement shall be delivered in original unopened bags of the Manufacturer and the type of cement plainly marked thereon, each bag to contain 94 pounds (42.6 kg) of cement.

101.3.4 Cement shall be stored in such a manner as to permit ready access for the purpose of inspection and be suitably protected against damage by contamination or moisture. Should any lot of bulk cement delivered to the site show evidence of contamination, The ENGINEER may require that such lot be removed from the site.

101.3.5 Portland cement shall be measured by weight, lbs, (mass, kg) for concrete produced in accordance with the requirements of ASTM C94 and by volume for concrete produced accordance with the requirements of ASTM C685.

101.4 AGGREGATES:

101.4.1 Aggregates shall comply with the requirements of ASTM C33 and as amended herein, or as specified in the Supplementary Technical Specifications and Drawings, or as approved by the ENGINEER. Aggregates shall be certified to comply with the requirements of this Specification and authorized for use by The ENGINEER before the materials may be incorporated in the construction. Prior to delivery of the aggregates or material containing the aggregates, The CONTRACTOR may be required to furnish samples of the aggregates to The ENGINEER for testing. The CONTRACTOR's daily production aggregate gradations used in concrete shall be submitted to The ENGINEER upon request. Aggregates specified in an authorized design mix shall be of the same source and type for all concrete batched and delivered under the authorized design mix identification number.

101.4.2 In placing materials in storage or in moving them from storage to the mixer, no method shall be employed which may cause the segregation, degradation, or the combining of materials of different grading which will result in any stockpile not meeting specified requirements.

101.4.3.1 Aggregates supplied under this Specification shall be assumed to be "alkali-silica reactive", ASR. Variance from this position for a particular aggregate source may be authorized by The CITY ENGINEER. Application for a variance may be made to The CITY ENGINEER.

101.4.3.2 An aggregate may be classified non-alkali-silica reactive if, when tested in accordance with ASTM C227, using low alkali cement typical to the Albuquerque area, demonstrates an expansion at one (1) year not greater than 0.05%, and the rate of expansion is negative decreasing, based on test measurements at 1 month, 3 months, 6 months, 9 months, and 15 months, as authorized by the CITY ENGINEER.

101.4.3.3 Portland cement concrete design mixes using non alkali-silica reactive aggregates complying with 101.4.3.2 will not be required to be proportioned with Class F fly ash.

101.4.4.1 Coarse aggregates shall meet the gradation limits as specified in Table 2 of ASTM C33. Fine aggregates shall comply with the gradation requirements of ASTM C33, Section 4, Grading. The sand equivalent of fine aggregate, when tested in accordance with ASTM D2419, Sand Equivalent Value of Soils and Fine Aggregates, shall be greater than 75.

101.4.4.2 The maximum size aggregate shall comply with either these specifications, or the requirements of Table 101.A, or the Supplementary Technical Specifications, or

the recommendations of ACI 318-89, paragraph 3.3.2, or as required by The ENGINEER.

101.4.5 Aggregates shall be measured by weight (mass) for concrete batched under the requirements of ASTM C94 and by volume for concrete batched in accordance with the requirements of ASTM C685.

TABLE 101.A
MAXIMUM SIZE AGGREGATE

	Application	Size, in
I.	Pavement, Sidewalk, Curb and Gutter, Drive Pads, Wheel Chair Ramps, Slab on grade, Foundations, and Structures,	1
II.	Channels, minimum 5% retained on the 1 in sieve	1-1/2
III.	High Early Release Concrete, minimum 5% retained on the 1/2 in sieve	3/4
IV.	Stamped, Patterned, Stairs and Steps, minimum 5% retained on the 3/8 in sieve	1/2
V.	Formed Concrete	
	A. 1/5 the narrowest dimension between sides of forms,	
	B. 1/3 the depth of slab,	
	C. 3/4 of the minimum clear spacing between individual reinforcing bars or wires, bundles of bars, or prestressing tendons or ducts, or reinforcing and forms.	

101.5 WATER

Water used in Portland cement concrete shall be clean and free from injurious amounts of oil, acids, alkalis, salts, organic materials, or other substances that may be deleterious to the concrete or reinforcement. Non-potable water shall not be used unless the requirements of ACI 318.3.4.3.2 are met. Water shall be measured by weight or volume for concrete batched under the requirements of ASTM C94 and by volume for concrete batched in accordance with the requirements of ASTM C685.

101.6 ADMIXTURES:

101.6.1 Admixtures shall comply with the requirements of this specification. The CONTRACTOR shall submit a certification of compliance signed by the admixture manufacturer, identifying the admixture and its source (plant location), stating the admixture furnished to the project and/or used in the concrete delivered to the project complies with this Specification. Certification laboratory testing of an admixture shall be submitted by the CONTRACTOR to the

ENGINEER upon request. Admixtures specified in an authorized design mix shall be of the same source and type for all concrete batched and delivered as defined under a design mix identification number. Admixtures shall be measured accurately by mechanical means into each batch by equipment and in a method approved by the ENGINEER. An admixture shall not be used on a project without authorization by the ENGINEER.

101.6.2 Air-entraining agent, conforming to ASTM C260, shall be measured accurately by mechanical means into each batch by equipment and in a method approved by The ENGINEER. The air-entraining agent used shall not contain more than 0.035% chloride by weight. Air-entrainment content shall comply with the requirements Table 101.B., the Supplementary Technical Specifications, or the recommendations of ACI 318, latest edition.

TABLE 101.B ENTRAINED AIR CONTENT

Nominal Maximum Size Aggregate, in.	Air Content Range. (%)	
	min	max
1/2	5.5	8.5
3/4	4.5	7.5
1	4.5	7.5

101.6.3 Chemical admixtures shall conform to either the requirements of ASTM C494, or as specified in the Supplementary Technical Specifications, or as specified by The ENGINEER. Chemical admixtures shall not contain more than 0.035% chloride by weight.

101.6.4.1 Mineral admixtures shall be class "F" fly ash complying with the requirements of ASTM C618 including the requirements of TABLE 4, UNIFORMITY REQUIREMENTS, and the requirements of this Specification.

101.6.4.2 Mineral admixtures, when tested in accordance with ASTM C441, shall conform to the following:

Reduction in expansion @ 14 days, % . min.	65.0
100% Reliability	
Mortar expansion @ 14 days, max, %	0.20
Expansion must be less than control sample expansion.	

101.6.4.3 The "Reactivity with Cement Alkalis" shall be determined using new Dow Corning glass rod base for aggregate. If a fly ash does not comply with the above requirement using the specified cement type, it may be authorized if the criteria is met using the low alkali Portland cement typically available to the Albuquerque area, as directed by the ENGINEER.

101.6.4.4 Mineral admixtures used or furnished under this Specification shall be certified quarterly, in a calendar year, to comply with this Specification by the supplier. Certification shall include test results and specifications, source and location.

101.6.4.5 Mineral admixtures shall be measured by weight (mass) for concrete batched under the requirements of ASTM C94 and by volume for concrete batched in accordance with the requirements of ASTM C685.

101.6.5 Accelerating admixtures may be used in Portland cement concrete batched and supplied under this Specification only when approved by The ENGINEER. The accelerating admixture used shall be a non-chloride type. A design mix proportioned with an accelerating admixture shall be submitted as specified in paragraph 101.8.8. and authorized by The ENGINEER, prior to use on a project.

101.7 PROPORTIONING

101.7.1 Portland cement concrete shall be proportioned in accordance with the requirements of ACI 318, latest edition, Chapter 5, either ACI 211.1 or ACI 211.2 (latest editions), and Table 101.C of this Specification, either field experience or trial mixtures, and the construction placement requirements selected by the CONTRACTOR. The CONTRACTOR shall be solely responsible for the portland cement concrete design mix proportions for concrete either batched at, or delivered to, placed and finished at the site. Certification of a design mix and all component materials, including all formulations of a mix and any and all admixtures which may be used under special construction conditions and environments with that mix to include high range water reducers (super-plasticizer), accelerating admixtures and retarders, and any other admixture, shall comply with the requirements of Section 13 of this Specification.

101.7.1.1 Design mix(es) shall be prepared in a laboratory accredited in accordance with the requirements of the New Mexico State Highway and Transportation Department "Procedure for Approval of Testing Laboratories to Perform Inspection, Testing, and Mix Design Services", April 13, 1998 Edition, and operated under the direct supervision of a New Mexico registered Professional Engineer.

101.7.1.2 The testing equipment used in the design development testing shall be calibrated annually with calibration standards traceable to the National Bureau of Standards. Certificates of calibration shall be maintained at the laboratory for review by The ENGINEER. A copy of the certifications shall be submitted to The ENGINEER upon request. A portland cement concrete design mix shall

not be batched at and/or delivered to a job site without written authorization of The ENGINEER.

101.7.1.3 A design mix shall be prepared under the direct supervision of a New Mexico Registered Professional Engineer.

101.7.2 Portland cement shall be proportioned to comply with the requirements specified in Table 101.C, or as specified in the Supplemental Technical Specifications, or Plans, or as authorized by The ENGINEER.

101.7.3 The mineral admixture class F fly ash shall be proportioned by weight of cement to provide a fly ash to portland cement ratio not less than 1:4, not less than 20 per cent of the total cementitious material. Portland cement concrete submitted under this Specification shall be proportioned with Class F fly ash, unless a variance is authorized by the City Engineer.

101.7.4 The water to total cementitious material ratio shall not be greater than specified in Table 101.C, or the maximum determined from a "trial mix" compressive strength vs. water to cementitious ratio curve, defined in accordance with ACI 318, latest edition, Chapter 5. The trial mix compressive strength water to cementitious material ratio curve shall be developed with the target slump at design application maximum, ± 0.75 inches, and the target entrained air content at design application maximum, ± 0.5 per cent, using materials specified in the design submittal. The cementitious material shall be defined as the total weight of portland cement and Class F fly ash in design mix.

101.7.5.1 A design mix submittal shall include but not be limited to the following information, as directed by the ENGINEER.

A. Certification of compliance of the design mix with the requirements of this Specification in accordance with Section 13 of these specifications by the New Mexico Registered Professional Engineer in responsible charge of the design mix development;

B. Certification of compliance of design mix's component materials by a manufacturer/supplier. The certification shall include laboratory test results of companion samples of the component material used in the laboratory prepared design mix, verifying the component materials comply with the specifications. For a mix design based on statistical methods, certification(s) of component materials shall be based on results performed within two (2) months of the submittal date.

C. Plastic characteristics of the design mix to include concrete temperature, slump, entrained air content, wet unit

weight, yield and cement factor, reported in English and metric units;

D. Performance characteristics of the hardened concrete to include the compressive strength of all test cylinders averaged for a respective test and the corresponding average compressive strength reported in English units;

E. Compressive strength test (3 cylinder tests each point) shall be reported for each water to cementitious material ratio design mix proportioned at 3, 7, 14 and 28 days laboratory cure normal concrete; and, 1 day, 3 days, 7 days and 28 days laboratory cure for high early release concrete.

F. The "trial mix" compressive strength vs. water to cementitious ratio curve graphically plotted to include the water to cementitious ratio for the proposed design mix. A proposed design mix water to cementitious ratio outside the limits of a trial mix curve shall be rejected.

G. When a proposed design mix is based on statistical analysis of historical data, certification that the design mix represented by the historical data was batched with the same or similar materials from the same sources as the materials proposed in the design mix shall be included in the submittal. Under this design certification procedure, the proposal shall include a statistical analysis for a period of 12 months prior to sampling aggregates of the characteristics of a) slump, b) entrained air, and c) $f'_c@28$ day compressive strength test. A compressive strength test shall be the average of two (2) cylinders tested at 28 days. An annual average aggregate gradation analysis may be used if the data represents the 12 month period prior to sampling for a design mix. A minimum of three production gradations per month will be required in the data base, as directed by the ENGINEER.

H. Batch proportions for concrete Made by Volumetric Batching and Continuous Mixing, ASTM C685, shall include 1) component batch weights, 2) component batch volumes, and 3) gate settings for each type of batching equipment the design mix that may be batched.

J. High Range Water Reducing Admixture(s) (hrwra). Superplastizers

a. A prescription for use of the hrwra in a design mix shall be provided by the CONTRACTOR to include but not limited to the following

1. Maximum dosage per cubic yard (meter) by standard measure, ozs/yd³;
2. Admixture introduction location (plant or Job site);
3. Minimum mixing after admixture introduction (drum revolution count at mixing speed);
4. Air entrainment dosage adjustment, if required;
5. Base mix water reducing admixture (wra) dosage

- adjustment, if required;
6. Consistency (slump) targets for before and after admixture introduction;
 7. Concrete temperature limitations, if required; and.
- b. Laboratory demonstrated performance of the design mix, at the specified maximum admixture dosage, shall be reported, including slump, entrained air content, unit weight, water to cementitious materials ratio, seven (7) and twenty eight (28) day compressive strength (fc), and three (3) days and seven (7) day compressive strength (fc) for high early release concrete. Submittal compressive strength shall be based on the average value of three cylinders required.
- K. Accelerating Admixture(s)
- a. A prescription for use of the accelerating admixture in a design mix shall be provided by the contractor to include but not limited to the following:
 1. Maximum dosage per cubic yard (meter) by standard measure, ozs/yd³;
 2. Concrete temperature limitations, if required;
 3. Admixture introduction location, plant or project;
 4. Restrictions of use in combination with other admixtures, as applicable; and.
 - b. Special considerations for mixing, placing, and curing, as applicable.
- L. Color Admixture(s)
- a. A prescription for use of a color admixture in a design mix shall be provided by the CONTRACTOR to include but not limited to the following:
 1. Maximum dosage per cubic yare (meter) by standard measure, ozs/yd³;
 2. Admixture introduction location, plant or project;
 3. Restrictions of use in combination with other admixtures; and
 - b. Special considerations for mixing, placing, and curing, as applicable.
- M. Submittal Format
- a. A standard design mix submittal may include some or all of the above information as directed by the CONTRACTOR to define use as "optional" admixture(s). The standard design mix code would be the same for applications with and without the optional admixture(s)
 - b. A specific design mix submittal can be made to include either color, or accelerating, or high range water reducing admixture for use under a specified application only. Separate design mix submittals will be required to include the information specified above.
- 101.7.5.2 A submittal shall be rejected if it does not include the specified information and samples. A design mix submittal shall be accepted or rejected within ten (10) days of receipt by the ENGINEER.

TABLE 101.C - DESIGN MIX SPECIFICATIONS-PORTLAND CEMENT CONCRETE

		Design Requirements (1, 2, 3)				
Application	Use In Section(s)	f'c @ 28 days (4) minimum	Entrained Air Range [11]	Slump, Not To Exceed, nte (5)	Portland Cement min, lbs/cy	w:(c+fa) max [7]
Pavement, drive pads and wheel chair ramps integral w/curb & gutter, curb & gutter, valley gutter, storm drain drop inlets, and manhole bases. For design of PCCP, use MR= 600 psi.	337, 340, and 915	4,000	(See par. 101.7.2)	Hand Place, Slip Formed, w/HR WRA	4 564	0.40
Exterior structures, exterior slab on grade, foundations, sidewalks, drive pads, wheel chair ramps, stamped pattern concrete, steps/stairs, and miscellaneous concrete.	340, 346, 420, 7001, 800, and 1500	3,500		Hand Place, Slip Formed, w/HR WRA	4 520	0.45
Interior (heated areas) structures, and slab on grade in heated areas.	510	3,000		Hand Place, w/HR WRA	4 470	0.50
Hydraulic structures, channels, reservoirs, bridge decks, and parking structures, post tensioned concrete	510, 512, and 602	4,000 (8) (9)		Hand Place, w/HR WRA	4 564	0.40
Sanitary sewer structures and SAS manhole bases	900	4,000		Hand Place, w/HR WRA	4 658 (6)	0.40
Prestressed Concrete		4,000		Hand Place, w/HR WRA	4 520	0.40
Prestressed Concrete, Sanitary Sewer Applications, (8) and (9)		4,000		Hand Place, w/HR WRA	4 658	0.40
High Early Release Concrete fcr= 3400 psi @ release to service (10)	All applications	4,000 @ 7 days		Hand Place, w/HR WRA	4 658 (6)	0.40

- Use of material(s) not defined by this specification must be approved by the ENGINEER and the COA Materials & Testing Laboratory.
- Maximum size aggregate shall comply with the requirements of par. 101.4.4.2.
- Portland cement concrete shall be proportioned with Class F fly ash complying with the requirements of 101.6.4, proportioned 1: 4, minimum, fly ash to portland cement, by weight (mass).
- MR-Modulus of Rupture, Compressive Strength (f'c) at 28 days.
- When authorized by the ENGINEER, a high range water reducing admixture (HRWRA), super plasticizer, may be used to increase slump. When a HRWRA is proposed for use on a project. The design mix shall be proportioned to include the HRWRA. The use of a HRWRA in a design mix that was not originally proportioned with a HRWRA is not acceptable under this specification. Higher slump(s) may be used, as directed by the ENGINEER.
- If portland cement complying with ASTM C150 Type I/A is used, a minimum of 564 lbs/cy may be used.
- "w : (c+fa)" is defined as water to cementitious materials ratio. Cementitious material is the sum of the portland cement and fly ash, by weight (mass).
- Lightweight structural concrete for structures, parking decks, and bridge decks shall be proportioned with a minimum compressive strength of f'c= 4750 psi @ 28 days.
- Minimum requirements for prestressed/post tensioned concrete. Actual criteria may differ as specified in the plans and supplemental technical specifications.
- "High Early Release Concrete" is specified where early release of structure to either service or construction loads may be required, as authorized by the ENGINEER. "fcr" is the minimum compressive strength for release, as determined by field cured cylinders. Maximum size aggregate shall be 3/4 inch.
- Designated interior concrete, placed, finished, cured, and maintained by the Contractor in a temperate environment of 40F or greater, may be constructed with non air entrained concrete complying with all other requirements of this specification for the calendar period after April 30 and before October 1, as authorized by the Engineer. Concrete for wet exposures, showers and wash down areas, vehicle repair and storage floors shall not be included in this variance.

101.8 BATCHING

101.8.1 Portland cement concrete shall be batched in accordance with the requirements of either ASTM C94, or ASTM C685, and the requirements of this Specification, as authorized by the ENGINEER. Batching facilities, mixing, and transporting equipment shall be certified within 12 months prior to batching of a design mix. The plant shall be certified by a NM Registered Professional Engineer, to comply with the requirements of this Specification and Section 13. The certification shall have been completed within 12 months of batching an authorized portland cement concrete design mix. Written certification shall be available for review at the plant by the ENGINEER, and, submitted to the ENGINEER upon request.

101.8.2.1 Ready-mix concrete batch plants shall be certified to comply with the requirements of this Specification. Written certification of compliance shall be available for review at the batch plant by The ENGINEER.

101.8.2.2 Central-Mix Batch Plants shall be certified to comply with this Specification and standards of the National Ready-Mix Concrete Association. The central-mixers rated capacity shall be posted at the batch plant in the operator's area.

101.8.2.3 Portable batch plants shall be certified after erection at a project and prior to batching concrete to be used at the project site. The batch plants rated capacity shall be posted at the batch plant in the operator's area.

101.8.2.4 Ready-mix concrete trucks shall be certified to comply with the requirements of this Specification and the "Standards for Operation of Truck Mixers and Agitators of the National Ready-Mix Concrete Association", and the "Truck Mixer Manufacturer Bureau", latest editions. Written certification of compliance shall be carried in/on the vehicle for verification by The ENGINEER. The manufacturers rated capacity, mixing and agitating speeds shall be posted on the truck mixer. Mixers shall have an operable mixer drum revolution counter and water metering system to measure temper water that may be added to a mixer after batching and prior to discharge of a load.

101.8.2.5 Shrink-mixed concrete batching shall be certified to comply with the requirements of this Specification. Written certification of the program to include a) maximum concrete volume defined for the process/equipment, b) minimum time of mixing in the stationary mixer of materials after the addition of all cementitious material, and, c) minimum supplemental mixing revolutions in the transit mix truck. A copy of the certified procedure shall be available at the batch plant for review by The ENGINEER, and submitted upon request. The ENGINEER shall be notified by the CONTRACTOR in writing which concrete supplied to a project is produced with this procedure. Shrink mixed

batching shall not be used on a project without authorization by the ENGINEER.

101.8.2.6 Volume batching central mix and concrete mobile trucks shall be certified to comply with this Specification. Certification shall include discharge gate settings/material weight batching references for each material carried and a certified water meter and calibration chart to define water settings. Discharge calibration settings shall be established for each production batching rate and authorized design mix batched. The equipment shall be recalibrated if a change in materials or source of materials occurs. Written certification of compliance shall be carried in/on the vehicle for verification by The ENGINEER.

101.8.2.7 On-site batching and mixing equipment for concrete volumes of less than 1 cubic yard shall conform to the requirements of ASTM C192, and shall be approved by The ENGINEER. On-site batched concrete for volumes less than 1 cubic yard shall be either "Redi-2-Mix", "Quikrete", or equal prepackaged concrete mix. The concrete shall be proportioned with water not to exceed a maximum of 1.5 gallons per 60 lbs./bag or equivalent. Concrete batched under this paragraph shall not be used for finished, interior and/or exterior exposed concrete surfaces.

101.9 MIXING

101.9.1 Concrete batched in accordance with ASTM C94, shall be mixed in accordance with the requirements of that Specification and as follows.

101.9.2 Central-Mixed Plants: Concrete mixed in a stationary mixer and transported to the point of delivery shall be mixed from the time all the solid materials are in the drum. The batch shall be so charged with some water in advance of the aggregates and cementitious materials, and all water shall be in the drum by the end of one-fourth the specified mixing time. Mixing time shall be a minimum of 1 minute for the first cubic yard plus 15 seconds for each additional cubic yard, or fraction there of additional capacity. Where mixer performance tests have been conducted in accordance with ASTM C94, with the mixer to rated capacity, the mixing time may be reduced to the time at which satisfactory mixing defined by the performance tests shall have been accomplished. When the mixing time is so reduced the maximum mixing time shall not exceed this reduced time by more than 60 seconds for air entrained concrete. Certified concrete uniformity tests shall be conducted in accordance with ASTM C94 and Section 13. If the uniformity requirements are not met, that mixer shall not be used until the condition is corrected.

101.9.3 Shrink-Mixed Concrete:

Concrete mixed in a shrink mix production program shall be mixed in accordance with the certified shrink mix program as defined by The CONTRACTOR. Concrete shall be mixed in a stationary mixer not less than the certified

minimum mixing time after all ingredients are batched into the drum, and not less than the minimum mixing revolutions specified for the transit mix truck after the load is transferred into the transit mix truck. Mixing in the transit mix truck shall not exceed the maximum requirements of paragraph 101.9.4. Shrink-mixed concrete procedures shall be certified to provide concrete that complies with the uniformity specifications of ASTM C94 as determined by uniformity tests specified in ASTM C94, for the maximum batch volume of concrete defined by The CONTRACTOR. If uniformity requirements are not met for the combination of stationary plant and transit mixers, the shrink mix program shall not be used. Tempering of shrink mix concrete at the job site shall comply with the requirements of 101.10 and 101.11.

101.9.4 Truck-Mixed Concrete:

Concrete mixed in a truck mixer shall be mixed after all ingredients including water, are in the drum at least 70 revolutions and not more than 100 revolutions at the mixing speed as defined by the Manufacturer. The mixing speed for the mixer shall be identified on the mixer. Certified concrete uniformity tests shall be conducted on transit mixer trucks in accordance with ASTM C94 and Section 13 annually. If the uniformity requirements are not met, that mixer shall not be used until the condition is corrected. Mixing beyond the number of revolutions at mixing speed found to produce the required uniformity of concrete shall be at the agitation speed defined by the mixer manufacturer. The manufacturer's recommended mixing and agitation speeds shall be posted on the truck mixer.

101.9.5 Volume Batched Concrete:

Concrete batched in accordance with ASTM C685, shall be mixed in accordance with the requirements of this Specification and the Manufacturer's recommendations. The continuous mixer shall be an auger type mixer or any other type suitable for mixing concrete to meet the requirements for uniformity specified in ASTM C685.

101.10 TEMPERING BATCHED CONCRETE

101.10.1.1 The slump of a concrete mix sampled at final discharge shall comply with the requirements of TABLE 101.C. Non complying material shall be removed from the structure as directed by the ENGINEER.

101.10.1.2 A load of concrete may only be tempered with water after the mix cycle is complete when, upon arrival at the job site, the slump of the concrete is less than specified, and the time limit and revolution limit specified in 101.9 are not exceeded. When additional water is required, the total water in the truck shall not exceed the maximum water to cementitious ratio specified in the authorized design mix when the concrete is discharged. When tempering is required and allowed as defined by the water to cementitious ratio for the design mix, the water shall be injected into the mixer and the drum or blades turned a minimum of 30

revolutions at mixing speed before discharge as long as the revolution limit specified in 101.9 is not exceeded. Additional water shall not be added to the batch after tempering without authorization by The ENGINEER.

101.10.1.3 When the slump of a sample taken within the time limits specified in 101.9 the specification requirements of TABLE 101.C, the mixer truck may be mixed a minimum of 15 revolutions at mixing speed, as long as the revolution limit specified in 101.9 is not exceeded, sampled and tested. If the slump of the second sample exceeds the maximum specified slump by 0.25 in (6 mm), the load may be rejected as directed by the Engineer.

101.10.2.1 The air content in air entrained concrete, when sampled from the transportation unit at the point of discharge, shall comply with the requirements of this specification. Non complying material shall be removed from the structure as directed by the ENGINEER.

101.10.2.2 When a preliminary sample taken within the time limits specified in 101.9 and prior to discharge for placement shows an air content below the minimum specified level, the CONTRACTOR may add additional air entraining admixture to achieve the specified air content, if the revolutions on the drum counter are less than 300, and the total revolutions, after air entrainment addition will not exceed 300 following mixing a minimum of 30 revolutions at mixing speed after dosage with the admixture. Additional air entraining admixture may not be added to the batch after the initial air entraining admixture tempering. Air entraining admixture shall be batched in accordance with 101.7.2. In addition to sampling and testing for compliance after tempering with the air entraining admixture, a sample shall be taken during discharge from the second half of the load to verify slump and entrained air compliance through the load with the specification.

101.10.2.3 When the entrained air exceeds the specified requirements, the load may be mixed a minimum of 15 revolutions, sampled and tested, if the drum revolutions do not exceed 300, and will not exceed 300 following mixing. If the entrained air exceeds the specification by 0.1 %, the load may be rejected as directed by the ENGINEER.

101.10.3 High range water reducing admixtures, superplasticizers shall be batched as recommended by the manufacturer.

101.10.4 Aggregates and cementitious material may not be used to temper a batched load of portland cement concrete.

101.10.5 All samples shall be tested for slump, entrained air, and unit weight after tempering.

101.10.6 The field dosage amounts of admixtures and water shall be reported on the truck ticket.

101.10.7 The OWNER shall pay for quality assurance sampling and testing specified 101.15, or as directed by the ENGINEER.

101.11 DELIVERY & DISCHARGE:

101.11.1 Discharge of the concrete shall be completed within 1-1/2 hours or before the drum has revolved 300 revolutions, whichever comes first after the introduction of the mixing water to the cement and aggregates. These limitations may be waived by The ENGINEER if (1) the concrete is proportioned and certified for use after mixing/agitation time in excess of 1-1/2 hrs, or (2) is of such a slump that it can be placed and finished, without the addition of water to the batch after the time limit noted above is exceeded. In hot weather or under conditions contributing to quick stiffening of the concrete, a time less than 1-1/2 hrs. may be specified by The ENGINEER.

101.11.2 The minimum discharge temperature of concrete in cold weather shall be equal or greater than the temperature specified in Table 101.D.

TABLE 101.D - Cold Weather Construction
Concrete Temperature, min [1]

Ambient Air Temperature	Thin Sections	Heavy Sections & Mass Concrete [2]
30 to 45 °F	60°F	50°F
0 to 30 °F	65°F	55°F
Below 0 °F	70°F	60°F

[1] The maximum concrete discharge temperature of all concrete, except "high early release concrete", produced with heated aggregates, heated water, or both, shall be 70°F. The discharge temperature of "high early release concrete" in cold weather shall be 70 °F - 76 °F.

[2] Sections having dimensions in all directions greater than 2 feet (24 inches)

101.11.3 The discharge temperature of concrete in hot weather should be kept as cool as possible. Concrete supplied to a project site having a discharge temperature greater than 90 °F may be rejected by The ENGINEER if the concrete cannot be placed and finished after a single tempering with water as authorized under 101.10. Retarding admixtures may be used to control setting in hot weather. The discharge temperature of "high early release concrete" in hot weather shall be specified by the CONTRACTOR.

101.11.4 The CONTRACTOR shall provide to The ENGINEER with each batch of concrete batched and/or delivered to the job site, before unloading at the site, a

delivery batch ticket on which the information specified in TABLE 101.E is printed, stamped or written, certifying said concrete. One copy of the ticket shall be available for the ENGINEER and one copy of the ticket shall be available for the quality assurance testing program.

TABLE 101.E
BATCHING TICKET INFORMATION
REQUIREMENTS

- A. Name of Concrete Supplier
- B. Delivery Ticket Number
- C. Date of Delivery
- D. Contractor
- E. Project Name (Optional)
- F. Design Mix Number
- G. Volume of Concrete in Load
- H. Time loaded
- J. Batched Weight (mass) of Cement
- K. Batched Weight (mass) of Fly Ash
- L. Batched Weight (mass) of Fine Aggregate
- M. Batched Weight (mass) of Coarse Aggregate(s)
- N. Batched Weight (mass) or Volume of Each Admixture
- O. Weight or volume of water batched at the plant
- P. Design Mix Target Proportions
- Q. Weight or volume (gal.) of temper water added at the site
- R. Weight or volume of each temper admixture added at the site
- S. Signature and name (printed) of CONTRACTOR'S representative who authorized the tempering, if any, at the site and affiliation to project

101.12 PLACEMENT

101.12.1 Portland cement concrete shall be placed to the lines, sections, grades and elevations, with the procedures specified in the CONTRACT documents. The material shall be consolidated to eliminate all voids, internal rock pockets and defects in the finish concrete. Casting subgrade and formed surfaces shall be damp, at the placement of the concrete. Removable forms shall be treated with a form release agent prior to placement of the forms for ease of removal of the forms without damage to the supported concrete. Forms shall be sealed to prevent leakage. Form release agents shall not stain the adjacent concrete. Placement and finishing shall be completed prior to the start of the initial set of the concrete.

101.12.2.1 The CONTRACTOR shall submit a concrete pumping plan to the ENGINEER for review and authorization one week prior to the start of a pumped

concrete construction program for placements complying with 101.1.1. The submittal should identify the pump manufacturer, size and type, rated capacity(s) for the line diameter(s) to be used and distance(s) to be pumped.

101.12.2.2 Pumping shall conform to the recommendations of the pump manufacturer. The pump manufacturer's operation manual shall be available on the pump equipment, and submitted to the ENGINEER, upon request.

101.12.2.3 Concrete shall be pumped in a uniform continuous flow to point of discharge, with all lines kept full, during the pumping operation. The CONTRACTOR shall provide either a system for controlled discharge of the concrete, or the last 5 feet of the pump line, immediately prior to the line discharge opening, shall have a slope equal or less than 10:1, horizontal to vertical, during the pumping of concrete, as authorized by the ENGINEER. The concrete shall not be dropped a vertical distance greater than four feet at discharge from the pump line without a tremie. Concrete placed by pump shall conform to the requirements of this specification after discharge from the pump line. Pumping of concrete shall not commence without authorization by the ENGINEER.

101.13 FINISHING

The CONTRACTOR shall finish Portland cement concrete as required by the CONTRACT documents, Supplemental Technical Specifications, or as directed by the ENGINEER.

101.14 CURING CONCRETE

The CONTRACTOR shall cure concrete as required by the CONTRACT documents, SECTION 349 of this specification, the Supplemental Technical Specifications, or as directed by the ENGINEER. A concrete structure or element shall not be released to service loads until it has achieved a minimum of 85% of the design strength, f'_c , at the time the structure is placed in service, or the curing program specified in SECTION 349 is completed, or as directed by the ENGINEER. Service loads shall include construction loads, design loads and environmental exposure.

101.15 QUALITY ASSURANCE SAMPLING AND TESTING

101.15.1.1 Quality assurance sampling and testing shall be performed in accordance with the requirements of this Specification, the Supplemental Technical Specifications, or as required by The ENGINEER. Concrete shall be sampled and tested by a technician/engineer certified as either an ACI certified Concrete Field Testing Technician Grade I, or the equivalent National Institute for Certification of Engineering Technologies Technician, with Specialty Concrete Work Elements Level I 82001, 82002, and Level II 84002, 84003,

84004, 84010.

101.15.1.2 Quality assurance testing and analysis shall be performed in a laboratory accredited in accordance with the requirements of the New Mexico State Highway and Transportation Department "Procedure for Approval of Testing Laboratories to Perform Inspection, Testing, and Mix Design Services", April 13, 1998 Edition, under the direct supervision of a New Mexico Registered Professional Engineer.

101.15.1.3 Testing equipment used in the performance of specified testing shall be calibrated annually with calibration standards traceable to the National Bureau of Standards. Certification records shall be maintained at the laboratory for review by The ENGINEER. A copy of the certifications shall be submitted upon request to the ENGINEER. Quality assurance testing shall be directed by the ENGINEER and paid by the OWNER.

101.15.2.1 Samples will be taken in the field by The ENGINEER, in accordance with ASTM C172, at discharge to the structure/application after all tempering at the job site has been completed.

101.15.2.2 A sample shall be taken for each design mix of concrete placed each day, once for each 100 cu yd of concrete, once for each 5000 sq.ft. area of slabs or walls, or fractions thereof, whichever is greater, or as directed by the ENGINEER. Hi-lo thermometers will be provided by the CONTRACTOR to monitor field curing concrete temperatures and companion test specimens while in the field, as directed by the ENGINEER.

101.15.3 Slump tests will be performed on each quality assurance sample in the field in accordance with ASTM C143. Concrete used for slump tests shall not be used in specimens for strength tests. The slump shall not exceed the maximum value defined in TABLE 101.C plus 0.25 in (6 mm). Slumps shall be reported to the nearest 1/4 inch (1 mm).

101.15.4 Entrained air tests will be performed on each quality assurance sample in accordance with the requirements of ASTM C231 for normal weight concrete, and ASTM C173, light weight concrete as specified in TABLE 101.C. Concrete used for entrained air tests shall not be used in specimens for strength tests. The entrained air shall not be less than the minimum nor greater than the maximum entrained air specified plus 0.1%. Entrained air shall be reported to the nearest one tenth of one percent.

101.15.5.1 The cement content per cubic yard for a load of concrete shall be determined on each quality assurance sample in accordance with ASTM C138. The unit weight shall be reported to the nearest one tenth of a pound per cubic foot (one kilogram per cubic meter). The cement factor shall be reported to the nearest pound per cubic yard

(kilogram per cubic meter).

101.15.5.2 The portland cement content per cubic yard for a load of concrete shall be calculated by dividing the batched weight of the portland cement reported on the truck ticket for the load represented by a quality assurance test sample, by the yield, in cubic yards, determined in 101.15.1. The cement content shall be reported to nearest one pound per cubic yard. The portland cement content shall not be less than the minimum cement content for the application specified in TABLE 101.C.

101.15.5.3 The water to cementitious ratio for a load of concrete sampled and tested under this specification shall be calculated by comparing the total water in a load, by weight, the batched water reported on the load's batch ticket plus any water added in the field, to the sum of the portland cement and fly ash reported on the batch ticket. The weight of the water shall be divided by the weight of the cementitious materials and reported to the nearest one hundredth value (xx.xx). The water to cementitious ratio shall be less than or equal to the water to cementitious ratio for the application specified in TABLE 101.C.

101.15.6 A non complying field test, slump test, entrained air test, cement content, shall be verified by sampling and testing a second sample from the same load represented by the non complying sample/tests. If the second sample/tests determine the material is in compliance, the load may be authorized for placement and the all quality assurance tests required shall be performed. If the second test confirms the initial test results, the concrete load may be rejected as directed by the ENGINEER. If the second test confirms the initial sample non complying test, the second sampling and testing shall be paid by the CONTRACTOR, as specified in SECTION 13. The OWNER shall pay for all complying test.

101.15.7.1 Quality assurance compressive strength concrete specimens/cylinders shall be molded in accordance with ASTM C31. Cylinders shall be sealed metal or plastic molds complying with ASTM C31. The specimens will be submerged in water during the initial field curing at the site when the average ambient temperature is equal or greater than 60 °F, site conditions permitting, as directed by the ENGINEER. If the initial field cure submersion procedure is not used, high-low thermometers shall be used to monitor the initial field cure temperature of the quality assurance specimens, and the recorded temperatures shall be reported in the sampling and testing report. If the curing temperature recorded on the high-low thermometer exceeds 85 °F, concrete compressive test strengths shall be reported as information only, and the lab of record shall revise the initial cure procedure for the assurance specimens to control the curing temperature to less than 85 °F. Cylinders left in the field longer than the maximum specified time shall be so identified and reported "for information only". A sample may be taken to the testing laboratory for testing and casting

provided the cylinders can be molded within 15 minutes after sampling.

101.15.7.2 Strength specimens shall be molded and tested in accordance with ASTM C31, C39, C78 & C93, C192, and this specification. The number and type of compressive strength test cylinders shall be a minimum of four (4) 6" dia. x 12"H cylinders for channel concrete, and normal concrete with nominal maximum size aggregate of 1.5 inch to 2.0 inch. The number and type of compressive strength test cylinders shall be a minimum of four (4) 4" dia x 8" cylinders for normal concrete with nominal maximum size aggregate 1 inch and less. The number and type of cylinders shall be a minimum of six (6) 4" dia x 8" cylinders for high early release concrete compressive strength tests. The number and type of Modulus of Rupture flexure test beams shall be a minimum of three (3) 6"x6"x42" beams or equivalent for Modulus of Rupture Tests, as directed by the ENGINEER. Strength specimens shall be cast using concrete from the same load as the concrete field tests. When 4" dia. x 8" cylinders are used, they shall be cast in two equal lifts, each lift rodded twenty five times with a three eights inch (9.5 mm) diameter rod with a three eights inch (9.5 mm) semi spherical tip. The rodding of a lift placed on a lift of concrete shall penetrate into the top of the preceding lift.

101.15.7.3 When strength tests are required for stripping of forms or release of structure, a minimum of 2 test specimens complying with the specimen type specified in 101.15.7.2 for each test shall be molded and cured at the site under the same conditions as the concrete represented by the specimens. The specimens shall be returned to the Lab at the end of the field curing period and tested in accordance with ASTM C39. The test strength shall be the average of the test strengths of the two specimens. The critical concrete compressive strength (f_c) shall be a minimum of 85% of the specified design strength.

101.15.7.4 Concrete strength test specimens shall be tested at 7 days and 28 days. One specimen shall be tested at 7 days and 2 specimens shall be tested at 28 days, and reported to The Engineer. The test strength shall be the average of the test strengths of the two specimens tested at either 28 days, or as specified in the Supplemental Specifications, drawings, or by The ENGINEER.

101.15.7.5 High early release concrete strength test specimens shall be tested at 3, 7, and 28 days for concrete. One specimen shall be tested at 3 days and 2 specimens shall be tested at 7 and 28 days, and reported to the Engineer. The test strength for high early release concrete shall be the average of the test strengths of two specimens tested at 7 days, or as specified in the Supplemental Specifications, drawings.

101.15.8. Not Used.

101.15.9.1 Evaluation and acceptance of concrete shall meet the criteria established in Chapter 5, Section 5.6, "Evaluation and acceptance of concrete," ACI 318-89. Each strength test result shall be the average of two cylinders from the same sample tested at 28 days or the specified age. The strength level of the concrete will be considered satisfactory if the averages of all sets of three consecutive strength tests results equal or exceed the required f_c and no individual strength test result falls below the required f_c by more than 500 psi. Quality assurance compressive strength specimens sampled and cast when the average ambient temperature is greater than 60 °F, and cured with an initial field cure procedure other than submersion method specified in

101.15.7.1, shall be evaluated using the highest curing temperature recorded by the high-low thermometer provided for the field cure and Table 101.E. The test compressive strength shall be compared to the estimated strength corresponding to the highest initial cure temperature indicated in Table 101.E. An assurance compressive strength test shall be equal or greater than the compressive strength defined by Table 101.E when the initial field cure temperature is equal or greater than 85 °F and the initial field cure is not the submerged method specified in 101.15.7.1.

TABLE 101.E

MINIMUM COMPRESSIVE STRENGTH, f_c

$$f_c \geq P_{TI} \times f_c / 100, \text{ psi}$$

°F [2]	73	80	85	90	95	100	105	110	115	120
Cure Day(s)	P_{TI} , % of Specified Strength, f_c [1,3]									
3	100	108	114	120	122	123	125	120	115	110
7	100	101	102	103	100	98	95	91	78	75
28	100	97	95	93	90	88	85	82	78	75

- Notes:
1. Reference ACI 306, 6.6.1
 2. The Non Submerged assurance cylinder cure recorded maximum initial field cure temperature. If a high-low thermometer was not used, the highest ambient temperature recorded for the initial cure period by the national weather service will be used as the initial cure temperature.
 3. f_c specified compressive strength

101.15.9.2 If individual tests of either laboratory-cured specimens produce strengths more than 500 psi (3.4 MPa) below f_c , or, if tests of field-cured cylinders indicate deficiencies in protection and curing, steps shall be taken to assure that the load-carrying capacity of the structure is adequate. If the presence of low-strength concrete is confirmed and computations indicate that the load-carrying capacity may have been significantly reduced, tests of cores drilled from the area in question shall be required in accordance with ASTM C42, as directed by the ENGINEER. Three cores shall be taken for each case of an individual cylinder test more than 500 psi (3.4 MPa) below f_c or where the average of any set of three consecutive strength test results is below f_c . If the concrete in the structure will be dry under service conditions, the cores shall be air dried (temperature 60 to 80 °f and relative humidity less than 60 percent) for seven days before test and shall be tested dry. If the concrete in the structure will be more than superficially wet under service conditions, the cores shall be immersed in water for at least 48 hours and tested wet. If

coring is required a coring plan will be prepared by the ENGINEER no later than 42 calendar days after the placement date. Coring shall be completed and a report submitted no later than 56 calendar days after placement. Core sampling for non complying tests shall be taken at the direction of the ENGINEER and paid by the OWNER. The CONTRACTOR shall be responsible for material replacement of the same design mix in adjacent concrete at no cost to the OWNER where samples are removed.

101.15.9.3 Concrete in the area represented by core tests shall be considered structurally adequate if the average strength of three (3) cores is equal or greater than 85% of the specified design strength (f_c), and no single core has a compressive strength less than 75% of the specified design strength. To check testing accuracy, locations represented by erratic core strength may be retested. If these strength acceptance criteria are not met by the core tests, and if structural adequacy remains in doubt, The OWNER and ENGINEER may order load tests as outlined in Chapter 20,

ACI 318 for the questionable portion of the structure. Load tests shall be paid for by The CONTRACTOR.

ordered, The CONTRACTOR shall perform such work at his own expense. The CONTRACTOR shall patch all core sample holes with the same or similar materials adjacent to the core hole. The patching concrete shall be placed and cured in accordance with the requirements of this specification.

101.15.9.4 If the structure under consideration does not satisfy the above strength acceptance criteria or the criteria of Section 20.2 or 20.4, ACI 318 The OWNER may order The Contractor to remove and replace any portion of the structure which is not in compliance with the above. If so

101.15.10 TEST REPORTS

101.15.10.1 Test reports shall include but not limited to the following, as directed by the ENGINEER.

A. Field Data

- 1 Date of Sampling
- 2 Time of Sampling
- 3 City of Albuquerque Project or
- 4 City of Albuquerque project or Permit Number
- 5 Contract Title
- 6 Portland Cement Concrete Supplier
- 7 Delivery Ticket Number
- 8 Design Mix Number
- 9 Sampling location as defined by the Project Plans and Specifications
- 10 Ambient temperature at time of sampling, °F
- 11 Material temperature at time of sampling, °F
- 12 Mixer drum revolution count at start of discharge of concrete

B. Field Tests Results, with specifications.

	Accuracy	
1 Slump, in (mm)	0.25	1
2 Entrained Air, %		xx.x
3 Unit Weight, pcf (kg/m ³)	xxx.x	(xxxx)
4 w:(c+fa) ratio	x.xx	x.xx
5 Cement Factor, C.F., lbs/yd ³ (kg/m ³)	xxx	(xxxx)
6 Cement pay factor determined in accordance with 101.16.2		

C. Comments

- 1 Report any addition of water and materials and amounts by either volume or weight, prior to and after sampling.
- 2 Report mixer revolutions count at time of discharge.
- 3 Record number of mixer revolutions after field tempering with water and/or admixtures, and @ what mixer speed, mixing or agitating speed.

D. Laboratory Tests

1 Calendar reference and day count from date of sampling for each strength test sample		
2 fc compressive strength test result reported to psi/ MPa	10	1
3 M.R. Modulus of rupture reported to psi/ MPa	5	0.5

E. Analysis & Certification

The testing laboratory shall provide certification the sampling and testing were performed in compliance with the requirements of the specifications. Certification shall be provided by the New Mexico Registered Professional Engineer in direct responsible charge of the laboratory testing program.

101.15.10.2 Test results shall be reported to The ENGINEER, CONTRACTOR, concrete supplier and Materials and Testing Laboratory, Construction Division, Public Works Department, in writing, within 7 working days of completion of the test, as directed by the ENGINEER. Non-complying tests shall be reported within one working day of completion of the test.

under this specification shall be for each LOT. at the contract unit price adjusted in accordance with the formula below and TABLE 101.F, as directed by the ENGINEER. A LOT shall be defined as either the volume or area of concrete for each design mix placed on a project in a day as defined in the CONTRACT. The adjusted unit price shall be calculated using the formula below and the pay factor, CF_p , defined in TABLE 101.F. The pay factor shall be defined by the number of samples representing a LOT, and, the % variance of the mean/average (M) portland cement content of the LOT from the minimum cement content specified in TABLE 101.C for the application, as determined by field quality assurance sample test results. Acceptance samples for a LOT shall be sampled and tested in accordance with 101.15. All acceptance samples taken in one day for a type of concrete shall represent a LOT of that type of concrete.

101.16 MEASUREMENT AND PAYMENT

101.16.1 Measurement for Portland cement concrete supplied under this specification shall be by LOTS as the area, volumes, and as specified in the contract documents, as directed by the ENGINEER.

101.16.2 Payment for Portland cement concrete supplied

$$UP' = PF \times UP$$

UP', Adjusted Contract Unit Price

PF, Pay Factor, $PF = 0.50 \times (1.00 + CF_p)$

UP, Contracted Unit Price

TABLE 101.F - CEMENT PAY FACTOR CALCULATION, CF_p

n, number of samples	Deficiency, $D = (C - M)/C$	CF_p
3, OR MORE	$D \leq 0.0$	1.00
	$0.0 < D \leq 1.0$	1.00
	$1.0 < D \leq 2.0$	0.95
	$4.0 < D \leq 6.0$	0.90
	$6.0 < D \leq 8.0$	0.85
	$8.0 < D \leq 10.0$	[1]
	$D > 10.0$	Remove and Replace

D, Deficient cement content as % of C, minimum

C, Minimum cement content specified for the application in TABLE 101.C

M, Average or mean (M) cement factor for a LOT. The cement factor shall be calculated as the average of cement factors of all tests taken for a LOT, but not less than three tests, determined in accordance with 101.15.6.

[1] If determined by the ENGINEER to be more practical to accept the material, the LOT may be accepted under written agreement between the OWNER and the CONTRACTOR at an assigned pay factor $CF_p = 0.70$.

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SUPPLEMENTAL TERMS AND CONDITIONS:

THESE SUPPLEMENTAL TERMS AND CONDITIONS ARE IN ADDITION TO THE GENERAL INSTRUCTIONS, TERMS AND CONDITIONS AND, IN THE EVENT THERE IS A CONFLICT BETWEEN THE PROVISIONS OF THE GENERAL INSTRUCTIONS, TERMS AND CONDITIONS AND THESE SUPPLEMENTAL TERMS AND CONDITIONS, THE PROVISIONS OF THESE SUPPLEMENTAL TERMS AND CONDITIONS SHALL CONTROL.

AWARD OF CONTRACT - LOW. RESP. OFF. - OPEN END:

THE CITY INTENDS TO AWARD ON OPEN-ENDED ANNUAL CONTRACT FOR MERCHANDISE, PARTS AND/ OR SUPPLIES, AS NEEDED, ON THE BASIS OF THIS REQUEST. THE CONTRACT WILL BE AWARDED TO THE RESPONSIVE AND RESPONSIBLE OFFEROR WHOSE "ALL OR NONE" TOTAL PRICE IS LOWEST AFTER ALL APPROPRIATE DISCOUNTS ARE APPLIED. IF NO RESPONSIVE "ALL OR NONE" OFFERS ARE RECEIVED, THE CITY RESERVES THE RIGHT TO AWARD THE CONTRACT TO THE LOWEST RESPONSIVE AND RESPONSIBLE OFFEROR WHO OFFERS AT LEAST AS MANY ITEMS AS ALL OTHER OFFERORS OR AWARD A CONTRACT OR CONTRACTS ON A PER ITEM BASIS, WHICHEVER IS IN THE BEST INTEREST OF THE CITY.

AWARD OF CONTRACT - MULTIPLE AWARDS:

THE CITY RESERVES THE RIGHT TO MAKE MULTIPLE AWARDS AS A RESULT OF THIS REQUEST IF DOING SO MAY BE ADVANTAGEOUS TO THE CITY.

CONTRACT PERIOD - 12 MONTHS:

A CONTRACT RESULTING FROM THIS REQUEST WILL BE EFFECTIVE FOR TWELVE (12) MONTHS FROM THE DATE OF ISSUE OF THE PURCHASE ORDER UNLESS OTHERWISE SPECIFIED IN THIS REQUEST.

CONTRACT PERIOD - EXTENSION OF:

ANY CONTRACT RESULTING FROM THIS REQUEST MAY BE EXTENDED FOR AN ADDITIONAL TWELVE (12) MONTH PERIOD OR ANY PART OF A TWELVE (12) MONTH PERIOD BY MUTUAL AGREEMENT BETWEEN THE CONTRACTOR(S) AND THE CITY.

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ESTIMATED QUANTITIES, NOT AN ORDER:

THE ESTIMATED QUANTITIES LISTED DO NOT CONSTITUTE AN ORDER AND ARE NOT NECESSARILY COMPREHENSIVE; THEY ARE A REPRESENTATIVE SAMPLE OF WHAT IS LIKELY TO BE PURCHASED DURING THE COURSE OF A CONTRACT RESULTING FROM THIS REQUEST AND WILL BE USED ONLY TO EVALUATE OFFERS AND AWARD SUCH A CONTRACT. THESE QUANTITIES AS STATED MAY INCREASE OR DECREASE DEPENDING ON THE ACTUAL NEEDS OF THE CITY. ACTUAL ORDERS WILL BE PLACED

FREIGHT, AS INDICATED:

F.O.B. POINT OTHER THAN INDICATED BY THE CITY WILL NOT BE ACCEPTABLE.

FREIGHT, PREPAID:

FREIGHT WILL BE F.O.B. DESTINATION - FREIGHT PREPAID. F.O.B. POINT OTHER THAN INDICATED BY THE CITY WILL NOT BE ACCEPTABLE.

GUARANTEED PERFORMANCE:

THE OFFEROR, IF AWARDED A CONTRACT AS A RESULT OF THIS REQUEST, GUARANTEES THAT THE MATERIALS SUPPLIED ARE CAPABLE OF THE PERFORMANCE REQUIRED IN THE SPECIFICATIONS IN THIS REQUEST, AND AGREES TO MAKE SUCH CHANGES, ADJUSTMENTS OR REPLACEMENTS AS ARE IMMEDIATELY NECESSARY IN ORDER FOR THE MATERIALS TO MEET THE PURCHASING REQUIREMENTS AT NO COST TO THE CITY. IF DEFECTS OR SPECIFICATION FAILURES ARE DISCOVERED, THE PURCHASING OFFICER SHALL HAVE THE RIGHT, NOTWITHSTANDING ACCEPTANCE AND PAYMENT, TO REQUIRE THE UNIT/ITEM TO BE PROPERLY FURNISHED IN ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS AT THE COST AND EXPENSE OF THE OFFEROR OR THE OFFEROR'S SURETY.

INSPECTION OF MATERIALS:

THE CITY RESERVES THE RIGHT TO INSPECT MATERIALS PROVIDED BY THE OFFEROR THROUGH A CONTRACT RESULTING FROM THIS REQUEST TO DETERMINE THEIR QUALITY, FITNESS AND SUITABILITY. INSPECTION OF THESE MATERIALS MAY BE CONDUCTED WHENEVER THE CITY CONSIDERS NECESSARY.

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INSURANCE:

THE CONTRACTOR SHALL PROCURE AND MAINTAIN AT ITS EXPENSE UNTIL FINAL PAYMENT BY THE CITY FOR SERVICES COVERED BY THIS AGREEMENT, INSURANCE IN THE KINDS AND AMOUNTS HEREINAFTER PROVIDED WITH INSURANCE COMPANIES AUTHORIZED TO DO BUSINESS IN NEW MEXICO, COVERING ALL OPERATIONS UNDER THIS AGREEMENT, WHETHER PERFORMED BY IT OR ITS AGENTS. BEFORE COMMENCING THE SERVICES AND ON THE RENEWAL OF ALL COVERAGES, THE CONTRACTOR SHALL FURNISH TO THE CITY A CERTIFICATE OR CERTIFICATES IN FORM SATISFACTORY TO THE CITY SHOWING THAT IT HAS COMPLIED WITH THIS SECTION. ALL CERTIFICATES OF INSURANCE SHALL PROVIDE THAT THIRTY (30) DAYS WRITTEN NOTICE BE GIVEN TO THE RISK MANAGER, DEPARTMENT OF FINANCE AND ADMINISTRATIVE SERVICES, CITY OF ALBUQUERQUE, P.O. BOX 470, ALBUQUERQUE, NEW MEXICO 87103, BEFORE A POLICY IS CANCELLED, MATERIALLY CHANGED, OR NOT RENEWED. VARIOUS TYPES OF REQUIRED INSURANCE MAY BE WRITTEN IN ONE OR MORE POLICIES. WITH RESPECT TO ALL COVERAGES REQUIRED OTHER THAN WORKERS' COMPENSATION, THE CITY SHALL BE NAMED AN ADDITIONAL INSURED. ALL COVERAGES AFFORDED SHALL BE PRIMARY WITH RESPECT TO OPERATIONS PROVIDED. KINDS AND AMOUNTS OF INSURANCE REQUIRED ARE AS FOLLOWS:

A. COMMERCIAL GENERAL LIABILITY INSURANCE - A COMMERCIAL GENERAL LIABILITY INSURANCE POLICY WITH COMBINED LIMITS OF LIABILITY FOR BODILY INJURY OR PROPERTY DAMAGE AS FOLLOWS:

\$1,000,000 PER OCCURRENCE
\$1,000,000 POLICY AGGREGATE
\$1,000,000 PRODUCTS LIABILITY/COMPLETED OPERATIONS
\$1,000,000 PERSONAL AND ADVERTISING INJURY
\$ 50,000 FIRE - LEGAL
\$ 5,000 MEDICAL PAYMENTS

SAID POLICY OF INSURANCE MUST INCLUDE COVERAGE FOR ALL OPERATIONS PERFORMED FOR THE CITY BY THE CONTRACTOR AND CONTRACTUAL LIABILITY COVERAGE SHALL SPECIFICALLY INSURE THE HOLD HARMLESS PROVISIONS OF THIS AGREEMENT.

B. AUTOMOBILE LIABILITY INSURANCE - AN AUTOMOBILE LIABILITY POLICY WITH LIABILITY LIMITS IN AMOUNTS NOT LESS THAN \$1,000,000 COMBINED SINGLE LIMIT OF LIABILITY FOR BODILY INJURY, INCLUDING DEATH, AND PROPERTY DAMAGE IN ANY ONE OCCURRENCE. SAID POLICY OF INSURANCE MUST INCLUDE COVERAGE FOR THE USE OF ALL OWNED, NON-OWNED, HIRED AUTOMOBILES, VEHICLES AND OTHER EQUIPMENT BOTH ON AND OFF WORK.

C. WORKERS' COMPENSATION INSURANCE - WORKERS' COMPENSATION INSURANCE FOR ITS EMPLOYEES IN ACCORDANCE WITH THE PROVISIONS OF THE WORKERS' COMPENSATION ACT OF THE STATE OF NEW MEXICO.

D. INCREASED LIMITS - IF, DURING THE TERM OF THIS AGREEMENT, THE CITY REQUIRES THE CONTRACTOR TO INCREASE MAXIMUM LIMITS OF ANY INSURANCE REQUIRED HEREIN, AN APPROPRIATE ADJUSTMENT IN THE CONTRACTOR'S COMPENSATION WILL BE MADE.

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LAWS AND REGULATIONS:

THE OFFEROR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS THAT APPLY TO THIS WORK. THE OFFEROR SHALL OBTAIN AND PAY FOR ALL PERMITS AND LICENSES NECESSARY TO EXECUTE AND COMPLETE THE WORK. ALL REQUIRED LICENSES MUST BE IN FORCE AT THE TIME OF SUBMISSION OF AN OFFER AND REMAIN IN FORCE DURING THE ENTIRE PERIOD OF ANY CONTRACT RESULTING FROM THIS REQUEST. FAILURE TO PROVIDE PROOF OF REQUIRED LICENSES IN FORCE WILL RESULT IN THE OFFER BEING JUDGED NON-

PRICE ESCALATION:

THIS OFFER MAY BE CONSIDERED FOR ESCALATION UNDER THE FOLLOWING CONDITIONS:

A. OFFERED PRICES MUST BE FIRM FOR A LEAST NINETY (90) CALENDAR DAYS AFTER WRITTEN NOTIFICATION OF A CONTRACT.

B. ALL PRICE INCREASES SHALL BE ACCOMPANIED BY A CERTIFIED LETTER FROM THE OFFEROR'S SUPPLIER SHOWING THE PRICE INCREASE TO THE OFFEROR.

C. ALL INVOICES OF THE OFFERED ITEMS, FROM SUPPLIERS TO THE OFFEROR, SHALL BE SUBJECT TO AUDITING BY THE CITY AND FURNISHED WITHOUT DELAY UPON REQUEST.

D. THE CITY RESERVES THE RIGHT TO CANCEL A CONTRACT RESULTING FROM THIS REQUEST AND SOLICIT A NEW CONTRACT IF THE ESCALATED PRICE IS ABOVE THE CURRENT OPEN MARKET PRICE FOR THE SAME COMMODITY. CANCELLATION OF THE CONTRACT SHALL NOT AFFECT ANY OUTSTANDING ORDERS.

E. ALL REVISIONS OF THE PRICE LIST SHALL BECOME EFFECTIVE WHEN THEY ARE RECEIVED, IN WRITING, AND ACCEPTED, BY THE PURCHASING OFFICE OF THE CITY, PROVIDED THAT THEY DO NOT CONFLICT WITH ITEM (F.) OF THIS PARAGRAPH.

F. ALL APPROVED PRICE CHANGES RESULTING FROM THIS ESCALATION CLAUSE SHALL BE FIRM FOR A PERIOD OF NINETY (90) CALENDAR DAYS AFTER ACCEPTANCE IN WRITING BY THE CITY.

G. THE OFFEROR SHALL BE LIMITED TO A MAXIMUM OF TWO PRICE ESCALATIONS PER CONTRACT PERIOD UNLESS OTHERWISE SPECIFIED IN THIS REQUEST.

H. THE OFFEROR SHALL PROVIDE TO THE CITY WRITTEN NOTICE OF ANY REQUESTED PRICE CHANGES WHICH BECOME EFFECTIVE UPON WRITTEN ACCEPTANCE BY THE CITY PURCHASING OFFICE.

I. IF THE OFFEROR RECEIVES ANY PRICE DE-ESCALATIONS FROM THE SUPPLIER OF GOODS SOLD TO THE CITY THROUGH A CONTRACT RESULTING FROM THIS REQUEST, THE OFFEROR IS RESPONSIBLE FOR NOTIFYING THE CITY WITHIN TWENTY-FOUR (24) HOURS OF SUCH DE-ESCALATIONS, AND PASSING THOSE PRICE CHANGES ON TO THE CITY IMMEDIATELY.

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WORKING CONDITIONS:

THE CITY IS NOT RESPONSIBLE FOR OBSTACLES, UNFAVORABLE CONDITIONS, OR HAZARDS, WHICH MAY BE ENCOUNTERED BY THE OFFEROR, BOTH ABOVE AND BELOW GROUND. THESE CONDITIONS ARE PART OF THE RISK AND RESPONSIBILITY OF THE OFFEROR.

CITY OF ALBUQUERQUE

GENERAL INSTRUCTIONS, TERMS, AND CONDITIONS

IMPORTANT: READ CAREFULLY BEFORE SUBMITTING OFFERS. FAILURE TO DO SO SHALL NOT ABSOLVE THE OFFEROR FROM RESPONSIBILITY TO PERFORM OR DELIVER AS SPECIFIED.

1. **Applicability:** Except as otherwise specifically provided in this Request, these General Instructions, Terms, and Conditions shall govern the procurement of the items specified in this Request. In the event of a conflict between these General Instructions, Terms, and Conditions, Supplemental Conditions or the specifications of this bid, the order of applications shall be the Specifications, Supplemental Conditions, and the General Instructions, Terms and Conditions. In addition, the Public Purchases Ordinance (Section 5-5-1 *et seq.* ROA 1994) and promulgated Rules and Regulations shall apply.
2. **Definitions:** As used in this request, the definitions of the Public Purchases Ordinance (Section 5-5-2 ROA 1994) apply including the following:
 - A. “City” means the City of Albuquerque, New Mexico.
 - B. “Contract” means any agreement for the procurement of goods, services, construction or concessions. A purchase order issued in response to an offer constitutes a contract.
 - C. “Contractor” means an Offeror who has been awarded a contract.
 - D. “Offeror” means a business that submits a response to a competitive solicitation.
 - E. “Purchase Order” means a document issued by the Purchasing Office directing the Contractor to deliver goods, services or construction.
 - F. “Purchasing Office” means the Purchasing Division of the Department of Finance & Administrative Services of the City.
 - G. “Purchasing Officer” means the person charged with the responsibility of administering the Purchasing Office.
 - H. “Request” means all documents, including those attached or incorporated by reference, issued by the Purchasing Office for soliciting offers to provide goods, services or construction.
 - I. “Responsible Offeror” means a business which has the capability in all respects to perform fully the contract requirements set out in the competitive solicitation, and the integrity and reliability which will assure good faith performance, and who has not violated or attempted to violate any provision of law or ethical conduct. Factors which may be considered in determining the Offeror’s capability to perform, among others, are its financial resources, production or service facilities, service reputation and experience.
 - J. “Responsive Offer” means a written offer to furnish goods, services or construction in conformity with standards, specifications, delivery terms and conditions, and all other requirements established in a competitive solicitation.

3. Preparation of Offer:

- A. Submission: All offers must be submitted on the Request for Bid Form enclosed. Failure to do so may disqualify your offer. It is the responsibility of the Offeror to submit sufficient additional information to allow for a thorough evaluation of the offer submitted.**
- B. Preparation Method: All information required in this Request must be typewritten or handwritten in ink and must be legible. Erasures or other changes must be initialed by the person signing the offer. Each offer must be signed on the appropriate pages by an individual authorized to bind the Offeror submitting the offer.**
- C. Unit Prices: The unit price for each item offered shall be shown unless otherwise specified. In the case of a discrepancy between the unit price and the extended price, the unit price will govern in determining the price used for evaluation.**

Unit prices offered should be for the units specified.

- D. Delivery Time: Delivery time stated in the specifications shall apply. Deviations by the Offeror shall be stated on the Exception Form. Time, if stated in number of days, will be consecutive calendar days.**
- E. Payment Terms: The Request for Bid Form provides space for the Offeror to identify the payment terms that the Offeror is offering. Terms of less than twenty (20) days will not be considered. The discount term shall not begin until the goods, services or construction have been delivered and accepted and the correct invoice received in the City's Accounts Payable Office.**

Prompt payment discounts will NOT be used as a factor in determining the lowest responsive offer.

- F. Freight Policy: Freight will be F.O.B. Destination (as indicated on the Request Form), Freight Prepaid, unless otherwise specified in this Request.**
- G. Taxes: Offerors shall include any applicable gross receipts taxes in its offered price, unless specified otherwise in this request, and such offer will be construed in that manner. The City will, under appropriate circumstances, furnish a non-taxable transaction certificate. Determination of whether the tax is due and payment of the tax is the responsibility of the Offeror. Applicable taxes are to be included in each invoice due and may not be billed more than sixty (60) days after providing the services to which the taxes apply.**
- H. New Material, Etc.: All materials, supplies, equipment, and vehicles specified in this Request shall be new, the latest in production and manufactured within the last twelve (12) months (computed from the date and time of offer opening) unless otherwise indicated. This does not apply to materials, supplies, equipment or vehicles used by the Contractor to provide the required items of tangible personal property, services or construction.**
- I. Warranty: Materials furnished by the successful Offeror shall be accompanied by the manufacturer's written warranty against defects in quality, craftsmanship, and materials.**

The Offeror agrees that the items of tangible personal property, services or construction furnished under any contract resulting from this Request shall be covered by the most favorable

commercial warranties the Offeror gives to any customer for such items. Further, the Offeror agrees that the rights and remedies provided in such warranties extend to the City and are in addition to and do not limit any rights afforded to the City by any other clause of this Request. The Offeror agrees not to disclaim warranties of fitness for a particular purpose of merchantability. Warranties shall become effective at the time of acceptance.

- J. **Equivalent Offers:** Where a product is characteristic of a sole manufacturer, or where a brand name is indicated in the specifications, it shall be defined to mean minimum acceptable level or minimum quality required by the City unless the specifications state that no substitutions or equivalents will be allowed. If the Offeror offers an item other than the one specified, which the Offeror considers comparable, the manufacturer's name and model number of that item must be specified in the offer and sufficient performance specification and descriptive data provided to permit a thorough evaluation. Failure to provide the appropriate information may result in disqualification of the offer.
- K. **Exceptions to Specifications:** Offerors are to state any exceptions taken to this Request on the Specifications Exception Form. If no exceptions are stated, the Offeror is required to furnish the items exactly as specified and to comply with all other requirements of this Request.
- L. **Indemnity:** The Offeror to whom an award has been made as a result of this Request expressly agrees to defend, indemnify and save harmless the City and its officers, agents and employees from and against any and all claims, suits demands, actions, or proceedings of every nature and description brought because of any injury or damage received or sustained by any person, persons, or property arising out of the Offeror's providing the goods, services or construction pursuant to the offer or by reason of any act or omission, neglect or misconduct of the Offeror, the agents, employees or subcontractors of the Offeror or the agents or employees of any subcontractor of the Offeror. The indemnity required herein shall not be limited by reason of the specification of any particular insurance coverage.
- M. **Patent Indemnity:** If any item furnished pursuant to any contract resulting from this Request shall be covered by any patent, copyright, or application for patent or copyright, the Offeror shall defend, indemnify and save harmless the City from any and all loss, cost or expense or any all claims suits, or judgments as a result of the use of such item in violation of rights under such patent, copyright, or application for patent or copyright.
- N. **Public Inspection:** Each offer shall be open to public inspection, except to the extent the Offeror designates trade secrets or other proprietary data to be confidential. Material so designated shall accompany the offer and each page shall be clearly marked and readily separable from the offer in order to facilitate public inspection of the nonconfidential portion of the offer. Prices and makes and models or catalog numbers of the items offered, deliveries and terms of payment shall be publicly available at the time of the opening of the offer regardless of any designation to the contrary. The City shall endeavor to restrict distribution of the material designated as confidential to only those individuals involved in the review and analysis of the offers. Offerors are cautioned that materials designated confidential may nevertheless be subject to disclosure to any New Mexico citizen under the Inspection of Public Records Act (Sections 14-2-1 through 14-2-3 N.M.S.A. 1978).
- O. **Material Safety Data Sheets:** To comply with the Occupational Health and Safety Regulation 1910.1200 for general standards on handling hazardous materials, material safety data sheets may be required for all or part of the products included on this Request. It is the responsibility of the Offeror to make this determination and, if required, a copy of the MSDS must accompany

the product when delivered to the end user. Failure to comply with this requirement may cause the delivery of products to be rejected and all costs related to such action to be borne by the Offeror.

P. Licenses and Certifications: The Offeror must provide proof, in a manner acceptable and within the time period specified by the Purchasing Office, but prior to award, unless otherwise specified in this Request, that they are licensed and certified by the appropriate agencies as required by law to perform the services or provide the goods specified in this Request.

4. Debarment or Ineligibility Compliance: By submitting its offer in response to this Request, the Offeror certifies that (i) it has not been debarred or otherwise found ineligible to receive funds by any agency of the federal government, the State of New Mexico, any local public body of the State, or any state of the United States; and (ii) should any notice of debarment, suspension, ineligibility or exclusion be received by the Offeror, the Offeror will notify the City immediately.

5. Ethical Conduct: By submitting its offer in response to this Request, the Offeror certifies that:

A. It has not offered, given or agreed to give to any City employee or former employee, a gratuity or offer of employment to influence the preparation of or recommendation of award of this Request;

B. It has not retained a person to solicit or secure a City Contract for a contingent fee;

C. It has not taken any action in restraint of free competitive bidding in connection with this Request;

D. It has not in any way violated the ethical conduct or other provisions of the City's Public Purchases Ordinance; and

E. It currently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with its performance of any contract resulting from this Request.

6. Requests for Explanations by Offerors:

A. Requests for Explanation: Any explanation desired by the Offeror regarding the meaning or interpretation of specifications or any part of this Request must be requested in writing and received in the Purchasing Office not less than ten (10) working days before the offer opening date.

B. Responses to Requests: Oral explanations or instructions given prior to the opening of the offer shall not be binding. Any official explanations must be issued, in writing, by the Purchasing Division.

7. Addenda:

Addenda: Changes or amendments to specifications, conditions or provisions herein may be initiated ONLY through the Purchasing Office in the form of a written addendum.

Any addenda shall become a part of this Request and should be acknowledged either by being signed and returned with the offer or through letter or telegram that arrives prior to the opening of the offer.

Failure to do so may result in disqualification of the offer.

It is the responsibility of all vendors considering making an offer in response to this Request to ensure that they have received all addenda prior to making an offer. Offerors may contact the Purchasing Division to obtain information regarding any addenda issued. Failure to obtain an addendum shall not be grounds for overturning a recommendation of award.

8. Clarification of Offers:

The City may, in the evaluation of offers, request clarification from Offerors regarding their offers, obtain additional material or literature, and pursue other avenues of research as necessary to insure that a thorough evaluation is conducted.

9. Submission of Offer:

A. Time: Offers not received by the time and date indicated on the Request will not be accepted.

B. Hand Carried: Offers may be hand carried to the City Clerk's Office on the eleventh (11th) floor of the Albuquerque/Bernalillo County Government Center, 1 Civic Plaza, Albuquerque, New Mexico.

C. Mailed: Offers may be mailed to the Attention of the City Clerk, City of Albuquerque, P.O. Box 1293, Albuquerque, New Mexico, 87103. The City shall not be responsible for offers that are mailed and not received by the opening date and time specified in the solicitation.

Note: The City picks up mail at the post office once every morning at 7:00 AM (local time). ALL SEALED BIDS MUST BE RECEIVED IN THE OFFICE OF THE CITY CLERK BY THE TIME SPECIFIED ON PAGE ONE OF THIS RFB. THE TIME RECORDED IN THE CITY CLERK'S OFFICE WILL CONTROL.

D. Receipts: Receipts for hand delivered offers shall be issued by the City Clerk's Office (upon request) for offers which are hand carried.

E. Envelope Preparation: The envelope/package containing an offer must be sealed and the following identifying information legibly written or typed on the outside:

- 1) Name of Offeror**
- 2) Request Number assigned by the City to the Request**
- 3) Opening date as identified on the Request or subsequent addenda**

F. No Other Methods of Offer Delivery: Neither telephone, telegraphic, or facsimile Offer shall be accepted.

10. Civil Rights Compliance:

Offeror certifies and agrees, by submittal of its offer, to comply and act in accordance with all provisions of the Albuquerque Human Rights Ordinance, the New Mexico Human Rights Act, Title VII of the U.S. Civil Rights Act of 1964, as amended, and all federal statutes and executive orders, New Mexico statutes and City of Albuquerque ordinances relating to the enforcement of civil rights.

Offeror additionally certifies and agrees to abide by and cooperate in the implementation of the policies

and practices set forth in the City's Affirmative Action Plan.

Questions regarding civic rights or affirmative action compliance requirements should be directed to the City of Albuquerque Human Rights Division, Community Services Department.

11. **Americans with Disabilities Act Compliance:**

Offeror certifies and agrees, by submittal of its offer, to comply and act in accordance with all applicable provisions of the Americans with Disabilities Act of 1990 and Federal regulations promulgated thereunder.

12. **Withdrawal of Offers:**

An offer may be withdrawn in person at any time BEFORE the scheduled opening of offers, provided a receipt for the withdrawn offer is signed by the Offeror or the Offeror's authorized representative. The City reserves the right to request proof of authorization to withdraw an offer.

13. **Opening of Offers:**

Time and Place: Offers will be opened by the City Clerk at the time and place identified in this Request. Openings are open to the public. Offerors are encouraged to attend.

14. **Disqualification of Offer:**

Any offer received from an Offeror that is, at the time of submitting its offer or prior to receipt of award of a contract, debarred by or otherwise ineligible to receive funds from any agency of the federal government, the State of New Mexico, any local public body of the State, or any state of the United States, shall be rejected.

In addition, the City reserves the right to reject an offer for, including but not limited to, any one or more of the following circumstances:

- A. In the past the Offeror has failed to comply with previous contractual commitments or offers to the City.
- B. In the opinion of the City the Offeror is not capable of providing the offered goods, services, or construction as offered or required by the Request or is otherwise not a responsible Offeror.
- C. The Offeror has not provided sufficient or detailed information which allows for the evaluation of the offer.
- D. In the opinion of the City, the offered prices are higher than the prices for which the specified items or services can be purchased on the open market.
- E. The Offeror failed to properly fill in any space on the Request Form and attached documents where information or a signature is required.
- F. The Offeror did not, at the time the offer is made, have an appropriate New Mexico Contractor's License or Certification when one is required by law, regulation or this Request.
- G. The Offeror failed to submit with their offer, bid bonds or other material requirements of the Request or has otherwise submitted a non-responsive offer.

- H. **There are unauthorized additions, conditions, alternate proposals or other irregularities of any kind which might make the offer incomplete, indefinite or ambiguous in meaning.**
- I. **Offer was not submitted in ink or typewritten or there is any erasure or alteration of words or figures relating to pricing which is not initialed in ink by the Offeror.**
- J. **The City determines that an offer contains any misrepresentations whatsoever.**

15. Rejection/Cancellation of Offers:

Any solicitation, prior to opening or after opening, may be cancelled or any or all offers may be rejected in whole or in part when it is in the best interest of the City.

16. Minor or Technical Irregularities:

Minor or technical irregularities in an offer, when there is no effect on price, quality or quantity may be waived and clerical errors in an offer may be corrected, if permitted by the Purchasing Officer and are in the best interest of the City.

17. Nonconforming/Conditional, or Counter Offers:

An offer which is nonconforming or conditional, whether in part or in whole, will be rejected.

18. Offer Analysis:

The City reserves the right to analyze, examine and interpret any offer for a minimum period of ninety (90) consecutive calendar days, after the scheduled time for the opening of offers. Offers may not be rescinded during this period except for good cause and with the written approval of the Purchasing Officer. In those situations where the analysis/evaluation exceeds the ninety (90) calendar days, Offerors may withdraw their offers from consideration.

19. Award of Contract:

- A. **When Award Occurs: The award of a contract occurs when a Purchase Order is issued or other evidence of acceptance by the City is provided to the Offeror. A Recommendation of Award does not constitute award of contract.**
- B. **Award: If a contract is awarded, it shall be awarded to the responsive and responsible Offeror whose offer is lowest in total price and is the most advantageous to the City, specifications and other factors considered.**
- C. **Basis of Award: The City reserves the right to award a contract based on this Request in total or by group of items, on the basis of individual items, or any combination of these, which in the judgment of the Purchasing Officer, best services the interests of the City, unless otherwise stated in this Request.**
- D. **Increase of Quantities: The City reserves the right to increase the quantities of items of tangible personal property, services or construction to be provided within a twelve (12) month period, under the terms of the Contract, at the same prices, with the consent of the Contractor.**

- E. **Decrease of Quantities:** The City reserves the right to decrease the quantities of items of tangible personal property, services or construction to be provided under the terms of the Contract. However, the Contractor shall be offered an opportunity to cancel the portion of the Contract affected by such a decrease if the Contractor is not able to meet the contracted prices by delivering the decreased amount. This clause shall not have effect if the Contract was originally awarded based on estimated quantities.
- F. **Contract Changes:** In no case shall a contract be changed without the prior written approval of the Purchasing Officer.
- G. **Debarment/Cancellation of Contract:** Upon receipt of notice of debarment of an Offeror awarded a contract as a result of this Request for Bids (the "Contractor"), or other ineligibility of the Contractor to receive funds from any agency of the federal government, the State of New Mexico, any local public body of the State, or any state of the United States, the City shall have the right to cancel the contract with the Contractor for cause as provided in Section 25 below.
- H. **Local and Resident Preference:** A five percent (5%) Preference may be afforded an Offeror who qualifies in accordance with the City's Public Purchases Ordinance. If no offers are received which qualify for a Local Preference, a 5% Resident Business Preference may be afforded an Offeror who has been certified by the State of New Mexico Purchasing Division, in compliance with State laws.

Information regarding the Public Purchases Ordinance and the application of the Local or Resident preference can be obtained by contacting the Purchasing Division at (505) 768-3344.

For consideration for the Local Preference the Offeror must complete the Local Preference Certification Form in accordance with the form instructions and return the Local Preference Certification Form with its offer.

To qualify for the Resident Preference, the Offeror must provide its assigned Resident Certification Number with its offer (an appropriate place is designated in the Request). If an Offeror does not provide its assigned Resident Certification Number with its offer, the offer shall not be considered as made by a resident business and no preference shall be applied during the analysis of that offer.

NOTE: Your State Tax Number is NOT your Resident Certification Number.

20. **Goods Produced Under Decent Working Conditions:**

It is the policy of the City not to purchase, lease, or rent goods for use or for resale at City-owned enterprises that were produced under sweatshop conditions. The Offeror certifies, by submittal of its offer in response to this solicitation, that the goods offered to the City were produced under decent working conditions. The City defines under decent working conditions as production in a factory in which child labor and forced labor are not employed; in which adequate wages and benefits are paid to workers; in which workers are not required to work more than 48 hours per week (or less if a shorter workweek applies); in which employees are free from physical, sexual or verbal harassment; and in which employees can speak freely about working conditions and can participate in and form unions. [*Council Bill No. M-8, Enactment No. 9-1998*]

21. **Protest Process:**

- A. **Request Documents: Protests concerning the specifications of this Request or other matters relating to the solicitation documents must be received by the Purchasing Officer no later than ten days prior to the deadline set for the receipt of offers.**
- B. **Recommendation of Award: Protests concerning other matters relating to this Request must be filed with the Purchasing Officer not later than 5:00 p.m. of the date stipulated in the Recommendation of Award.**
- C. **Timely Protests: Protests must be received by the Purchasing Officer prior to the appropriate deadline as set out in A. and B. of this Section or they will not be considered valid. The Purchasing Officer may waive the deadline for good cause, including a delay caused by the fault of the City. Late delivery by the U.S. Postal Service or other carrier shall not be considered good cause.**
- D. **Required Information from Offeror: All protests must be submitted in written form and must be legible. Facsimile, telephone or telegraphic protests will not be accepted. Protest shall contain at a minimum the following:**
 - 1) **Name and address of the protesting party**
 - 2) **The solicitation/Request Number**
 - 3) **A clear statement of the reason(s) for the protest**
 - 4) **Details concerning the facts which support the protest**
 - 5) **Attachments of any written evidence available to substantiate the claims of the protest**
 - 6) **Statement specifying the ruling requested**
- E. **Protest Hearing: If a hearing is requested, the request must be included in the protest and received within the time limit to be allowed. The filing fee of twenty dollars (\$20.00) must accompany the request for hearing. The grant of a hearing shall be at the discretion of the Purchasing Officer following review of the protest.**
- F. **Delivery of Protest: Protests may be hand-delivered. Protests which are mailed should be addressed as follows:**

**Purchasing Officer
City of Albuquerque
Purchasing Division
P.O. Box 1293
Albuquerque, NM 87103**

Envelope should also clearly indicate "PROTEST" and the solicitation number.
- G. **Purchasing Officer Action: The Purchasing Officer will, after evaluation of a protest, issue a response. Only issues outlined in the written protest will be considered by the Purchasing Officer or may be raised at a protest hearing.**

22. Delivery, Acceptance and Guarantee:

- A. **No Delivery Before Purchase Order is Issued: No Offeror, including the Offeror to whom an award is made shall deliver any item of tangible personal property, commence services or construction prior to the issuance of a Purchase Order or Notice to Proceed issued by the City**

Purchasing Division.

- B. Cancellation for Non-Delivery: The City reserves the right to cancel any order not delivered by a guaranteed date stipulated in any contract resulting from this Request without liability on the City's part.**
- C. Acceptance of Delivery: Acceptance by the City of any delivery shall not relieve the Contractor of any guarantee or warranty, expressed or implied. Such acceptance of delivery shall not be considered an acceptance of services or materials not in accordance with the specifications. Such acceptance of delivery shall not waive the City's right to require replacement of defective material or inadequate service.**

23. Inspections:

Prior to Acceptance of Delivery: All items of tangible personal property, services or construction found inferior to the quality specified in this Request, deficient or incorrect in weight, measurement, workmanship, handicraft or otherwise, may be rejected as a whole or in part and then shall be removed by the Contractor at the Contractor's own risk and expense promptly after notice of rejection. The Contractor shall assume responsibility for taking the necessary action to correct or replace the rejected items, within the time frame specified in the notice of rejection.

24. Invoices and Payments:

The Contractor shall submit an accurate invoice, in duplicate, for each purchase. Invoices shall refer to the Purchase Order Number, the Release Form Number if applicable, and shall be itemized unless otherwise specified in this Request. Invoices are to be mailed to: Accounting Division (Accounts Payable), City of Albuquerque, P.O. Box 1985, Albuquerque, New Mexico 87103. Invoices mailed or provided to any other entity will result in a delay in making payment. Offerors are encouraged to inquire if payments due are not received within thirty (30) days after delivery of goods/services and submittal of invoice by contacting the Accounting Division at (505) 768-3400.

25. Default/Termination for Cause:

If, through any cause, the Contractor fails to fulfill the Contractor's obligations under any contract resulting from this Request in a timely and proper manner, or if the Contractor, violates any of the covenants, agreements or stipulations of such contract, the City shall notify the Contractor of such violations in writing and allow the Contractor a reasonable time, set out in the notice, to correct the default. If the default is not corrected within the specified time period the City shall have the right to cancel the contract and any or all other current contracts with the Contractor, and, if applicable, to purchase the required goods or services from another source or sources. The City shall provide written notice to the Contractor specifying the effective date of cancellation. The notice of cancellation may be contained in the notice of default.

If a contract resulting from this Request is cancelled, the Contractor shall not be relieved of liability to the City for damages caused by its breach of the contract. The City reserves the right to recover such damages, including but not limited to any excess cost incurred in having to purchase contract goods/services from other sources by a deduction from an unpaid balance due to the Contractor, collection against a performance or labor and materials payment bond, a combination of these remedies, or any other legal method available. In addition, the Contractor may be removed from the Purchasing Office Vendor List or determined to be ineligible to respond to future solicitations, as being not responsible.

26. Termination for the Convenience of the City:

The City may terminate any contract resulting from this Request at any time by giving at least thirty (30) days' notice in writing of such termination to the Contractor. In such event, the Contractor shall be paid under the terms of the contract for all goods/services provided to and accepted by the City, if ordered or accepted by the City prior to the effective date of termination.

27. Termination for Lack of Appropriations:

Funding for the contract resulting from this Request has been appropriated by the City Council for the City's current fiscal year. Notwithstanding any other provisions in the contract resulting from this Request, its continuation beyond the end of the/any fiscal year is contingent on the City Council making the appropriations necessary to fund the contract. If sufficient appropriations are not made the contract may be terminated at the end of the City's then current fiscal year upon written notice given by the City to the Contractor. Such termination shall not constitute a default. All payment obligations of the City and all of its interest in the contract will cease upon the date of termination. The City's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final.

(6/23/04)

**INSTRUCTIONS FOR
LOCAL PREFERENCE CERTIFICATION FORM**

- 1. ALL INFORMATION MUST BE PROVIDED.** A 5% local preference is available for this procurement. To qualify for this preference, an Offeror **MUST** complete and submit this Form **WITH ITS OFFER**. If an offer is received without the Form attached, completed, signed and certified, or if the Form is received without the required information, the preference will not be applied. **THE FORM OR A CORRECTED FORM WILL NOT BE ACCEPTED AFTER THE DEADLINE FOR RECEIPT OF BIDS OR PROPOSALS.**

- 2. LOCAL PREFERENCE PRECEDENCE OVER STATE PREFERENCE.** The local preference takes precedence over the State Resident Business Preference and only one of the two preferences will be applied to any one offer. If it is determined that the local preference applies to one or more Offerors in any solicitation, the State Resident Business Preference will not be applied to any offers.

- 3. PHYSICAL LOCATION MUST BE STATED.** To qualify for the local preference, a business must have a location in the Albuquerque Metropolitan Area (Abq. Metro Area). The business location inserted on the form must be a physical location, street address or such. **DO NOT** use a post office box or other postal address.

- 4. ADDITIONAL REQUIREMENT.** To qualify for this preference, the principal Offeror (i.e. the business, **NOT** the individual signing the form) if it is a corporation, must be a New Mexico corporation with its articles of incorporation filed with the New Mexico Public Regulation Commission.

- 5. DEFINITIONS.** The following definitions apply to this preference:
 - The Abq. Metro Area includes all locations within the City of Albuquerque and Bernalillo County, and within any municipality (i.e. incorporated city, town or village) contiguous to the City of Albuquerque and Bernalillo County.
 - A resident of the Abq. Metro Area is a person who occupies a dwelling in the Area and who manifests an intent to maintain that dwelling on a permanent basis.
 - A principal Offeror is a single Offeror; a business which is the prime contractor or one of the prime contractors and not a subcontractor; or a partner or joint venturer submitting an offer in conjunction with other businesses.

- 6. ADDITIONAL DOCUMENTATION.** If requested, a business will be required to provide, within 10 working days of the request, documentation to substantiate the information provided on the form.

LOCAL PREFERENCE CERTIFICATION FORM

RFP/RFB NO: _____

Business Name: _____

Business Location (in Abq. Metro Area): _____

Business Type: SELECT ONE

- Corporation -- Indicate state of incorporation.  _____
- Partnership -- Indicate "general" or "limited".  _____
- Sole Proprietorship (Single Owner with employees)
- Individual (Single Owner/No employees)
- Other -- Indicate status.  _____

Additional Information: (PROVIDE IF BUSINESS IS A CORPORATION)

Date of incorporation in the State of New Mexico:  _____

CERTIFICATION

I hereby certify that the business set out above is the principal Offeror submitting this offer or is one of the principal Offerors jointly submitting this offer (e.g. as a partnership, joint venture). I hereby certify that the information which I have provided on this form is true and correct, that I am authorized to sign on behalf of the business set out above and, if requested by the City, will provide, within 10 days of notice, the necessary documents to substantiate the information provided on this form.

Signature of Authorized Individual: _____ 

Printed Name: _____

Title: _____

Date: _____

