



**Tulsa**  
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## FAX TRANSMITTAL

Date: January 12, 2021

To: Plan Holders

Company: Contractors

Number of Pages: 17 (Including Cover)

From: Anika Ture - Contract Administration  
Telephone No. 918-596-9637  
Fax No. 918-699-3470  
Email – [ature@cityoftulsa.org](mailto:ature@cityoftulsa.org)

**RE: PROJECT NO. 144642, SWD 10507, & TMUA-W 14-35 NON-  
ARTERIAL STREET MAINTENANCE & WATERLINE REPLACEMENT  
FOR MZ 6142**

### **ADDENDUM NO. 3**

Please fax or email a signed cover sheet 918-699-3470 to or [jiten@cityoftulsa.org](mailto:jiten@cityoftulsa.org) as  
acknowledgement of receipt.

Thank you,

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company

\_\_\_\_\_  
Date

January 11, 2021

**ADDENDUM NO. 3  
TO  
PROJECT NO. 144642, SWD 10507, & TMUA-W 14-35  
NON-ARTERIAL STREET MAINTENANCE & WATERLINE REPLACEMENT FOR  
MAINTENANCE ZONE 6142**

This Addendum No. 3 consisting of (1) item, submitted by City of Tulsa, and (1) item, submitted by Poe & Associates, Inc., is hereby made a part of the Contract Documents to the same extent as though it were originally included therein, and shall supersede anything contained in the Plans and Specifications with which it might conflict. **This entire Addendum shall be attached to the Index Sheet of the Contract Documents, recorded on P-5b of the proposal, and submitted with bid. Failure to do so shall result in the bid being deemed non-responsive.**

This Addendum No. 3 consists of the following:

1. Delete the existing Proposal in its entirety and replace with the revised Proposal found at <https://www.cityoftulsa.org/government/departments/engineering-services/construction-bids/>. It is the Bidder's responsibility to download the revised Proposal onto their existing thumb drive.
2. Revised attached **SPECIAL PROVISIONS FOR CONTRACTOR'S QUALITY CONTROL** shall supersede current **SPECIAL PROVISIONS FOR CONTRACTOR'S QUALITY CONTROL**.

All other provisions of the Plans and Specifications shall remain in full force and effect.

**CITY OF TULSA**

  
Paul D. Zachary, P.E.  
City Engineer

  
HAS/DDH/AT/ji

**ELECTRONIC BID PROPOSAL INSTRUCTIONS - EXCEL SPREADSHEET**  
**PROJECT NO: 144642, SWD 10507, TMUA-W 14-35**

**Please read the following instructions carefully.**

1. After opening this file re-save it as your company's name.
2. Open the BID FORM Sheet from the tabs below.
3. Input the unit price of the appropriate pay item in the cells highlighted in blue.
4. Review all data input and check calculations to ensure accuracy of Bid.
5. Print 1hardcopy of the "PROPOSAL" tab, BID FORM and the "SIGNATURE PAGE" tab.
6. Complete and sign the "Signature Page" document.
6. Submit hardcopy and electronic disk with Contract Documents and Specifications for Bid opening date.

**LEGEND**

- |    |      |                             |
|----|------|-----------------------------|
| \$ | 1.00 | Cells Requiring Data Input. |
| \$ | 1.00 | Internal Data Transfer.     |
| \$ | 2.00 | Calculated Results.         |

**AGREEMENT FOR USING ELECTRONIC BID PROPOSAL**

By and Between: (ENGINEER) and RECIPIENT. The enclosed electronic media is provided pursuant to your request and is for your limited use in connection with your submittal of Bid Proposal for Project No. 144642 & TMUA-W 14-35. In no event shall the information be used for any other purpose or be released to third parties without the written consent of the ENGINEER. In the event of a discrepancy between the hard copy and this electronic media at delivery or in the future, the hard copy shall govern. ENGINEER hereby disclaims any and all liability for the consequences from use of the electronic media and makes no warranty or guarantee of accuracy. RECIPIENT shall assume full responsibility for the uses and consequences of the electronic media. It is agreed that ENGINEER has and retains ownership of the electronic media. ENGINEER does not warrant or guarantee that the electronic data is compatible with RECIPIENTS computer hardware or software, and ENGINEER'S responsibility for the electronic media is limited to replacement of defective media for a period of thirty (30) days after delivery to RECIPIENT. !!! By opening and using this FILE, You AGREE to these TERMS AND CONDITIONS!!!

**PROPOSAL**  
**PROJECT NO: 144642, SWD 10507, TMUA-W 14-35**

TO: TULSA METROPOLITAN UTILITY AUTHORITY  
CITY OF TULSA, OKLAHOMA

THE UNDERSIGNED BIDDER, having carefully examined the drawings, specifications, and other Contract Documents of the above project presently on file in the City Clerk, City of Tulsa Oklahoma:

CERTIFIES THAT he has inspected the site of the proposed work and has full knowledge of the extent and character of the work involved, construction difficulties that may be encountered, and materials necessary for construction, class and type of excavation, and all other factors affecting or which may be affected by the specified work; and

CERTIFIES THAT he has not entered into collusion with any other bidder or prospective bidder relative to the project and/or bid: and

HEREBY PROPOSES: to enter into a contract to provide all necessary labor, materials, equipment and tools to completely construct and finish all the work required by the Contract Documents hereto attached and other documents referred to therein: to complete said work within 120 calendar days after the work order is issued; and to accept in full payment therefore the amount set forth below for all work actually performed as computed by the Engineer as set forth in the Contract.

**Basis of Award**

**THE BID PROPOSAL INCLUDES A BASE BID AND THREE WATERLINE MATERIAL OPTIONS. IT SHOULD BE NOTED THAT THE LOWEST RESPONSIBLE TOTAL BID SHALL BE DETERMINED BY THE BASE BID WITH THE LOWEST OF ALL THE MATERIAL OPTIONS. ANY PROPOSAL SUBMITTED WITH ANY MATERIAL OPTION INCOMPLETE SHALL BE CONSIDERED NON-RESPONSIVE. THE CITY OF TULSA RESERVES THE RIGHT TO SELECT ANY MATERIAL OPTION IN THE EVENT THE BID COSTS OF THE MATERIAL OPTIONS ARE EQUAL.**

PROPOSAL  
PROJECT NO: 144642, SWD 10507, TMUA-W 14-35

BID ITEM	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
<b>PAVING &amp; DRAINAGE BASE BID</b>						
1	201(A)	CLEARING AND GRUBBING	ACRE	0.5		\$0.00
2	202(A)	UNCLASSIFIED EXCAVATION	CY	3,241		\$0.00
3	221(C)	TEMPORARY SILT FENCE	LF	300		\$0.00
4	221(K)	TEMPORARY FIBER LOG	LF	170		\$0.00
5	230(A)	SOLID SLAB SODDING	SY	2,698		\$0.00
6	303(A)	AGGREGATE BASE TYPE A	CY	3,032		\$0.00
7	310(B)	SUBGRADE METHOD B	SY	10,371		\$0.00
8	325	SEPARATOR FABRIC	SY	12,963		\$0.00
9	409	FABRIC REINFORCEMENT	SY	4,118		\$0.00
10	411(B)	SUPERPAVE, TYPE S3 (PG 64-22)	TON	1,731		\$0.00
11	411(C)	SUPERPAVE, TYPE S4 (PG 64-22) INSOLUBLE	TON	1,106		\$0.00
12	411(D)	SUPERPAVE, TYPE S5 (PG 64-22)	TON	207		\$0.00
13	412	COLD MILL PAVEMENT	SY	3,698		\$0.00
14	509(B)	CLASS A CONCRETE	CY	18		\$0.00
15	609(B)	COMBINED CURB AND GUTTER (6" BARRIER)	LF	2,547		\$0.00
16	610(A)	4" CONCRETE SIDEWALK	SY	2,760		\$0.00
17	610(B)	6" CONCRETE DRIVEWAY (H.E.S.)	SY	2,067		\$0.00
18	610(I)	TACTILE WARNING DEVICE	SF	176		\$0.00
19	611(G)	INLET DESIGN NO. 2, COMPLETE IN PLACE	EA	9		\$0.00
20	611(G)	INLET DESIGN NO. 2(2A), COMPLETE IN PLACE	EA	2		\$0.00
21	612(A)	MANHOLE ADJUSTED TO GRADE (PUBLIC)	EA	6		\$0.00
22	612(E)	VALVE BOXES ADJUSTED TO GRADE	EA	2		\$0.00
23	613(A)	RCP, 18 INCH ROUND, COMPLETE IN PLACE	LF	55		\$0.00
24	619(B)	REMOVAL OF EXISTING DRIVEWAYS	SY	2,067		\$0.00
25	619(B)	REMOVAL OF EXISTING PAVEMENT	SY	6,181		\$0.00
26	619(B)	REMOVAL OF EXISTING CURB AND GUTTER	LF	2,547		\$0.00
27	619(B)	REMOVAL OF EXISTING SIDEWALK	SY	2,760		\$0.00
28	641	MOBILIZATION	EA	1		\$0.00
29	642	CONSTRUCTION STAKING	EA	1		\$0.00
30	850(A)	SHEET ALUMINUM SIGN	SF	53		\$0.00
31	851(B)	1 1/2" SQUARE TUBE	LF	14		\$0.00
32	851(C)	1 3/4" SQUARE TUBE	LF	70		\$0.00
33	851(D)	2 " SQUARE TUBE	LF	15		\$0.00
34	880(B)	SIGNS 0.00 TO 6.25 SF	SD	1,920		\$0.00
35	880(B)	SIGNS 6.26 TO 15.99 SF	SD	1,920		\$0.00
36	880(B)	SIGNS 16.00 AND UP	SD	1,920		\$0.00
37	880(C)	BARRICADES (TYPE III)	SD	3,600		\$0.00
38	880(E)	TYPE "A" WARNING LIGHT	SD	7,200		\$0.00
39	880(E)	TYPE "C" WARNING LIGHT	SD	3,600		\$0.00
40	880(F)	DRUMS	SD	1,920		\$0.00
41	880(G)	TUBE CHANNELIZERS	SD	500		\$0.00
42	880(I)	FLAGGER	FD	100		\$0.00
43	SPECIAL	PROJECT SIGN (CITY OF TULSA)	EA	1		\$0.00
44	SPECIAL	TYPE I AC PATCH	CY	122		\$0.00
45	SPECIAL	CURB RAMP TYPE "A"	EA	10		\$0.00
46	SPECIAL	CURB RAMP TYPE "D"	EA	12		\$0.00
47	SPECIAL	URBAN RIGHT-OF-WAY RESTORATION	EA	1		\$0.00
48	COT 202	QUICK SET FLOWABLE FILL	CY	82		\$0.00
49	SPECIAL	OWNER ALLOWANCE	ALLOW	1	\$10,000.00	\$10,000.00
49A	643	(SP) CONTRACTORS QUALITY CONTROL	LSUM	1		\$0.00
<b>SUBTOTAL PAVING &amp; DRAINAGE BASE BID</b>						<b>\$10,000.00</b>

<b>WATER LINE BASE BID</b>						
BID ITEM	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
50	COT 301	RIGHT-OF-WAY CLEARING AND RESTORING	SY	523		\$0.00
51	COT 302	EXCAVATION AND BACKFILL, UNCLASSIFIED	CY	507		\$0.00
52	COT 303	MOBILIZATION	EA	1		\$0.00
53	COT 304	CONSTRUCTION STAKING	EA	1		\$0.00
54	COT 307	8 INCH DIP, CL51 POLYETHYLENE WRAPPED, RJ	LF	105		\$0.00
55	COT 312	8 INCH DUCTILE IRON SLEEVE, RJ	EA	4		\$0.00
56	COT 312	8 INCH X 6 INCH DUCTILE IRON TEE, RJ	EA	4		\$0.00
57	COT 315	3/4" INCH WATER METER CAN, LID & RIM	EA	33		\$0.00
58	COT 317	6 INCH GATE VALVE, RJ	EA	8		\$0.00
59	COT 317	3-WAY FIRE HYDRANT, IN PLACE	EA	4		\$0.00
60	COT 318	VALVE BOX	EA	8		\$0.00
61	COT 330	EROSION CONTROL (TEMPORARY SILT FENCE)	LF	60		\$0.00
62	COT 330	EROSION CONTROL (TEMPORARY FIBER LOG)	LF	48		\$0.00
63	SPECIAL	CONSTRUCTION AS-BUILT	EA	1		\$0.00
64	SPECIAL	OWNER ALLOWANCE	ALLOW	1	\$7,000.00	\$7,000.00
<b>SUBTOTAL WATER LINE BASE BID</b>						<b>\$7,000.00</b>

BID ITEM	SPEC NO.	DESCRIPTION	UNIT	QTY	DATA INPUT UNIT PRICE	TOTAL EACH ITEM
<b>MATERIAL OPTION 1 (DIP)</b>						
65	COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED	LF	749		\$0.00
66	COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED, RJ	LF	1,595		\$0.00
67	COT 312	6 INCH X 4 INCH DUCTILE IRON REDUCER, RJ	EA	4		\$0.00
68	COT 312	4 INCH DUCTILE IRON SLEEVE, RJ	EA	4		\$0.00
69	COT 312	6 INCH DUCTILE IRON PIPE 11-1/4 DEG BEND, RJ	EA	40		\$0.00
70	COT 312	6 INCH DUCTILE IRON PIPE 22-1/2 DEG BEND, RJ	EA	33		\$0.00
71	COT 312	6 INCH DUCTILE IRON PIPE 45 DEG BEND, RJ	EA	24		\$0.00
72	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE, RJ	EA	4		\$0.00
73	COT 315	3/4" INCH WATER SERVICE CONNECTION (SHORT)	EA	33		\$0.00
74	COT 328	6 INCH BORE	LF	26		\$0.00
<b>SUBTOTAL WATER BASE BID WITH OPTION 1 (DIP)</b>						<b>\$7,000.00</b>

<b>MATERIAL OPTION 2 (PVC)</b>						
75	COT 307	6 INCH PVC AWWA C900 CLASS 200 DR-14, RJ	LF	1,595		\$0.00
76	COT 309	6 INCH PVC AWWA C900 CLASS 200 DR-14	LF	749		\$0.00
77	COT 312	6 INCH X 4 INCH DUCTILE IRON REDUCER, RJ	EA	4		\$0.00
78	COT 312	4 INCH DUCTILE IRON SLEEVE, RJ	EA	4		\$0.00
79	COT 312	6 INCH DUCTILE IRON PIPE 11-1/4 DEG BEND, RJ	EA	40		\$0.00
80	COT 312	6 INCH DUCTILE IRON PIPE 22-1/2 DEG BEND, RJ	EA	33		\$0.00
81	COT 312	6 INCH DUCTILE IRON PIPE 45 DEG BEND, RJ	EA	24		\$0.00
82	COT 312	6 INCH X 6 INCH DUCTILE IRON TEE, RJ	EA	4		\$0.00
83		NOT USED				\$0.00
84	COT 315	3/4" INCH WATER SERVICE CONNECTION (SHORT)	EA	33		\$0.00
85	COT 328	6 INCH BORE	LF	26		\$0.00
<b>SUBTOTAL WATER BASE BID WITH OPTION 2 (PVC)</b>						<b>\$7,000.00</b>

<b>MATERIAL OPTION 3 (HDPE)</b>						
86	COT 307	6 INCH DIP, CL51 POLYETHYLENE WRAPPED, RJ	LF	32		\$0.00
87	COT 309	8 INCH HDPE AWWA C906 PE4710 DR-11 (DIPS)	LF	2,312		\$0.00
88	COT 312	4 INCH DUCTILE IRON SLEEVE, RJ	EA	4		\$0.00
89	COT 312	6 INCH DUCTILE IRON SLEEVE, RJ	EA	4		\$0.00
90	COT 312A	8 INCH HDPE 45 DEG BEND, RJ	EA	24		\$0.00
91	COT 312A	8 INCH X 8 INCH HDPE TEE (DIPS), RJ	EA	4		\$0.00
92	COT 312A	HDPE ANCHOR, COMPLETE IN PLACE	EA	8		\$0.00
93	COT 312A	8 INCH X 4 INCH DUCTILE IRON REDUCER, RJ	EA	4		\$0.00
94	COT 312A	8 INCH X 6 INCH DUCTILE IRON REDUCER, RJ	EA	12		\$0.00
95	COT 312A	8 INCH HDPE MJ ADAPTOR (DIPS) (RJ)	EA	8		\$0.00
96	COT 315	3/4" INCH WATER SERVICE CONNECTION (SHORT)	EA	33		\$0.00
97	COT 328	8 INCH BORE	LF	26		\$0.00
98	COT 317	8 INCH GATE VALVE, RJ	EA	8		\$0.00
<b>SUBTOTAL WATER BASE BID WITH OPTION 3 (HDPE)</b>						<b>\$7,000.00</b>

TOTAL PAVING, DRAINAGE & WATER (BASE BID WITH MINIMUM OPTION)

\$17,000.00

**TOTAL BID (Base Bid with the lowest of three Water Material Options )**

\$17,000.00

Enclosed is a ( ) Bidder's Surety Bond, ( ) Certified Check, ( ) Cashier's Check for

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_ )  
Figures

which the City of Tulsa may retain or recover as liquidated damages in the event that the undersigned fails to enter into contract for the work covered by this proposal, provided the Contract is awarded to the undersigned within thirty (30) days, or within ninety (90) days if Federal funds are utilized, from the date fixed for opening of bids and the undersigned fails to execute said Contract and furnish the required bonds and other requirements as called for in these Contract Documents within thirty (30) days after award of Contract.

Dated at Tulsa, Oklahoma, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Respectfully submitted,

\_\_\_\_\_  
(Complete legal name of company)

\_\_\_\_\_  
(State of Organization)

By:

ATTEST:

Title:

\_\_\_\_\_  
Title: Corporate Secretary

(SEAL)

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

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

The undersigned acknowledge receipt of the following Addenda (give number and date of each):

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

SPECIAL PROVISIONS  
FOR  
CONTRACTOR'S QUALITY CONTROL

The units for this project will be those specified in the project plans.

**643.01. DESCRIPTION.**

Furnish Quality Control of materials and construction in accordance with the Standard Specifications, Plans and Special Provisions. This includes, but is not limited to preparing and following a Quality Control Plan (See Part 643 Tables 1-7).. Obtain samples and perform tests for Quality Control, provide inspection, and exercise management control to produce materials and workmanship that conforms to contract requirements. Unless otherwise noted in the plans, all pavements and bridges (except culverts) will be subject to requirements of any or all of the Special Provisions which are included in this contract. City of Tulsa will provide Quality Assurance testing at their discretion.

**643.02. MATERIALS.**

Meet materials quality requirements.

**643.03. EQUIPMENT.**

Provide equipment at own expense, unless otherwise specified. All equipment and supplies shall conform with Standards and applicable Specifications. Certify the calibration of all equipment.

**643.04. CONSTRUCTION.**

- a) General. Provide quality of all construction covered in the contract.
- b) Quality Control Personnel Qualifications. All personnel directly involved in sampling and/or testing materials for either control or acceptance purposes shall be certified in the appropriate area(s) by the Oklahoma Highway Construction Materials Technician Certification Board. Manager certification for material sampling and testing is not required unless he or she is directly involved in sampling and/or testing materials.
- c) Contractor's Quality Control Plan. Submit a written Quality Control Plan at least one week prior to the pre-work conference. Include the following in the plan:
  1. Sources of principal materials including names of suppliers and locations.
  2. Names and resumes of key Quality Control personnel.
  3. Duties, responsibilities, and authorities (to suspend production, alter mixtures, etc.) granted to key Quality Control personnel.
  4. Description of testing laboratories, including qualifications, key equipment and locations.
  5. Description of start-up operations, including but not limited to:
    - a. Review of submittal requirements and all other Contract requirements with the performance of the work.
    - b. Examine the work area to ascertain that all preliminary work has been completed.
    - c. Verify all field dimensions and advise the Engineer of any discrepancies.
  6. Detailed testing schedule based on production.
  7. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification requiring the test, feature of work to be tested, and person responsible for each test.
  8. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures will establish verification that identified deficiencies have been corrected.



- d) Sampling and Testing. Perform sampling and testing according to the accepted Quality Control plan using personnel certified in appropriate areas and laboratories approved by the Engineer. Keep laboratory facilities clean and maintain all equipment in proper working condition.
- e) Inspection. Provide inspection necessary to ensure compliance with applicable standards and specifications.
- f) Records. Maintain complete testing and inspection records and make them accessible to the Engineer.
  - 1. Test Results. Maintain control charts that identify the project number, contract item, test number, each test parameter, the upper and/or lower specification limit applicable to each test parameter, and the test results. Use the control charts as part of the Quality Control system to document process variability, to identify production and equipment problems, to make necessary corrections, and to identify potential pay factor adjustments.
    - i. Post control charts in an accessible location, keep them up to date, and make them available to the Engineer upon request. Make corrections to the process when problems are evident, including ceasing production if necessary.
  - 2. Inspection Results. For each day of work, prepare an "Inspector's Daily Record of Construction Operations" on an approved form. Include the following certification signed by the person with overall responsibility for the inspection system:
    - i. "It is hereby certified that the information contained in this record is accurate, and that all work documented herein complies with the requirements of the contract. Any exceptions to this certification are documented as a part of this record."
  - 3. Submit the record and certification to the Engineer within two working days of the work being performed. If the record is incomplete, in error, or otherwise misleading, a copy of the record will be returned with corrections noted. When chronic errors or omissions occur, correct the procedures by which the records are produced.
- g) Use of Contractor Test Results for Acceptance Purposes. Abbreviated test procedures are allowed for Contractor use. The Quality Control Plan shall list all abbreviated test procedures, describe all deviations from standard procedures for each, and note their intended purpose. Test results from abbreviated procedures will not be used for any purpose by the City of Tulsa. It is the Engineer's discretion to use or not use any of the Contractor's test results for acceptance purposes.
- h) Changes. Submit, in writing, all proposed changes in key Quality Control personnel, equipment or procedures from those previously approved by the Engineer. Submit written changes at least one week prior to the proposed action.

#### 643.05. METHOD OF MEASUREMENT.

Payment for Contractor's Quality Control will be measured on a lump sum basis.

643.06. BASIS OF PAYMENT.

Accepted Contractor's Quality Control measured for payment as prescribed above will be paid for at the Contract unit price for:

CONTRACTOR'S QUALITY CONTROL .....LUMP SUM

This payment will be full compensation for furnishing all materials, facilities, equipment, labor and incidentals to complete the work.

Subject to acceptable performance, payment for Contractor's Quality Control will be made in accordance with the following schedule:

25%	on the next estimate after the Engineer's approval of the Contractor's Quality Control Plan and other required initial documentation
plus 25%	when 50% of the work subject to Quality Control requirements is complete
plus 25%	when 75% of the work subject to Quality Control requirements is complete
plus 25%	when all test results and records related to Quality Control work have been furnished to and accepted in writing by the Engineer

As stated above, this payment is based upon acceptable performance. Payment will be reduced for unacceptable portions of the Quality Control work. Serious deficiencies in Quality Control work may result in the project being shut down.

**PART 643 TABLE 1**  
**BITUMINOUS MIXTURES**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING/TESTING FREQUENCY
411, 708	Asphalt Concrete Pavement	Volumetrics, Marshall, Rice & Air Voids	Hot Plant or Roadway	One Per Day's Production.
		Oil Content (Nuclear/Ignition)	Hot Plant or Roadway	One Per 350 Tons or Fraction Thereof. Minimum One Sample Per Day.
		Compaction (Core)	Roadway	One Per 300 Linear Feet For Each Lift And Lane Pass Or Fraction Thereof.
	Cold Feed	Gradation	Hot Plant	When Days Production Exceeds 300 Tons: One Prior to First Day of Production and One Per 500 Tons Thereafter.

**Remarks:**

Asphalt deficient in oil content and/or density shall be cored 50' maximum on both sides of failed section when deemed necessary by the City of Tulsa. The results of the 2 cores shall be averaged with the previous test results.

Minimum sampling and testing is required for each mix and supplier.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

**PART 643 TABLE 2**  
**CEMENTITIOUS MIXTURES**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING/TESTING FREQUENCY
414, 701	Portland Cement Concrete (Flatwork)	Compressive Strength	At Discharge	One Set Of Six Cylinders Per 50 Cubic Yards Or Fraction Thereof.
		Slump, Time & Temperature	At Discharge	One Per Set Of Cylinders.
509, 701	Portland Cement Concrete (Structures)	Compressive Strength	At Discharge	One Set Of Six Cylinders Per Type of Structure, Per 50 Cubic Yards, or Days Production
		Slump, Time & Temperature	At Discharge	One Per Set Of Cylinders.
501, 701, 703	Controlled Low Strength Material	Compressive Strength	At Discharge	One Set of Two Cylinders Per Shift.
425, 623, 701, 733	Grout	Compressive Strength	At Discharge	One Set of Four Prisms When Required By Engineer or Their Representative.
		Slump, Time & Temperature	At Discharge	One Per Set of Prisms.
521, 701 733, 737	Mortar	Compressive Strength	At Batch Site	One Set of Four Cylinders When Required by Engineer or Their Representative.
Project Plans & Specifications	Shotcrete	Compressive Strength	At Discharge	One Panel Per 50 Cubic Yards or One Per Mixture, Nozzleman and Shift (Whichever is Greater).

**Remarks:**

Concrete specifications: Time is **90 minutes max**; Temperature is **90 degrees Fahrenheit max**.

If in the opinion of the Engineer or his/her representative, there is sufficient cause to question the quality of the mortar or grout being utilized, random field sampling and testing may be required.

Shotcrete test panel forms should be wood or steel and a minimum of 24" x 24" x 4", generally shot in a vertical position. Minimum sampling and testing is required for each mix design and supplier.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

**PART 643 TABLE 3  
SOIL**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
202, 613	Trench Backfill (including lateral trenches)	Proctor Density, Gradation & P.I.	In-Place	One Per Soil Type.
		Compaction & Moisture Content	In-Place	One Per 8" Lift For Every 100 Linear Feet, Per Pipe Run, or Day's Production.
310	Subgrade	Proctor Density, Gradation & P.I.	In-Place	One Per Soil Type.
		Compaction & Moisture Content	In-Place	Every 100 Linear Feet Or Day's Production.
202, 501	Structure Backfill	Proctor Density, Gradation & P.I.	In-Place	One Per Soil Type.
		Compaction & Moisture Content	In-Place	One Per 8" Lift Per Structure
202	Roadway Fill & Embankments	Proctor Density, Gradation & P.I.	In-Place	One Per Soil Type.
		Compaction & Moisture Content	In-Place	One Per 8" Lift For Every 100 Linear Feet Or Day's Production.
202	Import	Proctor Density, Gradation & P.I.	Import Site or On-Site Stockpile	One Per Soil Type.
		Compaction & Moisture Content	In-Place	One Per 8" Lift For Every 100 Linear Feet Or Day's Production.

**Remarks:**

**For Infrastructure Development Projects (IDP) only. Testing Frequencies as follows:**

Sewer & Water Services (30%) Driveways, Aprons and ADA ramps (50%) Valley Gutters (100%)

Dry Utility, Fire Hydrant, Fire Line and Storm Drain (100%)

Import material shall be Select Borrow in accordance with Section 202 and 705. All fill materials shall be placed at +/- 2% of the optimum moisture content.

**The nuclear density gauge is to be correlated with a sand cone for every 10 tests taken, or 1 per day, whichever is greater.**

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

**PART 643 TABLE 4  
AGGREGATE BASE**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
303, 703, 708	Aggregate Base (AB)	Proctor Density	Stockpile, Windrow, Roadway	At Start of Production and as Material Changes per Supplier and/or Plant
		Compaction & Moisture Content	Roadway, Pipe Bedding, Initial Backfill	One per 100' per Lift or One per Lane Pass or Days Production
		Gradation, PI (Wet Prep)	Stockpile, Windrow, Roadway	One per Project, or One per 1000 Tons or Fraction Thereof
		Specific Gravity	Stockpile, Windrow, Roadway	At Start of Production and as Material Changes per Supplier and/or Plant

**Remarks:**

If asphalt millings are used for bedding, they shall meet the requirements of virgin Aggregate Base per ODOT.

Millings must meet all ASTM C-33 requirements.

Millings cannot be placed until the material has been certified by ODOT/COT approved testing lab.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

**PART 643 TABLE 5  
REINFORCEMENT**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
724	Steel Reinforcement	Certificate and/or Tests	Project	One Sample For Each Size, Grade & Heat Number Per Shipment & Manufacturer. Certificate Required.
517, Project Plans & Specifications	Post-Tensioned Steel	Certificate and/or Tests	Project	One Sample For Each Size, Grade & Heat Number Per Shipment & Manufacturer. Certificate Required.
503, Project Plans & Specifications	Pre-Stressed Steel	Certificate and/or Tests	Project Or Fabrication Plant	One Sample For Each Size, Grade & Heat Number Per Shipment & Manufacturer. Certificate Required.

**Remarks:**

All steel and iron incorporated into Federal-Aid projects must conform to requirements of "Buy America" per 23 CFR 635.410.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

**PART 643 TABLE 6**  
**ELASTOMERIC BEARING PADS**

ODOT/COT SUPPLEMENTS	MATERIAL	TYPE OF TEST(S) REQUIRED	SAMPLING POINT	MINIMUM SAMPLING FREQUENCY
733.06	Elastomeric Bearing Pad (Grade 2)	AASHTO M 251	Project	Two Sample Bearing Pads Selected at Random by Engineer from every 100 Bearing Pads or Portion Thereof. Minimum of One Sample per Lot

**Remarks:**

Two sample bearing pads may be needed to complete the specified testing for smaller bearing pads.

Bearing pads will be selected at random by the Engineer at the project site for testing.

Bearing pads marked or otherwise presented as test bearing pads will not be tested.

Bearing pads must be made available for testing at least four weeks in advance of intended use.

Each bearing pad is to be marked in indelible ink or flexible paint. The marking shall consist of the order number, lot number, bearing identification number, and elastomer type and grade number. The marking shall be on the face that is visible after erection of the bridge.

City of Tulsa reserves the right to modify sampling and testing requirements as needed to ensure quality of materials.

<p style="text-align: center;"><b>PART 643 TABLE 7A</b></p> <p style="text-align: center;"><b>MINIMUM TEST SCHEDULE &amp; FINAL REPORT</b></p>
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**Minimum Testing Schedule:**

A Minimum Testing Schedule is to be created and submitted to the City of Tulsa Field Engineering within 10 business days of project assignment. Testing frequencies are to be calculated using an approved set of plans in conjunction with the bid tab items to create an accurate representation of the minimum testing needed for the project. Any notes, comments, special circumstances and/or assumptions made for quantity calculations should be listed at the bottom of the page.

**Final Report Should Include the Following:**

All laboratories must submit a Final Report after the completion of each project. Laboratories will be notified by the City of Tulsa Field Engineering, via email, that the project is complete and all lab results for soils, concrete & asphalt will be attached. A CD and a hard copy of the Final Report must be delivered to the City of Tulsa Field Engineering within 5 business days from the date of this email.

Final Reports are to include all field and lab tests/results, daily reports and samples taken for the entire project.

All Final Reports must be stamped and signed by a registered professional engineer and shall verify that all materials, sampled and tested, were found to be in compliance with the latest City of Tulsa Standards and Specifications.

Construction materials that fail to meet specification requirements, but were incorporated in the project, must be summarized in the final report with a detailed explanation listing corrective actions or justification for acceptance.

<p style="text-align: center;"><b>PART 643 TABLE 7B</b></p> <p style="text-align: center;"><b>INFRASTRUCTURE DEVELOPMENT PROJECTS (IDP) ONLY</b></p> <p style="text-align: center;"><b>MINIMUM TEST SCHEDULE &amp; FINAL REPORT</b></p>
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**Minimum Testing Schedule:**

A Minimum Testing Schedule shall be created and submitted to the City of Tulsa IDP Inspector, during the pre-construction meeting. Testing frequencies are to be calculated using an approved set of plans, in conjunction with the bid tab items, to create an accurate representation of the minimum testing needed for the project. Any notes, comments, special circumstances and/or assumptions made for quantity calculations, should be listed at the bottom of the page.

**Final Report:**

All laboratories must submit a Final Report at the completion of each project. A spiral bound copy of the Final Report must be delivered to the City of Tulsa IDP Inspector along with final record drawings of the project.

Final Reports shall include all field and lab tests/results (including any acceptance/deficiency test results), daily reports and samples taken for the entire project.

All Final Reports must be stamped and signed by a registered professional engineer and shall verify that all materials, sampled and tested, were found to be in compliance with the latest City of Tulsa Standards and Specifications. Construction materials that fail to meet specification requirements, but were incorporated in the project, must be summarized in the final report with a detailed explanation listing corrective actions or justification for acceptance.



## INSPECTION/TESTING SCHEDULE

Service	Minimum Notice (Hours)	Notes
Aggregate Base:	48	Density testing must be complete prior to stringline. Obtain samples for proctor/acceptance testing prior to scheduling density
Aggregate Base Thickness:	48	Per Plans & Specifications
Aggregate Base Sampling:	48	Material must be from a City of Tulsa approved plant.
Asphalt:	48	Contractor/Inspector must call the City of Tulsa Field Engineering for scheduling. Material must be from an ODOT approved plant.
Backfill:	48	Obtain samples for proctor/acceptance prior to scheduling density testing.
Concrete:	48	Material must be from an ODOT approved plant.
Coring:	48	Allow time to schedule and set up traffic control if required.
Crack Seal:	48	
Footing Inspection:	24	
Grout:	24	
Import:	24	Material must be approved by the City of Field Engineering prior to placement.
Mortar:	24	
Post Tension Pre-Pour Inspection:	48	
Post Tension Stressing Inspection:	48	
Post Tension Sampling:	48	
Reinforcing Steel (Inspection):	48	
Reinforcing Steel (Sampling):	48	
Shotcrete:	48	Contractor shall provide 16" x 16" x 4" sampling panel.
Sidewalk Slope Inspection:	24	
Slurry (CLSM):	24	
Slurry Seal:	48	
Soil Sampling:	24	
Stringline:	24	
Subgrade:	24	Density testing must be complete prior to stringline. Obtain samples for proctor/acceptance testing prior to scheduling density
Weld Inspection:	48	

Inspection/Testing schedule time listed above has been considered in contract time. No additional time will be given.

SECTION END