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CHANDLER arizona Community of Innovation	**City of Chandler, Arizona** **Public Works & Utilities Department** **Capital Projects Division**

CONSTRUCTION BID

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401
FEDERAL PROJECT NO.: CHN-0(246)D
ADOT NO.: T0243 01C

MAYOR
Kevin Hartke

VICE MAYOR
Christine Ellis

COUNCIL
OD Harris Matt Orlando
Angel Encinas Jane Poston Jennifer Hawkins

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer

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CITY OF CHANDLER, ARIZONA

CONSTRUCTION BID

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LEGAL AD DEPARTMENT

CHANDLER arizona
Community of Innovation

INVITATION TO BID

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

NOTICE IS HEREBY GIVEN that sealed bids will be received and date/time stamped by the City of Chandler Capital Projects Office, 215 East Buffalo Street, Chandler, Arizona 85225 until the bid submission date specified below.

All firms must be registered on the Arizona Procurement Portal (https://app.az.gov/) vendor registration system prior to submitting a Bid. Non-registered firms will not receive addenda notifications. Solicitation documents and addenda may be downloaded at the Arizona Procurement Portal - https://app.az.gov/. It is the contractor's sole responsibility to obtain all addenda from the Arizona Procurement Portal prior to submitting their bid proposal, and to acknowledge receipt and acceptance of the addenda in their bid proposal submittal. No separate notification of addenda will be issued. The City recommends Contractors regularly check Arizona Procurement Portal - https://app.az.gov/ for updated information.

PRE-BID CONFERENCE:

September 9, 2025 **3:00 p.m.** **Arizona time**	THERE WILL BE A PRE-BID CONFERENCE **City Council Chambers at 88 E. Chicago Street, Chandler, AZ 85225**

SOLICITATION QUESTIONS DUE DATE:

September 12, 2025 **5:00 p.m.** **Arizona time**	All solicitation questions must be emailed to Bid.Questions@chandleraz.gov with the subject line of: **"CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY) BID QUESTION".** Questions received **after the due date and time** will **NOT** be considered.

BID SUBMISSION:

October 9, 2025 **3:00 p.m.** **Arizona time**	Sealed bids must be delivered to the City of Chandler Capital Projects Office located at 215 East Buffalo Street, Chandler, Arizona, 85225. **Bids must be received on or before date and time specified.** At that time, bids will be publicly opened and read aloud in the **Saguaro** Conference Room. Bids received after the due date and time will be returned unopened without consideration. All bids must be submitted in a sealed envelope plainly marked as follows: **BID OF _____, CONTRACTOR** **FOR: "CITY PROJECT NO.: ST2001.401;** **FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C** **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)"**

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Work under this Agreement includes:

This project will improve Lindsay Road from Ocotillo Road to Hunt Highway including widening to four traffic lanes, ADA upgrades, bike lanes, sidewalk, curb and gutter, street lighting, traffic signals, storm drainage, raised landscape median, wet and dry utilities, irrigation systems, site walls and other improvements.

Work must be completed within 790 consecutive calendar days from the Notice to Proceed. The Engineer's Estimate range is $30 - $32 Million.

Bids must be submitted on the Proposal Form provided and be accompanied by the Bid Bond for not less than ten percent (10%) of the total bid, payable to the City of Chandler, Arizona, or a certified or cashier's check. PERSONAL OR INDIVIDUAL SURETY BONDS ARE NOT ACCEPTABLE.

The successful bidder will be required to execute the standard form of agreement for construction prior to Council award

The successful bidder must furnish a Payment Bond and Performance Bond in the amount equal to one hundred percent (100%) of the Agreement Price.

The right is hereby reserved to accept or reject any or all bids or parts thereto, to waive any informalities in any proposal and reject the bids of any persons who have been delinquent or unfaithful to any agreement with the City of Chandler.

All Bids will remain open for 90 days after the Bid opening day, but the City may, in its sole discretion, release any Bid and return the bid security prior to that date. No Bidder may withdraw his Bid during this period without written permission from the City.

Find PRELIMINARY BID RESULTS at: https://www.chandleraz.gov/business/vendor-services/capital-projects

Protest Policy - A protest of a proposed award must be filed WITH THE PURCHASING OFFICE within 5 calendar days of the first posting of the award recommendation. Award recommendations are posted on the Capital Projects web site or the City Clerk web site. If the due date occurs on a weekend or holiday the protest must be filed the next business day.

A Protest must include:

- The name, address and telephone number of the protester;
- The signature of the protester or its representative;
- Identification of the project and the solicitation or agreement number;
- A detailed statement of the legal and factual grounds of the protest including copies of relevant documents; and
- The form of relief requested.

City will review the protest and issue a written response.

PUBLISHED DATE:	**8/28/2025** **9/4/2025** Arizona Republic AFFIDAVIT OF PUBLICATION

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CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

ADDENDUM NO. 1

SEPTEMBER 2, 2025

1. Bidder must acknowledge the receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **1 page**, is hereby incorporated into the Construction Agreement by this reference.

2. **Attendance at Pre-Bid Conference is MANDATORY.** The Pre-Bid Conference will be held at 3:00 p.m. local Arizona time on September 9, 2025, at City Council Chambers, 88 E. Chicago Street, Chandler, AZ, 85225

If you have any questions, please email Bid.Questions@chandleraz.gov.

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer
Public Works & Utilities Dept. – Capital Projects

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CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

ADDENDUM NO. 2

SEPTEMBER 10, 2025

1. Bidder must acknowledge the receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **1 page**, is hereby incorporated into the Construction Agreement by this reference.

2. **AN ADDITIONAL MANDATORY PRE-BID CONFERENCE HAS BEEN ADDED.** A second Pre-Bid Conference will be held at **3:15 p.m. local Arizona time on September 16, 2025**, at the Public Works and Development Services Building, Saguaro Room, 215 E. Buffalo Street, Chandler, AZ, 85225. Bidders must attend at least one of the pre-bid conferences. If a bidder attended the conference on September 9, 2025, they do not need to attend the second pre-bid conference although they are welcome to attend both.

3. **SOLICITATION QUESTIONS DUE DATE.** All solicitation questions are now **due by September 19, 2025**, and must be emailed to Bid.Questions@chandleraz.gov with the subject line of: "CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY) BID QUESTION". Questions received after the due date and time will NOT be considered.

4. **BID SUBMISSION.** The bid date has been changed to **October 16, 2025, 3:00 p.m.** Arizona time. Bids must be received on or before date and time specified.

If you have any questions, please email Bid.Questions@chandleraz.gov.

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer
Public Works & Utilities Dept. – Capital Projects

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CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO RAOD TO HUNT HIGHWAY)

CITY PROJECT NO. ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.:T0243 01C

ADDENDUM NO. 3

OCTOBER 3, 2025

1. Bidder must acknowledge the receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **38 pages**, is hereby incorporated into the Construction Agreement by this reference.

2. Replace Plans sheet(s) No. **2, 35, 79, 85, 97** in its entirety with accompanying revised Plans sheets No. **2, 35, 79, 85, 97** dated **10/01/25** provided in **Exhibit A** in this addendum.

3. DAVIS BACON WAGE DECISION: This project Davis Bacon Wage Decision is hereby updated/revised to Highway AZ20250045 Mod 3 09/12/2025 as per the attached **Exhibit B** in this addendum.

4. Existing walls indicated for removal on the construction documents at APN 304-81-998 and APN 304-81-997 shall be removed at the start of construction.

5. Replace bid schedule with the revised bid schedule attached in **Exhibit C** in this addendum. Bid schedule is revised as follows:
   - REVISE bid quantity of Item 197 "15 IN RGRCP, CLASS V" to 662 LF.
   - REVISE bid quantity of item 201 "Storm Drain Manhole, MAG Dtl 520 & 522" to 8.
   - ADD bid item 213 "Storm Drain Manhole, MAG Dtl 520 & 522, Shallow Manhole" with a quantity of 2 EA.
   - REVISE bid quantity of Item 183 "Concrete Masonry Wall (Full Wall)" to be 476 LF.
   - REVISE bid quantity of Item 184 "Concrete Masonry Wall (Partial Wall View Fence" to be 619 LF.

6. Technical specifications are hereby revised to add *No. 213 Storm Drain Manhole, Mag Dtl 520 & 522, Shallow Manhole.* Technical specification for item No. 213 is attached in **Exhibit D** in this addendum.

7. Sign in sheets for the Pre-bid Conferences are attached in **Exhibit E** in this addendum.

8. **Question:** Under what pay item will all required roadway excavation and embankment be paid for? The profile view of the road appears to show the need for roadway excavation and embankment. Please provide cross sections of the roadway to allow for contractors to

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determine the extent of the required excavation and embankment as well as the quantities and calculations for excavation and embankment as determined by the engineer of record.
Response: No cross sections are provided and no earthwork bid items will be added. Roadway excavation and embankment is incidental to subgrade preparation per technical specifications.

9. **Question:** What is the maximum length the city will allow for construction work zone limits?
Response: Refer to the Traffic Control section of the project special provisions.

10. **Question:** Are there any working hour restrictions in place for this project. Such as hours of limited traffic control setup, black out dates, school restrictions/coordination requirements, etc?
Response: Normal noise ordinances and traffic restrictions apply.

11. **Question:** Under the Mill and Remove Bituminous Pavement 2 in, Item number: 43, it references crack sealing and cleaning of all cracks that are between ¼"-2" in width are to be considered incidental to the milling operations. Given the scope of this project, it is not possible to for a contractor to quantify the costs associated with this scope as not all cracks may be present on the surface of the existing roadway. Additionally, this section also refers to the possibility of a blotter material being required, will a blotter material be required by the city? As such we would like to ask that the city either establish a line item for the crack sealing of the existing pavement surface or make this scope of work billable to an allowance item.
Response: The crack seal cost shall be considered incidental to the bid item as it is written in the Technical Specifications. A blotter material may be required if it is necessary to protect/keep clean existing areas that will not be repaved or reconstructed (driveways, side streets, etc).

12. **Question:** Can you confirm for Item 153 that Swarco McCain ATC Cabinet is an approved equal to the listed Mobotrex ATC on the pole schedule?
Response: McCain ATC 350i cabinet per the City's approved Products list is an acceptable alternate.

13. **Question:** The landscape plans show trees which are to be protected in several locations as well as metal landscape trim/edging. We would like to request that pay items be added for these scopes or provide clarification as to how these items are to be paid for.
Response: These items are to be paid for under the Landscape and Irrigation Restoration Bid Item (99).

14. **Question:** Could we get an update on the actual drywell count for this project? The bid schedule says there are 6 drywells, the Grading and Drainage Notes say there are 7, and on the actual Grading and Drainage Plans it only shows 2-4 that I can see.
Response: The drywell count for this project is 6. The bid schedule is accurate. Drywells are shown and called out on sheets 31, 43, 47, 81, and 82 (Paving Plans and Drainage Plans). Grading and Drainage General Notes on Plan Sheet No. 2 to be revised to remove "DRYWELL #4: 180+55.66, 94.17' LT", for a total of 6 drywells.

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15. **Question:** What is the assumed duration which contractors are to account for to allow for SRP to perform all their work associated with the undergrounding of the 12kv power utility once all contractor provided work has been performed as the specifications only provide a minimum duration?
Response: Contractor to coordinate SRP power facility relocation during construction per "Cooperation with Utilities" section of the technical specifications.

16. **Question:** How long will it take SRP to remove the overhead poles and wire once the existing 12kv has be de-energized and the new utility has been energized and put into service?
Response: Contractor to coordinate SRP power facility relocation during construction per "Cooperation with Utilities" section of the technical specifications.

17. **Question:** The specifications state that Lumen has existing utilities on the overhead power poles being removed and undergrounded as part of this project. How long will it take Lumen to relocated their utilities underground?
Response: Contractor to coordinate Lumen relocations during construction per "Cooperation with Utilities" section of the technical specifications.

18. **Question:** Please provide clarification if the Contractor will be responsible to providing/restoring electrical service to private residences upon completion of the 12kv overhead power undergrounding associated with this project and if so under what item will this be paid for including any restoration associated with work being performed on private property or will this work if required be performed by SRP including pulling wires and new connections at the meter?
Response: SRP will be responsible for restoring electrical service to private residences if it is interrupted during the 12kV undergrounding work. The City's contractor will be responsible for trench and conduit work, and SRP will pull wires and make meter connections.

19. **Question:** Will contractors be required to include the cost of the allowances provided by the city within or 9.69% dbe participation value as this is approximately $300,000 of dbe participation dollars the contractor will be held to but possibly not utilized?
Response: The DBE participation must be met for the total agreement amount including the allowances.

20. **Question:** The specifications reference the Southwest Gas Valve adjustments must be done in accordance with the Southwest Gas construction standards. Will this work be performed by Southwest Gas provided forces or will the cities contractor be responsible for this work?
Response: Contractor to coordinate with Southwest Gas for valve adjustments and comply with all Southwest Gas standards, details, and approved materials during construction per the "Cooperation with Utilities" section of the technical specifications. Contractor will be responsible for addressing any non-high-pressure gas valves. Any high-pressure gas valves must be adjusted by Southwest Gas forces and coordinated by the City's contractor.

21. **Question:** Please provide the Southwest Gas construction standards, details and approved materials for the valve adjustments?

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Response: Contractor to coordinate with Southwest Gas for valve adjustments and comply with all Southwest Gas standards, details, and approved materials during construction per the "Cooperation with Utilities" section of the technical specifications.

22. **Question:** Please provide a duration which contractors are to assume for the completion of the COX utility relocations.
Response: Contractor to coordinate Cox relocations during construction per "Cooperation with Utilities" section of the technical specifications.

23. **Question:** The provide the construction standards, details and approved materials for the adjustment of the ZAYO facilities associated with this project as they are not included within the project specifications and plans.
Response: Contractor to coordinate with Zayo for the vault adjustment and comply with all Zayo standards, details, and approved materials during construction per Bid Item No. 40 specification and the "Cooperation with Utilities" section of the technical specifications.

24. **Question:** Please provide a detail for the removal/relocation/reinstallation of any electrical located on the private property side of all walls/fences/gates to be removed and relocated as part of this project to allow for the appropriate contractor to price the work correctly
Response: Work to be considered incidental within reason.

25. **Question:** Who will be responsible for obtaining any required right of entry forms/temporary construction easements to perform work on private property.
Response: City to obtain required ROW and Easements

26. **Question:** Will contractors be required to obtain and pay for permits from the city building department for the work involving improvements to private property?
Response: The city will pay for the required building permits.

27. **Question:** Please provide what the cost of the water meter installation fee the contractor will be required to pay to the city of chandler for the installation of the irrigation meters.
Response: The water meter fees for this project will be covered by the City, not the contractor.

28. **Question:** Callout 23 in Drainage plans calls for 12" Storm Drain but doesn't reference what type of piping material. Please confirm that we are to follow the SOV for piping material classification.
Response: Yes, Callout 23 for 12" Storm Drain shall be Class IV RGRCP per the bid schedule and technical specifications.

29. **Question:** Page 8 of 8 in the SOV states a Bid Due Date and a Bid Opening Date. Please clarify as to which date the bids will be opened and read.
Response: Bid opening will be at the same date and time as the bid submission deadline.

30. **Question:** If bids are opened on the next workday (Friday, 10/17), please confirm the following day (Saturday, 10/18) is when the DBE clock begins, therefore making DBE documents due back on Wednesday, 10/22.

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Response: Bid opening will be at the the same date and time as the bid submission deadline.

31. **Question:** In the Special Provisions there is a fee table for traffic control infractions ranging from 32K to 100k per occurrence, based on the $32 million engineer's estimate. Is this fee table correct? How many days does the City of Chandler require for TCP approval?
Response: The application for the TCP is reviewed in 3 days. Additional time may be required if a resubmittal is required for the TCP approval.

32. **Question:** MCDOT map shows a segment of the right side of Lindsay Road just north of Riggs is County jurisdiction. Please confirm that all ROW has been obtained by City of Chandler.
Response: The city has acquired all necessary ROW.

33. **Question:** The GC's state a fee for shut off of waterlines by COC. Are you expecting the Contractor to dig up all corp stops to shut down services? Where can we find the fee schedule for this?
Response: There is no water shut off fee for this project. The expectation is not for the Contractor to dig up corp stops to shut down services for work on waterlines, unless it is necessary for service relocation (water meter relocations, etc).

34. **Question:** General Note 11 on Sheet 2 of 239 says all trench backfill shall be CSLM. Can you clarify that this is correct.
Response: Aggregate base course (ABC) backfill material per MAG 601 may be used as a substitute to CSLM backfill on General Note 11. Minimum compaction density testing frequencies must be in accordance with MAG Section 601, Table 601-3. Compaction testing results must be provided to City inspector daily

35. **Question:** Please provide sewer connection locations as they are not shown on the plans.
Response: There is one sewer connection required to extend the existing sewer stub at approximately Station 181+24 RT, shown on PL17 (paving plans).

36. **Question:** Please provide detail or dimensions for Special Sign "Private Road" Sign.
Response: Assuming this is regarding the "Private Road" sign at Via de Palmas on sheet 97 (SM07), plan sheet to be updated for Private Road sign to match City of Chandler Standard Detail C-601-2 with "Private Road" name.

37. **Question:** What type of pipe is the existing 16" watermain? (DIP,PVC,ACP)
Response: According to pothole data and as-built data, the existing 16" water main is either DIP or PVC, depending on the location.

38. **Question:** The 15" RGRCP will not work with the modified catch Basin on sheet 85 because we are entering into the side of the sump and will interfere with the frame and grate. See detail on sheet 90. Can we reduce to a 12" PVC or HDPE? If not could we move MH directly behind catch basin, then come out the backside?
Response: 15" is the minimum size for laterals per City of Chandler standards. If the contractor cannot connect to the side of the catch basin with a 15" pipe, connecting the pipe at the back and moving the manhole behind the catch basin is an acceptable alternative. The Contractor

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must verify that there are no conflicts with existing or proposed utilities prior to constructing the alternate storm drain alignment. Pipe alignment to be revised on sheet 85 to reflect the connection at the back of the catch basin and moving the manhole behind the catch basin**.** Bid quantity of Item 197 "15 IN RGRCP, CLASS V) to be revised to 662 LF.

39. Question: The Storm Drain Manholes on Sheet 85 will need to be Flat tops. Is this okay?
Response: As noted on sheet 85 in the profile view, the 3' 10" minimum requirement per MAG detail 522 cannot be met due to existing grades, so a shallow manhole per MAG detail 522 shall be utilized for the two storm drain manholes on this sheet. Keynote 18 on Plan Sheet 85 to be revised to keynote 40 "Shallow Manhole Per MAG Dtl 520 & 522, COC Dtl C-400". Bid quantity of item No. 201 "Storm Drain Manhole, MAG Dtl 520 & 522" to be revised to 8. Bid item "Storm Drain Manhole, MAG Dtl 520 & 522, Shallow Manhole" with a quantity of 2 EA to be added

40. Question: GC state that all property owners must be notified of construction activities. Does the COC have a preferred public outreach coordinator?
Response: The city does not have a preferred vendor

41. Question: GC state that CPM schedule must be in Microsoft Project standard file format. Is P6 Professional also an acceptable software for CPM scheduling?
Response: Contractor needs to be able to provide Microsoft Project if requested

42. Question: Technical specifications for Bid Items #12-14 calls for percolation tests and filter fabric. If this is required, please specify frequency of percolation test and fabric specification.
Response: Percolation tests and filter fabric is not required for bid items #12-14

43. Question: Are the Allowance items included in the overall DBE goal for the project?
Response: The DBE participation must be met for the total agreement amount including the allowances.

44. Question: Please provide a detail for Bid Item #73 - "COMBINED MASONRY MAILBOX AND FOUNDATION"
Response: The Contractor will submit shop drawings to the City Representative for review and approval of each mailbox installation 30 days prior to any removals. Masonry mailboxes for APNs 304-81-994, -999, and -993 should match the style and color of the concrete masonry wall that will be constructed in front of those properties. A concept of the style and color for these is included in the technical specifications, but is not to be used in place of a shop drawing. Mailbox installation will include concrete foundation with minimum Class A concrete and follow approved Postmaster details. The Contractor will coordinate with the Postmaster for an approved detail to serve the described properties prior to construction.

45. Question: Please confirm Section 16 and Section 17 of the General Conditions are not applicable to this contract.
Response: Section 16 - PROVISIONS APPLICABLE SOLEY TO JOB ORDER AGREEMENTS (JOC) and Section 17 - PROVISIONS APPLICABLE SOLEY TO PRE-CONSTRUCTION SERVCIES FOR CONSTRUCTION MANAGER AT RISK are not applicable to this agreement

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46. **Question:** The bid quantity for Bid Item #183000 “Concrete Masonry Wall (Full Wall)" is 550 LF while the summary of Keynote 31 is 476 LF (74 LF short). The bid quantity for Bid Item #184000 “Concrete Masonry Wall (Partial Wall View Fence)" is 546 LF while the summary of Keynote 32 is 619 LF (73 LF long). Please verify the Bid quantities for these Bid items.
Response: Bid quantity of Item 183 (Concrete Masonry Wall (Full Wall)) shall be updated to be 476 LF. Bid quantity of Item 184 (Concrete Masonry Wall (Partial Wall View Fence) shall be updated to be 619 LF.

47. **Question:** Keynote 28 on plan sheet 35 of 239 calls for Microseal. Technical Specification pg. 17 refers to MAG for a Type II Slurry. Please clarify the requirements.
Response: The requirement is a Type II Slurry seal per the written technical specification for Item 21 "Surface Seal". Plan sheet 35, construction note 28 to be updated to read "Surface Seal".

48. **Question:** We are currently preparing our takeoffs for the Lindsay Road and would like to request a copy of the CAD files associated with the civil plans.
Response: CAD files will only be provided to winning lowest bidder

49. **Question:** Can you please provide the sign-in sheets for both mandatory pre-bid meetings?
Response: Sign in sheets attached to this addendum

Daniel Haskins

Daniel Haskins, P.E.
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EXHIBIT A

Revised Plan Sheets

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GENERAL NOTES: (Revised 3-20-23)

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST CURRENT ADOPTED MAG SPECIFICATIONS AND STANDARD DETAILS AS SUPPLEMENTED BY THE CITY OF CHANDLER.
2. THE CONTRACTOR MUST OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
3. THE DEVELOPMENT ENGINEERING OFFICE SHALL BE NOTIFIED 24 HOURS PRIOR TO STARTING EACH PHASE OF CONSTRUCTION (480-782-3300).
4. PROJECT ELEVATIONS ARE BASED UPON NAVD 88 DATUM. THE FOLLOWING BENCHMARK WAS UTILIZED:

BENCHMARK NUMBER	NGVD 29 ELEVATION	DESCRIPTION	EQUATION	NAVD 88 ELEVATION
54A	1251.92	CITY OF CHANDLER BENCHMARK 54A (POINT 152), SECTION 36, T2S, R5E, 3" BRASS CAP IN CONCRETE 79' SOUTH, 65' WEST OF INTERSECTION OF RIGGS RD AND GILBERT RD, 2' WEST OF BACK OF CURB.	1.614	1253.53

5. PRIOR TO ANY CONSTRUCTION IN THE PUBLIC RIGHT-OF-WAY, THE CONTRACTOR/DEVELOPER MUST NOTIFY THE LANDSCAPE MAINTENANCE AND DESIGN COORDINATOR AT 480-782-3428. ANY CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE RESTORED TO ORIGINAL CONDITIONS USING THE FOLLOWING REQUIREMENTS:
   A. ALL LANDSCAPE IMPACTED BY CONSTRUCTION SHALL BE REPLACED IN KIND AND SIZE, OR AS DETERMINED BY THE CITY;
   B. ALL IRRIGATION SYSTEMS SHALL BE RESTORED TO FULLY FUNCTIONING STATUS. ANY IRRIGATION LOCATED BENEATH ASPHALT OR CONCRETE SHALL BE SLEEVED WITH SCHEDULE 40 PVC TWO NOMINAL SIZES LARGER;
   C. THE AREA OF CONSTRUCTION SHALL BE TREATED WITH PRE-EMERGENT HERBICIDE (I.E. SURFLAN);
   D. GRANITE OF A SIZE AND COLOR TO MATCH EXISTING SHALL BE SPREAD A MINIMUM OF TWO INCHES THICK;
   E. THE STREET DIVISION SHALL BE CONTACTED TO INSPECT ALL WORK BEFORE A CONDITIONAL ACCEPTANCE IS ISSUED;
   F. THE CONTRACTOR/DEVELOPER SHALL MAINTAIN THE AREA FOR NINETY DAYS AFTER CONDITIONAL ACCEPTANCE. AFTER 90 DAYS THE CITY SHALL BE CONTACTED FOR FINAL ACCEPTANCE AND ASSUMPTION OF MAINTENANCE.
6. WORK PERFORMED BY THE CONTRACTOR:
   A. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY ENGINEER AND/OR ALL WORK AND MATERIAL NOT IN CONFORMANCE WITH THE SPECIFICATIONS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
   B. WHENEVER THE INSPECTOR FINDS ANY WORK BEING PERFORMED IN A DANGEROUS OR UNSAFE MANNER, OR CONTRARY TO THE PLANS OR SPECIFICATIONS, OR NOT MEETING THE INTENT OF THE PLANS OR SPECIFICATIONS, THE INSPECTOR WILL ISSUE A STOP WORK ORDER. UPON ISSUANCE OF A STOP WORK ORDER, THE CITED WORK SHALL IMMEDIATELY CEASE. THE STOP WORK ORDER SHALL STATE THE REASON FOR THE ORDER, AND THE CONDITIONS WHICH CITED WORK IS AUTHORIZED TO RESUME UPON WRITTEN ORDER TO RESUME WORK. WHERE AN EMERGENCY EXISTS, THE INSPECTOR SHALL NOT BE REQUIRED TO GIVE A WRITTEN NOTICE PRIOR TO STOPPING THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS AND DELAYS FOR THE WORK RELATED TO THE STOP WORK ORDER.
7. THE CONTRACTOR SHALL UNCOVER ALL EXISTING CITY UTILITY LINES BEING TIED INTO TO VERIFY THEIR TYPE, CONDITION, LOCATION, INVERT SLOPE AND ANY OTHER INFORMATION NEEDED TO DETERMINE THAT THE UTILITY CONNECTION WILL FUNCTION AS DESIGNED. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ANY REPAIRS NECESSARY TO THE LATERAL OR MAIN LINES OF THE CITY WATER, RECLAIMED WATER, SANITARY SEWER, AND/OR STORM DRAIN SYSTEM NECESSARY FOR THE CONNECTION TO FUNCTION AS DESIGNED. THE CONTRACTOR SHALL LOCATE OR HAVE LOCATED ALL EXISTING UNDERGROUND PRIVATE UTILITIES (ELECTRIC, TELEPHONE, PIPELINES, ETC.) AND STRUCTURES IN ADVANCE OF CONSTRUCTION AND SHALL ELIMINATE ALL CONFLICTS PRIOR TO START OF CONSTRUCTION. BLUE STAKE TELEPHONE (602) 263-1100.
8. THE CITY OF CHANDLER IS NOT RESPONSIBLE FOR LIABILITY INCURRED DUE TO DELAYS AND/OR DAMAGES TO UTILITIES IN CONJUNCTION WITH THIS CONSTRUCTION. THE CITY WILL NOT PARTICIPATE IN THE COST OF CONSTRUCTION OR UTILITY RELOCATION.
9. NO FINAL ACCEPTANCE SHALL BE ISSUED UNTIL 4 MIL PHOTO MYLAR REPRODUCIBLE "AS-BUILT" PLANS CERTIFIED AND SEALED BY A REGISTERED CIVIL ENGINEER, HAVE BEEN SUBMITTED AND ACCEPTED BY THE CITY ENGINEER.
10. APPLICATIONS FOR STREET CUT PERMITS MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO APPROVAL OF IMPROVEMENT PLANS. ALL PAVEMENT REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 336 AND AS MODIFIED BY CITY SUPPLEMENTS.
11. BACKFILLING SHALL NOT BE STARTED UNTIL LINES ARE APPROVED BY THE CITY ENGINEER. ALL BACKFILL SHALL BE HALF-SACK CLSM UNLESS OTHERWISE APPROVED ON THE PLANS. ABC OR NATIVE MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH MAG SECTION 601, TYPE I. BACKFILL PLACEMENT AND SURFACE REPLACEMENT SHALL BE IN ACCORDANCE WITH MAG STD DTL 200 TTOP.
12. CONSTRUCTION OF CONCRETE OR PAVING ITEMS SHALL NOT COMMENCE UNTIL ALL UNDERGROUND WORK HAS BEEN INSPECTED AND TESTED.
13. DISPOSAL OF AND STOCKPILING OF EXCESS MATERIAL WITHIN THE CHANDLER CITY LIMITS OR PLANNING AREA SHALL BE DONE IN SUCH A WAY THAT WILL NOT CREATE A NUISANCE. THE PLACING OF MATERIAL ON PRIVATE PROPERTY OF ANOTHER REQUIRES WRITTEN AUTHORIZATION. EARTHWORK STOCKPILES ARE NOT TO EXCEED 6 FEET IN HEIGHT. SLOPES ON ALL SIDES OF THE STOCKPILE SHALL NOT EXCEED A 1 TO 2 RATIO OF HEIGHT TO LENGTH. ANY EARTHWORK STOCKPILE, EVEN LESS THAN 6 FEET, MUST BE REMOVED WITHIN 7 DAYS OF CITY NOTIFICATION IF DUST SUPPRESSION EFFORTS FAIL TO MAINTAIN SATISFACTORY AIRBORNE CONTAMINANT CONTROL.
14. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE CHANDLER TRAFFIC BARRICADE MANUAL AND APPROVED TRAFFIC SEQUENCING PLANS AND/OR NOTES.
15. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS FOR CLEANING TRUCKS AND/OR OTHER EQUIPMENT OF MUD PRIOR TO ENTERING PUBLIC STREETS, AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST, AND TAKE WHATEVER MEASURES ARE NECESSARY TO INSURE THAT ALL ROADS ARE MAINTAINED IN A CLEAN, MUD AND DUST-FREE CONDITION AT ALL TIMES THE CONTRACTOR SHALL UTILIZE A PM10-CERTIFIED STREET SWEEPER FOR STREET CLEANING.
16. AN APPROVED SET OF PLANS SHALL BE MAINTAINED ON THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION.
17. A MINIMUM HORIZONTAL SEPARATION OF SIX (6) FEET IS REQUIRED BETWEEN SEWER SERVICES AND WATER OR FIRELINE SERVICES. A MINIMUM HORIZONTAL SEPARATION OF SIX (6) FEET IS REQUIRED BETWEEN RECLAIMED WATER SERVICES AND SEWER, WATER, OR FIRELINE SERVICES.
18. SETBACKS FOR UTILITY POLES, STRUCTURES, AND OTHER SIMILAR FACILITIES (NOT INCLUDING LANDSCAPING) GREATER THAN 18 INCHES IN HEIGHT SHALL BE 5.5 FEET FROM THE BACK OF CURB UNLESS APPROVED IN WRITING BY THE CITY ENGINEER. IN CASES WHERE THE FACILITIES ARE ADJACENT TO A DECELERATION LANE, BUS BAY, OR MEDIAN CURB, THE SETBACK CAN BE REDUCED TO 2.5 FEET FROM THE BACK OF CURB.
19. SCREEN WALLS OVER 7', RETAINING WALLS OVER 4' MUST HAVE A BUILDING PERMIT AND BE IN CONFORMANCE WITH CHANDLER BUILDING CODE.
20. ALL UNDERGROUND FACILITIES INSTALLED IN ANY REAL PROPERTY OUTSIDE THE CITY'S RIGHT-OF-WAY SHALL COMPLY WITH THE FOLLOWING MARKING STANDARDS IN ACCORDANCE WITH HOUSE BILL 2256. A YELLOW INSULATED COPPER WIRE OR OTHER APPROVED CONDUCTOR SHALL BE INSTALLED ADJACENT TO UNDERGROUND UTILITIES FOR FIRE LINE PIPING, POTABLE WATER DISTRIBUTION PIPING, SANITARY SEWER LINES, STORMWATER PIPING, RECLAIMED WATER PIPING, GRAVITY FLOW IRRIGATION PIPING AND PRESSURIZED IRRIGATION PIPING LARGER THAN TWO (2) INCHES IN DIAMETER UNLESS THESE FACILITIES CAN BE DETECTED FROM ABOVE GROUND WITH AN ELECTRONIC LOCATING DEVICE. ACCESS SHALL BE PROVIDED TO THE TRACER WIRE OR THE TRACER WIRE SHALL TERMINATE ABOVE GROUND AT EACH END OF THE PIPING. THE TRACER WIRE SHALL NOT BE LESS THAN 18 AWG AND THE INSULATION TYPE SHALL BE SUITABLE FOR DIRECT BURIAL.
21. ANY CONSTRUCTION DETOURS WILL REQUIRE AN ALL-WEATHER SURFACE PER MARICOPA COUNTY AIR QUALITY REQUIREMENTS.
22. THE CONTRACTOR SHALL SUPPLY CITY INSPECTOR CONSTRUCTION MATERIAL TESTING DOCUMENTATION THROUGHOUT THE PROJECT.
23. ALL SITE IMPROVEMENTS, INCLUDING LANDSCAPE AND SITE CLEANUP, MUST BE COMPLETE PRIOR TO CERTIFICATE OF OCCUPANCY FOR ANY BUILDING WITHIN A PHASE.
24. UTILITY COMPANIES HAVE BEEN IDENTIFIED BY BLUE STAKE COORDINATION AND PROJECT PLANS HAVE BEEN SUBMITTED MOST RECENTLY. SEE PAGE CV01 FOR UTILITIES AND DATES.

PAVING NOTES: (Revised 12-18-19)

1. THE LOCATION OF ALL VALVES MUST BE REFERENCED AT ALL TIMES BY THE CONTRACTOR DURING CONSTRUCTION.
2. NO PAVING CONSTRUCTION SHALL BE PERFORMED UNTIL ALL UNDERGROUND UTILITIES WITHIN THE RIGHT-OF-WAY HAVE BEEN COMPLETED.
3. THE BASE COURSE WILL NOT BE PLACED ON SUBGRADE UNTIL BASE REQUIREMENTS HAVE BEEN COMPLETED AND ACCEPTED BY THE CITY ENGINEER.
4. GUTTERS WILL BE WATER TESTED IN THE PRESENCE OF THE CITY ENGINEER TO INSURE PROPER DRAINAGE PRIOR TO FINAL APPROVAL.
5. THE EXACT POINT OF PAVEMENT MATCHING FOR TERMINATION AND OVERLAY MAY BE DETERMINED IN THE FIELD BY THE CITY ENGINEER.
6. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS.
7. STREET NAME SIGNS WILL BE INSTALLED BY THE CITY ON DEVELOPER INSTALLED POLES AT THE DEVELOPER'S EXPENSE. POLES SHALL BE PER C-613. PAYMENT WILL BE COLLECTED AT THE TIME A PAVING PERMIT IS ISSUED.
8. ALL TRAFFIC CONTROL SIGNS SHALL BE CONSTRUCTED OF HIGH INTENSITY GRADE SHEETING, UNLESS OTHERWISE NOTED.
9. ALL STREET SECTIONS, EXCEPT ARTERIALS, SHALL HAVE INSTALLED A PRESERVATIVE SEAL COAT PER MAG SECTION 334 AND SHALL BE AN ASPHALT EMULSION SEALERPER MAG SECTION 718.3. THE SEAL SHALL BE INSTALLED AT THE END OF THE WARRANTY PERIOD, OR AT THE CITY'S OPTION, A FEE MAY BE COLLECTED IN LIEU OF THE APPLICATION.
10. ALL CURB-OPENING CATCH BASIN ACCESS COVERS SHALL BE PER MAG STD DTL 536, ALTERNATE COVER. A STORM DRAIN INLET MARKER IN ACCORDANCE WITH C-508 SHALL BE INSTALLED ON THE TOP OF THE CURB AND ALIGNED WITH THE CENTER OF THE INLET.
11. PAVEMENT MATCHING AND SURFACING REPLACEMENT SHALL BE IN ACCORDANCE WITH MAG STD DTL 200, MAG SECTION 336, AND SECTION 337. ALL CRACKS AND JOINTS SHALL BE SEALED, UNLESS OTHERWISE DIRECTED BY CITY ENGINEER OR STREET SUPERINTENDENT.

GRADING AND DRAINAGE NOTES: (Revised 12-23-19)

1. A GRADING PERMIT IS REQUIRED.
2. APPROVED MINIMUM FINISH FLOOR ELEVATION SHALL NOT BE ALTERED.
3. STAKING FINISH FLOOR ELEVATION IS THE RESPONSIBILITY OF THE DEVELOPER AND HIS ENGINEER.
4. CONTRACTOR SHALL PROVIDE GRADING FOR POSITIVE DRAINAGE IN ALL RETENTION BASINS AT ELEVATIONS AS SHOWN ON THE PLANS. BOTTOM OF BASIN SHALL BE GRADED TO DRAIN TOWARD DRYWELLS (WHEN USED). MAXIMUM SIDESLOPES SHALL BE 4:1.
5. DRYWELL INLET GRATE SHALL BE FLUSH WITH ROAD SURFACE OR TURF, OR 1-1/2" ABOVE THE FINISHED GRADE OF DECOMPOSED GRANITE LANDSCAPED AREAS.
6. DRILLING LOGS FOR DRYWELLS WILL BE FURNISHED TO THE CITY INSPECTOR PRIOR TO FINAL ACCEPTANCE.
7. A PERCOLATION TEST SHALL BE REQUIRED OF COMPLETED DRYWELLS PRIOR TO ACCEPTANCE. SHOULD EXISTING SOIL CONDITIONS BE ENCOUNTERED WHICH LACK SUFFICIENT PERCOLATION RATES, ADDITIONAL DRYWELLS OR AN ALTERNATE METHOD OF STORM WATER RUN-OFF DISPOSAL WILL BE REQUIRED.
8. DRYWELL CONSTRUCTION SHALL BE DONE ONLY BY CONTRACTORS LICENSED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY. APPLICATION FOR DRYWELL REGISTRATION TO BE SUBMITTED TO ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY BY THE CONTRACTOR FOR THE FOLLOWING LOCATIONS:
   3 DRYWELL #1: 129+94.17, 60.89' LT
   DRYWELL #2: 153+94.46, 115.75' RT
   DRYWELL #3: 171+73.40, 99.56' LT
   DRYWELL #4: 183+31.11, 79.01' RT
   DRYWELL #5: 193+45.96, 102.96' RT
   DRYWELL #6: 194+00.02, 129.50' RT
9. THE APPROVED DRYWELL REGISTRATION SHALL BE SUBMITTED TO THE CITY BY THE DEVELOPER OR HIS ENGINEER AT THE TIME AS-BUILTS ARE SUBMITTED.
10. ALL WEEP HOLES IN WALLS SHALL BE PROVIDED WITH EROSION PROTECTION 12" THICK WITH D50 = 4" RIPRAP, 24" IN WIDTH, EXTENDED TO THE BACK OF SIDEWALK OR TO THE BOTTOM OF RETENTION BASIN, WHICHEVER APPLIES.
11. A RETAINING WALL WILL BE REQUIRED IF AT THE COMPLETION OF GRADING THERE EXISTS MORE THAN ONE FOOT OF DIFFERENCE IN ELEVATION BETWEEN THIS SITE AND ADJACENT PROPERTIES.
12. SCREEN WALLS OVER 7', RETAINING WALLS OVER 4' MUST HAVE A BUILDING PERMIT AND BE IN CONFORMANCE WITH CHANDLER BUILDING CODE.
13. THE EXISTING RETENTION AND DRAINAGE FACILITIES ON THIS SITE WILL NOT BE REMOVED FROM SERVICE UNTIL THE PERMANENT RETENTION AND DRAINAGE FACILITIES ARE FUNCTIONAL.

SEWER NOTES: (Revised 3-20-23)

1. A MINIMUM HORIZONTAL SEPARATION OF SIX FEET IS REQUIRED BETWEEN SEWER MAINS AND SERVICES AND WATER, FIRELINE, AND RECLAIMED MAINS AND SERVICES. PROTECTION SHALL BE IN ACCORDANCE WITH MAG SECT 610.5.5 WITH THE EXCEPTION DUCTILE IRON PIPE IS NOT ALLOWED FOR SEWER CONSTRUCTION.
2. ALL SEWER TAPS SHALL BE WYE, WYE SADDLE, OR TEE.
3. CONNECTIONS TO EXISTING SEWER MAINS SHALL BE ACCOMPLISHED BY MACHINE TAPPING, UTILIZING A SADDLE, OR BY CONSTRUCTION OF A MANHOLE
4. SEWER TAPS SHALL HAVE 4-1/2 FEET MINIMUM COVER AT PROPERTY LINE. TO RAISE THE TAP FROM THE MAINS DEEPER THAN 6 FEET AND LESS THAN 12 FEET, THE WYE AND 1/8 BEND SHALL BE SET AT A 45 DEGREE ANGLE FROM HORIZONTAL AND A SHORT PIECE OF STRAIGHT PIPE SHALL BE PLACED ON THE 1/8 BEND. ANOTHER 1/8 BEND IS PLACED AT THE OTHER END OF THE SHORT PIPE TO BRING THE TAP TO APPROPRIATE GRADE AT THE PROPERTY LINE. FOR MAINS 12 FEET OR DEEPER, REFER TO C-410.
5. ALL SEWER SERVICE CONNECTIONS SHALL BE EXTENDED A SUFFICIENT DISTANCE BEYOND STREET RIGHT-OF-WAY LINES TO CLEAR ALL FACILITIES TO BE INSTALLED IN PUBLIC UTILITY EASEMENTS WHICH PARALLEL THE STREET RIGHT-OF-WAY. REFER TO MAG STD DTL 440, TYPE A, FOR ADDITIONAL REQUIREMENTS.
6. ALL SEWER PIPE SHALL BE CONSTRUCTED WITH BEDDING CONFORMING TO C-402. ALL SEWER LINES 10 FEET IN DEPTH AND GREATER SHALL BE VCP PIPE, OR AS SPECIFIED ON THESE PLANS. LOCATOR WIRE AND IDENTIFICATION TAPE SHALL BE INSTALLED IN ACCORDANCE WITH C-408.
7. PIPE BACKFILL SHALL BE 1/2 SACK CLSM IN ACCORDANCE WITH MAG SECTION 728, UNLESS OTHERWISE DETAILED AND APPROVED ON THESE PLANS. PAVEMENT REPLACEMENT SHALL BE IN ACCORDANCE WITH MAG STD DTL 200, T-TOP.
8. ALL MANHOLES SHALL BE 5-FOOT DIAMETER WITH 30-INCH DIAMETER COVERS. MANHOLES SERVING PUBLIC SEWER MAINS 15-INCH DIAMETER AND LARGER SHALL BE INSTALLED WITH CORROSION PROTECTIVE MATERIALS PER LIST OF APPROVED PRODUCTS. "ONE-OFF" PUBLIC MANHOLES (FIRST MANHOLE UP-STREAM OF 15-INCH DIAMETER AND LARGER SEWER MAINS) SHALL ALSO USE CORROSION-PROTECTIVE MATERIALS. FOR SEWER MAINS LESS THAN 15-INCH, MANHOLES MAY BE INSTALLED USING STANDARD CONCRETE MATERIALS PER DETAIL 420 WITH CAST-IN-PLACE BASES.

SEWER NOTES (CONT.):

9. CONCRETE MANHOLES (FOR SEWER MAINS LESS THAN 15-INCH) CONSTRUCTED IN ARTERIAL STREETS SHALL BE COATED WITH A CORROSION PROTECTIVE COATING APPLIED IN ACCORDANCE WITH MAG SECTION 626 AND CITY SUPPLEMENT. COATING IS ONLY REQUIRED ON THE CONCRETE AND GROUTED SURFACES. REFER TO LIST OF APPROVED PRODUCTS FOR ALLOWABLE CORROSION-PROTECTIVE COATING SYSTEMS. COATED SURFACES SHALL BE HOLIDAY/SPARK TESTED TO VERIFY A CONTINUOUS, VOID-FREE LINING SYSTEM HAS BEEN INSTALLED.
10. CORROSION PROTECTIVE MANHOLES SHALL INCLUDE COMPOSITE FRAMES AND COVERS, COMPOSITE ADJUSTMENT RINGS, COMPOSITE OR POLYMER CONCRETE CONE AND RISER SECTIONS AND CAST-IN-PLACE BASES WITH APPROVED PROTECTIVE COATING. REFER LIST OF APPROVED PRODUCTS, SUPPLEMENTS TO MAG SECTIONS 345 AND 625, AND DETAILS C-400 AND C-401. CORROSION-PROTECTIVE MANHOLES AND MATERIALS USED SHALL BE AS SPECIFIED ON THE PLANS AND/OR SPECIAL PROVISIONS.
11. MANHOLES SERVING PUBLIC SEWER LINES 12-INCH AND SMALLER AND NOT WITHIN ARTERIAL STREETS SHALL BE COATED WITH A LATEX INSECTICIDE PAINT APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REFER TO THE CITY'S LIST OF APPROVED PRODUCTS FOR ALLOWABLE INSECTICIDE COATING PRODUCTS. THE COATING SHALL BE APPLIED IN ACCORDANCE WITH US ENVIRONMENTAL PROTECTION AGENCY RECOMMENDATIONS STARTING FROM THE TOP OF THE MANHOLE TO A DEPTH OF 8 FEET BELOW.
12. MANHOLE FRAME AND COVERS SHALL BE ADJUSTED PER C-401. DEBRIS SHIELDS SHALL BE USED TO PREVENT DEBRIS FROM ENTERING SANITARY SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN SYSTEM FOR A MINIMUM OF ONE REACH IF DEBRIS ENTERS SYSTEM. ANY MISSING OR DEFECTIVE FRAMES OR COVERS SHALL BE REPORTED TO THE CITY IN WRITING DURING THE INITIAL LOCATION PROCESS TO ALLOW FOR TIMELY REPLACEMENT.
13. ALL NEW 8" AND LARGER SEWER LINES (INCLUDING STUB-OUTS) SHALL BE CLOSED CIRCUIT TV (CCTV) INSPECTED BY CITY CCTV VENDER PRIOR TO FINAL ACCEPTANCE. CITY PAYS FOR THE INITIAL INSPECTION IN ACCORDANCE WITH MAG SECTION 611. OWNER/CONTRACTOR MAY CONTRACT DIRECTLY WITH CITY'S CCTV VENDER OR USE THEIR PREFERRED NASSCO CERTIFIED CONTRACTOR FOR ADDITIONAL CCTV INSPECTION(S). SEWER LINES SHALL BE VACTORED AND WATER ADDED TO THE SYSTEM PRIOR TO CCTV INSPECTION, WITNESSED BY CITY INSPECTOR. ANY DEFECTS IN THE PIPE, CONSTRUCTION METHODS, OR INADEQUATE CLEANING SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE CITY. PIPE DEFLECTIONS GREATER THAN ONE-INCH SHALL NOT BE ALLOWED. CITY CCTV VENDER SHALL INSPECT LINES AGAIN PRIOR TO END OF ONE-YEAR WARRANTY, PAID BY THE CITY.
14. A PLUG SHALL BE INSTALLED AT THE POINT(S) OF CONNECTION TO EXISTING LINES (OUTFALLS) AT THE START OF CONSTRUCTION PER C-403. EACH RESPECTIVE PHASE SHALL BE PLUGGED AND REMAIN PLUGGED UNTIL ACCEPTED BY THE CITY. NO FLOWS SHALL BE RELEASED INTO THE CITY SANITARY SEWER UNTIL ALL TESTS HAVE BEEN PASSED AND APPROVED BY THE CITY. FAILURE TO INSTALL PLUG MAY RESULT IN CLEANING EXISTING SEWER ONE-MILE IN EACH DIRECTION.

WATER NOTES: (Revised 12-23-19)

1. ALL EXTENSIONS TO EXISTING WATER LINES OVER ELEVEN (11) MONTHS IN AGESHALL HAVE A NEW VALVE OF LIKE SIZE INSTALLED AT THE POINT OF EXTENSION. A ¾" SADDLE AND RISER SHALL BE INSTALLED ON THE LINE BETWEEN THE NEW VALVE AND THE FIRST EXISTING VALVE. THIS LINE WILL BE FLUSHED AND TESTED BY THE CITY AND THE ¾" NUT AND RISER REMOVED.
2. WATERLINES SHALL BE INSTALLED PER C-308 AND THE CITY SUPPLEMENT TO SECTION 610. TESTING SHALL BE IN ACCORDANCE WITH SECTION 611. DEVELOPER IS RESPONSIBLE FOR TESTING PRIVATE WATERLINES 4" AND LARGER.
3. FIRE HYDRANTS SHALL BE FURNISHED BY THE CONTRACTOR AND INSTALLED IN ACCORDANCE WITH C-303 AND C-305.
4. ALL WATER SERVICE LINE AND METER BOX INSTALLATIONS SHALL CONFORM TO C-301. METER BOXES AND LIDS SHALL BE SUPPLIED BY THE DEVELOPER AND INSTALLED FACING THE LOT.
5. CITY OF CHANDLER WILL FURNISH AND INSTALL ALL WATER METERS WITH PREVAILING COSTS TO BE PAID BY DEVELOPER. THE CITY OF CHANDLER WATER DIVISION SHALL BE NOTIFIED AT (480) 782-3700 24 HOURS PRIOR TO INSTALLATION. THE DEVELOPER SHALL PROVIDE ANY NECESSARY WATER METER ADAPTERS FOR CONNECTION TO THE SERVICE LINES.
6. ALL VALVES 6" – 24" SHALL BE GATE TYPE IN CONFORMANCE WITH MAG SECTION 630.3, UNLESS OTHERWISE NOTED.
7. ALL VALVE BOXES SHALL CONFORM TO C-307.
8. CITY WATER VALVES SHALL BE OPERATED BY CITY PERSONNEL ONLY. CITY REQUIRES A 48 HOUR NOTICE FOR SYSTEM SHUTDOWNS. CONTRACTOR IS REQUIRED TO NOTIFY AFFECTED CUSTOMERS 24 HOURS PRIOR. BUSINESS' MAY REQUIRE AFTER HOURS SHUTDOWNS. RESIDENTIAL FLOWS AFTER SHUTDOWN MAY REQUIRE A PUMP. CONTRACTOR IS RESPONSIBLE TO INSTALL 2" TAPS TO RELIEVE PRESSURE AND ALLEVIATE RESIDUAL FLOWS WHEN NEEDED.
9. ALL TAPS SHALL USE A BRONZE SERVICE SADDLE. EIGHT (8) INCHES OR LESS SHALL BE SINGLE STRAP AND TEN (10) INCHES OR GREATER SHALL BE DOUBLE STRAP.
10. TAPS IN ACP SHALL BE MADE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE ACP MANUFACTURERS ASSOCIATION.
11. ALL FIRELINE PIPING, POTABLE WATER DISTRIBUTING PIPING LARGER THAN TWO (2) INCHES IN DIAMETER SHALL HAVE TRACER WIRES INSTALLED PER C-408.
12. ALL PIPE IN THE GROUND SHALL HAVE AWG THWN #14 INSULATED COPPER TRACING WIRE ATTACHED TO THE PIPE AND INTERCONNECTED TO VALVES AT VALVE BOX SPACING INTERVALS. WARNING TAPE IS TO BE USED BURIED A MINIMUM 12" ABOVE THE PIPE. SEE C-408.
13. POLYETHYLENE ENCASEMENT SHALL CONFORM WITH THE APPLICABLE REQUIREMENTS OF AWWA C600 & AWWA C-105.
14. MECHANICAL OR RESTRAINED JOINT DUCTILE IRON PIPE SHALL BE USED FOR WATER LINE PROTECTION WHEN MAG STD DTL 404 IS SPECIFIED ON THE PLANS.
15. VALVE BOX AND COVER GRADE LOCATED OUTSIDE OF A PAVED AREA SHALL BE SET ONE HALF INCH ABOVE SIDEWALK OR ADJACENT GRADE PER C-317.
16. NO VALVE BOX SHALL BE LOCATED WITHIN SIDEWALK OR SIDEWALK RAMP.
17. ALL 1" SERVICES SHALL BE INSTALLED WITH APPROVED ANGLE BALL METER VALVE, OF A SIZE DEPENDENT ON WATER METER SIZE. SEE C-301.
18. ALL FIRE HYDRANTS SHALL BE PROVIDED WITH "OUT OF SERVICE" SIGNS AT TIME OF INSTALLATION. THE SIGNS SHALL COMPLY WITH C-303 AND SHALL REMAIN ON THE FIRE HYDRANTS UNTIL THE WATER LINES ARE TESTED, APPROVED AND PRESSURIZED. THE SIGNS SHALL BE REINSTALLED AT ANY TIME ANY FIRE HYDRANTS ARE TAKEN OUT OF SERVICE, REGARDLESS OF REASON OR THE AMOUNT OF TIME THE FIRE HYDRANTS ARE EXPECTED TO BE OUT OF SERVICE, AND DISPATCH SHALL BE NOTIFIED AT (480) 782-4130. ONLY CITY PERSONNEL SHALL REMOVE A SIGN.

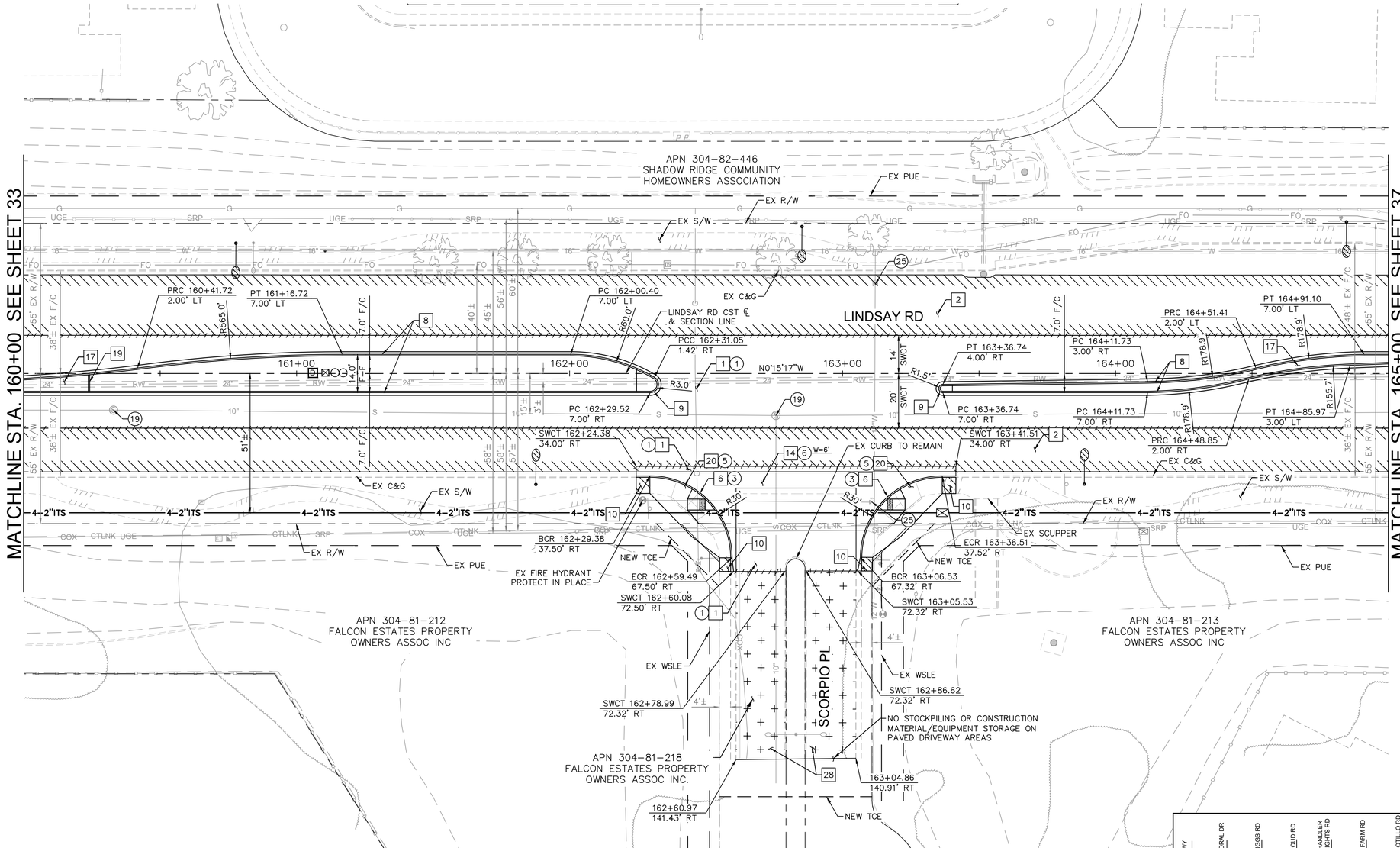
RECLAIMED WATER NOTES: (Revised 12-23-19)

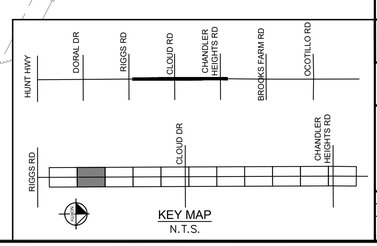
1. RECLAIMED WATER LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH MAG SECTION 616, CITY SUPPLEMENTS, AND THESE NOTES.
2. THE MINIMUM DEPTH OF COVER WITHIN THE RIGHT-OF-WAY OF ARTERIAL STREETS SHALL BE 7', AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. PIPE SEPARATION ALSO SHALL CONFORM TO ARIZONA RULE R18-9-602, PIPELINE CONVEYANCES OF RECLAIMED WATER.
4. A REDUCED PRESSURE BACKFLOW DEVICE SHALL BE INSTALLED, AS PART OF THE ORIGINAL SYSTEM, ON A RECLAIMED WATER SYSTEM THAT WILL USE POTABLE WATER AS AN INITIAL SOURCE AND WILL USE RECLAIMED WATER AS A SOURCE LATER. ON SUCH A SYSTEM, CONCURRENT CONNECTIONS SHALL NOT BE MADE AT ANY TIME TO BOTH POTABLE WATER AND RECLAIMED WATER SYSTEMS, REGARDLESS WHETHER ONE OR BOTH SYSTEMS ARE DEVOID OF SUPPLY.
5. PRIVATE RECLAIMED WATER LINES SHALL BE INSTALLED IN SLEEVES WHERE THEY CROSS PUBLIC OR PRIVATE RIGHT-OF-WAY. PIPE SLEEVES SHALL BE PIPE MEETING THE REQUIREMENTS FOR CONVEYANCE PIPE AND SHALL BE TWO NOMINAL SIZES LARGER WITH LOCATOR WIRE AND I.D. TAPE PER C-408. ENCROACHMENT PERMIT REQUIRED.
6. RECLAIMED WATER IRRIGATION SYSTEM SPRINKLER HEADS, VALVE BOXES AND COVERS, AND FLOW CONTROL HANDLES ON VALVES SHALL BE PURPLE.
7. THE WORDS 'RECLAIMED WATER' SHALL BE STENCILED ON BACK FLOW ASSEMBLIES USING THE COLOR PURPLE OR SHALL BE OTHERWISE BE LEGIBLY MARKED.
8. PVC PIPE SHALL NOT BE EXPOSED TO DIRECT ULTRAVIOLET RADIATION (SUNLIGHT) FOR MORE THAN 30 DAYS, WHETHER THE TIME IS CONTINUOUS OR CUMULATIVE. PVC PIPE SHALL BE PROTECTED FROM DIRECT ULTRAVIOLET RADIATION FOR ANY TIME OF EXPOSURE EXCEEDING 30 DAYS. PVC PIPE THAT HAS BEEN DISCOLORED BY EXPOSURE TO ULTRAVIOLET RADIATION IS UNACCEPTABLE.
9. VALVES 4" THROUGH 24" SHALL BE GATE VALVES UNLESS NOTED OTHERWISE. EACH VALVE SHALL BE FURNISHED WITH A BAR WELDED TO THE OPERATING NUT IN ACCORDANCE WITH C-406, THEREBY REQUIRING A TOOL WITH A KEY SLOT TO EXERCISE THE VALVE. VALVE BOXES AND COVERS SHALL CONFORM TO C-406.

RECLAIMED WATER NOTES: (CONT.)

10. NO VALVE, RISER, BOX OR COVER SHALL BE LOCATED BENEATH OR WITHIN A SIDEWALK OR SIDEWALK RAMP.
11. CITY RECLAIMED WATER VALVES SHALL BE OPERATED BY CITY OF CHANDLER PERSONNEL ONLY.
12. CITY OF CHANDLER WILL FURNISH AND INSTALL WATER METERS WITH PREVAILING COSTS PAID BY THE DEVELOPER.
13. METER BOXES AND COVERS SHALL BE SUPPLIED BY THE DEVELOPER AND SHALL BE INSTALLED BY THE CONTRACTOR FACING AWAY FROM THE STREET. METER BOXES FOR METERS 2" AND SMALLER SHALL BE CONCRETE OR POLYMER CONCRETE AND SHALL CONFORM TO MAG STD DTL 320. THE INSIDE OF EACH METER BOX SHALL BE PAINTED METER BOX COVERS SHALL BE POLYMER CONCRETE AND SHALL CONFORM TO C301. METER BOX COVERS SHALL BE CAST WITH THE WORDS "RECLAIMED WATER" IN THE OUTSIDE SURFACE OR HAVE TAGS WITH THE WORDS "RECLAIMED WATER" FIRMLY ATTACHED TO THE OUTSIDE SURFACE. LETTERING SIZE AND FORMAT SHALL BE SIMILAR TO THE LETTERING IN MAG STD DTL 315. TAGS SHALL OTHERWISE MEET THE REQUIREMENTS FOR RECLAIMED WATER VALVE TAGS.
14. METER VAULTS SHALL BE IN CONFORMANCE TO C-416. THE INSIDE OF EACH METER VAULT AND METER BOX SHALL BE PAINTED PURPLE. METER VAULT AND METER BOX COVERS SHALL INCLUDE THE WORDS "RECLAIMED WATER" AS REQUIRED FOR METER BO

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NORTH

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS-BUILT
9	ARIZ	ST2001	35	239	

Kimley»Horn
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FAX: 602-944-7423
www.kimley-horn.com

CONSTRUCTION NOTES

NO	DESCRIPTION	QTY	UNIT
1	PAVEMENT STRUCTURAL SECT NO. 1 SEE SHEET 7	1,599	SY
2	PAVEMENT STRUCTURAL SECT NO. 2 SEE SHEET 7	2,093	SY
6	CONCRETE CURB & GUTTER, MAG DET 220-1, TYPE A, H=6"	115	LF
8	CONCRETE DEEPENED CURB AND GUTTER PER DETAIL ON SHEET 9	803	LF
9	END OF MEDIAN RAMP PER COC DTL C-225	2	EA
10	CONCRETE SIDEWALK PER MAG DTL 230	99	SF
14	CONCRETE VALLEY GUTTER PER MAG DTL 240	694	SF
17	INTERLOCKING PAVING BLOCKS, SEE LANDSCAPE PLANS FOR DETAILS	540	SF
19	CONCRETE HEADER (6"), SEE LANDSCAPE PLANS FOR DETAILS	6	LF
20	CONCRETE SIDEWALK RAMP PER COC DTL C-258-2	2	EA
28	SURFACE SEAL	277	SY

3

REMOVAL & RELOCATION NOTES

NO	DESCRIPTION	QTY	UNIT
(1)	REMOVE AC PAVEMENT	2,049	SY
(3)	REMOVE & DISPOSE EXISTING CURB OR CURB & GUTTER	105	LF
(5)	REMOVE & DISPOSE EXISTING CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS	633	SF
(6)	REMOVE & DISPOSE EXISTING VALLEY GUTTER	784	SF
(19)	REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400, AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'	2	EA
(25)	ADJUST VALVE BOX AND COVER PER MAG DTL 391, TYPE 'C', WITH CONCRETE COLLAR & COVER PER COC DTL C-307 AND C-317	2	EA

SHEET NOTES

1. ALL DIMENSIONS AND CURB OFFSETS ARE MEASURED AT THE FACE OF CURB, UNLESS OTHERWISE NOTED.
2. SEE SHEET 36 FOR PAVING PROFILE SHEET.
3. SEE SHEET 112 FOR ITS PLANS.
4. SEE SHEET 123 FOR STREETLIGHT PLANS.

Registered Professional Engineer (Civil)
CERTIFICATE NO.
81353
JULIA HOATH
Date Signed 10/01/25
ARIZONA, U.S.A.

CITY OF CHANDLER

LINDSAY RD PAVING PLAN

LINDSAY ROAD - HUNT HIGHWAY TO OCOTILLO ROAD
ROADWAY IMPROVEMENTS
STA 160+00 TO 165+00

ST2001

DR: JGS	DES: RSM	CK: CCW	NO.	TOTAL
DATE: 08/25	DATE: 08/25	DATE: 08/25		
SCALE: 1" = 20' HORIZ			35	239

NO.	DESCRIPTION	REV BY	CKD BY	DATE
3	ADDENDUM 3 - SURFACE SEAL NOTE	LL	JSH	09/25

REVISION BY CITY OF CHANDLER

NO.	DESCRIPTION	REV BY	CKD BY	DATE

K:\PHX_ROADWAY\191466021-LINDSAY RD - OCOTILLO TO HUNT\CADD\12-SHEETS\ROADWAY\PL13.DWG | LOGG: LOGAN | 9/30/2025

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

PILASTER & WALL GEOMETRY CONTROL

PARCEL	POINT DESCRIPTION	PILASTER STATION/OFFSET
APN 304-81-011A (MATCH EXISTING WALL IN-KIND)	BEGIN WALL, CONNECT TO EAST FACE OF EXISTING PILASTER	156+35.64, 60.72' RT
	END WALL, NORTH FACE OF PILASTER	156+36.97, 67.36' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	156+51.63, 67.36' RT
	END WALL, CONNECT TO EAST FACE OF EXISTING PILASTER	156+52.95, 60.72'
	BEGIN WALL, CONNECT TO EAST FACE OF EXISTING PILASTER	158+04.59, 60.97' RT
	END WALL, NORTH FACE OF PILASTER	158+06.26, 74.47' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	158+36.19, 74.47' RT
	END WALL, CONNECT TO EAST FACE OF EXISTING PILASTER	158+37.85, 60.97' RT
3 APN 304-81-994 (FULL WALL WITH LIGHTED GLASS BLOCK IN COLUMNS)	BEGIN WALL, NO PILASTER	166+13.47, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	166+17.67, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	166+33.71, 61.00' RT
	CENTER OF PILASTER	166+38.88, 61.00' RT
	CENTER OF PILASTER	166+38.88, 56.00' RT
	CENTER OF PILASTER	166+96.93, 56.00' RT
	CENTER OF PILASTER	167+54.97, 56.00' RT
	CENTER OF PILASTER	167+54.97, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	167+60.14, 61.00' RT
3 APN 304-81-999 (PARTIAL WALL VIEW FENCE)	BEGIN WALL, SOUTH FACE OF PILASTER	167+73.47, 61.00' RT
	CENTER OF PILASTER	167+78.64, 61.00' RT
	CENTER OF PILASTER	167+78.64, 56.00' RT
	CENTER OF PILASTER	168+51.72, 56.00' RT
	CENTER OF PILASTER	168+51.72, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	168+56.88, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	168+74.55, 61.00' RT
	CENTER OF PILASTER	168+80.72, 61.00' RT
	CENTER OF PILASTER	168+80.72, 56.00' RT
	CENTER OF PILASTER	169+30.63, 56.00' RT

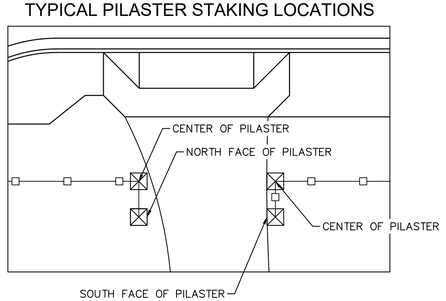
PILASTER & WALL GEOMETRY CONTROL

PARCEL	POINT DESCRIPTION	PILASTER STATION/OFFSET
3 APN 304-81-993 (FULL WALL)	CENTER OF PILASTER	169+43.62, 56.00' RT
	CENTER OF PILASTER	169+43.62, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	169+48.79, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	169+76.46, 61.00' RT
	CENTER OF PILASTER	169+81.62, 61.00' RT
	CENTER OF PILASTER	169+81.62, 56.00' RT
	CENTER OF PILASTER	170+68.72, 56.00' RT
	CENTER OF PILASTER	170+68.72, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	170+73.88, 61.00' RT
3 APN 304-81-995 (FULL WALL)	BEGIN WALL, SOUTH FACE OF PILASTER	170+91.12, 56.00' RT
	CENTER OF PILASTER	171+29.75, 56.00' RT
	CENTER OF PILASTER	171+29.75, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	171+34.92, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	171+63.70, 61.00' RT
	CENTER OF PILASTER	171+68.86, 61.00' RT
	CENTER OF PILASTER	171+68.86, 56.00' RT
	CENTER OF PILASTER	172+48.42, 56.00' RT
	END WALL, EAST FACE OF PILASTER	172+48.42, 63.33' RT
3 APN 304-81-996 (FULL WALL)	BEGIN WALL, SOUTH FACE OF PILASTER	172+98.72, 52.85' RT
	CENTER OF PILASTER	173+34.80, 47.00' RT
	CENTER OF PILASTER	174+03.99, 47.00' RT
	END WALL, NORTH FACE OF PILASTER	175+05.39, 47.00' RT

PILASTER & WALL GEOMETRY CONTROL

PARCEL	POINT DESCRIPTION	PILASTER STATION/OFFSET
3 APN 304-81-988A (PARTIAL WALL VIEW FENCE)	BEGIN WALL, SOUTH FACE OF PILASTER	189+26.89, 56.00' RT
	CENTER OF PILASTER	189+67.58, 56.00' RT
	CENTER OF PILASTER	190+03.29, 56.00' RT
	CENTER OF PILASTER	190+03.29, 61.00' RT
	END WALL, NORTH FACE OF PILASTER	190+08.45, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	190+25.21, 61.00' RT
	CENTER OF PILASTER	190+30.37, 61.00' RT
	CENTER OF PILASTER	190+30.37, 56.00' RT
	CENTER OF PILASTER	191+29.99, 56.00' RT
	END WALL, NORTH FACE OF PILASTER	192+30.77, 56.00' RT
3 APN 304-75-010T (PARTIAL WALL VIEW FENCE)	BEGIN WALL, CENTER OF PILASTER	230+34.42, 63.82' RT
	CENTER OF PILASTER	230+41.79, 56.00' RT
	CENTER OF PILASTER	230+64.44, 56.00' RT
	END WALL, NORTH FACE OF PILASTER	230+65.60, 61.00' RT
	BEGIN WALL, SOUTH FACE OF PILASTER	230+82.35, 61.00' RT
	CENTER OF PILASTER	230+83.51, 56.00' RT
	CENTER OF PILASTER	231+47.92, 56.00' RT
	END WALL, NORTH FACE OF PILASTER	232+13.50, 56.00' RT

TYPICAL PILASTER STAKING LOCATIONS



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS-BUILT
9	ARIZ	ST2001	79	239	

Kimley»Horn
1661 E. CAMELBACK ROAD SUITE 400, PHOENIX, AZ 85016
PHONE: 602-944-5500 FAX: 602-944-7423 www.kimley-horn.com

Registered Professional Engineer (Civil) CERTIFICATE NO 68796 CHARLES H. GOLEK Date Signed 09/30/25 ARIZONA, USA

CITY OF CHANDLER

WALL DETAILS

LINDSAY ROAD - HUNT HIGHWAY TO OCOTILLO ROAD ROADWAY IMPROVEMENTS

ST2001

DR: SED	DES: SED	CK: CHG	NO.	TOTAL
DATE: 08/25	DATE: 08/25	DATE: 08/25		
SCALE: N/A			79	239

REVISION BY CITY OF CHANDLER

NO.	DESCRIPTION	REV BY	CKD BY	DATE
2	ADDENDUM 3 - WALL DETAILS	LL	JSH	09/25

REVISION BY CITY OF CHANDLER

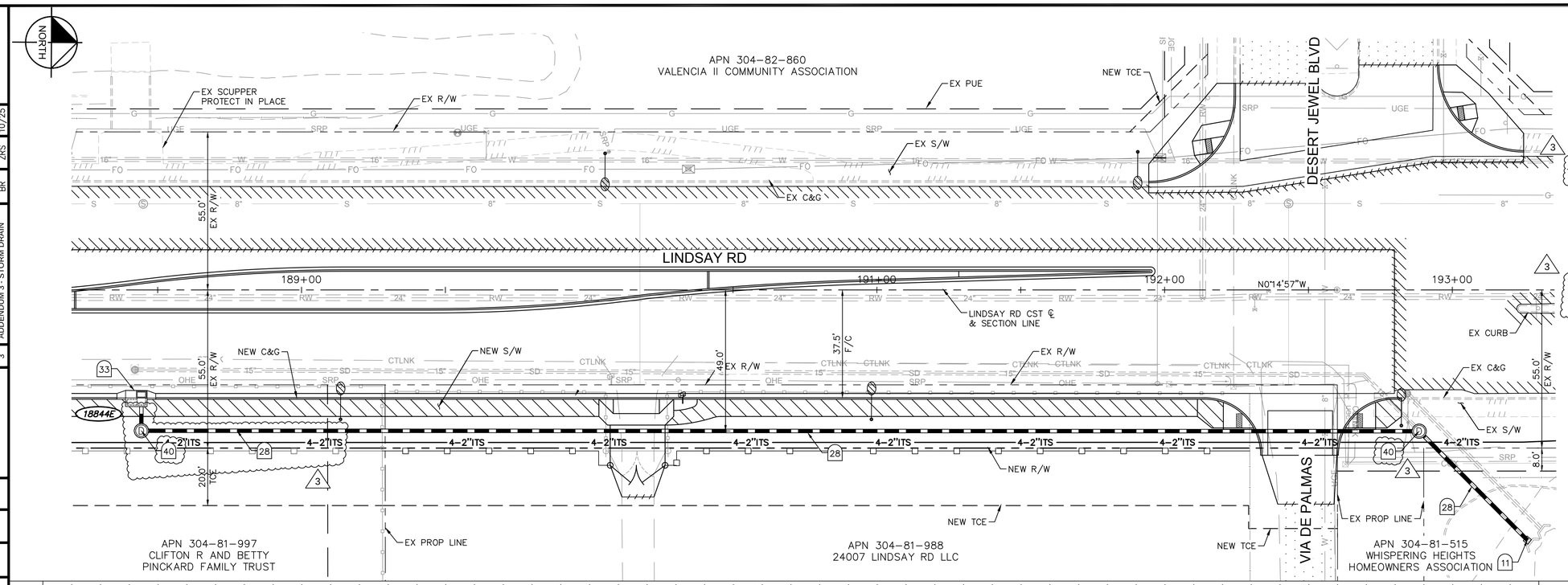
NO.	DESCRIPTION	REV BY	CKD BY	DATE

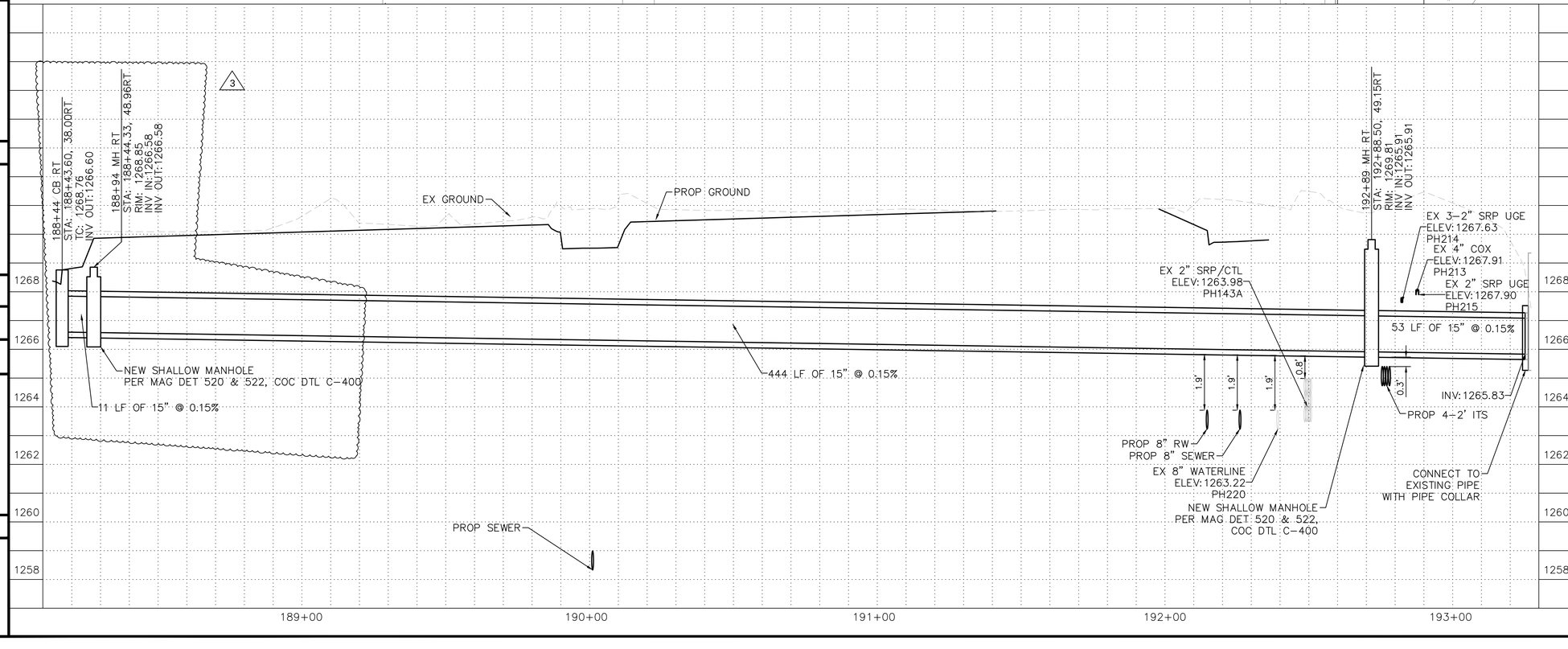
REVISION BY CITY OF CHANDLER

NO.	DESCRIPTION	REV BY	CKD BY	DATE

K:\PHX_ROADWAY\191466021-LINDSAY RD - OCOTILLO TO HUNT\CADD\12-SHEETS\ROADWAY\191466021_DTL02.DWG | LOGG, LOGAN | 9/30/2025

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F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS-BUILT
9	ARIZ	ST2001	85	239	

Kimley»Horn
1661 E. CAMELBACK ROAD, SUITE 400, PHOENIX, AZ 85016
PHONE: 602-944-5500
FAX: 602-944-7423
www.kimley-horn.com

DRAINAGE NOTES

NO	DESCRIPTION	QTY	UNIT
11	CONCRETE PIPE COLLAR PER MAG DET 505	1	EA
18	~~MANHOLE PER MAG DTL 520 & 522, COC DTL C-400~~	2	EA
28	15" STORM DRAIN	508	LF
33	CATCH BASIN PER MODIFIED MAG DTL 533-1, SEE SHEET 90 SINGLE WING L=3', WITH BICYCLE SAFE GRATE. STORM DRAIN INLET MARKER PER COC DTL C-508	1	EA
40	SHALLOW MANHOLE PER MAG DTL 520 & 522, COC DTL C-400	2	EA

SHEET NOTES

1. ALL DIMENSIONS AND CURB OFFSETS ARE MEASURED AT THE FACE OF CURB, UNLESS OTHERWISE NOTED.
2. SEE SHEETS 45 & 47 FOR PAVING PLAN SHEETS

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

Registered Professional Engineer (Civil)
CERTIFICATE NO. 50959
ZACHARY R. SCHMIDT
Date Signed 10/2/25
ARIZONA, U.S.A.

CITY OF CHANDLER

DRAINAGE PLAN AND PROFILE

LINDSAY ROAD - HUNT HIGHWAY TO OCOTILLO ROAD
ROADWAY IMPROVEMENTS
STA 188+25 TO 193+50

ST2001

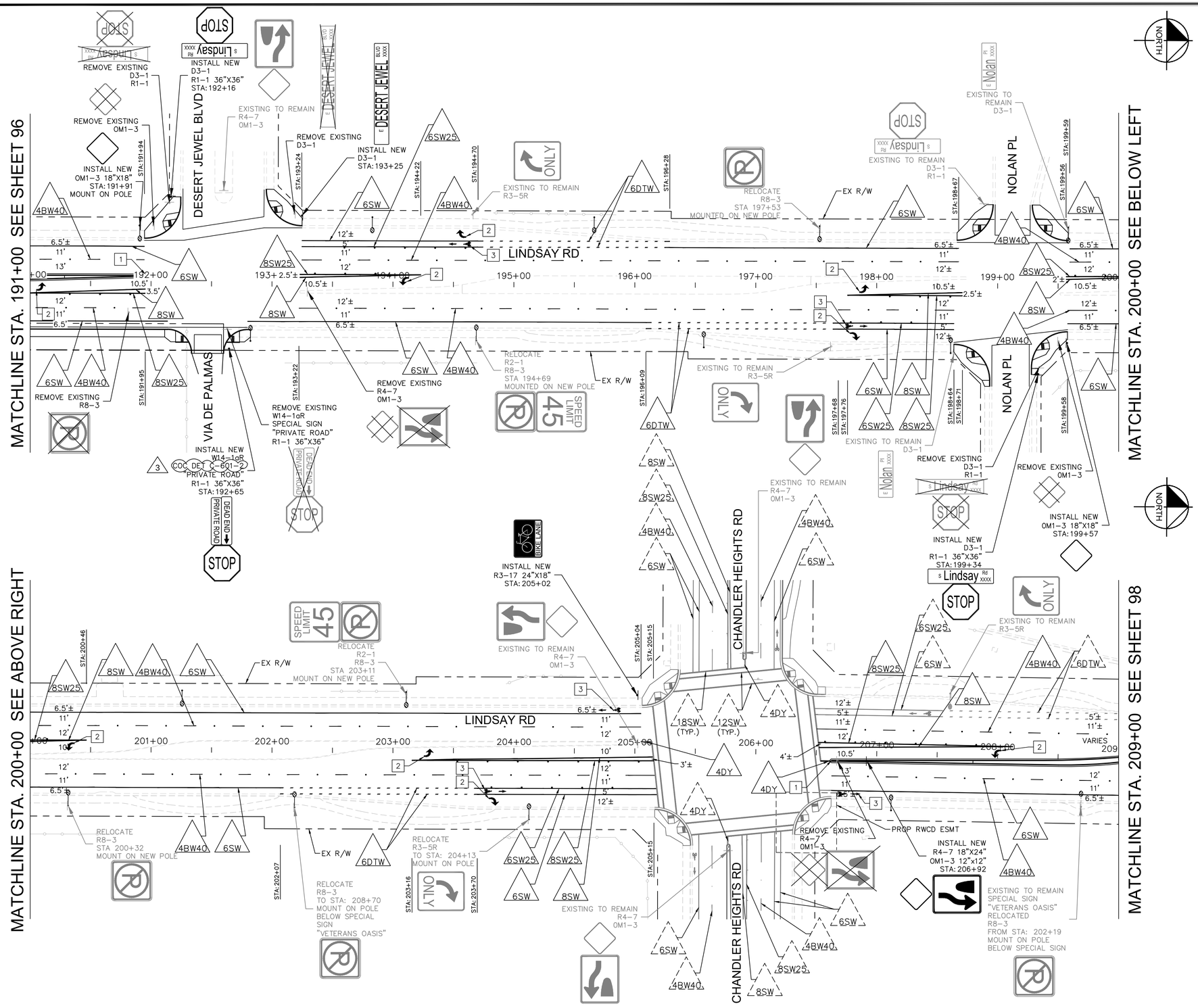
DR: SGG	DES: TWC	CK: ZRS	NO.	TOTAL
DATE: 08/25	DATE: 08/25	DATE: 08/25		
SCALE: 1"=20' HORZ, 1"=2' VERT			85	239

NO.	DESCRIPTION	REV. BY	CKD BY	DATE
3	ADDENDUM 3 - STORM DRAIN	BR	ZRS	10/25

REVISION BY CITY OF CHANDLER

K:\PHX_ROADWAY\191466021-LINDSAY RD - OCOTILLO TO HUNT\CADD\12-SHEETS\DRAINAGE\DR05.DWG | ROBINSON, BOB | 9/30/2025

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS-BUILT
9	ARIZ	ST2001	97	239	

Kimley»Horn
1661 E. CAMELBACK ROAD, SUITE 400, PHOENIX, AZ 85016
PHONE: 602-944-5500
FAX: 602-944-7423
www.kimley-horn.com

NOTES

	DESCRIPTION
1	PAINT MEDIAN NOSE PER C.O.C. DET. C-617
2	THERMOPLASTIC ARROW PER M.U.T.C.D. FIGURE 3B-24 AND C.O.C. DET. C-614
3	THERMOPLASTIC BIKE SYMBOL AND ARROW PER C.O.C. DET. C-614

GRAPHIC SCALE IN FEET
0 20 40 80

Registered Professional Engineer (Civil)
81353
JULIA HOATH
Date Signed 10/01/25
ARIZONA, USA

CITY OF CHANDLER

SIGNING & PAVEMENT MARKING PLAN

LINDSAY ROAD - HUNT HIGHWAY TO OCOTILLO ROAD
ROADWAY IMPROVEMENTS
STA 191+00 TO 209+00
ST2001

DR: JPW	DES: SJM	CK: LB	NO.	TOTAL
DATE: 08/25	DATE: 08/25	DATE: 08/25		
SCALE: 1"=40'			97	239

NO.	DESCRIPTION	REV. BY	CK'D. BY	DATE
	REVISION BY CITY OF CHANDLER			
1	ADDENDUM 3 - PRIVATE SIGN	LL	JSH	09/25

K:\PHX_ROADWAY\191466021-LINDSAY RD - OCOTILLO TO HUNT\CADD\12-SHEETS\TRAFFIC\S&M\SM07.DWG | HOATH, JULIA (SPNOLO) | 10/1/2025

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

EXHIBIT B

Revised Davis Bacon Wage Decision

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

"General Decision Number: AZ20250045 09/12/2025

Superseded General Decision Number: AZ20240045

State: Arizona

Construction Type: Highway

County: Maricopa County in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	• Executive Order 14026 generally applies to the contract. • The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	• Executive Order 13658 generally applies to the contract. • The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	06/06/2025
2	08/29/2025

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

CARP1912-003 07/01/2024

	Rates	Fringes
Carpenter, Excludes Formwork Concrete	$ 35.89	14.98

ENGI0012-046 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Bulldozer	$ 35.56	18.12

ENGI0012-053 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Tractor	$ 35.56	18.12

ENGI0012-063 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Oiler	$ 32.29	18.12

ENGI0012-065 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Field Equipment Serviceperson	$ 35.56	18.12

ENGI0012-066 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Backhoe/Backhoe & Loader Combo/Track Backhoe	$ 35.56	18.12

ENGI0012-069 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Loader/Front End Loader	$ 35.56	18.12

ENGI0012-070 12/01/2024

	Rates	Fringes
TRUCK DRIVER		
Off Road Truck	$ 35.56	18.12

ENGI0012-071 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

Crane/Derrick	$ 36.64	18.12

ENGI0012-072 12/01/2024

	Rates	Fringes
Power Equipment Operator:		
Excavator/Trackhoe		
1/2 cubic yard or smaller	$ 35.56	18.12
Greater than 1/2 cubic yard	$ 36.64	18.12

ENGI0012-073 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Grade Checker	$ 36.64	18.12

ENGI0012-074 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Motor Grader/Blade	$ 36.64	18.12

ENGI0012-075 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Mechanic	$ 37.67	18.12

IRON0075-014 08/01/2025

	Rates	Fringes
Ironworker	$ 33.00	19.91

LABO1184-016 06/01/2025

	Rates	Fringes
Power Equipment Operator:		
Horizontal Directional Drill	$ 31.98	9.26

LABO1184-017 06/01/2025

	Rates	Fringes
Laborer: Fence Erector	$ 27.41	9.26

LABO1184-021 06/01/2025

	Rates	Fringes
Traffic Control	$ 27.41	9.26

LABO1184-025 06/01/2025

	Rates	Fringes
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 29.91	9.26

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABO1184-027 06/01/2025

	Rates	Fringes
Laborer: Grade Setter	$ 29.91	9.26

LABO1184-029 06/01/2025

	Rates	Fringes
LABORER: Guardrail Installer	$ 29.91	9.26

LABO1184-033 06/01/2025

	Rates	Fringes
Power Equipment Operator: Trencher	$ 30.88	9.26

LABO1184-044 06/01/2025

	Rates	Fringes
Power Equipment Operator: Forklift	$ 30.88	9.26

LABO1184-047 06/01/2025

	Rates	Fringes
Truck Driver: Concrete	$ 30.88	9.26

LABO1184-049 06/01/2025

	Rates	Fringes
Truck Driver: Water	$ 30.88	9.26

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* LABO1184-051 06/01/2025

	Rates	Fringes
General Laborers	$ 27.41	9.26

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* SUAZ2023-022 11/19/2024

	Rates	Fringes
Carpenter: Formwork Concrete	$ 29.86	8.89
Cement Mason/Concrete finisher	$ 30.41	0.00
Electrician	$ 29.00	7.58
Laborer: Concrete Saw (Hand Held/Walk Behind)	$ 25.22	5.08
Laborer: Landscape Laborer	$ 19.00	6.34
Laborer: Mason Tender	$ 25.92	7.09
Laborer: Pipelayer	$ 25.97	7.09

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Painter: Pavement Marking	$ 23.35	6.34
Painter: Sign and Display Erector	$ 18.03	0.00
Power Equipment Operator: Bobcat/Skid Steer/Skid Loader	$ 29.91	9.11
Power Equipment Operator: Boom/Crane Truck	$ 43.11	10.87
Power Equipment Operator: Broom/Sweeper	$ 25.95	6.62
Power Equipment Operator: Compactor/Roller	$ 30.24	0.00
Power Equipment Operator: Concrete Pump Truck	$ 43.11	10.87
Power Equipment Operator: Concrete Screed	$ 26.41	7.64
Power Equipment Operator: Drill Rig/Auger	$ 36.80	13.07
Power Equipment Operator: Milling Machine	$ 31.16	0.00
Power Equipment Operator: Paver/Spreader/Finish equipment (asphalt, aggregate, & concrete)	$ 32.67	0.00
Power Equipment Operator: Scraper	$ 29.69	0.00
Truck Driver: Dump	$ 26.71	7.09
Truck Driver: Oil Distributor	$ 29.41	7.63
Truck Driver: Sweeper	$ 20.24	5.48

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may

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include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

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BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

CITY OF CHANDLER
LINDSAY ROAD IMPROVEMENTS
CITY PROJECT NO.: ST2001.401;
FEDERAL PROJECT NO.: CHN-0(246)D;
ADOT PROJECT NO.: T0243 01C

BID SCHEDULE

cc	Description	Est. Qty.	Unit	Unit Price	Extended Price
1	CONSTRUCTION SURVEYING AND LAYOUT	LS	1		
2	GPS DATA COLLECTION (ESRI – ARCGIS GEODATABASE FORMAT)	LS	1		
3	CONTRACTOR QUALITY CONTROL	LS	1		
4	EROSION CONTROL (SWPPP PREPERATION, INSTALLATION, MAINTENANCE, AND REMOVAL)	LS	1		
5	MOBILIZATION/DEMOBILIZATION	LS	1		
6	CLEARING & GRUBBING	LS	1		
7	REMOVE TREE, DIAMETER > 12 IN	EA	56		
8	EARTHWORK FOR RETENTION BASINS	CY	781		
9	RIPRAP, D50=6 IN, T=12 IN	CY	60		
10	SUBGRADE PREPARATION	SY	54,809		
11	FARM ROAD PER MAG SPEC 301	SY	532		
12	AGGREGATE BASE COURSE, 5 IN THICK	SY	505		
13	AGGREGATE BASE COURSE, 12 IN THICK	SY	43,599		
14	AGGREGATE BASE COURSE, 18 IN THICK	SY	10,705		
15	PAVEMENT STRUCTURAL SECTION PER RWCD DETAIL 42	SY	71		
16	ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)	SY	120,829		
17	ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)	SY	505		
18	ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)	SY	54,788		
19	PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK	SY	939		
20	BITUMINOUS TACK COAT SS-1H, DILUTED	SY	120,829		
21	SURFACE SEAL	SY	277		
22	VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1	LF	13,473		
23	CONCRETE DEEPENED CURB & GUTTER, TYPE A, H=6 IN, MODIFIED MAG DET 220-1	LF	13,524		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

24	CONCRETE SINGLE CURB PER MAG DET 222, TYPE A, H=4 IN	LF	7		
25	END OF MEDIAN RAMP, CITY DET C-225	EA	30		
26	CONCRETE HEADER (TO MATCH EXISTING)	LF	450		
27	CONCRETE HEADER (6 IN)	LF	85		
28	CONCRETE SIDEWALK, MAG DET 230	SF	62,019		
29	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-257	EA	14		
30	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258-1	EA	44		
31	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258-2	EA	2		
32	DRIVEWAY ENTRANCE, MAG DET 250-2 (RESIDENTIAL)	SF	4,371		
33	CONCRETE VALLEY GUTTER, MAG DET 240	SF	10,612		
34	INTERLOCKING CONCRETE PAVERS	SF	7,339		
35	ADJUST MANHOLE FRAME AND COVER PER MAG DTL NO. 422 & MAG SPEC 345, WITH CONCRETE COLLAR PER COC DTL C-401	EA	2		
36	REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400, AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'	EA	40		
37	ADJUST MANHOLE RIM PER RWCD DETAIL 37	EA	1		
38	ADJUST VALVE BOX & COVER, MAG DET 391, TYPE C WITH CONCRETE COLLAR PER COC DET C-307	EA	140		
39	ADJUST WATER METER BOX & COVER TO GRADE	EA	1		
40	ADJUST ZAYO VAULT LID TO GRADE, PROTECT CONDUITS IN-PLACE	EA	1		
41	REMOVE PIPE, BACKFILL & COMPACT	LF	510		
42	REMOVE ASPHALTIC CONCRETE PAVEMENT	SY	42,365		
43	MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN	SY	66,525		
44	REMOVE & DISPOSE CONCRETE PAVERS	SF	2,364		
45	REMOVE CONCRETE CURB & CURB AND GUTTER	LF	7,311		
46	REMOVE CONCRETE HEADER	LF	5,305		
47	REMOVE CONCRETE DITCH & BACKFILL & COMPACT	LF	20		
48	REMOVE CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS	SF	31,325		
49	REMOVE VALLEY GUTTER	SF	8,033		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

50	REMOVE DIRECT BURY POLE, MAST ARM, FIXTURE	EA	79		
51	REMOVE FIXTURE POLE, MAST ARM, AND FOUNDATION	EA	5		
52	REMOVE EXISTING HPS FIXTURE	EA	21		
53	RELOCATE EXISTING PRIVATE LIGHTS	EA	3		
54	REMOVE PULL BOX	EA	19		
55	REMOVE AND SALVAGE SIGN ASSEMBLY	EA	64		
56	REMOVE FENCE	LF	836		
57	REMOVE WALL	LF	1,755		
58	REMOVE GATE	EA	19		
59	RELOCATE FENCE	LF	380		
60	RELOCATE PRIVATE GATE	EA	4		
61	RELOCATE HORSE STEPOVER GATE	EA	1		
62	REMOVE CATCH BASIN	EA	3		
63	REMOVE & DISPOSE CONCRETE SCUPPER	EA	1		
64	REMOVE EXISTING RIPRAP	SY	267		
65	REMOVE AND SALVAGE TRAFFIC SIGNAL	LS	1		
66	REMOVE AND DISPOSE MAILBOX	EA	13		
67	REMOVE EXISTING WATER METER	EA	4		
68	REMOVE EXISTING BACKFLOW PREVENTOR	EA	4		
69	REMOVE EXISTING FLUSHING PIPE ASSEMBLY	EA	6		
70	REMOVE EXISTING FIRE HYDRANT	EA	5		
71	ABANDON EXISTING WATERLINE, LOCATE TEE, DISCONNECT STUB FROM TEE, PLACE MJ PLUG, AND ABANDON WATER VALVE PER DETAIL ON SHEET 132	EA	3		
72	METAL MAILBOX AND POST	EA	5		
73	COMBINED MASONRY MAILBOX AND FOUNDATION	EA	3		
74	COMBINED MASONRY MAILBOX AND FOUNDATION (MATCH IN-KIND)	EA	1		
75	CLUSTER MAILBOX UNIT AND FOUNDATION	EA	1		
76	RELOCATE RWCD IRRIGATION WATER ORDER BOX	EA	1		
77	REMOVE AND REINSTALL SIGN	EA	19		
78	TRAFFIC CONTROL	LS	1		
79	UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER	HR	1,500		
80	SURVEY MARKER, TYPE A, MAG DET 120	EA	4		
81	SURVEY MARKER, TYPE B, MAG DET 120	EA	7		
82	6 FT HIGH CHAIN LINK FENCE, ADOT STD C-12.20, TYPE 1	LF	274		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

83	CHAIN LINK GATE, ADOT C-12.20	EA	5		
84	CORRAL FENCE (MATCH-IN-KIND) (APN 304-81-996)	LF	350		
85	CORRAL GATE (MATCH-IN-KIND) (APN 304-81-996)	EA	6		
86	AUTOMATIC SWING GATE (SOLID INFILL)	EA	1		
87	MANUAL SWING GATE (SOLID INFILL)	EA	3		
88	AUTOMATIC SWING GATE (WROUGHT IRON)	EA	1		
89	MANUAL SWING GATE (WROUGHT IRON)	EA	1		
90	HALF AUTOMATIC, HALF MANUAL SWING GATE (SOLID INFILL) (APN 304-81-993)	EA	1		
91	AUTOMATIC SWING GATE AND BRICK PILASTERS (MATCH COLOR AND STYLE IN-KIND) (APN 304-81-996)	EA	1		
92	LANDSCAPE ESTABLISHMENT - NINETY (90) DAYS	LS	1		
93	SHRUB - 1 GAL	EA	611		
94	SHRUB - 5 GAL	EA	1,617		
95	AGAVE (12 TO 18 IN HEIGHT)	EA	1		
96	TREE - 48 IN BOX, 3 IN CAL MIN.	EA	127		
97	DECOMPOSED GRANITE, 1 1/4 IN SCREENED, DESERT GOLD	SY	8,982		
98	DECOMPOSED GRANITE (TO MATCH EXISTING)	SY	14,059		
99	LANDSCAPE / IRRIGATION RESTORATION	SY	12,645		
100	SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN	LF	1,130		
101	SCH. 40 PVC IRRIGATION PIPE SLEEVE 4 IN	LF	1,981		
102	SCH. 40 PVC IRRIGATION PIPE 3/4 IN (PURPLE)	LF	4,618		
103	SCH. 40 PVC IRRIGATION PIPE 1 IN (PURPLE)	LF	6,927		
104	SCH. 40 PVC IRRIGATION PIPE 2 IN	LF	4,337		
105	CLASS 200 PVC IRRIGATION PIPE 3/4 IN	LF	2,372		
106	CLASS 200 PVC IRRIGATION PIPE 1 IN	LF	3,558		
107	WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)	EA	4		
108	1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)	EA	4		
109	1 IN MASTER VALVE	EA	4		
110	CONTROLLER, AUTOMATIC (6 STATION)	EA	7		
111	1 IN REMOTE CONTROL VALVE, ELECTRIC	EA	22		
112	FLUSH END ASSEMBLY (DRIP)	EA	154		
113	MULTI OUTLET EMITTER ASSEMBLY	EA	582		
114	GATE VALVE - PVC TRUE-UNION BALL VALVE (2 IN)	EA	6		
115	DRIP INDICATOR	EA	107		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

116	4 IN WHITE TRAFFIC PAINT STRIPE	LF	74,180		
117	4 IN YELLOW TRAFFIC PAINT STRIPE	LF	2,070		
118	PAINT MEDIAN NOSE	EA	30		
119	4 IN WHITE THERMOPLASTIC TRAFFIC STRIPE	LF	25,560		
120	THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW	EA	40		
121	THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW	EA	17		
122	BIKE LANE SYMBOL SET, TYPE II (HIGH-BUILD)	EA	25		
123	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)	EA	1,000		
124	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)	EA	40		
125	PERFORATED SIGN POST	LF	560		
126	PERFORATED SIGN POST FOUNDATION	EA	54		
127	FLAT SHEET ALUMINUM SIGN PANEL, HIGH INTENSITY GRADE	SF	640		
128	NO. 7 PULL BOX	EA	13		
129	NO. 7 PULL BOX W/ EXTENSION	EA	27		
130	NO. 9 PULL BOX	EA	15		
131	PULL BOX, SRP LIGHTING PULL BOX (CONTRACTOR SUPPLIED AND INSTALLED)	EA	59		
132	SCH. 40 PVC ELECTRICAL CONDUIT, 1"	LF	1,290		
133	SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN	LF	50		
134	SCH. 40 PVC ELECTRICAL CONDUIT, 2.5 IN (SRP SERVICE CONDUIT)	LF	125		
135	SCH. 40 PVC ELECTRICAL CONDUIT, 2.5"(STREET LIGHTING PER SRP PLANS)	LF	8,630		
136	SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN	LF	115		
137	SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN	LF	55		
138	SCH. 40 PVC ELECTRICAL CONDUIT, 2-4 IN (DIRECTIONAL DRILL)	LF	2,050		
139	4 - 2 IN PVC INTERCONNECT CONDUIT	LF	5,050		
140	4 - 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)	LF	11,250		
141	SRP 12KV UNDERGROUND CONVERSION	LF	3,200		
142	POLE FOUNDATION, TYPE A, ADOT DWG T-SL 4.01	EA	4		
143	POLE FOUNDATION, TYPE KC MOD	EA	2		
144	POLE FOUNDATION, TYPE RC	EA	2		
145	VEHICLE DETECTION SYSTEM	LS	1		
146	TYPE A SIGNAL POLE, TYPE A, ADOT DWG T-SL 4.01	EA	4		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

147	TYPE KC MOD SIGNAL POLE	EA	2		
148	TYPE RC SIGNAL POLE	EA	2		
149	AUDIBLE PEDESTRIAN PUSH BUTTON W/ SIGN	EA	8		
150	20 FT MAST ARM (TAPERED)	EA	2		
151	55 FT MAST ARM (TAPERED)	EA	4		
152	METER PEDESTAL CABINET	EA	1		
153	CONTROL CABINET	EA	1		
154	EMERGENCY PRE-EMPTION SYSTEM	EA	4		
155	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)	EA	12		
156	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)	EA	4		
157	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)	EA	6		
158	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)	EA	3		
159	SIGN ASSEMBLY (IISNS)	EA	4		
160	TRAFFIC SIGNAL FACE (TYPE F) (LED)	EA	12		
161	TRAFFIC SIGNAL FACE (FLASHING YELLOW ARROW FACE) (LED COUNTDOWN)	EA	8		
162	TRAFFIC SIGNAL FACE (PEDSTRIAN) (MAN/HAND) (LED)	EA	8		
163	POLE FOUNDATION, FOR C-751 POLE	EA	129		
164	STREET LIGHT POLE, C-751-1 WITH SINGLE DAVIT ARM	EA	129		
165	STREET LIGHT POLE AND FOUNDATION, C-756 ANGLE STREET LIGHT	EA	1		
166	LED LUMINAIRE (TRAFFIC SIGNAL)	EA	2		
167	LED STREET LIGHT LUMINAIRE, TYPE II	EA	151		
168	ELECTRICAL CONDUCTORS	LS	1		
169	FIBER OPTIC CABLE (SINGLE MODE 12)	LF	175		
170	FIBER OPTIC CABLE (SINGLE MODE 144)	LF	19,100		
171	UNDERGROUND FIBER OPTIC SPLICE CLOSURE	EA	4		
172	FIBER OPTIC PATCH PANEL (12 PORT)	EA	1		
173	CCTV CAMERA SYSTEM	EA	1		
174	FIELD HARDENED ETHERNET SWITCH	EA	1		
175	CLASS B CONCRETE, 4 IN THICK	SF	770		
176	CONCRETE SCUPPER, CITY DET C-500, W=8 FT	EA	12		
177	CONCRETE SPILLWAY, COC DET C-500, W=8.5 FT	LF	465		
178	CATCH BASIN, MAG DET 533-1, TYPE D, ONE 6 FT WING	EA	2		

BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

179	CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS	EA	5		
180	CATCH BASIN, MODIFIED MAG DET 533-1, TYPE D, ONE 3 FT WING	EA	1		
181	CATCH BASIN, MAG DET 542-1, TYPE M-1, ONE 6 FT WING	EA	1		
182	CONCRETE PIPE COLLAR PER MAG DET 505	EA	1		
183	CONCRETE MASONRY WALL (FULL WALL)	LF	476		
184	CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)	LF	619		
185	CONCRETE MASONRY WALL (FULL WALL WITH LIGHTED GLASS BLOCK IN COLUMNS) (APN 304-81-994)	LF	137		
186	MASONRY WALL (MATCH IN-KIND TO EXISTING) (APN 304-81-011A)	LF	55		
187	CONNECT TO EXISTING WATERLINE	EA	2		
188	INSTALL 8 IN DIP CLASS 350 WATERLINE PER COC DTL C-308	LF	141		
189	INSTALL NEW WATER METER COC DTL C-301-1	EA	4		
190	INSTALL FLUSHING PIPE ASSEMBLY WITH BALL VALVE PER COC DTL C-300	EA	8		
191	INSTALL BACKFLOW PREVENTOR PER COC STD DET C-311	EA	3		
192	INSTALL FIRE HYDRANT COC DTL C-303, C-305, AND FD-121	EA	5		
193	CONNECT TO EXISTING SEWER	EA	1		
194	INSTALL 4 IN PVC SDR 26 SANITARY SEWER PIPE PER COC DTL C-402	LF	22		
195	INSTALL 4 IN SEWER PIPE PLUG, MAG DTL 427	EA	1		
196	12 IN RGRCP, CLASS IV	LF	79		
197	15 IN RGRCP, CLASS V	LF	662		
198	18 IN RGRCP, CLASS IV	LF	1,845		
199	PIPE PENETRATION FOR CATCH BASIN	EA	1		
200	PIPE PENETRATION FOR DRYWELL	EA	1		
201	STORM DRAIN MANHOLE, MAG DTL 520 & 522	EA	8		
202	DRYWELL, COC DET C-501	EA	6		
203	BUBBLE-UP STRUCTURE, COC DET C-507	EA	3		
204	ALLOWANCE: ROADWAY AND CONCRETE FLATWORK	LS	1	[redacted]	$ 900,000.00
205	ALLOWANCE: LANDSCAPING	LS	1	[redacted]	$ 175,000.00
206	ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES	LS	1	[redacted]	$ 300,000.00
207	ALLOWANCE: SRP ELECTRICAL	LS	1	[redacted]	$ 325,000.00

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BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: _____

208	ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING	LS	1	[redacted]	$ 200,000.00
209	ALLOWANCE: WET UTILITIES	LS	1		$ 500,000.00
210	ALLOWANCE: DRY UTILITIES	LS	1		$ 200,000.00
211	ALLOWANCE: STORM DRAIN	LS	1		$ 150,000.00
212	ALLOWANCE: REMOVALS	LS	1		$ 250,000.00
213	STORM DRAIN MANHOLE, MAG DTL 520 & 522 (SHALLOW MANHOLE)	EA	2		

BASE BID (Items 1- 213 inclusive)

$ _____
(In Numbers)

_____
(In Words) Dollars

_____
(In Words) Cents

Note 1: Bidders are required to fill in all blank spaces with an entry. Bids submitted with blank spaces shall be considered "Non-Responsive".

Note 2: The Bid Due Date is before the Bid Opening Date. The Due Date is when the bid package must be received. The Bid Opening Date is scheduled for the next workday when the bid prices will be read aloud in public. The difference between the Due Date and Time and the Opening Date and Time is to allow bidders to review the accuracy of their bids, and if they have made a mathematical or clerical error, the opportunity to withdraw their bids prior to the Bid Opening. No bids will be allowed to be modified after the Bid Due Date. Bidders requesting to withdraw their bids are required to contact the Purchasing Office prior to the Bid Opening. Bidders that withdraw their bids after the Bid Opening shall not be considered on future city bids for a period of two (2) years and will be subject to a claim against their bid bond.

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EXHIBIT D

Added Item No. 213 to the Technical Specifications

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ITEM NO. 213 STORM DRAIN MANHOLE, MAG DTL 520 & 522, SHALLOW MANHOLE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct shallow storm drain manholes at locations as specified in the Project Plans.

Materials and Construction Requirements:

Storm Drain Manhole (Shallow Manhole) will comply with per MAG Details 520 and 522 in their entirety**.**

Measurement and Payment:

Storm Drain Manhole (Shallow Manhole) will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

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Exhibit E

Pre-bid Conference Sign in Sheets

City of Chandler Capital Projects Division
Meeting Sign in Sheet

Project Name:	Lindsay Road Improvements – Ocotillo Road to Hunt Highway	**Project No(s).:**	ST2001.401
Meeting Type:	Pre-Bid Conference		
Meeting Date:	**September 9, 2025**	**Meeting Time:**	3:00PM
Meeting Location:	Council Chambers		

Name	Company	Email	Telephone/Mobile/Office
GARRY MAGLALANG	Hunter Contracting Co.	garry.maglalang@huntercontracting.com	602-762-4703
Travis Bourne	Rodpoint	bids@rodpointconstructions.com	602-299-9853
Chris Klemaszewski	Sunland Asphalt	cklemaszewsk.@sunlandasphalt.com	480-599-6579
Dan Hal	Chandler	daniel.haskins@chandleraz.gov	480-782-3335
Carl Morsch	Achen Gardner	cmorsch@achen.com	602-505-1014
Kobe Ojeda	Granite Construction	Kobe.Ojeda@GCINC.com	480-665-0898
Ara Pangborn	Haydon	apangborn@haydon.com	602-432-2702
JONATHAN PERES	CMT	JONATHAN.PERES@CMTTECHNICALSERVICES	4802669078
Curtis Cope	Ninyo & Moore	ccope@ninyoandmoore.com	602-243-1600
Jake Wilson	Loenbro	jawilson@loenbro.com	602-614-8707
Janece Rall	City of Chandler	Janece.Rall@chandleraz.gov	480 782 3331

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City of Chandler Capital Projects Division
Meeting Sign in Sheet

Project Name:	Lindsay Road Improvements – Ocotillo Road to Hunt Highway	**Project No(s).:**	ST2001.401
Meeting Type:	Pre-Bid Conference		
Meeting Date:	**September 9, 2025**	**Meeting Time:**	3:00PM
Meeting Location:	Council Chambers		

Name	Company	Email	Telephone/Mobile/Office
Julia Hoath	Kimley-Horn	julia.hoath@kimley-horn.com	602-678-3470
David Sequella	J. Banicki Construction	estimating@banicki.com	480-921-8016
Chris Woolery	Kimley-Horn	chris.woolery@kimley-horn.com	602-944-5500
Bob Martinez	Haydon	rbmartinez@haydon.com	480.647-5746
Carson Miller	Haydon	cmiller@haydon.com	480-881-1893
Brandon Foley	Ardurra	bfoley@ardurra.com	602-803-5797
Trae Taylor	Sunland Asphalt	ttaylor@sunlandasphalt.com	602-480-0689
Ting Chen	Loenbro.	tchen@loenbro.com	
J. Jason Garcia	City of Chandler	jason.garcia@chandleraz.gov	

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Chandler · Arizona

City of Chandler Capital Projects Division
Meeting Sign in Sheet

Project Name:	Lindsay Road Improvements – Ocotillo Road to Hunt Highway	**Project No(s).:**	ST2001.401
Meeting Type:	Pre-Bid Conference #2		
Meeting Date:	**September 16, 2025**	**Meeting Time:**	3:15PM
Meeting Location:	Council Chambers		

Name	Company	Email	Telephone/Mobile/Office
Cain Ridgeway	MR Tanner Construction	cridgeway@mrtanner.com	480-200-3672
Garron Tanner	MR Tanner Construction	gtanner@mrtanner.com	480-633-8500
ROCCO SANTIGATI	PULLICO CONSTRUCTION	RSANTIGATI@PULLICO.com	602-448-3096
Brian Lizut	CEI	blizut@cei-az.com	480.699.6472
Julia Heath	Lumley-Horn	julia.heath@lumley-horn.com	602-678-3470
Draycen Hall	MR Tanner Construction	d.hall@temeconcrete.com	928.242.6441
CHRIS EISCHEN	SUNLAND	CEISCHEN@SUNLANDASPHALT.com	602.291.3415
Mark Anderson	Loenbro	manderson@loenbro.com	406 570-1261
Ava Pangborn	Haydon	apangborn@haydon.com	480-863-7079
Jake Wilson	Loenbro	jawilson@loenbro.com	602-614-8707
Carl Morsch	Achen Gardner	cmorsch@achen.com	602 505 1014
J. JASON GARCIA	CITY OF CHANDLER	jason.garcia@chandleraz.gov	

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Name	Company	Email	Telephone/Mobile/Office
Jarrce Ray	city of Chandler	Jarrce.Ray@Chandleraz.gov	4807823331
Dan Hasking	City of Chandler	daniel.haskins@chandleraz.gov	480-782-3335

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CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO. ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.:T0243 01C

ADDENDUM NO. 4

OCTOBER 15, 2025

1. Bidder must acknowledge the receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **1 page**, is hereby incorporated into the Construction Agreement by this reference.

2. **BID SUBMISSION.** The bid date has been changed to November 5, 2025, 3:00pm Arizona time. Bids must be received on or before date and time specified.

Daniel Haskins
_____
Daniel Haskins, P.E.
CIP City Engineer
Public Works & Utilities Dept. – Capital Projects

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CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

ADDENDUM NO. 5

October 23, 2025

1. Bidder must acknowledge the receipt of this addendum on the Proposal Acknowledgement page of the **BID SUBMITTAL**. This addendum, containing **104 pages** , is hereby incorporated into the Construction Agreement by this reference.

2. Replace ***Bid Submittal List*** with the revised version attached.

3. Replace ***Exhibit E – Federal Provisions*** with the revised version attached.

   Revisions to Federal Provisions include:
   - Table of Contents
   - 1.0 City of Chandler Federal Requirements Guide for Contractors
   - 8.0 DBE EPrise
   - 18.0 DBE / ADOT BECO Forms – DBE Forms Instructions

4. The DBE Goal / DBE Forms and Requirements have changed to **"RACE NEUTRAL" – ZERO PERCENT (0.00%)**.

If you have any questions, please email Bid.Questions@chandleraz.gov.

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer
Public Works & Utilities Dept. – Capital Projects

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BID SUBMITTAL LIST

This list may not include all required bid submission items. It is the Contractor's responsibility to read the entire bid and determine all items required by the submission date and time.

DO NOT DOUBLE-SIDE ANY PART OF THE BID SUBMITTAL

PROJECT NAME: **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)**

CITY PROJECT NO.**:** **ST2001.401**
FEDERAL PROJECT NO.: **CHN-0(246)D**
ADOT PROJECT NO.**:** **T0243 01C**

THIS IS A FEDERAL FUNDED PROJECT

PLEASE INCLUDE THE FOLLOWING ITEMS IN YOUR SUBMITTAL ACCORDING TO THE DATE AND TIME LISTED IN THE INVITATION TO BID ADVERTISEMENT:

A. Bid Bond (Original – with Seal)

B. Signed Proposal Acknowledgement, and licenses

C. Bid Schedule

D. Subcontractor's List Form

E. Certificate of Insurability and Bonding

F. Arizona Department of Revenue Privilege Tax License

FEDERAL DOCUMENTS REQUIRED WITH BID (see Federal Document Section)

1. Federal Non-Collusion Bidding Certificate
2. Verification Statement
3. Forced Labor Ethnic Uyghurs Ban Certification Form
4. EEO Clause / Statement

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FEDERAL DOCUMENTS REQUIRED TO BE SUBMITTED BY THE 5TH DAY POST BID OPENING DAY, BY 4PM IN ORDER FOR BID TO BE CONSIDERED, TO EMAIL ADDRESS:
CP.FUND@CHANDLERAZ.GOV (see Federal Document Section). *Do not submit with bid*

1. On-Line DBE BECO Bidders/Proposers List Email Confirmation (do not forward email)

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FEDERAL PROVISIONS, DOCUMENTS & FORMS

CONSTRUCTION BID / CONTRACT

- **Contract with NO DBE Goal (Race Neutral 0%)**
- **Contract with Davis Bacon Wages**

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FEDERAL DOCUMENTS

TABLE OF CONTENTS

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FEDERAL FUNDED CONSTRUCTION CONTRACT DOCUMENTS
TABLE OF CONTENTS

Note: This bid/contract has NO DBE Goal / INCLUDES Davis Bacon Wages Requirements

City of Chandler Federal Requirements Guide for Contractors 1.0

Federal Non-Collusion Bidding Certification Form 2.0

Verification Statement Form 3.0

Forced Labor of Ethnic Uyghurs Ban Certification Form 4.0

EEO Clause Statement & Contractor EEO Officer Form 5.0

Prompt Pay and Payment Reporting Provisions 6.0

Title VI 7.0

Title VI Assurance
Title VI Appendix A
Title VI Appendix E

DBE EPrise (Disadvantaged Business Enterprises) RACE NEUTRAL NO DBE GOAL 8.0

FHWA 1273 ..... 9.0

Buy America / Build America Buy America / Material Certifications 10.0

EEO (Equal Opportunity Employment) 11.0

EEO Notice of Requirement for Affirmative Action to Ensure EEO
EEO Equal Employment Opportunity Compliance Reports
EEO Executive Order 2009-09

Federal Immigration and Nationality Act 12.0

Records Retention/Contractor-Subcontractor Records 13.0

Energy Efficiency Provision 14.0

Warranty Provision (Federal Projects) 15.0

Jobsite Posters Requirements 16.0

David Bacon Wage Decision 17.0

DBE / ADOT BECO Forms 18.0

- DBE Forms Instructions
- DBE Bidders/Proposers List Email Confirmation
- DBE Form 3110C DBE Certification of Final Payment

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1.0

FEDERAL GUIDE

FOR CONTRACTORS

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Federal Funded Contract Guide for Contractors/Subcontractors

This is an FHWA federal funded project.

1. This an FHWA Federal Funded Contract/Project. There is a ZERO TOLERANCE for compliance of the federal requirements.
2. No Retention can be held on federal funded contracts: Includes City to Prime and Prime to Subcontractors
3. Buy America/BABA Requirements are strict – SEE BUY AMERICA SECTION.
4. All Contractors/Subcontractors/Consultants/Subconsultants working on a federal funded contract: No debarments, No outstanding unresolved federal tax liens, and must use E-Verify for company employment process.
5. Prime Contractor Must self-perform **50%** of the contract.
6. Records: Record Retention for federal projects must be maintained for five (5) years following completion.
7. Material Certs are required for all material in order to approve pay applications. NOTIFY YOUR VENDORS.
8. Web Site Registration Requirements:
    a. AZ UTRACS website - (https://utracs.azdot.gov) All Contractors/Subcontractors are required to have a 5-digit AZ UTRACS Number and have an updated non-expired profile in this system.
    b. ADOT Payment Reporting System (DOORS) - (https://adotdoors.dbesystem.com/) Contractors/subcontractors must be registered in the ADOT DOORs System. This is where monthly payments will be reported and verified.
    c. SAM (www.sam.gov) – This site identifies contractors who cannot work on a federal funded project due to specific debarments. See Code of Federal Regulations Title 2 Subtitle A Part 180 Subpart H.
        i. No Contractor/Subcontractor with a debarment can work on a federal funded project.
        ii. No Contractor/Subcontractor with an unresolved federal debt can work on a federal funded project.
    d. LCPTracker (Certified Payroll) – (https://prod-cdn.lcptracker.net)
9. CERTIFIED PAYROLL / FRINGE BENEFITS / EMPLOYEE DEDUCTIONS / CLASSIFICATIONS
    a. Certified Payrolls Reporting is a requirement to work on this project.
    b. IMPORTANT: Hours/dates/employees/classifications worked MUST MATCH what jobsite inspector reports on his/her daily report each day. ENSURE CREWS CHECK IN WITH PRIME AND INSPECTOR.
    c. City of Chandler requires the use of LCPTracker system for transmitting certified payroll reports.
    d. Certified Payroll Reporting Starts: The first day a contractor/subcontractor starts work on site until their contract work is complete and finalized. This includes working and non working weeks.
    e. Late or non-submittal of payroll reports:
        i. US Department of Labor requires that payroll reports be submitted within 7 days of pay date.
        ii. City of Chandler may assess penalty retainer of $2,500 for each discrepancy report AND THE PRIME CONTRACTOR CAN WITHHOLD THAT AMOUNT FROM THE PAYMENT OWED TO THE SUBCONTRACTOR.
    f. Foreman, Superintendents, Owners who perform labor on site are considered laborers and MUST BE REPORTED ON CERTIFIED PAYROLL with exception to de minimis time.
    g. Payroll Time Requirements / Legal
        i. All Laborers / Mechanics on Federal Funded Projects Must Be Paid Weekly.
        ii. Contractor Penalty for not paying weekly - $5,000 Fine and/or up to five (5) years in Prison.
        iii. If Contractor lies/falsifies Certified Payroll, penalty can be up to 15 years in jail.
        iv. Under-paying employees – subcontract may be terminated, contractor/subcontractor can be debarred from working on federal funded contracts for up to three (3) years.
    h. Project Specific Davis Bacon Wage Decision is included in your contract. Not all Wage Decisions are the same and are "Project Specific". Employees must be paid at or above the Davis Bacon Wage Decision rates (Base + Fringe).
    i. Site of Work: Includes project site, other areas where significant portion of the building or work is constructed provided that: 1) such site is established specifically for the contract and no other work, and 2) is located adjacent or virtually adjacent to the site of the work (within visual).
    j. Employee Benefits Plans / Fringes:
        i. If Contractor / Subcontractor wants to utilize company paid benefits paid to employee towards the required Davis Bacon Wage requirement in lieu of cash, the following two items must be submitted to and approved by the City Federal Compliance Oversight.
            1. Company-Employee Benefits and Health care plan. This includes company benefits for employees, which may include more than health care plans, such as vacation, sick leave, 401K, paid time off, etc.
            2. Worksheet showing the hourly breakdown of the costs to be used.
    k. Employee Deduction Authorization Form (EDA): All Contractors/Subcontractors submitting certified payroll must submit these forms **for every employee that has dollars in the "Other" box** on the payroll reports. This is a one-time submittal unless deductions change for that employee, and does not need to be submitted with every payroll report.
    l. Classification Requests (also known as Conformance Requests): If no classification matches a task/employee work classification from the wage decision for this contract, YOU WILL NEED TO SUBMIT A Classification Request SF1444 (City of Chandler Form, ADOT Forms are not allowed).

m. Overtime Requirement by Department of Labor: The overtime rate must be 1.5 x the Base Rate on the Wage Decision or 1.5 x a higher wage rate that you already pay, (you cannot pay 1.5 OT rate on the base rate if you are paying a lower base rate due to higher fringe rate).
n. DO NOT USE 'GENERAL LABORER CLEANUP' as a catch all. DOL DOES NOT WANT TO SEE MORE THAN 3 GENERAL LABORERS TO A SKILLED LABOR CLASSIFICATION.

10. EMPLOYEE INTERVIEWS
    a. Employee Interviews process is a Department of Labor federal requirement on federal funded projects. This is to ensure employees are being paid correctly for the tasks they are working. Interviews are confidential and employers cannot have access to interview documentation.
11. PAYMENT REPORTING: (aka DBE/PROMPT PAY REPORTING)
    a. ALL CONTRACTORS AND SUBCONTRACTORS**, MUST** be registered with ADOT's DBE Reporting System in order to work on this federal funded project. (NEW: https://adotdoors.dbesystem.com/)
    b. ALL CONTRACTORS/SUBCONTRACTORS are required to report monthly in the above listed system from your first payment to when your contract is complete. This includes months that $-0- payments occur.
    c. Report the date paid; Report the date received. DO NOT GUESS.
    d. Reporting Schedule: Primes must report payments made to subcontractors no later than the 10th of each month for payments made the previous month. Subcontractors must verify or report payment discrepancies by the 30th of each month for report made by the Prime. Subcontractors must report payments made to lower tiers by the 15th of each month for payments made the previous month (including $0).
12. PROMPT PAY
    a. Subcontractors must be paid within 7 days from payment received from the City for the related work.
    b. Prime is responsible for ensuring subcontractors pay lower tiers.
    c. Subcontractors must pay lower tiers within 7 days of receiving payment from the Prime for work the lower tier performed that was paid to the Prime – to the subcontractor.
    d. Note that just because a subcontractor or a lower tier subcontractor performed work, the Prime may not have been paid for that work. Prompt Pay 7-day payment requirements is for work paid for from the City to the Prime; Prime to the Subcontractor; Subcontractor to the Lower Tier Subcontractor.
    e. Payment reporting: is the reported amount correct, was payment received within 7 days from the date the Prime was paid? DO NOT GUESS.
13. REGISTRAR OF CONTRACTORS LICENSE (ROC)
    a. A current ROC License is required for all Contractors/Subcontractors with exceptions to businesses/services that do not require an ROC License.
    b. Name on the Subcontract, the SRF Request Form, and the ROC License MUST MATCH.
14. BUY AMERICA AND BUILD AMERICA-BUY AMERICA (BABA) REQUIREMENTS FOR MATERIALS
    a. **MATERIALS USED ON THIS PROJECT MUST FOLLOW THE BUY AMERICA AND BABA REQUIREMENTS**.
    b. Suppliers, vendors, and subcontractors must provide material certifications before material can be accepted, installed, and paid for.
    c. NO PAYMENTS FOR MATERIALS WITHOUT APPROVED MATERIAL CERTIFICATIONS.
15. JOBSITE POSTERS
    a. There are jobsite poster requirements and City of Chandler will assist will required posters list.
    b. All employees working on site must have access to view jobsite posters without supervision.
    c. All employees must be able to state they have seen the wage decision for this project.
16. TITLE VI
    a. Any complaints related to Title VI while on the jobsite must be forwarded to the City of Chandler Federal Compliance to handle. Please forward complaints to one of the following:
        i. Dan Haskins: 480-782-3335 / dan.haskins@chandleraz.gov
        ii. Janece Ray: 480-782-3331 / janece.ray@chandleraz.go
17. RETENTION
    a. Due to FHWA Federal requirements, on FHWA Federal Funded Contracts, the City no longer holds retention.
    b. Contractors CANNOT hold retention.
    c. Tip for Primes: Federal Compliance is required for contractors and subcontractors. Pay attention to subcontractor discrepancies that have penalties such as certified payrolls, payment reporting, and Prompt Pay. These penalties will be deducted from the Prime's pay application payment and the Prime can pass on to the subcontractor(s).

18. SUBCONTRACTORS
    a. Subcontractor: Includes lower tiers to first level subcontractors.
    b. Subcontractors must be approved by the City (includes City required forms and subcontracts).
    c. All subcontractors must notify Prime and Inspector to be on site each day.
    d. FHWA requires Inspector to document on daily report each day, what subcontractors and identify their employees, the task classifications, and equipment subcontractor is utilizing on site.
    e. All subcontractors must have an ROC license (if the business type requires it in Arizona).
    f. All contractors/subcontractors must have a **5-digit AZ UTRACS number** (https://utracs.azdot.gov)
    g. All contractors/subcontractors will be required to report monthly into the ADOT DOORs Reporting System.
    h. **Testing Subcontractors** must be on the ADOT Accredited Materials Testing Laboratories List. (https://azdot.gov/business/engineering-and-construction/materials/materials-quality-assurance/adot-accredited).
    i. **Trucking:** Vendors who have one or more company trucks delivering material to the jobsite are not trucking companies and do not require a subcontractor approval. Trucking companies that the Contractor or Subcontractor has a subcontract with to work on site hauling in or out is a subcontractor and must go through the subcontractor approval process.
    j. No subcontractor including Barricades/Traffic Control can start before the Prime Contractor's NTP Date.
19. Quality Control Reports
    a. Reports are required to be submitted and up to date at least monthly (preferred to be up to date weekly as applicable), and pay applications will not be signed / approved unless Quality Control Reports are up to date and provided to the City.
20. As Builts / Red Lines
    a. Must be current and up to date each month and pay application will not be signed / approved until this task is current.
21. T&M
    a. For T&M work activities, Lump Sum charges/Hourly Rates/Daily Rates ARE NOT ALLOWED on federal funded contracts. Contractors and Subcontractors – required: daily work document signed off by inspector with employees, hours, equipment, description. Invoice documentation must show each date for employees, hours, and certified payroll rates on the applicable APPROVED certified payroll.
22. SANCTIONS / PENALTIES / LIQUIDATED DAMAGES (Certified Payroll, Prompt Pay, DBE Reporting)
    a. Certified Payrolls
        i. Monthly discrepancies will be notified to Prime for the previous month's discrepancies.
        ii. Discrepancy penalties are $2,500 each with a 10-day grace period to correct the discrepancy. Corrections made 11th day to 90th day, the penalty is assessed. Corrections after the 90th day $500 is non-refundable.
    b. Payment Reporting
        i. Not Reporting has required Penalties - Liquidated Damages, non-refundable: Not reporting a payment has a federal required penalty that the City must assess of $ 5,000. non-refundable.
        ii. After 90 consecutive days of non-reporting of those payment(s), the penalty/liquidated damages will increase to $10,000 for each subsequent month until the Contractor reports.
        iii. This Liquidated Damages $1000.00 can only be initiated by the City of Chandler to the Prime, BUT the Prime CAN pass on to the respective Subcontractor who did not report for a payment to a lower tier.
    c. Prompt Pay Provisions - Penalty for Non-Payments
        i. City of Chandler is required to withhold two times (2x) the amount due to subcontractors if not paid within 7 days of receiving payment. If full payment is made within 30 days of the date the City of Chandler pays the Prime, the amount withheld will be released. If payment is made after the 30 days of the City of Chandler's payment date to the Prime Contractor, 75% will be returned and 25% will be withheld as liquidated damages.
        ii. This also applies to subcontractors' payments to lower tier subcontractors.
        iii. If non-payment lasts for three consecutive months, or any four months over the course of one project:
            1. Withhold monthly progress payments
            2. Terminate the contract for default
            3. Can be disqualified from future bidding, temporarily or permanently, based on severity of violations.

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FEDERAL NON-COLLUSION BIDDING CERTIFICATION

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FEDERAL NON-COLLUSION BIDDING CERTIFICATION

(This form must be filled out, signed, notarized, and submitted with bid or proposal)

(State of)

ss.

(County of)

I, _____ of the City of _____, in the County of

_____, and the State of _____, of full age, being duly sworn according to

the law of my oath depose and say that:

I am _____, a, _____
(Name) (Title, Position, etc.)

Of the firm of _____, the Bidder making the bid for:

Project Name:

City Project No

Federal Project No

ADOT Project No

And that I executed the said Bid with full authority so to do, that said Bidder has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project, and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that the City of Chandler relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the Contract for the said Project.

The bidder certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that

1. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, or an employee of a Member of Congress, in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.
2. If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL, "Disclosure Form to Report Lobbying", are available at ADOT Contracts and Specifications Services, 1651 W Jackson, Room 121F, Phoenix, AZ 85007. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $1,000,000 for each such failure.

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The bidder also agrees, by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all subcontracts, and lower tier subcontracts which exceed $100,000 and that all such subcontractors and lower tier subcontractors shall certify and disclose accordingly.

The City of Chandler will keep the prime contractor's certifications on file as part of their original bid proposals. Each prime contractor shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for three years following completion and acceptance of any given project.

Disclosure forms for the prime contractor shall be submitted to the Engineer at the pre-construction conference. Disclose forms for subcontractors and lower tier subcontractors shall be submitted to the Engineer by the prime contractor along with the submittal of each subcontract or lower tier subcontract as required under 23 CFR 635A and ADOT Specification 108.01 when said subcontracts exceed $100,000.00 During the performance of the contract the prime contractor and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the engineer to the Federal Highway Administration for further processing.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract. I upon an agreement of understanding for a commission, percentage, brokerage or contingent fee, except bonafide employees or bonafide established commercial or selling agencies maintained by:

_____
Signature of Bidder

_____
Printed or Typed Name of Bidder

(required)
NOTARY

Subscribed and sworn to before me

this _____ day of _____(month), _____(year)

_____
Notary Public

Seal:

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3.0

VERIFICATION STATEMENT

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CHANDLER arizona

VERIFICATION STATEMENT
FOR
NO FEDERAL TAX LIENS,
NO DEBARMENTS,
USE OF E-VERIFY FOR EMPLOYMENT HIRING
UTRACS REGISTRATION/STATUS
ROC LICENSE
FEDERAL EMPLOYER IDENTIFICATION NUMBER (EIN)

This form represents certifying compliance for items listed below:

a) This company has no outstanding unresolved federal tax liens.

b) This company has not been suspended or debarred from working on a federal funded contract, does not have a proposed debarment pending, has not been indicted, convicted, or had a civil judgement rendered against the firm by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years as specified by Code of Federal Regulations 49 CFR.

c) This company uses E-Verify for employment verifications.

d) This company has a current UTracs Registration (https://utracs.azdot.gov)

e) ROC License: To work on a federal funded project, all contractors, subcontractors, consultants, subconsultants must have an ROC license (exception if business type does not require ROC license in Arizona). For bidding process, For Construction, Low Bidder will have 60 days from Bid Opening Day to obtain the required State ROC license.

f) EIN: Must have an Employer Identification Number (EIN) if you are the Prime. For Subcontractors and Subconsultants - you are required only If required by Law / Federal Requirements. If not required by Law to have an EIN number, you may write in “not applicable’ below.

**It is recommended that all companies working on a federal funded contract be registered on the SAM website. (www.sam.gov)

If unable to certify to the statements above, company is ineligible to enter into an agreement for federal funded contracts with the City of Chandler.

Company Name:	
Company UTracs No:	
Company ROC No:	
EIN:	
Name of Person Signing:	
Title of Person Signing:	
Signature:	
Date of Signature:	

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FORCED LABOR OF ETHNIC UYGHURS BAN

CERTIFICATION FORM

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ADOT
Infrastructure Delivery and Operations

FORCED LABOR OF ETHNIC UVGHURS BAN Certification Form

Forced Labor of Ethnic Uyghurs Ban

Please note that if any of the following apply to the Consultant, then the Offeror shall select the "Exempt Consultant" option below:

- Consultant is a sole proprietorship;
- Consultant has fewer than ten (10) employees; OR
- Consultant is a non-profit organization.

Pursuant to A.R.S. § 35-394, the State of Arizona prohibits a public entity from entering into or renewing a contract with a company unless the contract includes written certification that the company does not use the forced labor, or any goods or services produced by the forced labor, or use any consultants, subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

Under A.R.S. §35-394:

1. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.

   (a) Based in part on the fact that the entity does business in Israel or in territories controlled by Israel.
   (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.

2. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

In compliance with A.R.S. §§ 35-394 et seq., all offerors must select one of the following:

☐	The Company submitting this Offer does not use, and agrees not to use during the term of the contract, any of the following: • Forced labor of ethnic Uyghurs in the People's Republic of China; • Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or • Any Consultants, Subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.
☐	The Company submitting this Offer **does** participate in use of Forced Uyghurs Labor as described in A.R.S. § 35-394.
☐	**Exempt Consultant.** Indicate which of the following statements applies to this Consultant (may be more than one): D Consultant is a sole proprietorship; ☐ Consultant has fewer than ten (10) employees; and/or ☐ Consultant is a non-profit organization.

Company Name

Address

City **State** **Zip**

Signature of Person Authorized to Sign

Printed Name

Title

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5.0

EEO CLAUSE STATEMENT

AND

EEO CONTRACTOR EEO OFFICER

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EEO CLAUSE / STATEMENT
And
CONTRACTOR EEO OFFICER

CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS APRIL, 1969

The bidder/contractor hereby certifies that: (Mark One)

	Has participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114
OR	
	Has not participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114

And (Mark One)

	Has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.
OR	
	Has not filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

CONTRACTOR NAME	
CONTRACTOR EEO OFFICER NAME	
CONTRACTOR SIGNATURE	

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7b (1),) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt fro the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of $10,000 or under are exempt). Currently, Standard Form 10 (EEO-1) is the only report required by the Executive Orders or their implementing regulations. Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor

Information is available from: Joint Reporting Committee
P.O. Box 19100
Washington, D.C. 20036-9100

**Special Note: In 2025 President Trump rescinded Executive Order 11246. This form has been revised to remove identifying that you have or have not participated in a project related to Executive Order 11246.*

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6.0

PROMPT PAY PROVISIONS

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CONSTRUCTION AND PROFESSIONAL SERVICES/DESIGN CONTRACTS
PROMPT PAY AND PAYMENT REPORTING PROVISIONS

** FOR USE ON LPA FEDERAL AID PROJECTS **

(07/24/2023)

MEASUREMENTS AND PAYMENT:

(A) Partial Payments:

If satisfactory progress is being made, the contractor shall receive a payment based on the amount of work completed. Progress payments may be made by the LPA/Subrecipient Procurement Office to the contractor on the basis of an approved estimate of the work performed during a preceding period of time. The progress payments will be paid on or before 14 days after the estimate of the work is approved. The estimate of the work will be deemed received by the LPA/Subrecipient Procurement Office on submission to the person designated by the LPA/Subrecipient Procurement Office for the submission, review or approval of the estimate of the work. The LPA/Subrecipient Procurement Office by mutual agreement may make progress payments on contracts of less than 90 days and will make monthly progress payments on all other contracts. Payment to the contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under the contract may include payment for material and equipment.

An estimate of the work submitted will be deemed approved and certified for payment after seven days from the date of submission unless before that time the LPA/Subrecipient Procurement Office or Designee prepares and issues a specific written finding setting forth those items in detail in the estimate of the work that are not approved for payment under the contract. The contractor shall work with the LPA/Subrecipient or the LPA/Subrecipient Designee to finalize monthly estimate. The progress payments will be paid on or before 14 days after the estimate of the work is certified and approved in accordance with Arizona Revised Statutes Section 34-221.

The contractor shall pay to the contractor's subcontractors or material suppliers and each subcontractor shall pay to the subcontractor's subcontractor or material supplier, within seven days of receipt of each progress payment the respective amounts allowed the contractor or subcontractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest.

No contract for construction services may materially alter the rights of any contractor, subcontractor, or material supplier to receive prompt and timely payment.

A subcontractor may notify the LPA/Subrecipient Procurement Office in writing requesting that the subcontractor be notified by the Subrecipient Procurement Office in writing within five days from payment of each progress payment made to the contractor.

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(B) No Retainage on Progress Payments:

(1) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, the LPA/Subrecipient Procurement Office will not withhold retainage from progress payments. Neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.

(2) This provision does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:

(a) Delayed work;
(b) Work that is not satisfactorily performed; or
(c) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.

(C) Subcontractor Payments:

(1) No Retainage:

(a) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.

(b) Pursuant to Subsection (B)(2) of this Specification, the contract does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:

(i) Delayed work;
(ii) Work that is not satisfactorily performed; or
(iii) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.

(c) When the LPA/Subrecipient Procurement Office withholds retainage or reduces payments under Subsection (B)(2) of this Specification, the contractor may withhold retainage on progress payments to subcontractors or suppliers of any tier. However, the contractor may only withhold a reasonable amount of retainage.

(d) For the purpose of this section, a “reasonable amount” of retainage is based on the subcontractor’s involvement or the supplier’s involvement in the cause for the LPA/Subrecipient Procurement Office’s reduction of payment. The final amount retained from all subcontractors and suppliers shall not be higher than the amount retained by the LPA/Subrecipient. However, tier subcontracts shall include provisions that comply with this section.

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(2) No Set-offs Arising from Other Contracts:

If a subcontractor is performing work on multiple contracts for the same contractor or subcontractor of any tier, the contractor or subcontractor of any tier shall not withhold or reduce payment from its subcontractors on the contract because of disputes or claims on another contract.

(3) Partial Payment:

The contractor and each subcontractor of any tier shall make prompt partial payments to its subcontractors within seven days of receipt of payment from the LPA/Subrecipient Procurement Office. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(4) Final Payment:

The contractor and each subcontractor of any tier shall make prompt final payment to each of its subcontractors. The contractor and each subcontractor of any tier shall pay all monies, including retention, due to its subcontractor within seven days of receipt of payment. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(5) Payment Reporting:

For the purposes of this subsection “Reportable Contracts” means any subcontract, of any tier, DBE or non-DBE, by which work shall be performed on behalf of the contractor and any contract of any tier with a DBE material supplier.

The requirements of this subsection apply to all Reportable Contracts.

Payment Reporting for all Reportable Contracts shall be done through the LPA DBE System which can be accessed at AZ UTRACS on the Arizona Transportation Business Portal at www.azutracs.com. No later than fifteen calendar days after the preconstruction conference, the contractor shall log into the system and enter or verify the name, contact information, and subcontract amounts for Reportable Contracts on the project. As Reportable Contracts are approved over the course of the contract, the contractor shall enter the subcontractor information in the LPA DBE System. Reportable contracts information shall be entered into the system no later than five calendar days after approval by the LPA/Subrecipient Procurement Office.

The contractor shall report on a monthly basis indicating the amounts actually paid and the dates of each payment under any Reportable Contract on the project. The contractor shall provide information for payments made on all Reportable Contracts during the previous month by the last day of the current month. In the event that no payments were made during a given month, the contractor shall identify that by entering a dollar value of zero. If the contractor does not pay the full amount of any invoice from a subcontractor, the contractor shall note that and provide the reasons in the comment section of the Monthly Payment Audit of the LPA DBE System.

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In addition, the contractor shall require that all participants in any Reportable Contract electronically verify receipt of payment on the contract within 15 days of receipt of electronic payment notification and the contractor shall actively monitor the system to ensure that the verifications are input. The contractor shall proactively work to resolve any payment discrepancies in the system between payment amounts it reports and payment confirmation amounts reported by others.

The contractor shall ensure that all Reportable Contract payment activity is in the LPA DBE System. This includes all lower-tier Reportable Contracts.

The contractor shall maintain records for each payment explaining the amount requested by the subcontractor, and the amount actually paid pursuant to the request, which may include but are not limited to, estimates, invoices, pay requests, copies of checks or wire transfers, and lien waivers in support of the monthly payments in the system.

The contractor shall ensure that a copy of this Subsection is included in every Reportable Contract of every tier.

(a) Sanctions for Inadequate Reporting:

For each month that the contractor fails to submit timely and complete payment information the LPA/Subrecipient Procurement Office will retain $5,000 as sanctions from the monies due to the contractor. After 90 consecutive days of non-reporting, the sanctions will increase to $10,000 for each subsequent month which the contractor fails to report until the information is provided. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(6) Completion of Work:

A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted by the LPA/Subrecipient Procurement Office.

(7) Disputes*:*

If there is a discrepancy between what is reported by the contractor in the LPA DBE System and what the subcontractor indicates, an alert email will automatically be sent to the contractor. The email will be sent to the email address provided by the contractor in the LPA DBE System. It is the contractor’s responsibility to ensure that the email address in the system is kept current.

The contractor shall provide a verifiable explanation of the discrepancy in the LPA DBE System as early as practicable but in no case later than seven days after the date of the alert email.

The LPA/Subrecipient will determine whether the contractor has acted in good faith concerning any such explanations. The LPA/Subrecipient and ADOT BECO reserves the right to request and receive documents from the contractor and all subcontractors of any

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tier, in order to determine whether prompt payment requirements are met.

The contractor shall implement and use the dispute resolution process outlined in the subcontract or by following the LPA/Subcrecipient escalation process, to resolve payment disputes.

(8) Non-compliance:

Failure to make prompt partial payment, or prompt final payment including any retention, within the time frames established above, will result in remedies, as the LPA/Subrecipient Procurement Office deems appropriate, which may include but are not limited to:

(a) Sanctions**:** These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(i) The LPA/Subrecipient Procurement Office will withhold two times the disputed dollar amount not paid to each subcontractor.
(ii) If full payment is made within 30 days of the LPASubrecipient Procurement Office's payment to the contractor, the amount withheld by the LPA/Subrecipient Procurement Office will be released.
(iii) If full payment is made after 30 days of the LPA/Subrecipient Procurement Office's payment to the contractor, the LPA/Subrecipient Procurement Office will release 75 percent of the funds withheld. The LPA/Subrecipient Procurement Office will retain 25 percent of the monies withheld as sanctions.

(b) Additional Remedies. If the contractor fails to make prompt payment for three consecutive months, or any four months over the course of one project, or if the contractor fails to make prompt payment on two or more projects within 24 months, the LPA/Subrecipient Procurement Office may, in addition, invoke the following remedies:

(i) Withhold monthly progress payments until the issue is resolved and full payment has been made to all subcontractors, subject to the sanctions described in paragraph (a) above,
(ii) Terminate the contract for default,
(iii) Disqualify the contractor from future bidding, temporarily or
(iv) permanently, depending on the number and severity of violations, if applicable.

In determining whether sanctions will be assessed, the extent of the sanctions, or additional remedies assessed, the LPA/Subrecipient will consider whether there have been other violations on this or other contracts, whether the failure to make prompt payment was due to circumstances beyond the contractor's control, and other circumstances. The contractor may, within 15 calendar days of receipt of the decision of the LPA/Subrecipient, escalate the decision according to the contract's escalation process.

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7.0

TITLE VI

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City of Chandler
Title VI / Non-Discrimination Assurances
DOT Order No 1950.2A

The **City of Chandler** (herein referred to as the "Recipient"), HEREBY AGREES THAT, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through *Federal Highway Administration and Arizona Department of Transportation*, is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation--Effectuation Of Title VI Of The Civil Rights Act Of 1964);*
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda and/or guidance, the Recipient hereby gives assurances that it will promptly take any measures necessary to ensure that:

> *"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including the Federal Highway Administration.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its *Federal Aid Highway Program.*

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1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all *Federal Aid Highway Program* and, in adapted form, in all proposals for negotiated agreements regardless of finding source:

> *"The **City of Chandler**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252.42 U.S.C. §§ 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."*

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.

4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.

5. That where the Recipient receives Federal financial assistance to a construct a facility or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.

6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.

7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:

   a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
   b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project or program.

8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transference for the longer of the following periods:

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a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or

b. the period during which the Recipient retains ownership or possession of the property.

9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.

10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, *The* ***City of Chandler*** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing *Federal Highway Administration or Arizona Department of Transportation* access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the *Federal Highway Administration or Arizona Department of Transportation.* You must keep records, reports, and submit the material for review upon request to *Federal Highway Administration, Arizona Department of Transportation,* or its designee in timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The **City of Chandler** gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the *Federal Highway Administration and Arizona Department of Transportation.* This ASSURANCE is binding on Arizona, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the *Federal Aid Highway Program* the person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

City of Chandler
(Name of Recipient)

By _____ **DATED** 6/24/25

John Knudson
Public Works & Utilities Director

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APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, *Federal Highway Administration or the Arizona Department of Transportation,* as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performance by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient, the *Federal Highway Administration or Arizona Department of Transportation* to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation,* as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the *Federal Highway Administration or Arizona Department of Transportation*, may determine to be appropriate, including, but not limited to:

   a. withholding payments to the contractor under the contract until the contractor complies; and/or
   b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with request to any subcontract or procurement as the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation* may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

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APPENDIX B

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **City of Chandler** will accept title to the lands and maintain the project constructed thereon in accordance with *Title 23*, United States Code the Regulations for the Administration of *Federal Aid for Highways*, and the policies and procedures prescribed by the *Arizona Department of Transportation ,Federal Highway Administration and* the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252;42 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **City of Chandler** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the **City of Chandler** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **City of Chandler**, its successors and assigns.

The **City of Chandler**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [.] [and]* (2) that the **City of Chandler** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.

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APPENDIX C

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **City of Chandler** to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities,

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, The City of Chandler will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the **City of Chandler** and its assigns*.

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

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APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by the **City of Chandler** pursuant to the provisions of Assurance 7(b):

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will there upon revert to and vest in and become the absolute property of the **City of Chandler** and its assigns.*

Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

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APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.,* 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin): and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1687 et seq).

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8.0

DBE EPRISE

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CONSTRUCTION CONTRACTS
DBE PROVISIONS

** FOR USE ON LPA FEDERAL AID PROJECTS WITHOUT GOALS. **

(LPA EPRISE NO GOAL, 09/19/16)

DISADVANTAGED BUSINESS ENTERPRISES:

1.0 Policy:

The Arizona Department of Transportation (hereinafter the Department) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Department has received Federal financial assistance from the U.S. Department of Transportation and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Department to ensure that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in USDOT-assisted contracts. It is also the policy of the Department:

1. To ensure nondiscrimination in the award and administration of USDOT-assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts;
3. To ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are counted as DBEs;
5. To help remove barriers to the participation of DBEs in USDOT-assisted contracts;
6. To assist in the development of firms that can compete successfully in the market place outside the DBE program and;
7. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities.

It is also the policy of the Department to facilitate and encourage participation of Small Business Concerns (SBCs), as defined herein in USDOT-assisted contracts. The Department encourages contractors to take reasonable steps to eliminate obstacles to SBCs' participation and to utilize SBCs in performing contracts.

Local Public Agencies (LPA) and or Subrecipients of Federal financial assistance have adopted ADOT's DBE Program Plan, adhere to the Department's DBE policy and will administer and manage the contracts from advertising, consultant selection, negotiation, contract execution, processing payment reports and contract modifications, audits, DBE compliance (e.g., reporting and monitoring) through contract closeout.

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2.0 Assurances of Non-Discrimination:

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the LPA/Subrecipient, with the Department's concurrence, deems appropriate, which may include, but not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

3.0 Definitions:

(A) Commercially Useful Function (CUF): Commercially Useful Function is defined fully in 49 CFR 26.55 which definition is incorporated herein by reference.

(B) Disadvantaged Business Enterprise (DBE): a for-profit small business concern which meets both of the following requirements:

(1) Is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more such individuals; and,

(2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

(C) Joint Check: a two-party check between a subcontractor, DBE and/or non-DBE, a prime contractor and the regular dealer of material supplies.

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

(E) NAICS Code: The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the US business economy.

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(F) Non-DBE: any firm that is not a DBE.

(G) Small Business Concern: a business that meets all of the following conditions:

(1) Operates as a for-profit business;

(2) Operates a place of business primarily within the U.S., or makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor;

(3) Is independently owned and operated;

(4) Is not dominant in its field on a national basis; and

(5) Does not have annual gross receipts that exceed the Small Business Administration size standards average annual income criteria for its primary North American Industry Classification System (NAICS) code.

(H) Socially and Economically Disadvantaged Individuals: any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

(1) Any individual who is found to be a socially and economically disadvantaged individual on a case-by-case basis.

(2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

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

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

(iii) "Native Americans," which includes persons who are enrolled members of a federally or State recognized Indian tribe, Alaskan Natives or Native Hawaiians;

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

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

(vi) Women;

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

4.0 Working with DBEs:

The Department works with DBEs and assists them in their efforts to participate in the highway construction program. All bidders should contact the Department's Business Engagement and Compliance Office (BECO) by phone, through email, or at the address shown below, for assistance in their efforts to use DBEs in the highway construction program of the Department. BECO contact information is as follows:

Arizona Department of Transportation
Business Engagement and Compliance Office
1801 W. Jefferson Street, Room 101, Mail Drop 154A
Phoenix, AZ 85007
Phone (602) 712-7761
Email: LPAcontractorcompliance@azdot.gov
Website: www.azdot.gov/beco

4.01 Mentor-Protégé Program:

ADOT has established a Mentor-Protégé program as an initiative to encourage and develop disadvantaged businesses in the highway construction industry. The program encourages prime contractors to provide certain types of assistance to certified DBE subcontractors. ADOT encourages contractors and certified DBE subcontractors to engage in a Mentor-Protégé agreement under certain conditions. Such an agreement must be mutually beneficial to both parties and to ADOT in fulfilling the requirements of 49 CFR Part 23. For guidance regarding this program, refer to the Mentor-Protégé Program Guidelines available on the BECO website.

The Mentor-Protégé program is intended to increase legitimate DBE activities. But the program does not diminish the DBE rules or regulations, and participants may not circumvent these rules.

5.0 Applicability:

ADOT has established an overall annual goal for DBE participation on Federal-aid contracts. ADOT intends for the goal to be met with a combination of race conscious and race neutral efforts. Race conscious participation occurs where the contractor uses a percentage of DBEs, as defined herein, to meet the contract-specified goal. Race neutral efforts are those that are,

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or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, describes race neutral participation as when a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.

The DBE provisions are applicable to all bidders including DBE bidders.

6.0 Certification and Registration:

6.01 DBE Certification:

Certification as a DBE shall be predicated on:

(1) The completion and execution of an application for certification as a "Disadvantaged Business Enterprise".

(2) The submission of documents pertaining to the firm(s) as stated in the application(s), including but not limited to a statement of social disadvantage and a personal financial statement.

(3) The submission of any additional information which the Department may require to determine the firm's eligibility to participate in the DBE program.

(4) The information obtained during the on-site visits to the offices of the firm and to active job-sites.

Applications for certification may be filed online with the Department or one of its Unified Certification Program (UCP) partner agencies at any time through the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) website at www.azutracs.com.

DBE firms and firms seeking DBE certification shall cooperate fully with requests for information relevant to the certification process. Failure or refusal to provide such information is a ground for denial or removal of certification.

ADOT is a member of the AZ Unified Certification Program (AZUCP). Only DBE firms that are certified by the AZUCP are eligible for credit on ADOT projects. A list of DBE firms certified by AZUCP is available on the internet at www.azutracs.com. The list will indicate contact information and specialty for each DBE firm, and may be sorted in a variety of ways. However, ADOT does not guarantee the accuracy and/or completeness of this information, nor does ADOT represent that any licenses or registrations are appropriate for the work to be done.

The Department’s certification of a DBE is not a representation of qualifications and/or abilities; only that the firm has met the criteria for DBE certification as outlined in 49 CFR Part 26. The contractor bears all risks of ensuring that DBE firms selected by the contractor are able to perform the work.

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6.02 SBC Registration:

To comply with 49 CFR Part 26.39, ADOT's DBE Program incorporates contracting requirements to facilitate participation by Small Business Concerns (SBCs) in federally assisted contracts. SBCs are for-profit businesses authorized to do business in Arizona that meet the Small Business Administration (SBA) size standards for average annual revenue criteria for its primary North American Industry Classification System (NAICS) code.

While the SBC component of the DBE program does not require utilization goals on projects, the Department and the LPA/Subrecipient encourages contractors to utilize small businesses that are registered in AZ UTRACS on their contracts, in addition to DBEs meeting the certification requirement. The contractor may use the AZ UTRACS website to search for certified DBEs and registered SBCs that can be used on the contract. However, SBCs that are not DBEs will not be counted toward the DBE participation.

SBCs can register online at the AZ UTRACS website. The registration of SBCs is not a representation of qualifications and/or abilities. The contractor bears all risks of ensuring that SBC firms selected by the contractor are able to perform the work.

7.0 DBE Financial Institutions:

ADOT thoroughly investigates the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in its service area and makes reasonable efforts to use these institutions. ADOT encourages prime contractors to use such institutions on USDOT assisted contracts. However, use of DBE financial institutions will not be counted toward the DBE participation.

ADOT and the LPA/Subrecipient encourages prime contractors to research the Federal Reserve Board website at www.federalreserve.gov to identify minority-owned banks in Arizona derived from the Consolidated Reports of Condition and Income filed quarterly by banks (FFIEC 031 and 041) and from other information on the Board's National Information Center database.

8.0 Time is of the Essence:

TIME IS OF THE ESSENCE IN RESPECT TO THE DBE PROVISIONS.

9.0 Computation of Time:

In computing any period of time described in this DBE special provision, such as calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal or State holiday. In circumstances where the LPA/Subrecipient Procurement Office is closed for all or part of the last day, the period extends to the next day on which the LPA/Subrecipient Procurement Office is open.

10.0 Contractor and Subcontractor Requirements:

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10.01 General:

The contractor shall establish a DBE program that will ensure nondiscrimination in the award and administration of contracts and subcontracts.

Agreements between the bidder and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders are prohibited.

10.02 DBE Liaison:

The contractor shall designate a DBE Liaison responsible for the administration of the contractor's DBE program. The name of the designated DBE Liaison shall be included in the DBE Intended Participation Affidavit Summary.

11.0 Bidders/Proposers List and AZ UTRACS Registration Requirement:

Under Title 49 CFR of the Code of Federal Regulations, Part 26.11, DOTs are required to collect certain information from all contractors and subcontractors who seek to work on federally-assisted contracts in order to set overall and contract DBE goals. ADOT collects this information through a Bidders/Proposers List when firms register their companies on the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) web portal at www.azutracs.com a centralized database for companies that seek to do business with ADOT and the LPA/Subrecipient. This information will be maintained as confidential to the extent allowed by federal and state law.

Prime contractors and all subcontractors, including DBEs, must be registered in AZ UTRACS. Bidders may verify that their firm and each subcontractors is registered using the AZ UTRACS website.

Bidders may obtain additional information at the AZ UTRACS website or by contacting the LPA/Subrecipient.

Bidders shall create the Bidders/Proposers List in the AZ UTRACS by selecting all subcontractors, service providers, manufacturers and suppliers that expressed interest or submitted bids, proposals or quotes for this contract. The Bidders/Proposers List form must be complete and must include the names for all subcontractors, service providers, manufacturers and suppliers regardless of the bidders' intentions to use those firms on the project.

All bidders must complete the Bidders/Proposers List online at AZ UTRACS whether they are the apparent low bidder or not. A confirmation email will be generated by the system. The bidders shall submit to the LPA/Subrecipient a copy of the email confirmation no later than 4:00 p.m. on the fifth calendar day following the bid opening. Faxed copies are acceptable.

FAILURE TO SUBMIT THE REQUIRED BIDDERS/PROPOSERS LIST TO THE LPA/SUBRECIPIENT PROCUREMENT OFFICE BY THE STATED TIME AND IN THE

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MANNER HEREIN SPECIFIED SHALL BE CAUSE FOR THE BIDDER BEING DEEMED INELIGIBLE FOR AWARD OF THE CONTRACT.

12.0 DBE Goals:

The Department has not established contract goals for DBE participation in this contract. Contractors are still encouraged to employ reasonable means to obtain DBE participation. Contractors must retain records in accordance with these DBE specifications. The contractor is notified that this record keeping is important to the Department so that it can track DBE participation where only race neutral efforts are employed.

13.0 Payment Reporting:

The contractor shall report on a monthly basis indicating the amounts paid to all subcontractors, of all tiers, working on the project. Reporting shall be in accordance with Prompt Pay and Payment Reporting requirements section ____ of the contract specifications.

14.0 Crediting DBE Participation:

14.01 General Requirements:

To count toward DBE participation, the DBE firm must be certified in each NAICS code applicable to the kind of work the firm will perform on the contract. NAICS for each DBE can be found on the AZ UTRACS under the Firm Directory. General descriptions of all NAICS codes can be found at www.naics.com.

The entire amount of a contract that is performed by the DBE's own forces, including the cost of supplies and materials purchased by the DBE for the work on the contract and equipment leased by the DBE will be credited toward DBE participation. Supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate will not be credited toward DBE participation.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work.

The Department's certification is not a representation of a DBE's qualifications and/or abilities. The contractor bears all risks that the DBE may not be able to perform its work for any reason.

A DBE may participate as a prime contractor, subcontractor, joint venture partner with either a prime contractor or a subcontractor, or as a vendor of materials or supplies. A DBE joint venture partner shall be responsible for a clearly defined portion of the work to be performed, in addition to meeting the requirements for ownership and control.

The dollar amount of work to be accomplished by DBEs, including partial amount of a lump sum or other similar item, shall be on the basis of subcontract, purchase order, hourly rate, rate per ton, etc., as agreed to between parties.

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With the exception of bond premiums, all work must be attributed to specific bid items. Where work applies to several items, the DBE contracting arrangement must specify unit price and amount attributable to each bid item. DBE credit for any individual item of work performed by the DBE shall be the lesser of the amount to be paid to the DBE or the prime contractor's bid price. If the amount bid by the DBE on any item exceeds the prime contractor's bid amount, the prime contractor may not obtain credit by attributing the excess to other items.

Where more than one DBE is engaged to perform parts of an item (for example, supply and installation), the total amount payable to the DBEs will not be considered in excess of the prime contractor's bid amount for that item.

Bond premiums may be stated separately, so long as the arrangement between the prime contractor and the DBE provides for separate payment not to exceed the price charged by the bonding company.

DBE credit may be obtained only for specific work done for the project, supply of equipment specifically for physical work on the project, or supply of materials to be incorporated in the work. DBE credit will not be allowed for costs such as overhead items, capital expenditures (for example, purchase of equipment), and office items.

If a DBE performs part of an item (for example, installation of materials purchased by a Non-DBE), the DBE credit shall not exceed the lesser of (1) the DBE's contract or (2) the prime contractor's bid for the item, less a reasonable deduction for the portion performed by the Non-DBE.

When a DBE performs as a partner in a joint venture, only that portion of the total dollar value of the contract which is clearly and distinctly performed by the DBE's own forces can be credited.

The contractor may credit second-tier subcontracts issued to DBEs by non-DBE subcontractors. Any second-tier subcontract to a DBE must meet the requirements of a first-tier DBE subcontract.

A prime contractor may credit the entire amount of that portion of a construction contract that is performed by the DBE's own forces. The cost of supplies and materials obtained by the DBE for the work of the contract can be included so long as that cost is reasonable. Leased equipment may also be included. No credit is permitted for supplies purchased or equipment leased from the prime contractor or its affiliate(s).

When a DBE subcontracts a part of the work of its contract to another firm, the value of the subcontract may be credited towards DBE participation only if the DBE's subcontractor is itself a DBE and performs the work with its own forces. Work that a DBE subcontracts to a non-DBE firm does not count towards DBE participation.

A prime contractor may credit the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial

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services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

14.02 Effect of Loss of DBE Eligibility:

If a DBE is deemed ineligible (decertified) or suspended by the Department in accordance with 49 CFR 26.87 and 26.88, the DBE may not be considered to count toward DBE participation on a new contract, but may be considered to count toward DBE participation under a subcontract that was executed before the DBE suspension or decertification is effective.

When a DBE firm or a DBE prime contractor loses its DBE eligibility and a subcontract or contract has not been executed before a decertification notice is issued to the DBE firm by its certifying agency, the ineligible firm does not count toward DBE participation. When a subcontract is executed with the DBE firm before the Department notified the firm of its ineligibility, the contractor may continue to receive DBE participation credit for the firm's work on the contract.

14.03 Notifying the Contractor of DBE Certification Status:

Each DBE contract of any tier shall require any DBE subcontractor or supplier that is either decertified or certified during the term of the contract to immediately notify the contractor and all parties to the DBE contract in writing, with the date of decertification or certification. The contractor shall require that this provision be incorporated in any contract of any tier in which a DBE is a participant.

14.04 Police Officers:

DBE credit will not be permitted for procuring DPS officers. For projects on which officers from other agencies are supplied, DBE credit will be given only for the broker fees charged, and will not include amounts paid to the officers. The broker fees must be reasonable.

14.05 Commercially Useful Function:

A prime contractor can credit expenditures to a DBE subcontractor only if the DBE performs a Commercially Useful Function (CUF).

A DBE performs a CUF when it is responsible for execution of the work of a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself that it uses on the project. To determine whether a DBE is performing a commercially useful function, the LPA/Subrecipient will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with

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the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

A DBE will not be considered to perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the LPA/Subrecipient will examine similar transactions, particularly those in which DBEs do not participate.

If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the LPA/Subrecipient will presume that the DBE is not performing a commercially useful function.

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. The LPA/Subrecipient will determine if the firm is performing a CUF given the type of work involved and normal industry practices.

The LPA/Subrecipient will notify the contractor, in writing, if it determines that the contractor's DBE subcontractor is not performing a CUF. The contractor will be notified within seven calendar days of the LPA/Subrecipient's decision.

Decisions on CUF may be appealed to the ADOT BECO. The appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the ADOT BECO. The appeal must be received by the ADOT BECO no later than seven calendar days after the decision of LPA/Subrecipient. LPA/Subrecipient decision remains in effect unless and until ADOT BECO reverses or modifies LPA/Subrecipient decision. ADOT BECO will promptly consider any appeals under this subsection and notify the contractor of the ADOT BECO findings and decisions. Decisions on CUF matters are not administratively appealable to USDOT.

The LPA/Subrecipient will conduct project site visits on the contract to confirm that DBEs are performing a CUF. The contractor shall cooperate during the site visits and the LPA/Subrecipient staff will make every effort not to disrupt work on the project.

14.06 Trucking:

LPA/Subrecipient will use the following factors in determining whether a DBE trucking company is performing a commercially useful function. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract.

The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract on every day that credit is to be given for trucking.

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The contractor will receive credit for the total value of transportation services provided by the DBE using trucks it owns, insures and operates, and using drivers it employs.

The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks with drivers from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE leased trucks with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks with drivers receives credit only for the fee or commission paid to the DBE as a result of the lease agreement.

Example: DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks from non-DBE firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example: DBE Firm X uses two of its own trucks on a contract. It leases three additional trucks from non-DBE Firm Z. Firm X uses is own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all five trucks.

For purposes of this section, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE. Credit will be allowed only for those lease costs related to the time each truck is devoted to the project.

DBE credit for supplying paving grade asphalt and other asphalt products will only be permitted for standard industry hauling costs, and only if the DBE is owner or lessee of the equipment and trucks. Leases for trucks must be long term (extending for a fixed time period and not related to time for contract performance) and must include all attendant responsibilities such as insurance, titling, hazardous waste requirements, and payment of drivers.

14.07 Materials and Supplies:

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LPA/Subrecipient will credit expenditures with DBEs for material and supplies as follows. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies is credited. A manufacturer is defined as a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract, and of the general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies is credited. A DBE regular dealer is defined as a firm that owns, operates, or maintains a store or warehouse or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A firm may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, stone or asphalt without owning, operating, or maintaining a place of business, as provided above, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement, and not on an ad-hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph and the paragraph above.

With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the LPA/Subrecipient will credit the entire amount of the fees or commissions charged by the DBE for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE participation, provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted toward the DBE participation.

The LPA/Subrecipient will credit expenditures with DBEs for material and supplies (e.g. whether a firm is acting as a regular dealer or a transaction expediter) towards the DBE participation on a contract-by-contract basis. The fact that a DBE firm qualifies under a classification (manufacturer, regular dealer or supplier) for one contract does not mean it will qualify for the same classification on another contract. The bidder shall be responsible for verifying whether a DBE qualifies as a DBE manufacturer, regular dealer or supplier. The bidder may contact the LPA/Subrecipient for assistance in this determination.

15.0 Joint Checks:

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15.01 Requirements:

A DBE subcontractor and a material supplier (or equipment supplier) may request permission for the use of joint checks for payments from the prime contractor to the DBE subcontractor and the supplier. Joint checks may be issued only if all the conditions in this subsection are met.

1. The DBE subcontractor must be independent from the prime contractor and the supplier, and must perform a commercially useful function. The DBE subcontractor must be responsible for negotiating the price of the material, determining quality and quantity, ordering the materials, installing (where applicable), and paying for the material. The DBE subcontractor may not be utilized as an extra participant in a transaction, contract, or project in order to obtain the appearance of DBE participation.

2. The use of joint checks will be allowed only if the prime contractor, DBE subcontractor, and material supplier establish that the use of joint checks in similar transactions is a commonly recognized business practice in the industry, particularly with respect to similar transactions in which DBE's do not participate.

3. A material or supply contract may not bear an excessive ratio relative to the DBE subcontractor's normal capacity.

4. There may not be any exclusive arrangement between one prime and one DBE in the use of joint checks that may bring into question whether the DBE is independent of the prime contractor.

5. Any arrangement for joint checks must be in writing, and for a specific term (for example, one year, or a specified number of months) that does not exceed a reasonable time to establish a suitable credit line with the supplier.

6. The prime contractor may act solely as the payer of the joint check, and may not have responsibility for establishing the terms of the agreement between the DBE subcontractor and the supplier.

7. The DBE must be responsible for receiving the check from the prime contractor and delivering the check to the supplier.

8. The prime contractor cannot require the DBE subcontractor to use a specific supplier, and the prime contractor may not participate in the negotiation of unit prices between the DBE subcontractor and the supplier.

15.02 Procedure and Compliance:

1. BECO must approve the agreement for the use of joint checks in writing before any joint checks are issued. The prime contractor shall submit a DBE joint check request form,

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available from the BECO website, along with the joint check agreement, to LPA/Subrecipient and BECO through email within seven calendar days from the time the subcontract is executed.

2. After obtaining authorization from BECO for the use of joint checks, the prime contractor, the DBE, and the supplier must retain documentation to allow for efficient monitoring of the agreement by the LPA/Subrecipient.

3. Copies of canceled checks must be submitted, with the payment information for the period in which the joint check was issued, electronically through email to LPA/Subrecipient Procurement Office and made available for review at the time of the onsite CUF review. The prime contractor, DBE, and supplier each have an independent duty to report to the LPA/Subrecipient in the case of any change from the approved joint check arrangement.

4. Any failure to comply will be considered by the LPA/Subrecipient, with ADOT concurrence to be a material breach of this contract and will subject the prime contractor, DBE, and supplier to contract remedies and, in the case of serious violations, a potential for termination of the contract, or other remedies which may prevent future participation by the offending party.

16.0 Certification of Final DBE Payments:

DBE participation on the contract is measured by actual payments made to the DBEs. The contractor shall submit the “Certification of Final DBE Payments” form for each DBE firm working on the contract. This form shall be signed by the contractor and the relevant DBE, and submitted to the LPA/Subrecipient no later than 30 days after the DBE completes its work.

The contractor will not be released from the obligations of the contract until the “Certification of Final DBE Payments” forms are received and deemed acceptable by the LPA/Subrecipient.

17.0 False, Fraudulent, or Dishonest Conduct:

In addition to any other remedies or actions, the Department will bring to the attention of the US Department of Transportation any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take steps such as referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General for possible initiation of suspension and debarment proceedings against the offending parties or application of “Program Fraud and Civil Penalties” rules provided in 49 CFR Part 31.

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9.0

FHWA 1273

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REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

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within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

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(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

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2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

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(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

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mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

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(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

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IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

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2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

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excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

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ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

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10.0

BUY AMERICA

BUILD AMERICA / BUY AMERICA

MATERIAL CERTIFICATIONS

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CHANDLER arizona

BUY AMERICA
THE FINAL RULE, THE WAIVER, THE 55%, THE DATE DEADLINES

Project Name:	Lindsay Road Improvements	Federal Funds Obligation Date:	06-18-2025
Project Numbers:	ST2001-401 CHN0246D T024301C	Item No Below To Follow:	1
Agency Rep:	Janece Ray		

03/17/2025: FHWA FINAL RULE SIGNED - This has deadline phases for the Buy America Requirements.
The Final Rule amends FHWA's Buy America regulation to terminate FHWA's general waiver for manufactured products and establish Buy America requirements for manufactured products with respect to Federal-aid highway projects. The standards for applying Buy America to manufactured products are generally consistent with the Office of Management and Budget's (OMB) guidance implementing the Build America, Buy America Act (BABA) provisions of the infrastructure investment and Jobs Act (also known as the Bipartisan Infrastructure Law (BIL)).

Item Number below to be marked by Agency with applicable requirement (X=Applicable, na=Not Applicable)				
X jray	1	10/01/2025 Before this date	Federal funds officially obligated to Agency before this date.	**Waiver** is in effect
	2	10/01/2025 On and after this date (and before 10/01/2026	Federal funds officially obligated to the Agency.	**Final Assembly** requirements
	3	10/01/2026 On and after this date	Federal funds officially obligated to Agency from this date forward.	All manufactured products permanently incorporated into the project must meet both the F**inal Assembly** requirement and the **55% requirement**.

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DEFINITIONS / DETAILS

IRON/STEEL REQUIREMENTS;

FHWA is required, by statute, to ensure that all projects funded under Title 23 of the United States Code, use only steel, iron, and manufactured products that are produced in the United States. 23 U.S.C. 313, FHWA refers to these requirements as “Buy America” requirements. FHWA’s Buy America requirement for manufactured products mandates that all such products used on Federal aid projects must be ‘produced in the United States.”. 23 U.S.C. 313 The Buy America requirements for manufactured products has existed in some form since the enactment of the Surface Transportation Assistance Act of 1978.

THE WAIVER

In 1983 following the passage of the 1982 STAA, FHWA determined that it would be in the public interest to waive the Buy America requirements for manufactured products, with that waiver knows as the “Manufactured Products General Waiver”. Under the Manufactured Products General Waiver, manufactured products that were permanently incorporated into Federal-aid projects did not need to be produced domestically (in the US) apart from predominantly iron or steel components of manufactured products. The ’waiver’ does not apply to Iron and Steel.

:

FINAL ASSEMBLY – effective 10/01/2025:

Defined as an article, material, or supply that has been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. **IF, however, an article, materials, or supply meets this definitation BUT Could also be classified as an iron ro steel product, excluded material, or other product category as specified by law or in 2 CFR part 184, that article, materials, or supply is not a manufactured product.

FINAL RULE AND THE 55 PERCENT REQUIREMENT – effective 10/01/2026

Through this rule, FHWA is establishing specific dates on which the Manufactured Products General Waiver will be terminated and is amending its Buy America regulation at 23 CFR 635.410 to establish standards regarding Buy America requirements that will apply to manufactured products on Federal aid projects. These standards are substantially similar to those stablished by OMG that apply to manufactured products subject to “BABA”. This means that to be considered “Produced in the United States”, and therefore Buy America-compliant, manufactured products must be manufactured in the United States (“final assembly requirement” and have greater than 55% of the manufactured products components by cost, be mined, produced, or manufactured in the United States.

ON OR AFTER 10-01-2025 (AND BEFORE 10/01/2026)

FHWA requirement that the final assembly requirement will become effective for Federal aid projects obligated on or after 10-01-2025.

ON OR AFTER 10/01/2026

All manufactured products permanently incorporated into the project must both be manufactured in the United States and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55percent of the total cost of all components of the manufactured product.

Reference:
Federal Highway Administration
Federal Register / Buy America Requirements
Title 23 U.S.C.
OMB (Office of Management and Budgets)
Surface Transportation Assistance Act of 1978 (1978 STAA) and Act of 1982 (1982 STAA)
Public Law 95-599 (1978)
Public Law 97-424 (1983)
48 FR 1946 (Jan 17,1983)
48 FR 63099 (Nov 25,1983)
2 CFR Part 184
NPRM (Notice of Proposed Rulemaking – a formal announcement by a U.S. Federal Agency)

https://www.fhwa.dot.gov/construction/cqit/buyam.cfm
https://www.federalregister.gov/documents/2025/01/14/2024-31350/buy-america-requirements-for-manufactured-products

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BUY AMERICA / BUILD AMERICA BUY AMERICA / MATERIAL CERTIFICATION REQUIREMENTS
For City of Chandler Federal Funded Projects Per FHWA

The City of Chandler will follow Buy America requirements and the Build America Buy America requirements.

A. REGULATIONS

1. FHWA - BUY AMERICA AND THE NEW BUILD AMERICA, BUY AMERICA REGULATION EFFECTIVE NOVEMBER 1, 2022.

https://www.transportation.gov/sites/dot.gov/files/docs/buy_america_provisions_side_by_side.pdf)
Federal Highway Administration (FHWA) - 23 U.S.C. § 313 – Buy America; 23 C.F.R. § 635.410

The Secretary of Transportation shall not obligate any funds unless steel, iron, and manufactured products used In such project are produced in the United States.

2. MAG SPECIFICATION SECTION 106.2.1

3. ADOT SPECIFICATION 106, 106.05 AND 106.15

B. PROCEDURE FOR MATERIAL CERTIFICATION REQUIREMENTS – CITY OF CHANDLER

1. All material for a federal funded project must have a material certification.
2. All material delivered to jobsite must be accompanied by a material certification.
3. Material Certifications must be submitted to the City of Chandler representative for review and approval and is not deemed accepted until City of Chandler representative approval.
4. Buy America Material – All Iron and Steel products. (See Item A above)
5. Buy America Material Installation: All Buy America Iron and Steel Products **MUST NOT be installed without Material Certification received and approval from City of Chandler.**
6. All non-Buy America Material Installation: All non-Buy America material, if installed without material certification receipt and approval is at the Prime Contractor's risk and WILL NOT BE PAID until approval of material certification for that material.

C. MATERIAL CERTIFICATIONS – Every Material Certification must have the following– Items 1-11

1. Project Name
2. City Project Number
3. Federal Project Number
4. ADOT Number (previously known as Tracs Number) (if FHWA funded project)
5. Supplier Information: Name, Address, Telephone Number
6. Description of the material supplied
7. Quantity of material represented by the certificate
8. Means of material identification, such as label, lot number, or marking
9. A Statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.
10. Authorization Signature Statement: A statement that the individual signing has the legal authority to bind the manufacturer or the supplier of the material.
11. The name, title, signature, and date of signature of the signing-responsible individual.
12. Statement that that Federal Requirements for Buy America / BABA have been followed.

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ADOT SPECIFICATION – BUILD AMERICA BUY AMERICA (106CMATLS, 10-20-22)

SECTION 106 CONTROL OF MATERIALS: of the Standard Specification is modified to add:

106.17 Construction Materials

A construction material, when used on a federal-aid construction project shall comply with the requirements of Build America Buy America (BABA) Act specific in Title IX, Subtitle A, Part 1, Sections 70901 and 70911-70918 of the Infrastructure Investment and Job Act (ILJA).

A 'construction material' that is permanently incorporated on the project shall include an article, material, or supply that is or consists primarily of the following:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall

Items manufactured through a combination of either two or more materials listed above, or at least one of the materials list above and a material not listed shall be considered as a manufactured product, rather than as a construction material.

Build America Buy America provisions specified for manufactured products in Section 70912(6)(B) of the ILJA, do not apply to federal-aid construction projects per FHQWA's existing statutory requirement applicable to manufactured products. A "manufactured product' is considered to be an item that undergoes one or more manufacturing processes before the item can be used on a federal-aid construction project.

Construction materials shall not include cement and cementitious materials; bituminous materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

All construction materials shall be produced in the United States. This means, all manufacturing processes to produce the construction materials shall occur in the United States. All manufacturing processes for construction materials shall mean the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

The contractor shall furnish the Engineer with Certificate of Compliance, conforming to the requirements of Subsection 106.05 of the ADOT specifications, which shall state that the construction materials incorporated in the project meet the requirements specified herein.

Certificates of Compliance shall also certify that all manufacturing processes to produce construction materials occurred in the United States.

Convict-produced materials are prohibited in accordance with the requirements of 23 CFR 635.417.

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Bipartisan Infrastructure Law – Build America, Buy America Act

Questions and Answers

Updated 2/1/2023

Except for any statutes and regulations cited, the contents of this document do not have the force and effect of law and are not meant to bind States or the public in any way. This document is intended only to provide clarity regarding existing requirements under the law or agency policies.

1. What does the Build America, Buy America Act (BABA or the Act) require?

The BABA, part of the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act, Pub. L. 117-58 (Nov. 15, 2021), establishes several procedural and substantive requirements with respect to Buy America.

The procedural requirements under BABA, generally focused on Buy America implementation, include requirements for agencies to review existing Buy America preference requirements, submit reports to the Office of Management and Budget (OMB) and to Congress, review waivers of general applicability, and coordinate with the Made in America Office (MIAO) within OMB in the processing of waivers. See BABA Sections 70913(a) and (b); 70914(d); and 70923(b).

The substantive requirements under BABA include a Buy America preference that all Federal agencies must apply to any Federal financial assistance program for infrastructure that is not already subject to existing Buy America requirements for the relevant categories. See BABA Sections 70914(a) and 70917(a).

2. Do FHWA's existing requirements for steel/iron items and manufactured products continue to apply?

Yes. BABA Section 70917(a) provides that the Buy America requirements under Section 70914 apply only to the extent that Federal agencies do not already apply a Buy America preference as described in Section 70914 to steel, iron, manufactured products, and construction materials. This provision clarifies that Section 70914 of the Act does not supplant FHWA's existing Buy America policies and provisions that meet or exceed the standards required by the Act, such as its requirements for iron and steel under 23 U.S.C. 313. BABA Section 70914(d) also provides a process for reviewing existing waivers of general applicability, such as FHWA's general waiver for manufactured products.

3. Does BABA require the application of Buy America to any new categories of products for Federal-aid highway projects?

Yes. BABA Section 70914(a) requires FHWA to extend coverage of Buy America to "construction materials." Since 23 U.S.C. 313 does not specifically apply to construction materials, the BABA requirements for construction materials apply to Federal-aid highway projects.

Contact

- **Edwin Okonkwo**
  Office of Preconstruction, Construction and Pavements
  202-366-1558
  E-mail Edwin

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4. What guidance is available concerning the application of Buy America to construction materials?

On April 18, 2022, OMB issued Memorandum M-22-11 titled "Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure." The Memorandum provides initial guidance on the implementation of BABA, including preliminary guidance addressing the requirement at BABA Section 70915(b) for OMB to define the term "all manufacturing processes" for construction materials. This Memorandum can be found at: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf.

5. When did the BABA requirement for construction materials become effective on Federal-aid highway projects?

BABA Section 70914(a) provided that the new domestic preference requirements (including the requirement for construction materials) would become effective on May 14, 2022, which is 180 days after the date of enactment of the Act. However, DOT also issued a temporary transitional waiver of the BABA construction materials requirement to allow a reasonable adjustment period for recipients of DOT financial assistance — including States, local communities, Tribal nations, and industrial vendors — to develop and transition to new compliance and certification processes for construction materials. See https://www.transportation.gov/regulations/temporary-waiver-buy-america-requirements-construction-materials. The Temporary Construction Materials Waiver is applicable to awards that were obligated on or after May 14, 2022, and before November 10, 2022.

6. What is a construction material?

According to preliminary guidance in OMB Memorandum M-22-11, "construction materials" includes an article, material, or supply — other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives — that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

7. What are the Buy America standards that apply to the manufacturing process for construction materials?

According to OMB Memorandum M-22-11, pending issuance of final standards, agencies should consider "all manufacturing processes" for construction materials to include at least the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

OMB Memorandum M-22-11 is preliminary guidance. OMB has sought additional stakeholder input and will be issuing further guidance identifying which products should be considered construction materials and the manufacturing processes that should be considered as part of "all manufacturing processes" for those products. FHWA plans to issue updated guidance once OMB has finalized its guidance.

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11.0

EEO FEDERAL NOTIFICATIONS

-

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NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

(EXECUTIVE ORDER 11246)

JULY 1, 1979 (Revised November 3, 1980)

(Revised April 15, 1981)

1. The bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered areas, are as follows:

	Minority	Female
Tucson & Balance of Pima County	24.1	6.9
Cochise, Graham, Greenlee &Santa Cruz Counties	27.0	6.9
Phoenix and Balance of Maricopa County	15.8	6.9
Apache, Coconino, Gila, Mohave, Navajo, Pinal, Yavapai, and Yuma Counties	19.6	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in all areas where the contractor has Federal or federally assisted work.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE REPORTS

(Project, Training and Annual)

Federal-Aid Projects

February 1, 1977; Revised July 1, 1978; Revised November 3, 1980
Revised April 15, 1981; Revised September 7, 1983
Revised October 15, 1998; Revised August, 1, 2005;
Revised March 1, 2015, Revised August 24, 2016

ANNUAL REPORT:

For each contract in the amount of $10,000 or more, and for each subcontract, regardless of tier not including material suppliers, in the amount of $10,000 or more, the contractor and each subcontractor regardless of tier shall submit an annual Equal Employment Opportunity (EEO) Report containing all the information required on Form FHWA-1391.

The staffing figures to be reported should represent the project workforce on board in all or any part of the last payroll period preceding the end of July.

The report shall be submitted no later than August 15 to the City of Chandler federal compliance officer.

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Executive Order 2009-09

PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT CONTRACTORS AND SUBCONTRACTORS

Superseding Executive Order 99-4 and Amending Executive Order 75-5

WHEREAS, Executive Order 99-4 was effectuated to assure that persons or entities contracting with the State of Arizona or its political subdivisions comply with the provisions of Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e, et. seq.) and with Arizona's Civil Rights Act (Title 41, Chapter 9, Article 4);

WHEREAS, Executive Order 99-4 correctly states that various religious organizations are exempted from Arizona's Civil Rights Act;

WHEREAS, Executive Order 99-4 does not expressly state the federal and state exemptions for Indian tribes under both the federal and State Civil Rights Acts;

WHEREAS, 42 U.S.C. § 200e(b)(1) exempts tribes from the definition of employer;

WHEREAS, A.R.S. § 41-1461 4 (b)(i) also exempts Indian tribes from the definition of employers to whom the Arizona Civil Rights Act applies;

WHEREAS, Indian tribes across the State have recently begun to experience difficulty contracting with the State, often for money or services to which they are lawfully entitled, as a result of their exclusion from specified exemptions within Executive Order 99-4;

WHEREAS, the Attorney General's Office has in some cases interpreted the existing provisions as requiring tribes to waive rights guaranteed by both federal and State law;

WHEREAS, a modification is necessary to expressly provide that the exemptions found in federal and State law continue in full force and effect;

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of this State, hereby order and direct as follows:

1. Executive Order 75-5 is hereby amended as follows:

PART I - Non-discrimination in employment by government contractors and subcontractors.

Unless otherwise exempted by federal or state civil rights laws, all government contracting agencies shall include in every government contract hereinafter entered into the following provisions:

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

A. The Contractor will not discriminate against any employee or applicant for employment because of race, age, color, religion, sex, or national origin. The contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, age, color, religion, sex or national origin. Such action shall include, but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or

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termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

A continued Executive Order No. 75-5 is hereby amended to permit government contractors and subcontractors that are exempted from compliance under Title 41, chapter 9, article 4, Arizona Revised Statutes or 42 U.S.C. § 200e(b)(1), to provide employment preferences consistently with federal and state statutes;

Therefore, Executive Order 75-5 does not apply to Indian tribes. It likewise does not apply to religious organizations with respect to the employment of individuals of a particular religion to perform work connected with the activities of the employer. It also provides that religious organizations may provide employment preferences based upon religion when dealing with a bona fide occupational qualification reasonably necessary to the operation of the religious organization. This is consistent with the provisions of the Civil Rights Act of 1964 (42 U.S.C. 2000e, et seq.). In addition, in the Personal Responsibility and Work Opportunity Reconciliation Act, P.L. 104-193, Congress provided that religious organizations are eligible for the receipt of federal funds on the same basis as other private organizations.

Executive Order No. 75-5 prohibits all other government contractors and subcontractors from discriminating against any employee or applicant for employment because of race, age, color, religion, sex or national origin. Executive Order No. 75-5 further requires all government contractors and subcontractors to take action to insure that applicants are employed and employees are treated during employment without regard to their race, age, color, religion, sex or national origin.

B. The contractor will in all solicitations or advertisement for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard of race, age, color, religion, sex or national origin.

C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under the Executive Order and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

D. The contractor will furnish all information and reports required by the contracting agency and will permit access to his books, records. and accounts by the contracting agency and the Civil Rights Division for purposes of investigation to ascertain compliance with such rules, regulations and orders.

E. In the event of the contractor's noncompliance with the nondiscrimination clauses of the contract or with any such rules, regulations or orders of the Arizona Civil Rights Division said noncompliance will be considered a material breach of the contract and this contract may be cancelled, terminated or suspended, in whole or in part, and the contractor may be declared ineligible for future government contracts until said contractor has been found to be in compliance with the provisions of this order and the rules and regulations of the Arizona Civil Rights Division, and such sanctions may be

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imposed and remedies invoked as provided in Part II of this order, and the rules and regulations of the Arizona Civil Rights Division.

F. The contractor will include the provisions of paragraphs A through E in every subcontractor purchase order so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to the subcontract or purchase orders the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a subcontractor or vender as a result of such direction by the contracting agency, the contractor may request the State of Arizona to enter into such litigation to protect the interest of the Sate of Arizona.

G. Each contractor having a contract containing the provisions prescribed in this section shall file and shall cause each of his subcontractors to file compliance reports with the contracting agency or the Civil Rights Division, as may be directed. Compliance reports shall be filed within such times and shall contain such information as the practices, policies, programs and employment policies, programs and employment statistics of the contractor and each subcontract and shall be in form as the Arizona Civil Rights Division may prescribe.

H. Bidders or prospective contractors of subcontractors shall be required to state whether they have participated in any previous contract subject to the provisions of this order or any preceding similar Executive Order and in such event to submit on behalf of themselves and the proposed subcontractors compliance reports prior to, or as an initial part of negotiation of a contract.

I. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers of providing or supervising apprenticeship or training for such workers, the compliance report shall include such information from such labor unions or agency practices an policies affecting compliance as the contracting agency or Civil Rights Division may prescribe: provided that, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.

J. The contracting agency or the Civil Rights Division shall require that the bidder or prospector contractor or subcontractor shall submit as part of his compliance report a statement in writing signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training with which the bidder or prospective contractor deals with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions

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of employment under the proposed contract shall be in accordance with the purpose and provisions of this order. In the event that the union or the agency shall refuse to execute such a statement, the compliance shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Civil Rights Division may require.

PART II - Enforcement

A. Each contracting agency shall be primarily responsible for obtaining compliance with this Executive Order with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Civil Rights Division in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and the rules and regulations and orders of the Civil Rights Division issued pursuant to this order. They are directed to cooperate with the Civil Rights Division and to furnish the Division such information and assistance as it may require in the performance of the Division's functions under this order. They are further directed to appoint or designate from among the agency personnel compliance officers. It shall be the duty of such officers to first seek compliance with the objective of this order by conference, conciliation, mediation or persuasion.

B. The Civil Rights Division may investigate the employment practices of any government contractor if subcontractor of initiate such investigation by the appropriate contracting agency or determine whether or not the contractual provisions specified in this order have been violated. Such investigations shall be conducted in accordance with the procedures established by the Civil Rights Division and the investigating agencies shall report to the Civil Rights Division any action taken or recommended. The Civil Rights Division may receive and investigate or cause to be investigated complaints by employees or prospective employees of a government contractor or subcontractor which alleges discrimination contrary to the contractual provisions specified in Part I of this order. If the investigation is conducted for the Civil Rights Division by a contracting agency, that agency shall report to the Civil Rights Division what action has been taken or it's recommendation with regard to such complaint.

C. The Civil Rights Division shall use its best efforts directly and through contracting agencies, other interested state and local agencies, contractors and all other available instrumentalities to cause any labor union engaged in work under government contracts or any agency referring workers or providing or supervising apprenticeship or training for it in the course of such work or cooperate in the implementation of the purposes of this order.

D. The Civil Rights Division or any agency, officer or employee in the executive branch of the government designated by rule, regulation or order of the Civil Rights Division may hold such hearings, public or private, as the Division may deem advisable for compliance, enforcement of educational purposes. The Civil Rights Division may hold or cause to be held hearings in accordance with rules and regulations issued by the Civil Rights Division prior to imposing, ordering or recommending the imposition of penalties and sanctions under this order.

E. No order for debarment of any contractor from further government contracts under this order shall be made without affording the contractor an opportunity for a hearing.

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F. Sanctions and Penalties. In accordance with such rules, regulations or orders as the Civil Rights Division may issue or adopt, the Civil Rights Division or the appropriate contracting agency may publish or cause to be published the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order and with the rules, regulations and orders of the Civil Rights Division.

1. Contracts may be cancelled, in whole or in part, terminated, or suspended absolutely, or continuation of contracts may be conditioned upon a program for future compliance approved by the contracting agency or the Civil Rights Division: provided that any contracting agency shall refrain from entering into further contracts, extensions or other modifications of existing contracts with any noncomplying contractor until such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.

2. Under rules and regulations prescribed by the Civil Rights Division, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation and persuasion before proceedings shall be instituted under this order of before a contract shall be cancelled or terminated in whole or in part under this order for failure of a contractor or subcontractor to comply with the contract provisions of this order.

G. This Executive Order shall become effective immediately of its issuance.



IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.

Janice K. Brewer

GOVERNOR

DONE at the Capital in Phoenix, Arizona this 20th day of October In the Year Two Thousand and Nine and of the Independence of the United States of America the Two Hundred and Thirty-Third.

ATTEST:

Ken Bennett

SECRETARY OF STATE

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12.0

FEDERAL IMMIGRATION AND NATIONALITY ACT

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Federal Immigration and Nationality Act
(Reference to Arizona Executive Order 2005-30)

The contractor, including all subcontractors, shall comply with all federal, state and local immigration laws and regulations, as set forth in Arizona Executive Order 2005-30, relating to the immigration status of their employees who perform services on the contract during the duration of the contract. The Agency (City of Chandler) shall retain the right to perform random audits of contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance.

By submission of a bid, the contractor warrants that the contractor and all prosed subcontractors are and shall remain in compliance with all federal, state, and local immigration laws and regulations relating to the immigration status of their employees who perform services on the contract. The Agency may, at its sole discretion, require evidence of compliance from the contractor or subcontractor. Should the Agency request evidence of compliance, the contractor or subcontractor shall have ten (10) working days from receipt of the request to supply adequate information. The Department and Agency (City of Chandler) will accept, as evidence of compliance, a showing by the contractor or subcontractor, that it has followed the employment verification provisions of the Federal Immigration and Nationality Act as set forth in Sections 274A and 274B of that Act, including implementation of regulations and agreements between the Department of Homeland Security and the Social Security Administration's verification service. The contractor shall include the requirements of this provision in all subcontracts for this project.

Failure to comply with the immigration laws or to submit proof of compliance constitutes a material breach of contract. The Agency will recue the contractor's compensation by $10,000 for the initial instance of non-compliance by the contractor or a subcontractor. Should the same contractor or subcontractor commit subsequent violations within a two (2) year time period from the initial violation, the contractor's compensation will be reduced by $50,000 for each violation. The third instance by the same contractor or subcontractor within a two (2) year period may result, in addition to the $50,000 reduction in compensation, in removal of the offending contractor of subcontractor, suspension of work in whole or in part or, in the case of a third violation by the contractor, termination of the contract for default in addition, the Department may debar a contractor or subcontractor who has committed three (3) violations within a two (2) year period for up to one (1) year. For purposes of this paragraph, a violation by a subcontractor does not count as a violation by the contractor.

Any delay resulting from a sanction under this subsection is a non-excusable delay. The contractor is not entitled to any compensation or extension of time for any delays or additional costs resulting from a sanction under this subsection.

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13.0

RECORDS RETENTION

CONTRACTOR/SUBCONTRACTOR RECORDS

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RECORDS RETENTION

Contractor and Subcontractor Project Records

(Reference to A.R.S.35-214)

The contractor, subcontractors and all suppliers shall keep and maintain all books, papers, records, files, accounts, reports, bid documents with backup data, including electronic data, and all other material relating to the contract and project for five (5) years following completion and acceptance of the work.

All of the above material shall be made available for auditing, inspection, and copying and shall be produced upon request to the Agency.

The City of Chandler – Capital Projects
215 E Buffalo Street, Mail Stop 407
Chandler, Arizona 85225.

The contractor shall insert the above requirement in each subcontract purchase order and lease agreement and shall also include in all subcontracts, a clause requiring subcontractors to include the above requirement in any lower-tier subcontract, purchase order, or lease agreement.

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14.0

ENERGY EFFICIENCY PROVISION

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ENERGY EFFICIENCY – FEDERAL PROVISION

Federal Code of Regulations – 42 U.S.C. 3701-3708

(H) Mandatory standards and policies relating to energy efficiency which are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act 42 U.S.C. 6201.

FHWA Requirements: If the State has an Energy Efficiency Plan, the project must adhere to the State's Energy Efficiency Plan and requirements.

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15.0

WARRANTY

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WARRANTY – FEDERAL PROVISION

THERE WILL BE NO WARRANTY PERIOD ON THIS CONTRACT/PROJECT BEYOND THE DATE OF THE FINAL ACCEPTANCE BY THE CITY TO THE PRIME CONTRACTOR.

Reference:
Federal Code of Regulations – 635.413

(a) Warranty provisions shall be for a specific construction product or feature. Items of maintenance not eligible for Federal participation shall not be covered.

(b) All warranty requirements and subsequent revisions shall be submitted to the Division Administrator for advance approval.

(c) No warranty requirement shall be approved which, in the judgement of the Division Administrator, may place an undue obligation on the contractor for items over which the contractor has no control.

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16.0

JOBSITE POSTERS REQUIREMENTS

(Reference Guide Only)

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CONSTRUCTION JOB SITE POSTERS BOARD REQUIREMENTS –FHWA
CITY WILL WORK WITH CONTRACTOR DURING STARTUP

Date		Project Name	
Checked by		Project Numbers	

	Must have a Project Jobsite Poster Board
	Location – must be located away from Management View
	Must be updated if weather damaged

Item	English-1	Spanish-2	Poster Title
1			Employee Rights Under Davis Bacon for Laborers & Mechanics Act – (WH1321) 10-2017
2			Minimum Wage Jobsite Poster – Arizona 01-2025
2B			Minimum Wage FEDERAL – 04-2023 ****MAY NOT BE REQUIRED – CITY WILL COMMUNICATE**
3			Employee Rights Under the Employee Polygraph Protection Act – (WH1462) 02-2022
4			Employee Rights Under the Family Medical Leave Act – (WHD1420) 04-2023
5			Employee Rights Under the National Labor Relations Act (Exec Order 13496) ******MUST BE 11X17 or 2-page version as 8.5x11*** 2022-05-02***
6			EEO Know Your Rights Discrimination 2023-06-27 - (**replaces EEO Law and Law Supplement posters)*
7			EEO – Contractor EEO Policy Statement (comes with bid / contract) *******COC combines 8a and 8b into 1*** ***By putting a statement at the bottom of the EEO Policy Statement to put EEO Officer name***. 2024-01-09
8			Pay Transparency Nondiscrimination Provision (Exec Order 11246) 12-2016
9			USERRA - Your Rights Under USERRA – Uniformed Services Employment 05-2022
10			OSHA Job Safety - Safe Work-Place – 2019 ***OSHA ***states must be at least 8.5x14 (can be 11x17)***
11			FHWA 1022 Fraud - 05-2015 "Notice"
12			Arizona Workers' Compensation Law (English/Spanish all on one) NO Date
13			Unemployment Insurance AZ 02-2025 (POU-003)
14			Fair Wages Earned Paid Sick Time 07-01-2017 AZICA has no date on the poster
15			Title VI – (English/Spanish/Chinese)
16			FHWA 1273 – Contract Provisions for Federal Aid Construction Contracts (Pink Sheets) 10-23-2023
17			Davis Bacon Wage Decision
18			DURING CONSTRUCTION: Added Classifications List (if applicable)

No 1 Poster copy to have the following information in the blank boxes at the bottom.

CITY OF CHANDLER	CIUDAD DE CHANDLER
TEL: 480-782-3335	Tel: 480-782-3335
215 E. Buffalo St, PO Box 4008, MS407	215 E Buffalo St, PO Box 4008, MS407
Chandler, AZ 85244	Chandler, AZ 85244

No 5 Employee Rights Under the National Labor Relations Act:
Size requirement options are that you must post as 11x17 or you may use two-page format of 8.5x11's .

No 07 This EEO Clause/Statement was in bid/submitted with bid. Contractor and/or City can provide.

No 11 FHWA 1022 Fraud – Information to add:

Under "State Highway Department"	Under "Federal Highway Administration":
Arizona Department of Transportation	4000 N Central Ave, #1500
Deputy State Engineer	Phoenix, AZ 85012
206 S 17th Ave, Phoenix, AZ 85007	

No 13 Under Arizona DES site - type in POU-003 and jobsite poster will come up

No 15 This is a "City of Chandler specific" federal required poster. City of Chandler will provide this poster.

No 17 Davis Bacon Wage Decision is project specific. ONLY post the contract specific wage decision

No 18 Davis Bacon Wage Decision has a last page that is blank – use this page to attach when Wage Classifications Have been added/approved.

Courtesy - Web Site Links for Posters

https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm (posters at this site are: 1,3,4,6,8, 9,10,11)
https://www.fhwa.dot.gov/construction/cqit/ (16)
https://www.sam.gov (17)
https://www.dol.gov/agencies/olms/poster/labor-rights-federal-contractors (5)
https://www.dol.gov/agencies/whd/posters (4,2C, 1)
https://www.dol.gov/sites/dolgov/files/VETS/files/USERRA-Poster.pdf (9)
https://www.azica.gov/claims-workers-compensation-compliance-poster (12, 14)
https://des.az.gov/sites/default/files/legacy/dl/POU-003.pdf (13)
https://www.laborposters.org/arizona/16-arizona-minimum-wage-spanish-poster.htm (2A.2)
https://www.dol.gov/agencies/whd/government-contracts/eo14026 (2b)

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17.0

DAVIS BACON WAGE DECISION

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"General Decision Number: AZ20250045 09/12/2025

Superseded General Decision Number: AZ20240045

State: Arizona

Construction Type: Highway

County: Maricopa County in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	• Executive Order 14026 generally applies to the contract. • The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	• Executive Order 13658 generally applies to the contract. • The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	06/06/2025
2	08/29/2025

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CARP1912-003 07/01/2024

	Rates	Fringes
Carpenter, Excludes Formwork Concrete	$ 35.89	14.98

ENGI0012-046 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Bulldozer	$ 35.56	18.12

ENGI0012-053 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Tractor	$ 35.56	18.12

ENGI0012-063 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Oiler	$ 32.29	18.12

ENGI0012-065 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Field Equipment Serviceperson	$ 35.56	18.12

ENGI0012-066 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Backhoe/Backhoe & Loader Combo/Track Backhoe	$ 35.56	18.12

ENGI0012-069 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Loader/Front End Loader	$ 35.56	18.12

ENGI0012-070 12/01/2024

	Rates	Fringes
TRUCK DRIVER		
Off Road Truck	$ 35.56	18.12

ENGI0012-071 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		

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Crane/Derrick	$ 36.64	18.12

ENGI0012-072 12/01/2024

	Rates	Fringes
Power Equipment Operator:		
Excavator/Trackhoe		
1/2 cubic yard or smaller	$ 35.56	18.12
Greater than 1/2 cubic yard	$ 36.64	18.12

ENGI0012-073 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Grade Checker	$ 36.64	18.12

ENGI0012-074 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Motor Grader/Blade	$ 36.64	18.12

ENGI0012-075 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Mechanic	$ 37.67	18.12

IRON0075-014 08/01/2025

	Rates	Fringes
Ironworker	$ 33.00	19.91

LABO1184-016 06/01/2025

	Rates	Fringes
Power Equipment Operator:		
Horizontal Directional Drill	$ 31.98	9.26

LABO1184-017 06/01/2025

	Rates	Fringes
Laborer: Fence Erector	$ 27.41	9.26

LABO1184-021 06/01/2025

	Rates	Fringes
Traffic Control	$ 27.41	9.26

LABO1184-025 06/01/2025

	Rates	Fringes
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 29.91	9.26

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LABO1184-027 06/01/2025

	Rates	Fringes
Laborer: Grade Setter	$ 29.91	9.26

LABO1184-029 06/01/2025

	Rates	Fringes
LABORER: Guardrail Installer	$ 29.91	9.26

LABO1184-033 06/01/2025

	Rates	Fringes
Power Equipment Operator: Trencher	$ 30.88	9.26

LABO1184-044 06/01/2025

	Rates	Fringes
Power Equipment Operator: Forklift	$ 30.88	9.26

LABO1184-047 06/01/2025

	Rates	Fringes
Truck Driver: Concrete	$ 30.88	9.26

LABO1184-049 06/01/2025

	Rates	Fringes
Truck Driver: Water	$ 30.88	9.26

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* LABO1184-051 06/01/2025

	Rates	Fringes
General Laborers	$ 27.41	9.26

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* SUAZ2023-022 11/19/2024

	Rates	Fringes
Carpenter: Formwork Concrete	$ 29.86	8.89
Cement Mason/Concrete finisher	$ 30.41	0.00
Electrician	$ 29.00	7.58
Laborer: Concrete Saw (Hand Held/Walk Behind)	$ 25.22	5.08
Laborer: Landscape Laborer	$ 19.00	6.34
Laborer: Mason Tender	$ 25.92	7.09
Laborer: Pipelayer	$ 25.97	7.09

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Painter: Pavement Marking	$ 23.35	6.34
Painter: Sign and Display Erector	$ 18.03	0.00
Power Equipment Operator: Bobcat/Skid Steer/Skid Loader	$ 29.91	9.11
Power Equipment Operator: Boom/Crane Truck	$ 43.11	10.87
Power Equipment Operator: Broom/Sweeper	$ 25.95	6.62
Power Equipment Operator: Compactor/Roller	$ 30.24	0.00
Power Equipment Operator: Concrete Pump Truck	$ 43.11	10.87
Power Equipment Operator: Concrete Screed	$ 26.41	7.64
Power Equipment Operator: Drill Rig/Auger	$ 36.80	13.07
Power Equipment Operator: Milling Machine	$ 31.16	0.00
Power Equipment Operator: Paver/Spreader/Finish equipment (asphalt, aggregate, & concrete)	$ 32.67	0.00
Power Equipment Operator: Scraper	$ 29.69	0.00
Truck Driver: Dump	$ 26.71	7.09
Truck Driver: Oil Distributor	$ 29.41	7.63
Truck Driver: Sweeper	$ 20.24	5.48

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information

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on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may

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include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

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18.0

DBE FORMS

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DBE Forms Instructions

IMPORTANT: ALL BIDDERS WHO WANT TO BE CONSIDERED MUST FOLLOW NO. 1 BELOW. FAILURE TO SUBMIT THE REQUIRED DOCUMENTATION BY THE STATED TIME AND IN THE MANNER HEREIN SPECIFIED, AND FAILURE TO BE REGISTERED IN THE UTRACS SYSTEM SHALL BE CAUSE FOR THE BIDDERS TO BE DEEMED NONRESPONSIVE.

1. SUBMIT NO LATER THAN: 4PM OF THE 5TH CALENDAR DAY POST BID DUE DATE

-DBE BECO Bidders/Proposers List Submittal Email Confirmation as a pdf document

**note: this item is required whether the project/contract has a DBE Goal or does not have a DBE Goal.*

a. If you submit the above required item, and then determine you made an error, you are allowed to re-submit as long as it is within the 5 day submittal period (no later than 4pm by the 5th day post bid opening day).

Important: Only your most recent/last submittal will be accepted and considered.

b. If you have questions about this item:
   i. Questions allowed **ONLY AFTER** bid opening day – during the 5 Calendar Day DBE submittal period.
   ii. Once you submit this item, you are not allowed to ask questions. You may ONLY ask questions IF YOU HAVE NOT SUBMITTED THIS FORM FOR THE FIRST TIME YET.
   iii. Questions can be submitted by calling Janece Ray-Federal Compliance at 480-782-3331 or email question(s) to cp.fedfund@chandleraz.gov.

c. **Submit Document as a pdf attachment by Email** to: cp.fedfund@chandleraz.gov
****do not forward the email confirmation.**

2. NOT REQUIRED AT BID SUBMITTAL

During the active contract/project, for any subcontractors that are certified DBE's, the following form will required at the end of completed subcontract work.

-DBE BECO Form 3110C – DBE Certification of Final Payment

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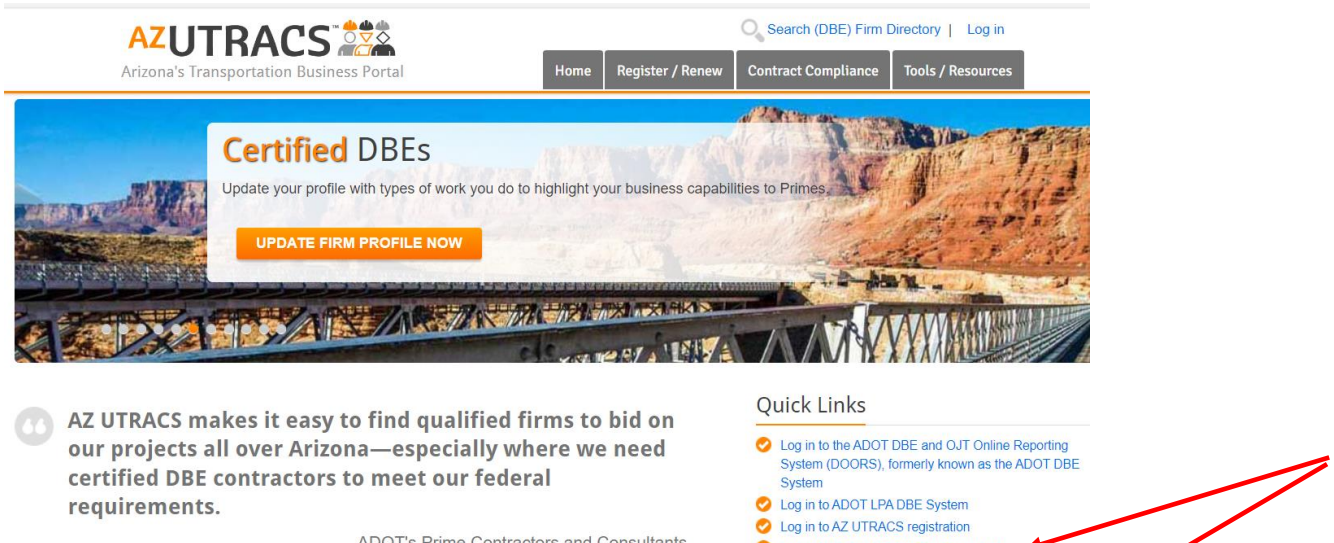
BIDDERS/PROPOSERS LIST / EMAIL CONFIRMATION

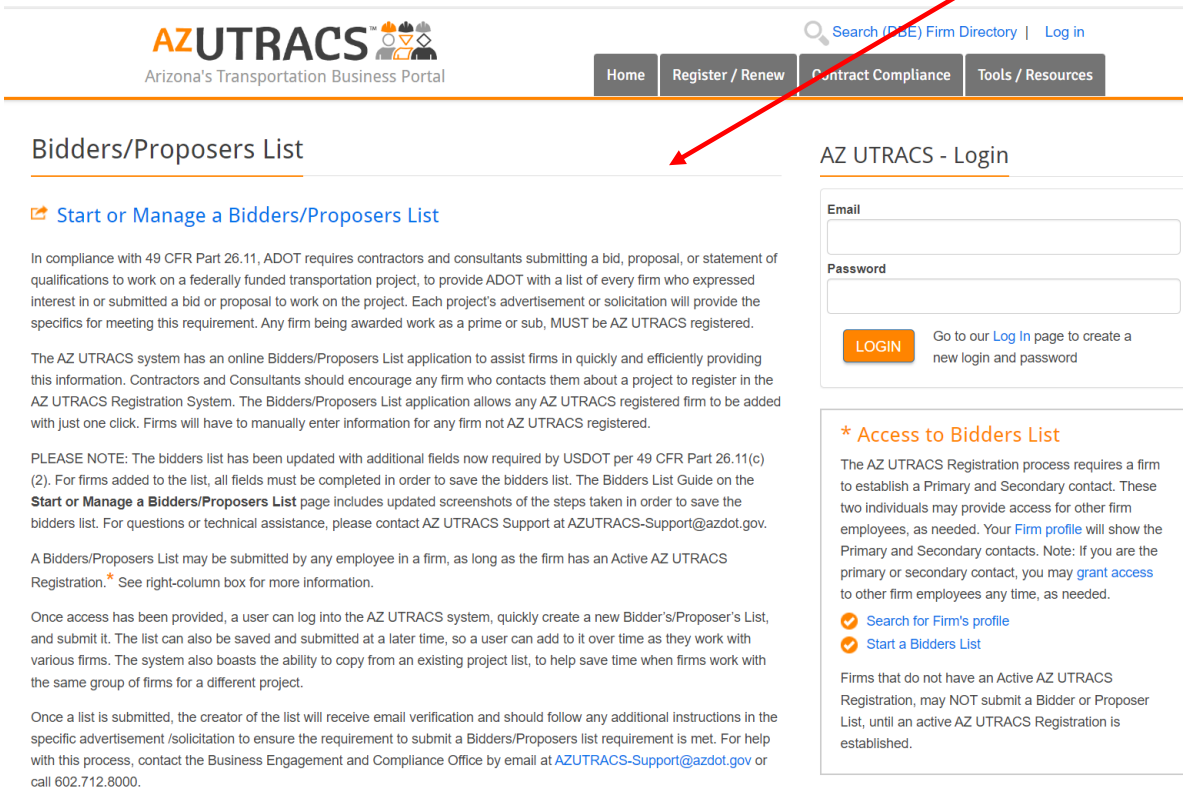
FEDERAL DOCUMENT REQUIRED: Email Verification Print Out

Email Verification Print Out Received from Utracs/AzDOT.gov confirms your electronic submittal. The email confirmation should be a submitted document. Do not forward the email.

WHERE TO CREATE AND SUBMIT BIDDERS/PROPOSERS LIST: https://utracs.azdot.gov/BiddersListInfo/

WHERE TO CALL FOR QUESTIONS (SHOWN ON WEBSITE): 602-712-7761





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ARIZONA DEPARTMENT OF TRANSPORTATION

Clear Form

CITY OF CHANDLER

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
CERTIFICATION OF FINAL DBE PAYMENTS
CONSTRUCTION

The undersigned Contractor on **Agency Project No.**: ST2001-401/CHN0246D **ADOT TRACS No.**: T024301C hereby, certifies that full payment was made, to the firm indicated for material and/or work performed under this project's contract as follows:

DBE Firm AZ UTRACS Registration No.: _____

Name of DBE Firm _____ was paid the amount of _____

This certificate is made under Federal and State Laws concerning false statement. Supporting documentation for this payment is subject to audit and should be retained for a minimum of three years from project acceptance date. In the event the DBE was not paid in accordance with affidavits submitted by the contractor, all documentation supporting the contractor's position should be submitted.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor Company Name: _____

Check One: ☐ Contractor ☐ Subcontractor

Name: _____ **Title:** _____

Signature: _____ **Date:** _____

The undersigned contractor/subcontractor/supplier/manufacturer for the above named project hereby certified that payments were received and/or justification by the contractor is correct.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DBE Firm Name: _____

Check One: ☐ Contractor ☐ Subcontractor/Supplier/Manufacture
☐ Lower-tier: Subcontractor/Supplier/Manufacture

Name: _____ Title: _____

Signature: _____ Date: _____

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END OF

FEDERAL DOCUMENTS

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BID SUBMITTAL LIST

This list may not include all required bid submission items. It is the Contractor's responsibility to read the entire bid and determine all items required by the submission date and time.

DO NOT DOUBLE-SIDE ANY PART OF THE BID SUBMITTAL

PROJECT NAME: **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)**

CITY PROJECT NO.: **ST2001.401**
FEDERAL PROJECT NO.: **CHN-0(246)D**
ADOT PROJECT NO.: **T0243 01C**

THIS IS A FEDERAL FUNDED PROJECT

PLEASE INCLUDE THE FOLLOWING ITEMS IN YOUR SUBMITTAL ACCORDING TO THE DATE AND TIME LISTED IN THE INVITATION TO BID ADVERTISEMENT:

A. Bid Bond (Original – with Seal)

B. Signed Proposal Acknowledgement, and licenses

C. Bid Schedule

D. Subcontractor's List Form

E. Certificate of Insurability and Bonding

F. Arizona Department of Revenue Privilege Tax License

FEDERAL DOCUMENTS REQUIRED WITH BID (see Federal Document Section)

1. Federal Non-Collusion Bidding Certificate
2. Verification Statement
3. Forced Labor Ethnic Uyghurs Ban Certification Form
4. EEO Clause / Statement
5. DBE Form 3102C – DBE Goal Assurance

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FEDERAL DOCUMENTS REQUIRED TO BE SUBMITTED BY THE 5TH DAY POST BID OPENING DAY, BY 4PM IN ORDER FOR BID TO BE CONSIDERED, TO EMAIL ADDRESS:
CP.FUND@CHANDLERAZ.GOV (see Federal Document Section). *Do not submit with bid*

1. On-Line DBE BECO Bidders/Proposers List Email Confirmation (do not forward email)
2. DBE Form 3106C
3. DBE Form 3105C (one for each Committed DBE Subcontractor)

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BID BOND

ARIZONA STATUTORY BID BOND PURSUANT TO
TITLES 28, 34 AND 41,
OF THE ARIZONA REVISED STATUTES
(Penalty of this bond must not be less than 10% of the bid amount)

KNOW ALL MEN BY THESE PRESENTS: That, Achen-Gardner Construction, LLC, (hereinafter "Principal"), as Principal, and Liberty Mutual Insurance Company, (hereinafter "Surety"), a corporation organized and existing under the laws of the State of Massachusetts, with its principal offices in Boston, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, held and firmly bound unto City of Chandler, (hereinafter "Obligee"), as Obligee, in the amount of Ten Percent (10%) of the amount of the bid of Principal, submitted by Principal to the Obligee for the work described below, for the payment of which sum, the Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for construction of:

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

NOW, THEREFORE, if the Obligee shall accept the proposal of the Principal and the Principal shall enter into an agreement with the Obligee in accordance with the terms of the proposal and give the bonds and certificates of insurance as specified in the agreement document with good and sufficient surety for the faithful performance of the agreement and for the prompt payment of labor and materials furnished in the prosecution of the agreement, or in the event of the failure of the Principal to enter into the agreement and give the bonds and certificates of insurance, if the Principal pays to the Obligee the difference not to exceed the penalty of the bond between the amount specified in the proposal and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by the proposal then this obligation is void. Otherwise it remains in full force and effect provided, however, that this bond is executed pursuant to the provisions of Section 34-201, Arizona Revised Statutes, and all liabilities on this bond shall be determined in accordance with the provisions of that section to the extent as if it were copied at length herein.

Witness our hands this 16th day of October, 20 25

Achen-Gardner Construction, LLC	Liberty Mutual Insurance Company
Principal SEAL	**SURETY** SEAL
By:	By: Stephanie L. Bucholz, Attorney-in-Fact
Its: Kevin J. Nunez / Sr. Vice President	CBI Bonding, Inc.
	AGENCY OF RECORD
	535 E. McKellips Rd., #129, Mesa, AZ 85203
	AGENCY ADDRESS

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS Seal No. 5831

CITY OF CHANDLER
CHANDLER, ARIZONA

Rev. 11/28/22

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POWER OF ATTORNEY

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8213077-975281**

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Stephanie L. Bucholz, Andrew A. Farr, Gregory P. Griffith, Nicholas S. Griffith

all of the city of Mesa state of AZ each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 4th day of February, 2025.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
Nathan J. Zangerle, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 4th day of February, 2025 before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 16th day of October, 2025.

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

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LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D;
ADOT NO.: T0243 01C

PROPOSAL ACKNOWLEDGEMENT

PROPOSAL to the City Engineer of the City of Chandler,
In compliance with the Advertisement for Bids, the undersigned bidder:

Having examined the agreement documents, site of work, and being familiar with the conditions to be met, hereby submits the following Proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed and agrees to execute the agreement documents and furnish the required bonds and certificates of insurance for the completion of said work, at the locations and for the prices set forth on the inside pages of this form.

Understands that construction of this project shall be in accordance with all applicable Uniform Standard Specifications and Standard Details except as otherwise required by the Project Plans and Project Specific Provisions.

Understands that the Proposal shall be submitted with a Proposal guarantee of cash, certified check, cashier's check, or surety bond for an amount of not less than ten percent (10%) of the amount bid.

Agrees that upon receipt of Notice of Award from the City of Chandler, the undersigned bidder will execute the agreement documents.

Work shall be completed within **790** consecutive calendar days, beginning with the day following the starting date specified in the Notice to Proceed. Said Notice will be issued in accordance with the Project Specific Provisions "NOTICE TO PROCEED," or, when, in the opinion of the Engineer, sufficient materials are, or will be available for the continuous prosecution of the work.

Acknowledges that bid prices submitted include all applicable sales and/or use taxes, and no further compensation will be approved for these items.

The Bidder hereby acknowledges receipt of and agrees that the submitter's Proposal is based on the following Addenda:

Addendum	Date Received	Addendum No.	Date Received
1	9/2/2025	2	9/10/2025
3	10/3/2025	4	10/15/2025
5	10/23/2025		

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PROPOSAL ACKNOWLEDGEMENT

THIS BID IS SUBMITTED BY: Achen-Gardner Construction LLC,

a corporation organized under the laws of the State of Arizona; a partnership consisting of _____; or individual trading as _____

and is the holder of an Arizona State Contractor's License: _____

ATTACH PHOTOCOPY

Classification A No. 261745

Failure to fill in the information above, regarding the bidder being a holder of Arizona State Contractor's License is grounds for rejection of the bid.

Joint venture bid proposals will not be accepted for projects bidding in the amount (for base bid) of less than $5 million dollars.

Contractors are reminded it is a violation of State law to submit a bid if not properly licensed. Bids submitted without designating the Contractor's license classification and number, in the spaces provided above, shall be rejected. Bids submitted by Contractors without the required license shall be rejected.

Contractor acknowledges by signing below that bid prices submitted include all applicable sales and/or use taxes, and no further compensation shall be approved for these items. If there is a conflict between the unit bid price and the unit price extension for a particular pay item, the unit prices shall govern, per MAG 102.5. Also, per MAG 102.7, a proposal shall be considered irregular and may be rejected if there are unauthorized additions, statements, conditional or alternate bids, or irregularities of any kind.

Respectfully submitted,

Achen-Gardner Construction LLC
Firm

27-1394157
Federal Tax ID Number

2195 W. CHandler Blvd, Ste 200, Chandler AZ 85224
Address City, State and Zip Code

480-940-1300
Phone

By (Signature Required)

Kevin Nunez Sr. Vice President
Name and Title (Print)

knunez@achen.com
Email Address

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NAME OF BIDDER: Achen-Gardner Construction LLC

CITY OF CHANDLER
LINDSAY ROAD IMPROVEMENTS
CITY PROJECT NO.: ST2001.401;
FEDERAL PROJECT NO.: CHN-0(246)D;
ADOT PROJECT NO.: T0243 01C

BID SCHEDULE

cc	Description	Est. Qty.	Unit	Unit Price	Extended Price
1	CONSTRUCTION SURVEYING AND LAYOUT	LS	1	[redacted]	277300.00
2	GPS DATA COLLECTION (ESRI – ARCGIS GEODATABASE FORMAT)	LS	1		40700.00
3	CONTRACTOR QUALITY CONTROL	LS	1		280000.00
4	EROSION CONTROL (SWPPP PREPERATION, INSTALLATION, MAINTENANCE, AND REMOVAL)	LS	1		138200.00
5	MOBILIZATION/DEMOBILIZATION	LS	1		158300.00
6	CLEARING & GRUBBING	LS	1		90000.00
7	REMOVE TREE, DIAMETER > 12 IN	EA	56	970.00	54320.00
8	EARTHWORK FOR RETENTION BASINS	CY	781	23.00	17963.00
9	RIPRAP, D50=6 IN, T=12 IN	CY	60	250.00	15000.00
10	SUBGRADE PREPARATION	SY	54,809	18.00	986562.00
11	FARM ROAD PER MAG SPEC 301	SY	532	4.00	2128.00
12	AGGREGATE BASE COURSE, 5 IN THICK	SY	505	16.00	8080.00
13	AGGREGATE BASE COURSE, 12 IN THICK	SY	43,599	22.00	959178.00
14	AGGREGATE BASE COURSE, 18 IN THICK	SY	10,705	27.00	289035.00
15	PAVEMENT STRUCTURAL SECTION PER RWCD DETAIL 42	SY	71	130.00	9230.00
16	ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)	SY	120,829	18.00	2174922.00
17	ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)	SY	505	67.00	33835.00
18	ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)	SY	54,788	25.00	1369700.00
19	PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK	SY	939	100.00	93900.00
20	BITUMINOUS TACK COAT SS-1H, DILUTED	SY	120,829	0.75	90621.75
21	SURFACE SEAL	SY	277	82.00	22714.00
22	VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1	LF	13,473	26.00	350298.00
23	CONCRETE DEEPENED CURB & GUTTER, TYPE A, H=6 IN, MODIFIED MAG DET 220-1	LF	13,524	33.00	446292.00

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24	CONCRETE SINGLE CURB PER MAG DET 222, TYPE A, H=4 IN	LF	7	230.00	1610.00
25	END OF MEDIAN RAMP, CITY DET C-225	EA	30	1900.00	57000.00
26	CONCRETE HEADER (TO MATCH EXISTING)	LF	450	29.00	13050.00
27	CONCRETE HEADER (6 IN)	LF	85	41.00	3485.00
28	CONCRETE SIDEWALK, MAG DET 230	SF	62,019	6.00	372114.00
29	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-257	EA	14	6400.00	89600.00
30	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258-1	EA	44	6800.00	299200.00
31	DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, CITY DET C-258-2	EA	2	6900.00	13800.00
32	DRIVEWAY ENTRANCE, MAG DET 250-2 (RESIDENTIAL)	SF	4,371	14.00	61194.00
33	CONCRETE VALLEY GUTTER, MAG DET 240	SF	10,612	11.00	116732.00
34	INTERLOCKING CONCRETE PAVERS	SF	7,339	18.00	132102.00
35	ADJUST MANHOLE FRAME AND COVER PER MAG DTL NO. 422 & MAG SPEC 345, WITH CONCRETE COLLAR PER COC DTL C-401	EA	2	1100.00	2200.00
36	REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND COVER PER COC DTL C-400, AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'	EA	40	1100.00	44000.00
37	ADJUST MANHOLE RIM PER RWCD DETAIL 37	EA	1	1100.00	1100.00
38	ADJUST VALVE BOX & COVER, MAG DET 391, TYPE C WITH CONCRETE COLLAR PER COC DET C-307	EA	140	740.00	103600.00
39	ADJUST WATER METER BOX & COVER TO GRADE	EA	1	1100.00	1100.00
40	ADJUST ZAYO VAULT LID TO GRADE, PROTECT CONDUITS IN-PLACE	EA	1	2300.00	2300.00
41	REMOVE PIPE, BACKFILL & COMPACT	LF	510	35.00	17850.00
42	REMOVE ASPHALTIC CONCRETE PAVEMENT	SY	42,365	7.00	296555.00
43	MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN	SY	66,525	3.00	199575.00
44	REMOVE & DISPOSE CONCRETE PAVERS	SF	2,364	3.00	7092.00
45	REMOVE CONCRETE CURB & CURB AND GUTTER	LF	7,311	9.00	65799.00
46	REMOVE CONCRETE HEADER	LF	5,305	9.00	47745.00
47	REMOVE CONCRETE DITCH & BACKFILL & COMPACT	LF	20	170.00	3400.00
48	REMOVE CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS	SF	31,325	2.00	62650.00
49	REMOVE VALLEY GUTTER	SF	8,033	2.00	16066.00

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50	REMOVE DIRECT BURY POLE, MAST ARM, FIXTURE	EA	79	490.00	38710.00
51	REMOVE FIXTURE POLE, MAST ARM, AND FOUNDATION	EA	5	500.00	2500.00
52	REMOVE EXISTING HPS FIXTURE	EA	21	140.00	2940.00
53	RELOCATE EXISTING PRIVATE LIGHTS	EA	3	1600.00	4800.00
54	REMOVE PULL BOX	EA	19	450.00	8550.00
55	REMOVE AND SALVAGE SIGN ASSEMBLY	EA	64	170.00	10880.00
56	REMOVE FENCE	LF	836	12.00	10032.00
57	REMOVE WALL	LF	1,755	35.00	61425.00
58	REMOVE GATE	EA	19	690.00	13110.00
59	RELOCATE FENCE	LF	380	40.00	15200.00
60	RELOCATE PRIVATE GATE	EA	4	4900.00	19600.00
61	RELOCATE HORSE STEPOVER GATE	EA	1	5300.00	5300.00
62	REMOVE CATCH BASIN	EA	3	1700.00	5100.00
63	REMOVE & DISPOSE CONCRETE SCUPPER	EA	1	2700.00	2700.00
64	REMOVE EXISTING RIPRAP	SY	267	20.00	5340.00
65	REMOVE AND SALVAGE TRAFFIC SIGNAL	LS	1	[redacted]	21200.00
66	REMOVE AND DISPOSE MAILBOX	EA	13	190.00	2470.00
67	REMOVE EXISTING WATER METER	EA	4	2200.00	8800.00
68	REMOVE EXISTING BACKFLOW PREVENTOR	EA	4	2200.00	8800.00
69	REMOVE EXISTING FLUSHING PIPE ASSEMBLY	EA	6	3000.00	18000.00
70	REMOVE EXISTING FIRE HYDRANT	EA	5	3600.00	18000.00
71	ABANDON EXISTING WATERLINE, LOCATE TEE, DISCONNECT STUB FROM TEE, PLACE MJ PLUG, AND ABANDON WATER VALVE PER DETAIL ON SHEET 132	EA	3	3600.00	10800.00
72	METAL MAILBOX AND POST	EA	5	840.00	4200.00
73	COMBINED MASONRY MAILBOX AND FOUNDATION	EA	3	2200.00	6600.00
74	COMBINED MASONRY MAILBOX AND FOUNDATION (MATCH IN-KIND)	EA	1	2200.00	2200.00
75	CLUSTER MAILBOX UNIT AND FOUNDATION	EA	1	5700.00	5700.00
76	RELOCATE RWCD IRRIGATION WATER ORDER BOX	EA	1	4300.00	4300.00
77	REMOVE AND REINSTALL SIGN	EA	19	150.00	2850.00
78	TRAFFIC CONTROL	LS	1	[redacted]	821300.00
79	UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER	HR	1,500	105.00	157500.00
80	SURVEY MARKER, TYPE A, MAG DET 120	EA	4	92.00	368.00
81	SURVEY MARKER, TYPE B, MAG DET 120	EA	7	13.00	91.00
82	6 FT HIGH CHAIN LINK FENCE, ADOT STD C-12.20, TYPE 1	LF	274	90.00	24660.00

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83	CHAIN LINK GATE, ADOT C-12.20	EA	5	9100.00	45500.00
84	CORRAL FENCE (MATCH-IN-KIND) (APN 304-81-996)	LF	350	98.00	34300.00
85	CORRAL GATE (MATCH-IN-KIND) (APN 304-81-996)	EA	6	6500.00	39000.00
86	AUTOMATIC SWING GATE (SOLID INFILL)	EA	1	24900.00	24900.00
87	MANUAL SWING GATE (SOLID INFILL)	EA	3	7500.00	22500.00
88	AUTOMATIC SWING GATE (WROUGHT IRON)	EA	1	24900.00	24900.00
89	MANUAL SWING GATE (WROUGHT IRON)	EA	1	7800.00	7800.00
90	HALF AUTOMATIC, HALF MANUAL SWING GATE (SOLID INFILL) (APN 304-81-993)	EA	1	20200.00	20200.00
91	AUTOMATIC SWING GATE AND BRICK PILASTERS (MATCH COLOR AND STYLE IN-KIND) (APN 304-81-996)	EA	1	4100.00	4100.00
92	LANDSCAPE ESTABLISHMENT - NINETY (90) DAYS	LS	1		7700.00
93	SHRUB - 1 GAL	EA	611	15.00	9165.00
94	SHRUB - 5 GAL	EA	1,617	32.00	51744.00
95	AGAVE (12 TO 18 IN HEIGHT)	EA	1	320.00	320.00
96	TREE - 48 IN BOX, 3 IN CAL MIN.	EA	127	1600.00	203200.00
97	DECOMPOSED GRANITE, 1 1/4 IN SCREENED, DESERT GOLD	SY	8,982	8.00	71856.00
98	DECOMPOSED GRANITE (TO MATCH EXISTING)	SY	14,059	8.00	112472.00
99	LANDSCAPE / IRRIGATION RESTORATION	SY	12,645	14.00	177030.00
100	SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN	LF	1,130	10.00	11300.00
101	SCH. 40 PVC IRRIGATION PIPE SLEEVE 4 IN	LF	1,981	12.00	23772.00
102	SCH. 40 PVC IRRIGATION PIPE 3/4 IN (PURPLE)	LF	4,618	3.00	13854.00
103	SCH. 40 PVC IRRIGATION PIPE 1 IN (PURPLE)	LF	6,927	3.00	20781.00
104	SCH. 40 PVC IRRIGATION PIPE 2 IN	LF	4,337	9.00	39033.00
105	CLASS 200 PVC IRRIGATION PIPE 3/4 IN	LF	2,372	3.00	7116.00
106	CLASS 200 PVC IRRIGATION PIPE 1 IN	LF	3,558	3.00	10674.00
107	WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)	EA	4	6900.00	27600.00
108	1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)	EA	4	3700.00	14800.00
109	1 IN MASTER VALVE	EA	4	1100.00	4400.00
110	CONTROLLER, AUTOMATIC (6 STATION)	EA	7	3600.00	25200.00
111	1 IN REMOTE CONTROL VALVE, ELECTRIC	EA	22	1200.00	26400.00
112	FLUSH END ASSEMBLY (DRIP)	EA	154	110.00	16940.00
113	MULTI OUTLET EMITTER ASSEMBLY	EA	582	49.00	28518.00
114	GATE VALVE - PVC TRUE-UNION BALL VALVE (2 IN)	EA	6	1000.00	6000.00
115	DRIP INDICATOR	EA	107	97.00	10379.00

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116	4 IN WHITE TRAFFIC PAINT STRIPE	LF	74,180	0.25	18545.00
117	4 IN YELLOW TRAFFIC PAINT STRIPE	LF	2,070	0.25	517.50
118	PAINT MEDIAN NOSE	EA	30	100.00	3000.00
119	4 IN WHITE THERMOPLASTIC TRAFFIC STRIPE	LF	25,560	0.75	19170.00
120	THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW	EA	40	440.00	17600.00
121	THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW	EA	17	440.00	7480.00
122	BIKE LANE SYMBOL SET, TYPE II (HIGH-BUILD)	EA	25	490.00	12250.00
123	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)	EA	1,000	4.00	4000.00
124	REFLECTORIZED RAISED PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)	EA	40	4.00	160.00
125	PERFORATED SIGN POST	LF	560	20.00	11200.00
126	PERFORATED SIGN POST FOUNDATION	EA	54	230.00	12420.00
127	FLAT SHEET ALUMINUM SIGN PANEL, HIGH INTENSITY GRADE	SF	640	31.00	19840.00
128	NO. 7 PULL BOX	EA	13	1700.00	22100.00
129	NO. 7 PULL BOX W/ EXTENSION	EA	27	1800.00	48600.00
130	NO. 9 PULL BOX	EA	15	8100.00	121500.00
131	PULL BOX, SRP LIGHTING PULL BOX (CONTRACTOR SUPPLIED AND INSTALLED)	EA	59	1000.00	59000.00
132	SCH. 40 PVC ELECTRICAL CONDUIT, 1"	LF	1,290	83.00	107070.00
133	SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN	LF	50	86.00	4300.00
134	SCH. 40 PVC ELECTRICAL CONDUIT, 2.5 IN (SRP SERVICE CONDUIT)	LF	125	86.00	10750.00
135	SCH. 40 PVC ELECTRICAL CONDUIT, 2.5"(STREET LIGHTING PER SRP PLANS)	LF	8,630	38.00	327940.00
136	SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN	LF	115	91.00	10465.00
137	SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN	LF	55	94.00	5170.00
138	SCH. 40 PVC ELECTRICAL CONDUIT, 2-4 IN (DIRECTIONAL DRILL)	LF	2,050	130.00	266500.00
139	4 - 2 IN PVC INTERCONNECT CONDUIT	LF	5,050	50.00	252500.00
140	4 - 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)	LF	11,250	50.00	562500.00
141	SRP 12KV UNDERGROUND CONVERSION	LF	3,200	350.00	1120000.00
142	POLE FOUNDATION, TYPE A, ADOT DWG T-SL 4.01	EA	4	2100.00	8400.00
143	POLE FOUNDATION, TYPE KC MOD	EA	2	7500.00	15000.00
144	POLE FOUNDATION, TYPE RC	EA	2	7500.00	15000.00
145	VEHICLE DETECTION SYSTEM	LS	1	[redacted]	55900.00
146	TYPE A SIGNAL POLE, TYPE A, ADOT DWG T-SL 4.01	EA	4	2200.00	8800.00

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147	TYPE KC MOD SIGNAL POLE	EA	2	18500.00	37000.00
148	TYPE RC SIGNAL POLE	EA	2	21000.00	42000.00
149	AUDIBLE PEDESTRIAN PUSH BUTTON W/ SIGN	EA	8	1500.00	12000.00
150	20 FT MAST ARM (TAPERED)	EA	2	2700.00	5400.00
151	55 FT MAST ARM (TAPERED)	EA	4	17100.00	68400.00
152	METER PEDESTAL CABINET	EA	1	7500.00	7500.00
153	CONTROL CABINET	EA	1	74800.00	74800.00
154	EMERGENCY PRE-EMPTION SYSTEM	EA	4	6200.00	24800.00
155	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)	EA	12	420.00	5040.00
156	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)	EA	4	930.00	3720.00
157	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)	EA	6	790.00	4740.00
158	TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)	EA	3	910.00	2730.00
159	SIGN ASSEMBLY (IISNS)	EA	4	11200.00	44800.00
160	TRAFFIC SIGNAL FACE (TYPE F) (LED)	EA	12	1100.00	13200.00
161	TRAFFIC SIGNAL FACE (FLASHING YELLOW ARROW FACE) (LED COUNTDOWN)	EA	8	1400.00	11200.00
162	TRAFFIC SIGNAL FACE (PEDSTRIAN) (MAN/HAND) (LED)	EA	8	810.00	6480.00
163	POLE FOUNDATION, FOR C-751 POLE	EA	129	2400.00	309600.00
164	STREET LIGHT POLE, C-751-1 WITH SINGLE DAVIT ARM	EA	129	3000.00	387000.00
165	STREET LIGHT POLE AND FOUNDATION, C-756 ANGLE STREET LIGHT	EA	1	6500.00	6500.00
166	LED LUMINAIRE (TRAFFIC SIGNAL)	EA	2	1500.00	3000.00
167	LED STREET LIGHT LUMINAIRE, TYPE II	EA	151	1300.00	196300.00
168	ELECTRICAL CONDUCTORS	LS	1	[redacted]	43300.00
169	FIBER OPTIC CABLE (SINGLE MODE 12)	LF	175	3.00	525.00
170	FIBER OPTIC CABLE (SINGLE MODE 144)	LF	19,100	6.00	114600.00
171	UNDERGROUND FIBER OPTIC SPLICE CLOSURE	EA	4	3700.00	14800.00
172	FIBER OPTIC PATCH PANEL (12 PORT)	EA	1	1100.00	1100.00
173	CCTV CAMERA SYSTEM	EA	1	8100.00	8100.00
174	FIELD HARDENED ETHERNET SWITCH	EA	1	8100.00	8100.00
175	CLASS B CONCRETE, 4 IN THICK	SF	770	11.00	8470.00
176	CONCRETE SCUPPER, CITY DET C-500, W=8 FT	EA	12	10600.00	127200.00
177	CONCRETE SPILLWAY, COC DET C-500, W=8.5 FT	LF	465	34.00	15810.00
178	CATCH BASIN, MAG DET 533-1, TYPE D, ONE 6 FT WING	EA	2	15800.00	31600.00

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179	CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS	EA	5	19600.00	98000.00
180	CATCH BASIN, MODIFIED MAG DET 533-1, TYPE D, ONE 3 FT WING	EA	1	18400.00	18400.00
181	CATCH BASIN, MAG DET 542-1, TYPE M-1, ONE 6 FT WING	EA	1	16000.00	16000.00
182	CONCRETE PIPE COLLAR PER MAG DET 505	EA	1	7300.00	7300.00
183	CONCRETE MASONRY WALL (FULL WALL)	LF	476	500.00	238000.00
184	CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)	LF	619	500.00	309500.00
185	CONCRETE MASONRY WALL (FULL WALL WITH LIGHTED GLASS BLOCK IN COLUMNS) (APN 304-81-994)	LF	137	440.00	60280.00
186	MASONRY WALL (MATCH IN-KIND TO EXISTING) (APN 304-81-011A)	LF	55	360.00	19800.00
187	CONNECT TO EXISTING WATERLINE	EA	2	9800.00	19600.00
188	INSTALL 8 IN DIP CLASS 350 WATERLINE PER COC DTL C-308	LF	141	220.00	31020.00
189	INSTALL NEW WATER METER COC DTL C-301-1	EA	4	8300.00	33200.00
190	INSTALL FLUSHING PIPE ASSEMBLY WITH BALL VALVE PER COC DTL C-300	EA	8	20200.00	161600.00
191	INSTALL BACKFLOW PREVENTOR PER COC STD DET C-311	EA	3	4100.00	12300.00
192	INSTALL FIRE HYDRANT COC DTL C-303, C-305, AND FD-121	EA	5	15100.00	75500.00
193	CONNECT TO EXISTING SEWER	EA	1	5800.00	5800.00
194	INSTALL 4 IN PVC SDR 26 SANITARY SEWER PIPE PER COC DTL C-402	LF	22	180.00	3960.00
195	INSTALL 4 IN SEWER PIPE PLUG, MAG DTL 427	EA	1	2000.00	2000.00
196	12 IN RGRCP, CLASS IV	LF	79	220.00	17380.00
197	15 IN RGRCP, CLASS V	LF	662	220.00	145640.00
198	18 IN RGRCP, CLASS IV	LF	1,845	230.00	424350.00
199	PIPE PENETRATION FOR CATCH BASIN	EA	1	16400.00	16400.00
200	PIPE PENETRATION FOR DRYWELL	EA	1	19400.00	19400.00
201	STORM DRAIN MANHOLE, MAG DTL 520 & 522	EA	8	20700.00	165600.00
202	DRYWELL, COC DET C-501	EA	6	29000.00	174.000.00
203	BUBBLE-UP STRUCTURE, COC DET C-507	EA	3	16300.00	48900.00
204	ALLOWANCE: ROADWAY AND CONCRETE FLATWORK	LS	1	[redacted]	$ 900,000.00
205	ALLOWANCE: LANDSCAPING	LS	1	[redacted]	$ 175,000.00
206	ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES	LS	1	[redacted]	$ 300,000.00
207	ALLOWANCE: SRP ELECTRICAL	LS	1	[redacted]	$ 325,000.00

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BIDDER MUST SUBMIT PAGES 1 through 8 INCLUSIVE, FROM THIS BOOK, WITH THE BID

NAME OF BIDDER: Achen-Gardner Construction LLC

208	ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING	LS	1	[redacted]	$ 200,000.00
209	ALLOWANCE: WET UTILITIES	LS	1		$ 500,000.00
210	ALLOWANCE: DRY UTILITIES	LS	1		$ 200,000.00
211	ALLOWANCE: STORM DRAIN	LS	1		$ 150,000.00
212	ALLOWANCE: REMOVALS	LS	1		$ 250,000.00
213	STORM DRAIN MANHOLE, MAG DTL 520 & 522 (SHALLOW MANHOLE)	EA	2	20700.00	41400.00

BASE BID (Items 1- 213 inclusive)

$ 22,359,500.25
(In Numbers)

TWENTY TWO MILLION THREE HUNDRED FIFTY NINE THOUSAND FIVE HUNDRED
(In Words) Dollars

TWENTY FIVE
(In Words) Cents

Note 1: Bidders are required to fill in all blank spaces with an entry. Bids submitted with blank spaces shall be considered "Non-Responsive".

Note 2: The Bid Due Date is before the Bid Opening Date. The Due Date is when the bid package must be received. The Bid Opening Date is scheduled for the next workday when the bid prices will be read aloud in public. The difference between the Due Date and Time and the Opening Date and Time is to allow bidders to review the accuracy of their bids, and if they have made a mathematical or clerical error, the opportunity to withdraw their bids prior to the Bid Opening. No bids will be allowed to be modified after the Bid Due Date. Bidders requesting to withdraw their bids are required to contact the Purchasing Office prior to the Bid Opening. Bidders that withdraw their bids after the Bid Opening shall not be considered on future city bids for a period of two (2) years and will be subject to a claim against their bid bond.

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SUBCONTRACTOR'S LIST FORM

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

If Bidder intends to subcontract any portion of this Agreement, the bidder must submit the name, address, and contractor's license number (if applicable) of each subcontractor, including the work component of such subcontracting. Include this form with the bid submittal documents. Prime Contractor must self-perform according to MAG Specification 108.2. Bidder may make multiple copies of this form as needed.

Company Name:	Torrent Resources	**Company Name:**	Milling Services
Contact Name:	Luke Kress	Contact Name:	Nick Coakley
Contact Email:	luke.kress@oldcastle.com	Contact Email:	ncoakley@millingservices.com
Contact Phone:	602-268-0785	Contact Phone:	314-421-5933
Work Component:	Dry Well	Work Component:	Asphalt Milling
Percentage of Total Work Performed:	.634%	Percentage of Total Work Performed:	1.507%

Company Name:	CD Development	**Company Name:**	Roadway Electric
Contact Name:	Carlos Corral	Contact Name:	Dan Pollesche
Contact Email:	ccorral@cddevelopmentaz.com	Contact Email:	danp@roadwayelectric.com
Contact Phone:	602-663-7668	Contact Phone:	602-943-8300
Work Component:	Landscaping, Pavers	Work Component:	Electrical
Percentage of Total Work Performed:	3.92%	Percentage of Total Work Performed:	16.625%

Company Name:	Accurate Fencing	**Company Name:**	CJS Enterprises
Contact Name:	Chris McCombs	Contact Name:	Terry Sabo
Contact Email:	chris@accuratecf.com	Contact Email:	terrysabo@cjs-ent.com
Contact Phone:	310-367-7617	Contact Phone:	632-565-5022
Work Component:	Fencing	Work Component:	Masonry
Percentage of Total Work Performed:	1.117%	Percentage of Total Work Performed:	1.956%
Subcontractor Total Work Performed:	$ 5909143.69	Overall Bid Total:	$ 22,359,500.25
Overall Prime Contractor Self-performance %:	26.428%		

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SUBCONTRACTOR'S LIST FORM

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

If Bidder intends to subcontract any portion of this Agreement, the bidder must submit the name, address, and contractor's license number (if applicable) of each subcontractor, including the work component of such subcontracting. Include this form with the bid submittal documents. Prime Contractor must self-perform according to MAG Specification 108.2. Bidder may make multiple copies of this form as needed.

Company Name:	Falcon Contracting	**Company Name:**	
Contact Name:	Devin Bailey	Contact Name:	
Contact Email:	devin@falcon-contracting.com	Contact Email:	
Contact Phone:	602-944-3614	Contact Phone:	
Work Component:	Striping and Signage	Work Component:	
Percentage of Total Work Performed:	.507%	Percentage of Total Work Performed:	

Company Name:		**Company Name:**	
Contact Name:		Contact Name:	
Contact Email:		Contact Email:	
Contact Phone:		Contact Phone:	
Work Component:		Work Component:	
Percentage of Total Work Performed:		Percentage of Total Work Performed:	

Company Name:		**Company Name:**	
Contact Name:		Contact Name:	
Contact Email:		Contact Email:	
Contact Phone:		Contact Phone:	
Work Component:		Work Component:	
Percentage of Total Work Performed:		Percentage of Total Work Performed:	
Subcontractor Total Work Performed:	$ 5909143.69	Overall Bid Total:	$ 22,359,500.25
Overall Prime Contractor Self-performance %:	26.428%		

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NON-COLLUSION BIDDING CERTIFICATION

(STATE OF)
ss.
(COUNTY OF)

I, Kevin Nunez of the City of Mesa,
in the County of Maricopa and the State of Arizona, of full age,
being duly sworn according to the law of my oath depose and say that:

I am Kevin Nunez (Name) a, Sr. Vice President (Title, Position, etc.)
of the firm of Achen-Gardner Construction LLC, the Bidder making the Bid for City of Chandler, **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY),. CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C** and that I executed the said Bid with full authority so to do; that said Bidder has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named Project; and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that the City of Chandler relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the Contract for the said Project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement of understanding, for a commission, percentage, brokerage or contingent fee, except bonafide employees or bonafide established commercial or selling agencies maintained by:

(Signature of Bidder)

Kevin Nunez
(Printed or Typed Name of Bidder)

Sworn to before me this 5th day of November, 2025, in the County of Maricopa, State of Arizona.

EDITH ROMERO
Notary Public, State of Arizona
Maricopa County
Commission # 657326
My Commission Expires
October 01, 2027

(Notary Public)

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CERTIFICATE OF INSURABILITY AND BONDING

I hereby certify that as Bidder to **CITY OF CHANDLER LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY) CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C**, I am fully aware of the City of Chandler's Insurance and Bonding Requirements for Contractors and that by the submission of this Bid Proposal, assure the City of Chandler that I am able to produce the insurance and bonding coverage required should I be selected to be the successful bidder.

Should I be selected to be the successful bidder by the City of Chandler, and then become unable to produce the insurance and bonding coverage specified within ten working days I am fully aware and understand that my Bid Proposal will be rejected by the City of Chandler, and that I will forfeit my posted Bid Bond.

Signature of Bidder

Sr. Vice President

Title

10/16/2025

Date

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

ARIZONA DEPARTMENT OF REVENUE
PRIVILEGE TAX LICENSE

PROJECT NAME: LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

ATTACH, TO THIS FORM, CURRENT PRIVILEGE TAX LICENSE CERTIFICATE.

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ARIZONA DEPARTMENT OF REVENUE
ATTN: Customer Care and Outreach
PO BOX 29032
Phoenix, AZ 85038-9032

ARIZONA DEPARTMENT OF REVENUE

TRANSACTION PRIVILEGE TAX LICENSE

NOT TRANSFERABLE

RECEIVED
DEC 04 2024

The licensee listed below is licensed to conduct business upon the condition that taxes are paid to Arizona Department of Revenue as required under provisions of A.R.S. Title 42, Chapter 5, Article 1.

2025

ISSUED TO: ACHEN GARDNER CONSTRUCTION LLC
2195 W CHANDLER BLVD
CHANDLER AZ 85224-6559

ALL communications and reports MUST REFER to this LICENSE NO.

LICENSE: 20513909
START DATE: 01/01/2010
ISSUED: 11/25/2024
EXPIRES: 12/31/2025

LOCATION: CODE 001
ACHEN GARDNER CONSTRUCTION LLC
550 S 79TH ST
CHANDLER, AZ 85226-4706
2400069024196

BUSINESS CODE	REGION	JURISDICTION
015 - CONTRACTING - PRIME	MAH - GILA RIVER (MARICOPA)	RESERVATION
015 - CONTRACTING - PRIME	MAO - SALT RIVER PIMA-MARICOPA (MARICOPA)	RESERVATION
015 - CONTRACTING - PRIME	PNA - AK-CHIN (PINAL)	RESERVATION
015 - CONTRACTING - PRIME	PNH - GILA RIVER (PINAL)	RESERVATION
015 - CONTRACTING - PRIME	COC - COCONINO	COUNTY
015 - CONTRACTING - PRIME	GRN - GREENLEE	COUNTY
015 - CONTRACTING - PRIME	MAR - MARICOPA	COUNTY
017 - RETAIL	MAR - MARICOPA	COUNTY
029 - USE TAX	MAR - MARICOPA	COUNTY
215 - PRE-6/2010 CONTRACTING	MAR - MARICOPA	COUNTY
015 - CONTRACTING - PRIME	PMA - PIMA	COUNTY
015 - CONTRACTING - PRIME	PNL - PINAL	COUNTY
015 - CONTRACTING - PRIME	AJ - APACHE JUNCTION	CITY
015 - CONTRACTING - PRIME	AV - AVONDALE	CITY
015 - CONTRACTING - PRIME	BE - BUCKEYE	CITY
015 - CONTRACTING - PRIME	CA - CAREFREE	CITY
015 - CONTRACTING - PRIME	CG - CASA GRANDE	CITY
015 - CONTRACTING - PRIME	CH - CHANDLER	CITY
017 - RETAIL	CH - CHANDLER	CITY
029 - USE TAX	CH - CHANDLER	CITY
015 - CONTRACTING - PRIME	CK - CAVE CREEK	CITY

This License is issued to the business named above for the address shown. Licenses, by law, cannot be transferred from one person to another, nor can they be transferred from one location to another. Arizona law requires licensees to notify the Department of Revenue if there is a change in business name, trade name, location, mailing address, or ownership. In addition, when the business ceases to operate or the business location changes and a new license is issued, this license must be returned to the Arizona Department of Revenue. According to R15-5-2201, license must be displayed in a conspicuous place.

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LICENSE: 20513909

BUSINESS CODE	REGION	JURISDICTION
015 - CONTRACTING - PRIME	CL - COOLIDGE	CITY
015 - CONTRACTING - PRIME	FH - FOUNTAIN HILLS	CITY
015 - CONTRACTING - PRIME	FL - FLORENCE	CITY
015 - CONTRACTING - PRIME	FS - FLAGSTAFF	CITY
029 - USE TAX	FS - FLAGSTAFF	CITY
015 - CONTRACTING - PRIME	GB - GILBERT	CITY
015 - CONTRACTING - PRIME	GE - GLENDALE	CITY
016 - CONSTRUCTION CONTRACTING - SPECULATIVE BUILDERS	GE - GLENDALE	CITY
029 - USE TAX	GE - GLENDALE	CITY
015 - CONTRACTING - PRIME	GY - GOODYEAR	CITY
015 - CONTRACTING - PRIME	LP - LITCHFIELD PARK	CITY
015 - CONTRACTING - PRIME	MA - MARANA	CITY
015 - CONTRACTING - PRIME	ME - MESA	CITY
441 - RESTRICTED USE ONLY 1	ME - MESA	CITY
015 - CONTRACTING - PRIME	MP - MARICOPA	CITY
015 - CONTRACTING - PRIME	OR - ORO VALLEY	CITY
015 - CONTRACTING - PRIME	PE - PEORIA	CITY
029 - USE TAX	PE - PEORIA	CITY
015 - CONTRACTING - PRIME	PV - PARADISE VALLEY	CITY
015 - CONTRACTING - PRIME	PX - PHOENIX	CITY
029 - USE TAX	PX - PHOENIX	CITY
441 - RESTRICTED USE ONLY 1	PX - PHOENIX	CITY
015 - CONTRACTING - PRIME	QC - QUEEN CREEK	CITY
015 - CONTRACTING - PRIME	SC - SCOTTSDALE	CITY
029 - USE TAX	SC - SCOTTSDALE	CITY
441 - RESTRICTED USE ONLY 1	SC - SCOTTSDALE	CITY
015 - CONTRACTING - PRIME	SP - SURPRISE	CITY
015 - CONTRACTING - PRIME	TE - TEMPE	CITY
029 - USE TAX	TE - TEMPE	CITY
015 - CONTRACTING - PRIME	TN - TOLLESON	CITY
015 - CONTRACTING - PRIME	TU - TUCSON	CITY
015 - CONTRACTING - PRIME	YT - YOUNGTOWN	CITY

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT
CAPITAL PROJECTS DIVISION

CONSTRUCTION AGREEMENT

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401
FEDERAL PROJECT NO.: CHN-0(246)D
ADOT NO.: T0243 01C

MAYOR
Kevin Hartke

VICE MAYOR
Christine Ellis

COUNCIL
OD Harris Matt Orlando
Angel Encinas Jane Poston Jennifer Hawkins

Daniel Haskins

Daniel Haskins, P.E.
CIP City Engineer

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

CITY OF CHANDLER, ARIZONA

LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)

CITY PROJECT NO.: ST2001.401

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CONSTRUCTION SERVICES AGREEMENT
PROJECT NO.: ST2001.401

This Agreement ("Agreement") is made and entered into on the ____ day of _____, 2026, by and between City of Chandler, an Arizona municipal corporation, hereinafter called "City" and _____ the "Contractor" designated below (City and Contractor may individually be referred to as "Party" and collectively referred to as "Parties").

City and Contractor agree as follows:

ARTICLE 1 - PARTICIPANTS AND PROJECT

CITY: CIP City Engineer: Daniel Haskins, P.E.
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
Phone: 480-782-3335 Email: Daniel.haskins@chandleraz.gov

CITY: Construction Project Manager: Jason Garcia
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
Phone: 480-782-3453 Email: Jason.Garcia@chandleraz.gov

Contractor:

Legal Company Name:	Achen-Gardner Construction, LLC
Mailing Address:	2195 W. Chandler Blvd, Ste 200, Chandler, AZ 85224
Physical Address:	2195 W. Chandler Blvd, Ste 200, Chandler, AZ 85224
Arizona Roc No.:	261745 A
Federal Tax Id No.:	27-1394157
State Where Organized:	LLC
Business Organization:	Arizona
Statutory Agent Name:	Capitol Corporate Services Inc.
Statutory Agent Mailing Address:	8825 N. 23rd Ave. Ste 100, Phoenix, AZ 85021
Statutory Agent Physical Address:	8825 N. 23rd Ave. Ste 100, Phoenix, AZ 85021

Contractor's Authorized Project Representative:

Name:	Bryan Mueller
Title:	Vice President / Project Executive
Phone:	602-880-1575
Email:	bmueller@achen.com

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PROJECT DESCRIPTION:

This project will improve Lindsay Road from Ocotillo Road to Hunt Highway including widening to four traffic lanes, ADA upgrades, bike lanes, sidewalk, curb and gutter, street lighting, traffic signals, storm drainage, raised landscape median, wet and dry utilities, irrigation systems, site walls and other improvements.

PROJECT LOCATION:

Lindsay Road from Ocotillo Road to Hunt Highway

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ARTICLE 2 - AGREEMENT DOCUMENTS

2.1 AGREEMENT DOCUMENTS

The Agreement between City and Contractor will consist of the following Agreement Documents:

1. This Construction Services Agreement and all of its Exhibits, including Project Plans and Technical Specifications.
2. General Conditions and General Conditions Appendices, incorporated by reference.
3. Project Specific Special Provisions as set forth in Exhibit A, incorporated by reference.
4. Project Bid Proposal.

2.2 In the event of any inconsistency, conflict, or ambiguity between or among the Agreement Documents, the Agreement Documents will take precedence as described in Section 14.1.4 of the General Conditions.

2.3 DEFINITIONS

The definitions in Section 2 of the General Conditions apply to all the Agreement Documents, including this Agreement.

ARTICLE 3 - CONSTRUCTION SERVICES

3.1 GENERAL

3.1.1 Scope of Work. All terms and conditions are set forth in the Agreement. Any terms and conditions and exceptions noted in the Contractor's proposal or other documents do not apply unless agreed to in this Agreement or an approved addendum.

3.1.2 Contractor agrees this is a Unit Price Agreement. Contractor agrees at its own cost and expense, to do all Work necessary required to fully, timely and properly complete the construction of the Project in strict accordance with the Agreement Documents in a good and workmanlike manner, free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified, within the Agreement time.

3.1.3 Contractor must provide all of the labor and materials, and perform the Work in accordance with Section 4 of the General Conditions. Some, but not all, of the major components of the Construction Services and the corresponding subsections of Section 4 of the General Conditions are set forth below.

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3.1.4 At all times relevant to this Agreement and performance of the Work, the Contactor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project and the Agreement, including, without limitation, those set forth on attached Exhibit A.

3.1.5 Contractor must perform the Work under this Agreement using only those firms, team members and individuals designated by Contractor consistent with Contractor's accepted Bid, or otherwise, approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

3.1.6 Contractor must comply with all terms and conditions of the General Conditions.

3.1.7 In the event of a conflict between this Agreement and the General Conditions or an exhibit hereto or appendix thereto, the terms of this Agreement will control.

3.1.8 Ownership of Work Product. Notwithstanding anything to the contrary in this Agreement, all Work Product prepared or otherwise created in connection with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. § 101 (Copyright Act). If for any reason, any such Work is found not to be a Work Made for Hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

3.2 CONTRACTOR'S PRE-AGREEMENT AND PRE-WORK DELIVERABLES

3.2.1 The Contractor must provide the Deliverables in accordance with Section 4.2 of the General Conditions.

3.3 PRE-CONSTRUCTION CONFERENCE

Contractor must attend the Pre-Construction Conference in accordance with Section 4.3 of the General Conditions.

3.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

Contractor must perform the Work in accordance with Section 4.4 of the General Conditions.

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3.5 **CONTROL OF THE PROJECT SITE**

Contractor must control and maintain the Project Site in accordance with Section 4.5 of the General Conditions.

3.6 **PROJECT SAFETY**

Contractor must implement and enforce Project safety in accordance with Section 4.6 of the General Conditions.

3.7 **MATERIALS QUALITY, SUBSTITUTIONS AND SHOP DRAWINGS**

Contractor must provide materials testing and submit substitute materials and Shop Drawings in accordance with Section 4.7 of the General Conditions.

3.8 **PROJECT RECORD DOCUMENTS**

Contractor must maintain and make available the Project Record Documents in accordance with Section 4.8 of the General Conditions.

3.9 **WARRANTY AND CORRECTION OF DEFECTIVE WORK**

Contractor must provide warranties and correct defective Work in accordance with Section 4.9 of the General Conditions.

ARTICLE 4 - CITY RESPONSIBILITIES

4.1 City will have the responsibilities, and provide the information specified in, and subject to the conditions set forth in, Section 5 of the General Conditions.

ARTICLE 5 - AGREEMENT TIME

5.1 **GENERAL**

5.1.1 The total Agreement Duration is **790** Calendar Days (including Substantial Completion by **730** Calendars Days and Final Acceptance by **790** Calendar Days).

5.1.2 The Agreement Time will start with the Notice to Proceed (NTP) and end with Final Acceptance, as set forth in Article 5.4 below.

5.1.3 The Agreement Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through Final Acceptance within the Agreement Time.

5.1.4 Time is of the essence of this Agreement for the Project, and for each phase and designated Milestone thereof.

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5.1.5 Failure on the part of Contractor to adhere to the approved Project Schedule will be deemed a material breach and sufficient grounds for termination of this Agreement by City.

5.2 PROJECT SCHEDULE

5.2.1 The Project Schedule will be updated and maintained throughout Contractor's performance under this Agreement in accordance with Section 6.2 of the General Conditions.

5.2.2 Work must be completed to meet the following milestones after the Notice to Proceed:

	Milestone		Time	Liquidated damages for delay	
1.		within	days	$	per calendar day

5.3 SUBSTANTIAL COMPLETION

Substantial Completion must be achieved no later than the Substantial Completion Date set forth in the Project Schedule. Substantial Completion will be determined in accordance with Section 6.3 of the General Conditions.

5.4 FINAL ACCEPTANCE

5.4.1 Final Acceptance will be obtained within the time period set forth in the Project Schedule.

5.4.2 Final Acceptance will be issued pursuant to Section 6.5 of the General Conditions.

5.5 LIQUIDATED DAMAGES

5.5.1 Substantial Completion Liquidated Damages. Contractor acknowledges and agrees that if Contractor fails to obtain Substantial Completion of the Work within the Agreement Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and Contractor agree that if Contractor fails to achieve Substantial Completion of the Work within the Agreement Time, City will be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

5.5.2 Final Acceptance Liquidated Damages. For the same reasons set forth in Article 5.5.1 above, City and Contractor further agree that if Contractor fails to achieve Final Acceptance of the Work within the Agreement Time, City will be entitled to retain or recover from Contractor, as liquidated damages and not as a penalty, the sum per

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calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under the Agreement.

5.5.3 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 will apply.

5.5.4 City may deduct liquidated damages described in this Article 5.5 from any unpaid amounts then or thereafter due Contractor under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due Contractor will be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable by Contractor.

5.6 MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES ONLY

5.6.1 Contractor and City waive claims against each other for consequential damages arising out of or relating to this Agreement. This mutual waiver includes.

1. Damages incurred by City for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. Damages incurred by Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

5.6.2 This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement. Nothing contained in this Article 5.6 will be deemed to preclude an award of liquidated damages, when applicable, in accordance with Article 5.5 above.

5.6.3 Nothing herein will be deemed to constitute a waiver of any other remedy available to City in the event of Contractor's default under this Agreement prior to full performance of the Work including, as applicable, specific performance or completion of the Work on behalf of Contractor, the cost and expense of which will be offset against any monies then or thereafter due to Contractor (if any) and otherwise immediately reimbursed to City by Contractor.

ARTICLE 6 - AGREEMENT PRICE

6.1 AGREEMENT PRICE

6.1.1 In exchange for Contractor's full, timely, and acceptable performances and construction of the Work under this Agreement, and subject to all of the terms of this Agreement, City will pay Contractor the "Agreement Price," which is $22,359,500.25.

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6.1.2 The Agreement Price is all-inclusive and specifically includes all fees, cost, insurance and bond premiums, and taxes of any type necessary to fully, properly and timely perform and construct Work.

6.2 **CHANGES TO AGREEMENT PRICE**
Shall be determined under Section 9 of the General Conditions.

ARTICLE 7 - PAYMENT

Payments will be made to Contractor in accordance with Section 8 of the General Conditions.

ARTICLE 8 - CHANGES TO THE AGREEMENT

Changes to the Agreement may be made in strict accordance with Section 9 of the General Conditions.

ARTICLE 9 - SUSPENSION AND TERMINATION

This Agreement may be suspended or terminated in accordance with Section 10 of the General Conditions.

ARTICLE 10 - INSURANCE AND BONDS

10.1 Contractor must provide insurance in accordance with Sections 11.1 through 11.3 of the General Conditions. Contractor must provide proof of such insurance and all required endorsements in forms acceptable to City prior to commencing any Work under this Agreement.

10.2 Contractor must provide performance and payment bonds to City in Accordance with Section 11.4 of the General Conditions and A.R.S. § 34-222.

10.3 Failure to provide proof of insurance and the required endorsements, or the required bonds, in forms acceptable to City, will be a material breach and grounds for termination for cause of this Agreement.

ARTICLE 11 - INDEMNIFICATION

Contractor must have and assume the indemnity obligations set forth in Section 12 of the General Conditions.

ARTICLE 12 - DISPUTE RESOLUTION

Any claims or disputes relating to this Agreement will be resolved according to the dispute resolution process set forth in Section 13 of, and Appendix 6 to, the General Conditions.

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ARTICLE 13 - FORCED LABOR OF ETHNIC UYGHURS PROHIBITED By entering into this Agreement, Contractor certifies and agrees Contractor does not currently use and will not use for the term of this Agreement: (i) the forced labor of ethnic Uyghurs in the People's Republic of China; or (ii) any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (iii) any contractors, subcontractors or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

SIGNATURE PAGE TO FOLLOW

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement through their duly authorized representatives and bind their respective entitles as of the effective date.

"CITY"
CITY OF CHANDLER

Mayor

RECOMMENDED BY:

Daniel Haskins December 16, 2025

Daniel Haskins, P.E.
CIP City Engineer

APPROVED AS TO FORM:

City Attorney

ATTEST:

City Clerk Seal

"CONTRACTOR"
ACHEN-GARDNER CONSTRUCTION LLC

Bryan Mueller December 16, 2025

Signature Date

Bryan Mueller

Print Name

Vice President

Title

bmueller@achen.com

Signer Email Address

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Exhibit A

PROJECT SPECIFIC
SPECIAL PROVISIONS

4.9 Warranty and Correction of Defective Work
Except as otherwise set forth herein, there will be no warranty period beyond the date of Final Acceptance. Notwithstanding the foregoing, the Contractor shall remain fully responsible for ensuring compliance with, and passing through to the City, all manufacturer warranties required under this Agreement and the Contract Documents. Nothing in this provision shall relieve the Contractor of its obligation to perform the Work in accordance with the requirements of this Agreement or to correct defective or nonconforming work as specified herein.

4.2.7 Aerial Construction Photography
General Conditions Section 4 Subsections 4.2.7.1 & 4.2.7.2 are not applicable to this project

4.2.8 Government Approvals and Submittals
General Conditions Section 4 Subsection 4.2.8.1, City permit fees will be paid internally by the City and all other fees will be the responsibility of the Contractor.

6.5.4 Landscape establishment Period
The landscape establishment period will run for a minimum of 90 calendar days prior to Final Acceptance.

Subletting of Agreement
Contractor must perform, with his own organization, work amounting to not less than 50 percent of the total Agreement cost.

Failure to submit Subcontractor's List Form, demonstrating self-performance not less than 50 percent of the total Agreement cost, will cause the bid to be deemed non-responsive.

Bidders should contact the Arizona Registrar of Contractors for information on license requirements.

Traffic Control

A. Definition

Active Work-work being done in the right of way that needs to be protected from traffic, or work being performed that causes unsafe travel conditions for motorist or pedestrian.

B. Contractor's work and operation in the right of way must be performed in accordance with the Manual of Uniform Traffic Control Devices, (Latest Edition) and City of Chandler Standards. Contractor's work and operation must not cause unnecessary travel inconvenience to the public and public access will be reasonably considered unless otherwise authorized in writing by city. Contractor must coordinate Contractor's operations and work in the right of way with various stakeholders including, but not limited to governments and other public entities, utilities, and commercial, parties to ensure adequate services are maintained.

C. Vehicular and pedestrian access must be always maintained to adjacent properties during construction. Where a parcel contains more than one point of access, Contractor may not close temporarily, any access point without the City's written approval. Contractor must maintain access

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to private residential and commercial driveways during all non-working hours City will approve upon City's confirmation that all affected owners, tenants, and other stakeholders have been notified of the closure location and duration.

D. Traffic control must not be installed or staged within 24 hours before work is scheduled to start. Traffic control must be removed from the site within 24 hours after work has been complete. Additional time may be allowed to accommodate cure times. If scheduled active work is canceled or reschedule for any reason, Contractor will notify city and construction team immediately and remove all traffic control within 12 hours. Contractor will also provide to City and construction team written explanation of any cancellation or rescheduling.

E. In the event of abnormal weather conditions, Contractor must immediately inspect its work area and take all necessary actions to ensure that public access and safety is maintained.

F. Contractor must provide city with the emergency phone number of its representative. The Contractor's representative must be available for twenty-four (24) hours per day, seven (7) days a week.

G. All traffic control plans must be displayed on the 3-week look ahead schedule and presented at each construction meeting to include dates shown on approved Traffic control permit. Schedule will note all holiday, weekend and peek hour restrictions, per approved traffic control plan.

H. Contractor must review all traffic control each week with city and construction team. This review will include locations of active work and scheduled active work for approved and pending traffic control plans. Contractor must provide a list of affected properties for notification and coordination.

I. Prior to set up, all traffic control plans must be shared with the construction team after approval by city traffic department.

J. Contractor must not block or relocate public transportation stops, such as bus stops or ride share drop offs, and mail deliveries without written permission from city.

K. All traffic control permits will be submitted under the project's city encroachment permit.

L. Contractor must utilize City of Chandler Traffic Manual when hiring off duty officers if required by approved traffic control plans.

M. The Contractor will maintain a minimum of one lane in each direction on Lindsay Road, minimum of two lanes in each direction on Ocotillo Road, Chandler Heights Road, Riggs Road, and Hunt Highway unless otherwise directed by City Representatives. A dedicated left turn lane for all directions of travel will be maintained at Lindsay Road Intersections at Ocotillo Road, Chandler Heights Road, Riggs Road, and Hunt Highway.

N. Contractor's failure to adhere to any or of these requirements above are subject to a maximum financial penalty based off the table below. Penalties will be deducted from the following monthly pay app and will not be refundable. Infractions are to be identified in writing by city CM and final fee

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amount is to be determined by Chandler City Engineer. Fines are doubled with each duplicate occurrence.

O. Fee Table

Item	**Fee**
B	**0.25% of Contract Amount**
C	**0.33% of Contract Amount**
D	**0.25% of Contract Amount**
E	**0.25% of Contract Amount**
F	**0.10% of Contract Amount**
G	**0.25% of Contract Amount**
H	**0.25% of Contract Amount**
I	**0.25% of Contract Amount**
J	**0.25% of Contract Amount**
K	**0.33% of Contract Amount**
M	**0.25% of Contract Amount**

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EXHIBIT B

GENERAL CONDITIONS

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CHANDLER arizona
Community of Innovation

GENERAL CONDITIONS

Approved date: July 20, 2022

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SECTION 1 - SCOPE OF THESE GENERAL CONDITIONS

These General Conditions encompass provisions that apply, and are incorporated into all construction Agreements entered into by the City of Chandler, unless otherwise specifically excluded in the executed Agreement.

SECTION 2 - GENERAL DEFINITIONS

Allowance: A specific amount for a specific item of Work, if any, that City agrees has not been sufficiently designed, detailed, or selected (including design changes from 90% to 100% as authorized by and at the discretion of the City) at the time the Agreement Price is agreed to for Contractor to provide a definitive price.

Alternate Systems Evaluations or Alternative Analysis: Alternatives for design, means and methods or other scope considerations that are evaluated using value analysis principles and have the potential to reduce construction costs while still delivering a quality and functional Project that meets City requirements.

Change Order: A written instrument issued after execution of the Agreement Documents signed by City and Contractor, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or deliverables; the amount of the adjustment to the Agreement Price, the extent of the adjustment to the Agreement Time, or modifications of other agreement terms. The Agreement Price and the Agreement Time may be changed only by Change Order.

Consultant: Person or firm that provides professional services.

City (Owner or OWNER): City of Chandler, a municipal corporation, with whom Contractor has entered into the Agreement and for whom the Work or Services are to be provided pursuant to the Agreement(s).

Contingent Bid Items: This is a minor bid item which is likely, but not certain, to occur during the course of work. If the Engineer determines that this work is required, the Contractor will accomplish the work and payment will be made based on the contingent unit bid price included in the proposal. Since the quantity listed in the proposal is primarily for bid comparison, the amount of work required by the Engineer may vary materially from this.

Agreement: The written agreement executed between City and Contractor, including all of the Agreement Documents.

Agreement Documents: The documents which together form the Agreement between City and Contractor, as identified in Article 2 of the Agreement, or are otherwise incorporated into the Agreement, including the Agreement, the exhibits thereto, these General Conditions, any Notice to Proceed, and any Job Order (if applicable), the Plans and Specifications, Project Schedule, written and properly executed Change Orders, MAG Specifications and City's amendments thereto, and any other documents so designated in the Agreement.

Agreement Price: The agreed-upon price to be paid to Contractor for full, timely, and acceptable completion of the Work or Services under the terms of the Agreement.

Agreement Time(s): The number of calendar days or the dates related to the applicable phase, Substantial Completion, or Final Acceptance as stated in Agreement Documents. Agreement Time starts

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with the Notice to Proceed (NTP) and ends with Final Acceptance. The Agreement Time is set forth in the Agreement and is based upon the Project Schedule agreed to by City in writing.

Contractor: The person or business association with whom City has entered into an agreement for construction related Work or Services in relation to the Project at issue.

Contractor Payment Request: The form that is accepted by City and used by Contractor in requesting progress payments or final payment and which must include such supporting documentation as is required by the Agreement Documents or City.

Construction Budget: The City's budget for construction of the Project.

Construction Documents: The Plans, Specifications, and Drawings prepared and issued by the Design Professional and approved by City for construction, meaning the documents are sealed by the Design Professional (as required), acceptable for permitting and incorporated into the Agreement by this reference. All amendments and modifications to the Construction Documents must be approved in writing by City prior to incorporation into the Agreement.

Cost of the Work: The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs will be at rates not higher than the standard paid at the place of the Project except with prior consent of City.

Critical Path Method (CPM): A scheduling technique which identifies the logical sequence of the activities occurring in a Construction Project, the anticipated time required to complete each activity in the Project, and the activities that must be completed on schedule to finish the Project within the anticipated time. Typically, activities are arranged in a network that shows both activities and their dependencies. CPM is also used as a management technique which enables contracting parties to predict when activities may occur so that resources can be effectively used and limitations can be identified.

Critical Path: Critical Path is the sequence of project network activities which add up to the longest overall duration. Once established in the Project Schedule, the Critical Path for the Project must not be changed without prior written approval of City.

Day: Calendar day(s) unless otherwise specifically stated in the Agreement Documents.

Design Professional: The qualified, licensed person, firm or corporation who furnishes design and construction administration services required under the Agreement Documents. These services may include, but are not limited to: development of Construction Drawings and Documents, review of Contractor Submittal(s), review of and response to Requests for Information, approval and certification of progress payment applications, construction administration, and construction agreement close out.

Differing Site Conditions: Concealed or latent physical conditions or subsurface conditions at the Site that, (i) materially differ from the conditions indicated in the Agreement Documents, or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work at the general area of the Site. Caliche, rock, hard-digging or sandy/silty soil encountered on a project is not considered a "Differing Site Condition."

Drawings (Plans): Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by Contractor during the construction phase and which have been prepared

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or approved by the Design Professional and City. These documents include Drawings that have reached a sufficient state of completion and released by Design Professional solely for the purposes of review and use in performing constructability or bid-ability reviews by Contractor and in preparing cost estimates (e.g. Master Planning and Programming, Schematic Design, Design Development, and Construction Drawings), but *"not for construction*." Shop Drawings are not Drawings as so defined.

Final Acceptance: The City's acceptance of the facility or project from the Contractor after all Work is completed, tested, and inspected in accordance with the Agreement requirements. Final Acceptance results in a Letter of Acceptance (LOA).

Fixed Price: A fixed price or amount for an Agreement Price, Scope of Work, materials, or other item under an Agreement, Change Order, or other agreement, which City agrees, in writing, to pay instead of the actual cost.

Float: The number of Days by which an activity can be delayed without lengthening the Critical Path and extending the Agreement Time. Unless otherwise expressly agreed in writing, all Float belongs to City.

Laws, Regulations, or Legal Requirements: Any and all applicable laws, rules, regulations, ordinances, codes and orders applicable to the Project of any and all governmental bodies, agencies, authorities and courts having jurisdiction and any applicable provisions of the Development Agreement for the Project (if any), including, without limitation, those provisions relating to the design and construction of the Project.

Line Item: The individual elements of Work identified on a bid or other schedule and associated with a price or a unit price and quantity particular to that individual element of the Work. Also refers to individual items of work within the Schedule of Values.

Liquidated Damages: Designated damages for the City to collect as compensation upon a specific breach (example: late delivery).

Long-Lead Item: Long-lead item refers to the equipment, product, or system that is identified at the earliest stage of a project to have a delivery time long enough to affect directly the Critical Path/the overall lead time of the project.

MAG: The Maricopa Association of Governments.

MAG Specifications: The most current version of the Uniform Standard Specifications for Public Works Construction published by MAG.

MAG Standard Details: The most current version of the Uniform Standard Details as published by MAG.

Minor change: A change in the Work having no impact on cost or time or the City-approved design intent, as determined by City.

Notice to Proceed (NTP): A written notice given by City to Contractor fixing the date on which Contractor will start to perform Contractor's obligations under the Agreement.

Project: The Project specified in the Agreement (including a Job Order).

Project Manager: The Project Manager designated in Article 1 of the Agreement, or any successor thereto

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designated by City. The Project Manager has the authority to act on behalf of City, as delineated and limited by the Agreement Documents and applicable law. And City will communicate with Contractor through the Project Manager. However, the Project Manager has no authority to bind City or City Council in contravention of any City code, State or Federal statute or regulation, or these General Conditions.

Project Schedule: The schedule for the completion of the Project agreed to and required by City.

Project Specific Conditions: Additional conditions which apply to the specific Project and Scope of Work which are set forth in Exhibit D of the Agreement.

Project Team: The Project Team consisting of the Design Professional, Contractor, Project Manager, and such others as City may designate.

Punch List: The list initially prepared by Contractor pursuant to the Agreement Documents, reviewed and supplemented by the Project Manager (and at the sole option of the Project Manager, the Design Professional) and approved by City containing items of incomplete work not impacting Substantial Completion, if allowed for under the Agreement, and to be completed or corrected by Contractor after Substantial Completion and before Final Acceptance in accordance with the Agreement Documents.

Quality Assurance (QA) Testing: Testing performed to verify the accuracy and applicability of the QC testing results and to ascertain that the materials installed meet the specified levels of quality in accordance with the Agreement Documents.

Quality Control (QC) Testing: Testing performed to assure that the materials installed comply with the requirements in the Agreement Documents.

Requests for Information (RFIs): Formal written request from Contractor to City or Design Professional for the Project seeking clarification or additional information needed for Contractor to properly complete the Work or Services under the Agreement. City may require RFI's to be submitted on a specific form or in a specified format.

Schedule of Values (SOV): The specified document prepared by Contractor, and approved and accepted by City, which divides the Agreement Price into pay items, such that the sum of all pay items equals the Agreement Price for the construction phase Work, or for any portion of the Work having a separate specified Agreement Price.

Scope of Work: The scope of work agreed to or required by City and incorporated into the Agreement as Exhibit A.

Shop Drawings: All drawings, diagrams, schedules and other data specifically prepared for the Work by Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

Site: The land or premises on which the Project is located.

Specifications: The part(s) of the Agreement Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. Where specified, the Project must be constructed using the current Uniform Standard Specifications and Details for Public Works

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Construction as furnished by the Maricopa Association of Governments, as amended by City.

Subconsultant: A person, firm or corporation having an Agreement with Consultant/Contractor to furnish services required as its independent professional associate or consultant with respect to the Project.

Subcontractor: An individual or firm having a direct Agreement with Contractor or any other individual or firm having an Agreement with the aforesaid contractors at any tier, who undertakes to perform a part of pre-construction services or construction phase Work at the Site for which Contractor is responsible. Subcontractors must be selected through the Subcontractor selection process described in the Agreement Documents, if any.

Substantial Completion: The date when the City determines that the Work (or separable units of Phases as provided in the Agreement Documents) is essentially and satisfactorily complete in accordance with the Agreement Documents such that the Project is ready for use by the City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories, and similar elements are installed in the proper manner and in operating condition, inspected, and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air conditioning, vertical transportation, and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other work as applicable, has been performed to a similar state of essential and satisfactory completion.

Supplier: A manufacturer, fabricator, distributor, or vendor having a direct Agreement with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by Contractor or any Subcontractor.

Total Float: Number of Days by which pre-construction services or construction phase Work or any part of the same may be delayed without necessarily extending a pertinent Agreement Time or schedule milestone in the Project Schedule.

Work: The entire completion of construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Agreement Documents for the construction phase.

Writing: Typing, printing, photography and other modes of representing or reproducing words in a visible form, including email, and expressions.

SECTION 3 - STANDARD SPECIFICATIONS AND DETAILS

3.1 City operates under the latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of the City's Unified Development Manual, may be found and downloaded from City's website at http://www.chandleraz.gov.

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3.2 Copies of the MAG Specifications and MAG Standard Details are available at the Maricopa Association of Governments office, 302 N. 1st Avenue, Suite 300, Phoenix, Arizona. They may also be downloaded from their website at: http://www.azmag.gov/Newsroom/Publications

3.3 The MAG Specifications and Standard Details and City's amendments thereto are incorporated into the Agreement by this reference.

SECTION 4 - CONTRACTOR'S RESPONSIBILITIES FOR CONSTRUCTION SERVICES

4.1 **GENERAL**

4.1.1 Contractor must construct the Work in accordance with the Agreement Documents and as outlined in Exhibit A of the Agreement to the satisfaction of City, exercising the degree of professional care, skill, diligence, quality and judgment that a professional construction manager engaged, experienced and specializing in the construction management of construction and facilities of similar scope, function, size, quality, complexity and detail in urban areas throughout the United States comparable to Chandler, Arizona would exercise at such time, under similar conditions. Contractor must, at all times, perform the Work in conformance with sound and generally accepted engineering principles and construction management and construction contracting practices.

4.1.2 If Contractor observes errors, discrepancies or omissions in the Agreement Documents, Contractor must promptly notify the Design Professional and City and request clarification. If Contractor, with the exercise of reasonable care, should have recognized such error, inconsistency, omission, or difference and fails to report it to City, and if Contractor proceeds with the Work affected by such observed errors, discrepancies or omissions, without receiving such clarifications, Contractor does so at its own risk and will be liable to City for damages resulting from proceeding without clarification.

4.1.3 Project Team and agents of each of them, testing agencies and governmental agencies with jurisdictional interests will be provided access to the Work at reasonable times for their observation, inspection, and testing. Contractor must provide proper and safe conditions for such access.

4.1.4 Contractor must comply with, and require all Subcontractors to comply with, the Arizona Contractors' license laws, including all requirements with respect to being duly registered and licensed.

4.1.5 Contractor must ensure that all employees performing any Work for which Contractor is responsible have a legal right to live and work in the United States. In addition, all compensation of any such employee must meet all applicable requirements of the Fair Labor Standards Act (FLSA) and Federal Minimum Wage laws.

4.1.6 Contractor must comply with the Immigration Reform and Control Act of 1986 (IRCA). Contractor understands and acknowledges the applicability of the IRCA activities. Contractor agrees to comply with the IRCA while performing their work and to permit City inspection of Contractor personnel records to verify such compliance.

4.1.7 Pursuant to MAG Specifications §§ 107.4, Contractor must report immediately any discovery of archeological ruins or artifacts. Excavation must stop immediately so that City can decide on the pertinent steps to follow such discovery.

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4.1.8 All property owners that may be affected by the proposed construction activities must be notified of the scope, duration of the construction activities and possible interference with their day-to-day activities by Contractor prior to start of construction. In addition, individual residential or commercial interferences, such as driveway restrictions, water outages, and all other Work adjacent to residence/business, require 48-hour notification in advance of specific adjoining Work. Notification may be through door hangers or other procedures approved by the City.

4.1.9 Access must be maintained to adjacent properties at all times during construction. Where property has more than one point of access, no more than one access will be restricted or closed at any one time. Access to adjacent private driveways will be maintained during all non-working hours.

4.1.10 Contractor must furnish and erect construction signs in accordance with Project Specifications. The signs must be professionally prepared and subject to approval by City, must be maintained by Contractor for the duration of the project, and must be removed by Contractor during the final project clean up.

4.1.11 The number of signs required, the size, shape, installation requirements and information to be included for construction signs is established on the detail sheet, provided, however, signs must be a minimum of 4 foot by 8 foot and must be installed so that the bottom of the sign is at least 4 foot above grade. No direct payment will be made for furnishing and erecting construction signs. The cost thereof must be included in other items for which direct payment is made. Sign locations will be determined by City.

4.1.12 All required construction signs must be installed by Contractor within 7 Days of Notice to Proceed.

4.1.13 The Work to be accomplished under these Agreement Documents has been designed for City by a Design Professional retained by City for this purpose. It is understood that normal construction Administration for the purpose of interpretation of the Agreement Documents is provided by City. Should any services of the Design Professional be required to assist in the corrections of errors or omissions by Contractor, or services of the Design Professional be required because of changes in structure or equipment where Contractor has requested approval of substitute methods or material, or any other items detailed herein below, those services will be provided by the Design Professional at the standard hourly rates previously negotiated with City and must be paid for by the Contractor.

4.1.14 Contractor must reimburse City for costs incurred by the Design Professional for additional services to the Project through no fault of City or the Design Professional including, but not limited to, the following conditions:

a. Additional Site visits, investigations, inspections, design work or reports by the Design Professional which are required due to damages to existing facilities or completed Work caused by the Contractor in his performance, Contractor's negligence, or Contractor's Work which is rejected as defective or as failing to conform to the Agreement Documents;

b. Design Professional construction phase services rendered on the project during the time the project remains incomplete after the Agreement date of final completion will be charged to Contractor at a rate previously negotiated City; and

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c. All retesting required due to the failure of Contractor's Work to meet the requirements of the Agreement Documents will be at Contractor's expense. All standby and travel time by the City's testing lab, the Design Professional or City due to Contractor's inability to be prepared for testing at the agreed upon time will be at the Contractor's expense.

4.1.15 City may withhold from any payment otherwise due to Contractor any amounts necessary to pay the Design Professional for such additional services as provided herein above.

4.1.16 Contractor will not be required to bear additional costs incurred by City due to errors by the Design Professional.

4.2 **CONTRACTOR'S PRE-AGREEMENT AND PRE-WORK DELIVERABLES**

4.2.1 Prior to award of the Agreement, Contractor must execute Agreement and deliver to City. Failure to do so may delay Agreement award. Contractor must also provide to City its Contractor's License classification and number and its Federal Tax I.D. number.

4.2.2 Before beginning any Work under the Agreement, Agreement must be fully executed by City.

4.2.3 After Agreement award, City will issue to Contractor an award letter. At that time Contractor must deliver to City such bonds and certificates of insurance with endorsements in such amounts (and other evidence of insurance requested by City) required under Section 11 of these General Conditions, and as the Agreement requires.

4.2.4 As evidence of Workmen's Compensation Insurance, Contractor must, upon request, provide a letter of certification from the Industrial Commission of Arizona that Contractor is insured by the State Compensation Fund or is an authorized self-insurer or a certificate of insurance issued by an insurance company authorized by the Insurance Department of Arizona to write Workmen's Compensation and Occupational Disease Insurance in the State of Arizona.

4.2.5 Within 10 Days of the date of the executed Agreement letter issued by City, Contractor must submit to City for review and acceptance the following items:

4.2.5.1 Comprehensive construction Project Schedule including a Critical Path Method (CPM) diagram schedule as described in Section 6.2. Project Schedule must be in Microsoft Project standard file format. Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review.

4.2.5.2 Preliminary schedule of submittals and Shop Drawings. Within 10 Days of receipt of City's comments, Contractor must submit the corrected and completed schedule of Shop Drawings submissions for approval. Contractor's schedule of Shop Drawings and sample submittals will be acceptable to City if it provides a workable arrangement for reviewing and processing the required submittals.

4.2.5.3 Schedule of Values in a form specified by City reflecting the subcontracts and other categories that will be used to submit Pay Applications for the Work. The total amount of the Schedule of Values must not be greater than the Agreement Price. The Schedule of Values will be reviewed at the Pre-Construction Conference and revised by Contractor within 10 Days after Pre-Construction Conference in response to comments and questions from

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City. Once accepted by City in writing, the Schedule of Values for the Project must not be changed without the prior written approval of City.

4.2.6 Video Recording Requirement. Prior to performing any Work, Contractor must document the existing conditions of the Site, all other areas where Work will occur and all adjacent areas that may be impacted by the Work via digital video format. Contractor must video record and index all areas, features, buildings and other public and private improvements that could potentially be impacted by the Work. Video recording must be coordinated with City. When video recording private property, Contractor must also coordinate the video recording with the private property owner, if possible. Contractor must provide City with a copy of said digital video format prior to performing any Work.

4.2.7 Aerial Drone Construction Photography.

4.2.7.1 If Agreement duration is greater than 90 calendar days, Contractor must engage a professional unmanned aerial vehicle (UAV) aerial pilot to photograph the Site prior to construction mobilization, at three-month intervals during construction, and following final inspection. Drone camera specifications must meet the following minimum requirements:

a. 1-inch CMOS
b. Pixels: 20M
c. FOV 84 8.8 mm/24 mm (35 mm format equivalent) f/2.8-f/11 auto focus at 1 m-
d. For photographing: 16.9 Aspect Ratio: 5472x3078
e. For video shooting: MP4/MOV/H.264
f. FHD: 1920x1080 120p @100Mbps
g. File format: High Definition (HD) JPEG for digital photos and HD MPEG 4 for digital video.
h. All metadata to be recorded including GPS data and preserved with photographs provided.

Interval	**JPEG**
3 month intervals	At an altitude (AGL) between 70-90 ft.
3 month intervals	Images to be taken every 50-100 ft. to be determined based on project scope.

4.2.7.2 Drone photos to be taken in sequential geographical order and then organized and provided in the same manner unless otherwise specified.

4.2.7.3 Photos to be provided digitally via an online file share service and/or by a USB drive to contractor.

4.2.7.4 Drone pilots to obey ALL local (city, county, state) UAV regulations as well as FAA UAV guidelines including, but not limited to, conducting all flights during daylight hours, not exceeding maximum altitude ceilings (depending on area), not flying over people, yielding to other aircraft.

4.2.7.5 Drone pilots must fly drone within visual line of sight (VSOL) and have visual spotter when needed. Drone pilots only to operate in favorable weather conditions when minimum visibility is 3 miles or greater.

4.2.7.6 Drone pilots to conduct a preflight checklist and visually inspect the entire flight path prior to flying to ensure a safe flight.

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4.2.7.7 Airspace Authorizations. Operations in Class G airspace are allowed without air traffic control (ATC) permission. Operations in Class B, C, D and E airspace need ATC authorization. Drone pilots to schedule each flight in advance and based on airspace if required will notify nearby airports/control towers, etc.

4.2.8 Government Approvals and Permits.

4.2.8.1 Contractor must obtain all necessary permits for the Work and pay all applicable fees, unless otherwise noted on the Plans and in the Specifications. City permit fees will be paid internally by City. For bidding purposes, an allowance for all permit fees is included in the bid schedule under the item "allowance for permit fees." The Contractor will be paid for the actual cost of the permit fees upon submitting a receipt showing the fee Contractor has paid. Excluded from the above allowance are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, cost for all shutdowns or outages, cost for pole bracing, cost of permits for construction water, cost of construction water, cost for any additional insurance requirements, cost for any licenses, and other similar type costs. Contractor is specifically notified of the need to obtain the necessary environmental permits or file the necessary environmental and regulatory permit notices.

4.2.8.2 Copies of all permits and the associated notices must be provided to City prior to starting the permitted activity.

4.3 PRE-CONSTRUCTION CONFERENCE

4.3.1 Prior to the commencement of any Work, City will schedule a Pre-Construction Conference.

4.3.2 The purpose of this Conference is to establish a working relationship between Contractor, the utility firms, and various City agencies. The agenda will include critical elements of the Work schedule, submittal schedule, cost breakdown of major lump sum items, Payment Requests and processing, coordination with the involved utility firms, and emergency telephone numbers for all representatives involved in the course of construction.

4.3.3 Minimum attendance by Contractor at any mandatory meeting with City must be (1) Contractor's Representative, who is authorized to execute and sign documents on behalf of the firm, (2) Contractor's on-site Superintendent, and (3) Contractor's Safety Office, or other employee responsible for safety.

4.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

4.4.1 Unless otherwise provided in the Agreement Documents to be the responsibility of City or a separate Contractor, Contractor must provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Contractor to complete the Work consistent with the Agreement Documents.

4.4.2 Contractor must perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Agreement Documents. Contractor must at all times exercise complete and exclusive control over the means, methods, safety, sequences and techniques of construction.

4.4.3 Contractor's Superintendent must be present at the Site at all times that material Work

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under this Agreement is taking place. Contractor's Superintendent or designee must be present at the Site at all times any other Work under this Agreement is taking place. Superintendent must not be replaced without written notice to City. Whenever the Superintendent is not present at a particular part of the Work where the City or Design Professional may desire to inform the Contractor relative to interpretation of the Drawings and Specifications or to disapproval or rejection of materials or Work performed, the City or Design Professional may provide such information in writing to the foreman or other worker in charge of the particular part of the Work in reference to which the information is given. Information so given will be as binding as if given to the Superintendent.

4.4.4 All elements of the Work must be under the direct supervision of a foreman or his designated representative on the Site who must have the authority to take actions required to properly carry out that particular element of the Work.

4.4.5 Working Hours. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated, all Work at the Site must be performed during regular working hours, and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without City's written consent given after prior written notice to City. If it will become absolutely necessary to perform Work at night or on Saturdays, Sundays or legal holidays, the City must be informed at least 24 hours in advance of the beginning of performance of such Work. Only such Work will be done at night as can be done satisfactorily as determined by the City. Good lighting and all other necessary facilities for carrying out and inspecting the Work must be provided and maintained at all points where such Work is being done. Further, unless such non-normal work hours are performed at City's request or required by the Agreement Documents, Contractor must pay to City all additional costs incurred by City by reason of such non-normal working hours. Expenses incurred by City for overtime compensation must be reimbursed by Contractor as follows: (i) City staff at the rate set forth in current City Fee Schedule as published on City website, (ii) Design Professional and staff at the standard hourly rates previously negotiated with City, and (iii) all others at actual cost plus ten percent administrative overhead. Such costs may be deducted by City from any payments due to Contractor. Provided, however, if overtime work or work during other than normal hours is at the request of City and not due to Contractor delay, City will pay the cost of City overtime expenses.

4.4.6 Where the Agreement Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is Contractor's responsibility to ensure the Subcontractor employed for such work is approved by the manufacturer. All materials and equipment must be stored, applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Agreement Documents; but no provisions of any such instructions will be effective to impose on City of Design Professional responsibility for the means, methods, techniques, sequences or procedures of construction or for safety precautions incident thereto.

4.4.7 Before starting the Work, Contractor must carefully study and compare the various Plans, Drawings, other Agreement Documents, and Specifications relative to that portion of the Work, as well as the information furnished by City, must take field measurements of any existing conditions related to that portion of the Work and must observe any conditions at the Site affecting it. The exactness of grades, elevations, dimensions, or locations given on any Drawings, or the Work installed by other contractors, is not guaranteed by City.

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4.4.8 Before ordering materials or doing Work, Contractor and each Subcontractor must verify measurements at the Site and will be responsible for the correctness of such measurements. No extra charge or compensation will be allowed because of differences between actual dimensions and the dimensions indicated on the Agreement Documents, including the Drawings.

4.4.9 Ground Level Construction Photography.

4.4.9.1 The Contractor must furnish progress photographs of the project. The photographer selected by the Contractor must be approved by the City and must be either a commercial photographer or an individual experienced and equipped for such photography.

4.4.9.2 The Contractor must deliver to City all photographs taken during that period with each application for payment. If the current photographs do not accompany the application, the application will not be reviewed and will be returned to the Contractor as incomplete.

4.4.9.3 Photographs must be identified by use of typewritten labels affixed to the back of the photograph. The label must provide a description of the view, the direction from which the photograph was taken, the name of the project, City's project number, the name of Contractor and the date of the photography. The stationing must also be included for all pipeline installations.

4.4.9.4 Photographs must be taken during the construction period and must be of aesthetic composition and depict the progress of the Work from the beginning of construction through and including the finished product. City may vary the specified frequency so that significant progress or changes can be recorded on the photographs.

4.4.10 Underground Facilities.

4.4.10.1 The existence and number of facilities as shown on the Plans are estimated from information furnished by the particular utility. Contractor is responsible for field verification and location of all utilities prior to the start of construction. No field work will be allowed to start until Contractor has contacted Arizona 811 and all affected utilities have been located. In addition, Contractor must expose and physically locate all potentially conflicting utilities prior to construction. The actual locations of the utilities must be compared to locations shown on the Plans and any required changes in alignment and grade must be made at the time of construction in consultation with Project Manager. It is generally recognized and Contractor should anticipate that information from Arizona 811 or information from utility companies during project design, frequently fails to disclose all underground facilities. The fact that more utility lines or other underground facilities are located in the Project Site than shown on the Project Plans does not constitute an "unforeseen Condition" and such undisclosed underground facilities do not differ materially from the conditions which Contractor should expect. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction apply and are incorporated herein by this reference.

4.4.10.2 Contractor is responsible for all coordination with utility companies. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction strictly apply and no additional compensation will be paid to Contractor for delays due to utility work on the project.

4.4.11 Relocation of Existing Water Meters. When a service line has been extended and a line

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setter installed in a meter box, City forces will re-install meter. No compression fittings will be utilized.

4.4.12 Water Turn-On or Turn-Off.

4.4.12.1 Contractor must coordinate all water line turn-ons and turn-offs through the City. Application must be made to the Municipal Utility Division and Contractor must pay the established charges. The City will close existing valves, but will not guarantee a bone-dry Shutdown.

4.4.12.2 Contractor must notify all customers affected by the turn-off not less than 48 hours in advance. Notification must be in writing, must give the reason for the turn-off and must give the estimated time and duration that water service will be interrupted. Contractor is also notified that water turn-off will not be permitted on the Day before and after Thanksgiving Day and Christmas Day.

4.4.12.3 No direct payment will be made to Contractor for turn-ons or turn-offs. Costs associated therewith will be included in other items for which direct payment is made.

4.4.13 Tests and Inspections.

4.4.13.1 Contractor must give City timely (at a minimum, twenty-four hours) notice of readiness of the Work for all required inspections, tests or approvals. Contractor must give timely notice to City in advance of backfilling or otherwise covering any part of the Work so that city representative may, if desired, observe such part of the Work before it is concealed. Whenever Contractor varies the normal period during which Work or any portion of it is carried on each Day, Contractor must give timely notice to City so that city representative may, if desired, be present to observe the Work in progress. If Contractor fails to give such timely notice, any Work done in the absence of city representative will be subject to rejection. If Contractor gives such notice to City, but then is not ready for such inspections, tests, approvals or observations at the time so noticed, Contractor must reimburse City for all costs incurred by the attendance of city representatives.

4.4.13.2 If any law, ordinance, rule, regulation, code, or orders of any public body having jurisdiction requires any Work (or part thereof) to be inspected, tested or approved, Contractor (unless another party is specified in the Agreement Documents) must assume full responsibility therefor, pay all costs in connection therewith and furnish City the required certificates of inspection, testing, or approval. Contractor must also be responsible for and must pay all costs in connection with any inspection or testing required by the Specifications in connection with City's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Agreement Documents will be paid by City (unless otherwise specified).

4.4.13.3 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction must be performed by organizations acceptable to City and by the Design Professional if so specified.

4.4.13.4 Neither observations by City, the Design Professional nor inspections, tests or approvals by others will relieve Contractor from their obligations to perform the Work in accordance with the Agreement Documents.

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4.4.14 Uncovering Work. If any Work that is to be observed, inspected, tested or approved is covered without written concurrence of City, it must, if requested by City be uncovered for observation. Unless Contractor has given City timely notice of Contractor's intention to cover such Work and City has not acted with reasonable promptness in response to such notice, Contractor must furnish all necessary labor, material and bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order will be issued.

4.4.15 In all cases of interconnection of its Work with existing or other Work, Contractor must verify at the Site all dimensions relating to such existing or other Work. Any errors due to Contractor's failure to so verify all such grades, elevations, locations or dimensions must be promptly rectified by Contractor without any increase in the Agreement Price. Any design errors or omissions noted by Contractor during this review must be reported promptly to City.

4.4.16 Contractor must establish and maintain all construction grades, lines, levels, and benchmarks, and will be responsible for accuracy and protection of same. This Work must be performed or supervised by a licensed civil engineer or surveyor in the State of Arizona.

4.4.17 Contractor must photograph all buried piping of greater than four (4) inches in diameter prior to backfill.

4.4.18 Contractor is responsible for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Agreement Documents is intended or deemed to create any legal or contractual relationship between City and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

4.4.19 Contractor must coordinate the activities of all Subcontractors. Contractor must coordinate performance of the Work with City's Public Works & Utilities Department and other departments or agencies within City. The Design Professional and other contractors or parties involved in the Project. If City performs other work on the Project or at the Site with separate contractors under City's control, Contractor agrees to cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

4.4.20 Contractor will not substitute or change any Subcontractor or Supplier without the prior written approval of City. Any substitute or replacement Subcontractor or Supplier must be required to meet the same qualifications and selection criteria and process as the original Subcontractor or Supplier. If a Subcontract/Supplier selection plan has been approved by City, Contractor will follow that plan unless otherwise approved by City in writing.

4.4.21 Contractor must not change or replace any members of its Project team, including Contractor's Representative, Project Manager, or Superintendent, without an explanation for the change being given to City, and receiving prior written approval of the change from City, which approval will not be unreasonably withheld.

4.4.22 Subcontractors whose scope of work has a value greater than 15% of the total Agreement Price are required to furnish performance and payment bonds to Contractor, unless

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otherwise approved in writing by City.

4.4.23 Contractor must comply with MAG Specification § 108.2 (E) unless otherwise specified in Agreement Documents.

4.5 **CONTROL OF THE PROJECT SITE**

4.5.1 Throughout all phases of construction, including suspension of Work, Contractor must keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Prior to Final Acceptance of the Work, or a portion of the Work, Contractor must remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit City to occupy the Project or a portion of the Project for its intended use.

4.5.2 Contractor must take whatever steps, procedures or means necessary to prevent dust nuisance due to construction operations. The dust control measures must be maintained at all times to the satisfaction of City and in accordance with the requirements of the Maricopa County Bureau of Air Pollution Control Rules and Regulations.

4.5.3 Contractor must maintain Americans with Disabilities Act (ADA) and American National Standards Institute (ANSI) accessibility requirements during construction activities, including without limitation compliance with the 2010 regulations governing implementation of the ADA to the extent applicable. ADA and ANSI accessibility requirements must include, but not be limited to, parking, building access, areas of refuge, and emergency exit paths of travel. Contractor is responsible for the coordination of all Work to minimize disruption to residents and the public.

4.5.4 Only materials and equipment used directly in the Work will be brought to and stored on the Site by Contractor. When equipment is no longer required for Work, it must be removed promptly from the Site. Protection of construction materials and equipment stored at the Site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

4.5.5 Contractor agrees all persons working on the Site must act at all times in the best interest of the Project and will comply with all applicable rules and regulations reasonably set forth by City related to the Site. Notwithstanding the foregoing or anything in this Agreement to the contrary, City may remove from the Site any individual who City deems in their reasonable discretion to be creating a disturbance or causing any problem on the Site.

4.5.6 Contractor will be responsible to City for the acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and any other person performing any of the Work under an Agreement with Contractor, or claiming by, through or under Contractor, for all damages, losses, costs and expenses resulting from such acts or omissions.

4.5.7 City may conduct criminal, drive history, and all other requested background checks of Contractor and Subcontractor personnel performing Work or who have access to City's information, data, or facilities in accordance with City's current background check policies, or the provisions of the Project Specific Conditions. Any officer, employee or agent that fails to background check must be replaced immediately.

4.5.8 City will have a final authority, based upon security reasons: (i) to determine when

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security clearance of Contractor's and Subcontractor's personnel is required; (ii) to determine the nature of the security clearance, up to and including fingerprinting personnel; and (iii) to determine whether or not any individual or entity may provide Services or perform Work under the Agreement.

4.5.9 If City objects to any personnel for any reasonable cause, then Contractor must, upon notice from City, remove such individual from the Project.

4.6 **PROJECT SAFETY**

4.6.1 The Project and all Work performed in relation thereto is governed by applicable provisions of the federal laws, including but not limited to, the latest amendments of the following:

a. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law, 91-596.

b. Part 1910 and Part 1926 – Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

c. Part 1518 – Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

4.6.2 Contractor is responsible for safety of the job Site for employees of Contractor as well as for members of the general public and others who may drive or walk through or be at the Site.

4.6.3 Contractor recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to: (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work and stored On-Site or Off-Site; and (iii) all other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and (iv) the owners or tenants of adjacent property and their patrons, employees and invitees.

4.6.4 Contractor assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work.

4.6.5 Contractor must provide a "competent person' as required by O.S.H.A regulations. The "competent person" must be identified at the Pre-Construction Conference with City advised in writing of any changes.

4.6.6 The "competent person" must make routine daily inspections of the Site and must hold weekly safety meetings with Contractor's personnel, Subcontractors and others as applicable.

4.6.7 Contractor and Subcontractors must comply with all legal and regulatory requirements relating to safety, as well as any City specific safety requirements set forth in the Agreement Documents, provided that such City-specific requirements do not violate any applicable legal and regulatory requirements.

4.6.8 Contractor will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Project Manager and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

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4.6.9 Contractor's responsibility for safety under this Section is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

4.6.10 As between City and Contractor, Contractor is responsible to City for any and all the safety issues relating to the Work on the Project. Contractor must administer and manage the safety program. This will include, but not necessarily be limited to review of the safety programs of each Subcontractor. Contractor must monitor the establishment and execution of compliance with all applicable regulatory and advisory agency construction safety standards. Contractor's responsibility for review, monitoring, and coordination of the Subcontractor's safety programs will not extend to direct control over execution of the Subcontractors' safety programs. Notwithstanding Contractor's safety obligations to City, it is agreed and understood that each individual Subcontractor will remain controlling employer responsible for the safety programs and precautions applicable to its own work and the activities of other's work in areas designated to be controlled by such Subcontractor for purposes of workers compensation insurance coverage.

4.6.11 Nothing in this agreement will relieve Contractor of his responsibility to maintain traffic, structures, etc., as noted on the Plans, Specifications, and Project Specific Conditions. Contractor is responsible to provide all necessary shoring, bracing and trench support as is necessary to maintain traffic structures, etc., as stipulated in the Plans, Specifications, and Special Provisions. If the stability of adjoining building, walls, roadways, etc., is endangered by Contractor's excavation, shoring, bracing, or under pinning must be provided as necessary to ensure project safety. Cost for shoring, bracing, underpinnings, and trench support will be included in the appropriate items listed in the Agreement Price, and no additional payment will be made for this work.

4.7 MATERIALS QUALITY, SUBSTITUTIONS, AND SHOP DRAWINGS

4.7.1 Quality Control and Quality Assurance Testing.

4.7.1.1 All construction materials to be used or incorporated in the Project are subject to inspection, Quality Control & Quality Assurance Testing, and approval or rejection by City. Any material rejected by City must be removed immediately and replaced in an acceptable manner to City at no additional cost to City. When QC/QA tests indicate noncompliance with the Agreement Documents, retesting must be performed by the same testing laboratory that performed the tests that indicated noncompliance.

4.7.1.2 The Contractor must establish, provide, and maintain an effective Quality Control Testing Program (QCTP). The Contractor must develop his own program or procure the services of a consultant. In either case, the party performing the tests must be currently certified by the National Bureau of Standards in the National Voluntary Laboratory Accreditation Program (NVLAP) for construction services or the AASHTO Accreditation Plan (AAP) for Soils, Asphalt and Concrete. The Contractor must provide all support necessary to perform QC and QA testing and sampling (i.e. shoring for testing trench backfill, backhoes, motor graders, loaders, etc. to facilitate testing and sampling). The City will perform the QA testing.

4.7.1.3 The Contractor must submit a written QCTP to the City as a required submittal. The Contractor must not begin Work until the Quality Control Program has been reviewed and

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accepted by the City. Resumes of all personnel that will be associated directly or indirectly with the QCTP must be included.

4.7.1.4 The QCTP must include, but not be limited to, on-site/field and laboratory testing of all material delivered to the Site and any existing materials or conditions pertinent to the project.

4.7.1.5 All testing must be under the direction of a Professional Engineer registered in the State of Arizona, knowledgeable in Materials Testing. All "Test Report" forms must be stamped by said Engineer.

4.7.1.6 The written QCTP will set forth the responsibilities of the engineer, project manager, supervisory personnel and each technician assigned to this project. Substitutions or replacement of personnel must require prior written approval by the City. All personnel must be proficient within their assigned duties and possess certification(s) commensurate with their position and responsibilities. The minimum certification(s) for each technician must be NICET Level II, Arizona Technical Testing Institute, American Concrete Institute, or other nationally recognized program applicable to the project and approved by the City of Chandler. The written QCTP must include a description of the required field and construction materials laboratory tests, including required frequencies that meet the minimums established herein.

4.7.1.7 The Contractor must establish a system to record and report all material test results. The daily test reports must include, but not be limited to:

a. Test designation;
b. Date of test;
c. Name of tester;
d. Location of test/sample (station and offset);
e. Product suppliers and product codes (as applicable);
f. Depth/elevation of test/sample;
g. Test result;
h. Control requirement(s);
i. Cause of rejection (if applicable);
j. Results of retests (if applicable); and
k. Remedial action (if applicable).

4.7.1.8 The Contractor must submit test results to the designated City representative.

4.7.1.9 The Contractor must also submit a weekly report to the City summarizing the testing and construction activities completed by emailing the report to the email addresses noted above. All weekly reports must be submitted simultaneously to the Contractor and the City of Chandler. The report must include individual summary sheets for each utility line, structure, and portion of the pavement section. Cores must be numbered sequentially throughout the Project. Re-cores must reference the original core by number and must contain the averaged values for thickness and density. Total pavement thickness must be reported**.** Vertical location of tests for underground utilities must indicate the depth of the

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excavation at the location of the test (i.e., cut to flow line [if applicable], depth to bottom or top of pipe, etc.). Density tests must be numbered sequentially. If the minimum number of tests has not been performed per the written QCTP, this must be stated in the weekly summary report with an explanation of the circumstances.

4.7.1.10 The City will maintain a copy of the Project test results and weekly reports in the Project file. In cases where quality control activities do not comply with the Agreement provisions, the City may:

a. Order the Contractor to replace ineffective or unqualified quality control personnel.

b. Order the Contractor to stop operations until appropriate corrective action is taken.

4.7.1.11 Although minimum testing requirements are specified herein, the Contractor bears full responsibility for the quality of the materials and their installation and may elect to perform additional testing beyond the requirements set forth herein to ensure compliance.

4.7.1.12 The Quality Control requirements contained in this Section are in addition to and separate from Quality Assurance Testing, which will be performed by the City of Chandler or its representative. If the Quality Assurance test results are not in agreement with the Quality Control test results, the Contractor will have the option to retain a third party consultant for referee tests. The third party consultant must meet the same requirements as the consultant performing the Quality Control Testing. The results of the third party will be binding. All cost incurred by the referee testing will be the Contractor's expense. If the Contractor elects not to retain a third party for referee testing, the City of Chandler test results will prevail.

4.7.1.13 Except as otherwise noted within this Section, Work or materials required by this Section are non- pay items. Per MAG Section 101, a non-pay item is an item of Work for which no separate payment will be made, the cost of which is to be included as an incidental cost for associated item(s) included on the Bid Schedule or Schedule of Values.

4.7.2 Trade Names and Substitutions.

4.7.2.1 Substitutions prior to bid will only be considered if in compliance with Arizona Revised Statute § 34-104.

4.7.2.2 Contractor, if requested by City, must submit Samples or any additional information that may be necessary to evaluate the acceptability of the substitution.

4.7.2.3 City will make the final decision and will notify Contractor in writing as to whether the substitution has been accepted or rejected.

4.7.2.4 If City does not respond within 15 working days, Contractor must continue to perform the Work in accordance with the Agreement Documents and the substitution will be considered rejected.

4.7.3 Shop Drawings.

4.7.3.1 Contractor must prepare and submit Shop Drawings which show details of all Work to insure proper installation of the Work using those materials and equipment specified under the approved Plans and Specifications.

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4.7.3.2 Contractor must submit a schedule of Shop Drawing submissions, which avoids bulk submissions to the extent reasonably possible, with the Project Schedule for City approval. The schedule of Shop Drawing submissions must include all of the items for which Shop Drawings are required by the Agreement Documents, including the Specifications. Unless otherwise noted, Shop Drawings will not be required for items specified or detailed in the Uniform Standard Specifications and Details or the Technical Specifications.

4.7.3.3 Shop Drawings must be numbered consecutively for each Specification section and must accurately and distinctly present the following:

a. All working and erection dimensions.

b. Arrangements and sectional views.

c. Necessary details, including complete information for making connections between work under this Agreement and work under other Agreements.

d. Kinds of materials and finishes.

e. Parts list and description thereof.

4.7.3.4 Each Drawing or page must include:

a. Project Name, City of Chandler Project Number and descriptions.

b. Submittal date and space for revision dates.

c. Identification of equipment, product or material.

d. Name of Contractor and Subcontractor.

e. Name of Supplier and Manufacturer.

f. Relation to adjacent structure of material.

g. Physical dimensions clearly identified.

h. ASTM and Federal Specifications references.

i. Identification of and justification for deviations from the Agreement Documents.

j. Contractor's stamp, initialed or signed, dated and certifying the review of submittal, certification of field measurements and compliance with Agreement.

k. Location at which the equipment or materials are to be installed.

4.7.3.5 Location will mean both physical location and location relative to other connected or attached material. City will return unchecked any submittal, which does not contain complete data on the Work and full information on related matters.

4.7.3.6 Stock or standard drawings will not be accepted for review unless full identification and supplementary information is shown thereon in ink or typewritten form.

4.7.3.7 Contractor must schedule, prepare and submit all Shop Drawings in accordance with a time-table that will allow its suppliers and manufacturers sufficient time to fabricate, manufacture, inspect, test and deliver their respective products to the project Site in a timely manner so as to not delay the complete performance of the Work.

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4.7.3.8 If the Shop Drawings show departures from the Agreement requirements, Contractor must make specific mention thereof in the Letter of Transmittal; otherwise review of such submittals by City will not constitute review of the departure. Review of the Drawings will constitute review of the specific subject matter for which the Drawings were submitted and not of any other structure, material, equipment, or apparatus shown on the Drawings.

4.7.3.9 The review of Shop Drawings will be general and will not relieve Contractor of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the Work, nor for the furnishing of materials or Work required by the Agreement. No construction called for by Shop Drawings will be initiated until such Drawings have been reviewed and approved by City.

4.7.3.10 The procedure in seeking review of the Shop Drawings will be as follows:

a. Contractor must submit complete sets of Shop Drawings and other descriptive data as specified in this Section.

b. After Contractor's submittal or resubmittal of Shop Drawings, if Contractor has submitted Shop Drawings in accordance with the City-approved submittal schedule, or upon resubmission, City will be provided with three (3) calendar weeks for review. Should City require additional review time above and beyond the three (3) calendar weeks, Contractor may ask for a time extension or monetary compensation, if they can present valid, factual evidence that actual damages were incurred by Contractor. City will determine the amount of the time extension or the monetary compensation to be awarded Contractor, if any, in accordance with City's Policy Statement for Calculating Delays and Damages, Appendix 1.

4.7.3.11 Contractor will be responsible for all extra costs incurred by City caused by Contractor's failure to comply with the procedure outline above.

4.7.4 Long Lead Time Items. Contractor must submit Shop Drawings, as required by the Engineer, on all long lead items to be furnished and installed as part of the project within 10 Days after the date of the executed Agreement letter issued by City. In addition, Contractor must order all long lead items to be furnished and installed as part of this Project within 3 Days after receiving approved Shop Drawings. For all long lead times for which Shop Drawings are not required, Contractor must order said long lead items within 15 Days after the date of the executed Agreement letter issued by City. Within 2 Days after ordering long lead items, Contractor must supply copies of all purchase orders, along with an accurate delivery schedule from the supplier.

4.7.5 Construction Water. If Contractor uses water from City's water system for construction water, Contractor must obtain a fire hydrant meter from City of Chandler Utility Services (480-782-2280) and all construction water must be obtained through the hydrant meter. Contractor must pay all fees related to the hydrant meter and all water bills for construction water. All cost for meters and construction water will be included in the Agreement Price.

4.8 PROJECT RECORD DOCUMENTS

4.8.1 During the construction period, Contractor must maintain at the jobsite a full-size set of prints of the Construction Document Drawings and Shop Drawings for Project Record Document purposes.

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4.8.2 Contractor must mark these Drawings to indicate the actual installation where the installation varies from the original Construction Documents. Contractor must give particular attention to information on elements that will be concealed, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings.

b. Revisions to details shown on Drawings.

c. Locations and depths of underground utilities.

d. Revisions to routing of piping and conduits.

e. Actual equipment locations.

f. Changes made by Change Order or Addendum.

g. Details not on original Agreement Drawings.

4.8.3 Contractor must mark completely and accurately Project Record Drawing sets of Construction Documents.

4.8.4 Contractor must mark Project Record Drawings sets with red erasable colored pencil.

4.8.5 Contractor must note Request for Information (RFI) Numbers and Change Order numbers, etc., as required to identify the source of the change to the Construction Documents.

4.8.6 Contractor must submit Project Record Drawing sets and Shop Drawings to City or its representative for review and comment.

4.8.7 Upon receipt of the reviewed Project Record Drawings from City, Contractor must correct any deficiencies and omissions to the Drawings and submit the final original of the Project Record Drawings to City prior to Final Payment.

4.8.8 Project Manager will review the Project Record Drawings monthly prior to the date established for the Payment Request and will be the sole judge of acceptance of these Drawings.

4.9 WARRANTY AND CORRECTION OF DEFECTIVE WORK

4.9.1 Contractor warrants to City that the construction, including all materials and equipment furnished as part of the Work, will be new unless otherwise specified in the Agreement Documents, of good quality, and free of defects in materials and workmanship. Contractor's warranty obligation excludes defects caused by abuse, alterations, or unreasonable failure to maintain the construction by persons other than Contractor, subcontractors, or others under Contractor's control. Nothing in this warranty will limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein or in the Agreement. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the Work. Contractor's warranty must be for one (1) year, in accordance with MAG Specification § 108.8, and will commence for all portions of the Work upon Final Acceptance of the entire Work as determined by City under the Agreement. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

4.9.2 City May Stop the Work. If the Work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, City may order Contractor to stop the

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Work without cost to City, or any portion thereof, until the cause for such order has been eliminated; however, this right of City to stop the Work will not give rise to any duty on the part of City to exercise this right for the benefit of Contractor or any other party.

4.9.3 Correction or Removal of Defective Work.

4.9.3.1 If required by City, Contractor must promptly, without cost to City and as specified by City, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by City, remove it from the Site and replace it with non-defective Work. Contractor must correct any Work which may be displaced in correcting, removing or replacing defective Work. No compensation will be allowed Contractor for such removal, replacement or remedial Work. Contractor must reimburse City for costs incurred by City due to such correction or removal including but not limited to additional expenses for inspection, testing or observation and for repeated reviews by the City or Design Professional.

4.9.3.2 Upon failure on the part of the Contractor to comply within a reasonably prompt time with any written order of City to correct or remove defective Work, City has authority to cause nonconforming materials or rejected Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.4 City May Correct Defective Work. If Contractor fails within a reasonable time after written notice of City to proceed to correct defective Work or to remove and replace rejected Work as required by City or if Contractor fails to perform the Work in accordance with the Agreement Documents (including any requirements of the progress schedule), City may, after 7 Days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, City may exclude Contractor from all or part of the Work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site and incorporate in the Work all materials and equipment stored at the Site or for which City has paid Contractor, but which are stored elsewhere. Contractor must allow City, city representatives, agents and employees such access to the Site as may be necessary to enable City to exercise City's rights under this Section. All direct and indirect costs of City in exercising such rights will be charged against Contractor in an amount verified by City representative, and a Change Order will be issued incorporating the necessary revisions in the Agreement Documents and a reduction in the Agreement Price. Such direct and indirect costs will include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of Work or others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor will not be allowed an extension of the Agreement Time because of any delay in Contractor's performance of the Work attributable to the exercise by City or City's rights hereunder.

4.9.5 Correction or Removal of Unauthorized Work.

4.9.5.1 Any Work done beyond the lines and grades shown on the Drawings or established by the Design Professional or any changes in, additions to, or deductions from the Work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.

4.9.5.2 Upon failure on the part of the Contractor to comply promptly with any order of the City,

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City will have authority to cause unauthorized Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.6 Correction Period - One Year Guarantee.

4.9.6.1 If, within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Agreement Documents, or by any specific provision of the Agreement Documents, any Work is found to be defective, Contractor must promptly, without cost to City and in accordance with City's written instructions, either correct such defective Work, or, if it has been rejected by City, remove it from the Site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, must be paid by Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Agreement Documents.

4.9.6.2 If, in the opinion of the City, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operation of the City, the City will attempt to give the notice required by this Section. If the Contractor cannot be contacted or does not comply with the City's request for correction within a reasonable time as determined by the City, the City may, notwithstanding the provisions of this Section, proceed to make such correction or provide such attention; and the costs of such correction or attention will be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Agreement Documents.

4.9.6.3 This Section does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as co-guarantor with such manufacturer or supplier and must furnish the City all appropriate guarantee or warranty certificates upon completion of the Project. No guarantee period, whether provided for in this Section or elsewhere, will in any way limit the liability of Contractor or their sureties or insurers under the indemnity or insurance provisions of these General Conditions and the Project Specific Special Conditions.

4.9.7 Acceptance of Defective Work.

4.9.7.1 If, instead of requiring correction or removal and replacement of defective Work, City may accept Work when in the best interest of the City to do so with appropriate monetary credit from Contractor. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Agreement Documents, including appropriate reduction in the Agreement Price; or, if the acceptance occurs after final payment, an appropriate amount must be paid by Contractor to City.

4.9.7.2 Alternatively, City may require Contractor to furnish at Contractor's expense, a special performance guarantee or other surety prior to acceptance of defective work.

4.9.8 The Warranty period begins on the Final Acceptance date noted in the Certificate of Completion, irrespective of early completion by some Subcontractors of their work.

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4.9.9 Contractor's warranty obligation must be in accordance with MAG Specifications.

4.9.10 Nothing in the warranties contained in the Agreement Documents are intended to limit any manufacturer's warranty which provides City with greater warranty rights than set forth in this Section or the Agreement Documents. Contractor must provide City with all manufacturers' warranties prior to Substantial Completion, if applicable, or Final Acceptance.

4.9.11 Contractor agrees that it will be responsible to manage and administer the correction of any Work that is not in conformance with the Agreement Documents during the warranty periods set forth in this Section, or during any longer periods to the extent required by the Agreement Documents. A progress payment, or partial or entire use or occupancy of the Project by City, will not constitute acceptance of Work not in accordance with the Agreement Documents.

4.9.12 When notified of a warranty issue, Contractor must respond in writing within 48-hours and must perform warranty Work as soon as material for said repairs are available (as judged solely by City), and in any event Contractor must, take immediate steps to commence and complete correction of nonconforming Work no later than the time period set forth in City's written notification in accordance with the Agreement Documents. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If defects develop which are determined by City to be an emergency, City will notify Contractor, via the most expeditious means regarding the nature and condition of the defects. In turn, Contractor must immediately dispatch necessary forces to correct the defect or the emergency condition in accordance with Agreement Documents.

4.9.13 The time periods referenced in this Section apply only to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies that City may have regarding Contractor's other obligations under the Agreement Documents.

4.9.14 Without limiting the foregoing or anything in these General Conditions or the Agreement to the contrary, Contractor must obtain and provide to City all warranties for any portion of the Project offered by the manufacturer, installer or provider thereof. City and the user of the facility will have the right to the full value and benefit of all such warranties. Contractor must ensure all such warranties are fully transferrable to facilitate the full value of this Section.

4.9.15 Contractor's warranty excludes damages or defects caused by abuse, alterations to the Work not executed by or through Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

4.9.16 In the event of any noncompliance with this entire Section 4, City may require Contractor to stop or suspend the Work in whole or in part.

SECTION 5 - CITY RESPONSIBILITIES

5.1 CITY PROJECT MANAGER AND INSPECTORS

5.1.1 Project Manager is responsible for providing City-supplied information and approvals in a timely manner to assist Contractor to fulfill its obligations under the Agreement Documents.

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5.1.2 Project Manager will also provide Contractor with prompt notice when it observes any failure on the part of Contractor to fulfill its contractual obligations, including any default or defect in the Project or non-conformance with the Drawings and Specifications.

5.1.3 City may utilize Field Inspectors to assist Project Manager during construction in observing performance of Contractor. City's use of Inspectors is for the purpose of assisting Project Manager.

5.1.4 The Inspectors are authorized to inspect all Work and materials furnished. Such inspections may extend to all or part of the Work and to preparation, fabrication or manufacture of the materials to be used. The Inspectors have the authority to issue instructions contrary to the Construction Documents if approved and coordinated with the directions of Project Manager.

5.1.5 The Inspectors have the authority to reject work or materials until any questions at issue can be decided by Project Manager.

5.1.6 The use of Inspectors by City will not make City responsible for or give City control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs or responsibility for Contractor's failure to perform the Work in accordance with Agreement Documents. The Inspectors are not authorized to direct any of Contractor's activities, employees or Subcontractors.

5.2 **DESIGN PROFESSIONAL SERVICES**

City may contract separately with one or more Design Professionals to provide construction administration of the Project. The Design Professional's Agreement, as well as other firms hired by City may be furnished to Contractor. Contractor does not have the right to limit or restrict or reject any Agreement modifications that are mutually acceptable to City and Design Professional.

5.3 **CITY'S SEPARATE CONTRACTORS**

City is responsible for all work performed on the Project or at the Site by separate contractors retained by City. City will contractually require its separate contractors to reasonably cooperate with, and reasonably coordinate their activities so as not to interfere with Contractor in order to enable Contractor to timely complete the Work consistent with the Agreement Documents. Contractor must immediately notify the Project manager, and address the matter in the next monthly status report, if any activities of such separate contractors are expected to interfere, or are interfering, with Contractor and such interference will or could result in any delay in Contractor's performance of the Work.

5.4 **PERMIT REVIEW AND INSPECTIONS**

5.4.1 If requested by Contractor, Project Manager will provide assistance and guidance in obtaining necessary reviews, permits and inspections.

5.4.2 The regulating agencies of City, such as Development and Sustainability, Fire and Planning Departments, enforce legal requirements. The enforcement activities of City are independent and separate from this Agreement.

5.5 **PLANS AND SPECIFICATIONS TO THE CONTRACTOR**.

Contractor will be provided up to five copies of the Agreement Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished,

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upon request, at the cost of reproduction.

SECTION 6 - AGREEMENT TIME

6.1 AGREEMENT TIME

6.1.1 The Agreement Time will start with the Notice to Proceed ("NTP") and end with Final Acceptance.

6.1.2 Beginning on the date of the NTP, Contractor must begin to fulfill Contractor's obligations under the Agreement. Contractor's obligations include providing City and other agencies with any submittals required by the Project Specific Special Provisions, including but not limited to, an approved Project Schedule, Traffic Control Plans, and a Stormwater Pollution Prevention Plan. Contractor must submit all such required submittals before any physical construction work commences on the Site. NTP does not authorize construction work until all agreement insurance, bonds, and schedules are submitted to and accepted by the City.

6.1.3 The Agreement Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through both Substantial Completion and Final Acceptance within the Agreement Time.

6.1.4 Time is of the essence of this Agreement, for the Project, for the Work, and for each phase and designated Milestone thereof.

6.1.5 Failure of Contractor to perform any covenant or condition contained in the Agreement Documents within the time periods specified herein, will constitute a material breach of this Agreement entitling City to terminate the Agreement unless Contractor applies for and receives an extension of time, in accordance with the procedures set forth in the Agreement Documents.

6.1.6 Failure of City to insist upon the performance of any covenant or condition within the time periods specified herein, will not constitute a waiver of Contractor's duty to perform every other covenant or condition within the designated periods, unless a specific waiver is granted in writing for each such covenant or condition.

6.1.7 City's agreement to waive a specific time provision or to extend the time for performance will not constitute a waiver of any other time provisions contained in the Agreement Documents. Failure of Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement constitutes a material breach of this Agreement entitling City to all the remedies set forth herein or provided by law.

6.2 PROJECT SCHEDULE

6.2.1 The Project Schedule must be in Microsoft Project standard file format, must be updated and maintained throughout the Agreement Time, and must contain the following:

6.2.1.1 Detailed representation of all activities for the project, both on-site construction and major procurement. All significant activities together with the resource loading requirements for each and all items appearing on the schedule of values or bid schedule for progress payments must be shown on the Project Schedule or in attached transmittal letter as described in Section 6.2.8.

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6.2.1.2 Dependencies between activities must be indicated so that it may establish as to the effect the progress of any one activity would have on other activities and on the Schedule.

6.2.1.3 Activities for submission, review, and approval of all required submittals.

6.2.1.4 An amount of time will be established prior to the final completion date for "punch list and cleanup". No other activities will be scheduled during this period. Punch list and cleanup must be shown on the Project Schedule and must be entirely completed prior to the expiration of the Agreement Time.

6.2.2 Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review. City's review of and response to the Project Schedule is for the purpose of: (1) City planning and staffing for the Project as may be required from time to time; (2) ensuring Contractor's general conformance with the scheduling requirements of the Agreement Documents and completion of the Project within the Agreement Time; and (3) monitoring and evaluating the construction status for purposes of approving monthly progress payments. Acceptance of a submitted schedule by City should in no way be construed as an affirmation or admission that the schedule is reasonable or workable by Contractor. The responsibility for completing the Work on the Project within the Agreement Time remains the obligation of Contractor. City's review does not relieve Contractor from compliance with the requirements of the Agreement Documents or be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the work.

6.2.3 The Project Schedule must show milestones, including milestones for City-furnished information, and must include activities for City-furnished material and construction by other contractors when those activities are interrelated with Contractor activities.

6.2.4 The Project Schedule must be revised as required by conditions and progress of the Work, but such revisions do not relieve Contractor of its obligations to complete the Work within the Agreement Time, as adjusted in accordance with the Agreement Documents. No modification to the Agreement Documents or the Agreement Time will be effective unless approved in advance by City.

6.2.5 For all items of materials and equipment that are critical or may require long lead times to acquire, the Project Schedule must show dates for submission, review and approval of submittals, ordering, and delivery.

6.2.6 An updated Project Schedule must be submitted monthly to City as part of the Payment Request. The monthly submittal must include one full size plot of the entire schedule and one electronic copy containing the schedule in Microsoft Project standard file format. In addition, Contractor must, upon request by City, provide a copy of all submitted schedule data in electronic format which must be clearly labeled with the Project description, scheduling program name and version number, and schedule print/data date.

6.2.7 Contractor must provide City with a monthly status report with each Project Schedule detailing the progress of the Work, including: (i) if the Work is proceeding according to schedule, (ii) any discrepancies, conflicts, or ambiguities found to exist in the Agreement Documents that require resolution, and (iii) other information detailing items that require resolution so as not to jeopardize the ability to complete the Work in the Agreement Time.

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6.2.8 With each Project Schedule submittal, Contractor must include a transmittal letter including the following:

a. Description of problem tasks, referenced to field instructions or requests for information (RFI's), as appropriate.

b. Current and anticipated delays including:

(i) Cause of the delay.

(ii) Corrective action and schedule adjustments to correct the delay.

(iii) Known or potential impacts and their delay on other activities, milestones, and their impact on the Substantial Completion and Final Acceptance dates.

(iv) Changes in construction sequence.

c. Pending items and status thereof including but not limited to:

(i) Time Extension requests;

(ii) Substantial Completion date status;

(iii) Final Acceptance date status.

d. If ahead of schedule, the number of calendar Days ahead.

e. If behind schedule, the number of calendar Days behind.

f. Other Project or scheduling concerns.

6.2.9 Critical Path Method (CPM).

6.2.9.1 Unless otherwise specified in the Agreement, the Project Schedule must include a Critical Path Method (CPM) diagram schedule showing the sequence of activities, the interdependence of each activity and identifies the Critical Path.

6.2.9.2 The CPM diagram schedule must be in calendar Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float Times for all activities except critical activities. The CPM diagram must be presented in a time scaled graphical format for the Project as a whole.

6.2.9.3 The CPM diagram schedule must indicate all relationships between activities.

6.2.9.4 The activities making the Project Schedule must contain sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluation the progress of the Work. Individual activities must not exceed 30 Days in length, in most cases.

6.2.9.5 The CPM diagram schedule must be based upon activities, which coincide with the Schedule of Values.

6.2.9.6 The CPM diagram schedule must show all submittals associated with each work activity and the review time for each submittal.

6.2.10 Float Time.

6.2.10.1 The total Float Time within the overall schedule is for the exclusive use of City, but City may approve Contractor's use of Float as needed to meet Agreement Milestones and

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the Project completion date.

6.2.10.2 Contractor will not be allowed to sequence, hide, or reallocate Float Time through such strategies, as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, tec. No time extensions will be granted nor delay damages paid until a delay occurs which extends the Work beyond the Agreement Time.

6.2.11 City-Caused Delays. City-caused delays on the Project, if any, may be offset by City-caused time savings (i.e., Critical Path submittals returned in less time than allowed by the Agreement, approval of substitution requests and credit changes which result in savings of time to Contractor, etc.) In such an event, Contractor will not be entitled to receive a time extension or delay damages until all City-caused time savings are exceeded and the Agreement Time is also exceeded.

6.2.12 Rain-Related Delays. Contractor is required, in preparing the Project Schedule to take into account all relevant weather conditions, including normal rainfall and distribution. No additional compensation will be given for any rain-related delays or impacts on the Work or the Project Schedule. No time extension will be granted in the Project Schedule unless the rainfall during the construction of Work is unusually severe, was not reasonably anticipated, and the total rainfall was significantly in excess of the normal rainfall for the Project Site location. Normal rainfall for the Project will be determined from the 10-year average rainfall for the Site as measured by the National Oceanic and Atmospheric Administration or comparable source of reliable information for rainfall in Chandler, Arizona. In addition, the excessive rainfall must have actually impacted Work activities on the Critical Path and caused delay beyond any remaining Float at the time of the rain- caused delay. The burden of documenting normal rainfall, the excessive rainfall and the impact on Critical Path activities is on Contractor. All other provisions in the Agreement Documents relating to claims, including without limitation notice requirements, apply to any claim by Contractor for a rain delay.

6.2.13 City's "Policy Statement for Calculating Delays and Damages," Appendix 1 to these General Conditions, will apply to all claims of delay and delay damages.

6.2.14 Force Majeure. If Contractor is delayed or prevented from the performance of any Work required under this Agreement by reason of acts of God or other causes beyond the control and without fault of Contractor (financial inability excepted), performance of that Work will be excused, but only for the period of the delay. The time for performance of the Work will be extended for a period equivalent to the period of delay. In addition, the parties agree if Contractor's delayed or suspended performance directly arises out of or directly results from the COVID-19 pandemic, Contractor's delayed or suspended performance may be excused as set forth in this clause. Provided, however; Contractor must give the City written notice within 30 days of the occurrence of the event giving rise to COVID-19 pandemic related delayed or suspended performance. For COVID-19 pandemic related delay or suspended performance, the parties must agree in writing to the length of the excused delay or suspended performance. Further, Contractor must obtain the City's written approval to use any allowance established as part of the project for delays and costs related to the COVID-19 pandemic.

6.3 SUBSTANTIAL COMPLETION

6.3.1 When Contractor considers that the Work, phase or a portion thereof, which City agrees in

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writing to accept separately, is substantially complete, City will prepare and submit to Contractor a comprehensive Punch List of items to be completed or corrected prior to Final Acceptance and Final Payment. Failure to include an item on such Punch List does not alter the responsibility of Contractor to complete all Work in accordance with the Agreement Documents.

6.3.2 Upon receipt of Contractor's Punch List, Project Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete. Project Manager may, at Project Manager's sole option, be assisted in such inspection by the Design Professional for the Project. If the inspection by the Project Manager discloses any item, whether or not included on Contractor's Punch List, which is not sufficiently completed in accordance with the Agreement Documents so that City can occupy or utilize the Work, phase or designated portion thereof for its intended use, Contractor must, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by Project Manager. In such case, Contractor must then submit a request for another inspection by Project Manager to determine Substantial Completion.

6.3.3 Certificate of Substantial Completion.

6.3.3.1 The Project Manager will not issue a Certificate of Substantial Completion unless and until the Work (or separable units or Phases as provided in the Agreement Documents) is essentially and satisfactorily complete in accordance with the Agreement Documents, such that the Project is ready for use by City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full-operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories and similar elements are installed in the proper manner and in operating condition, inspected and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air condition, vertical transportation and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other Work as applicable, has been performed to a similar state of essential and satisfactory completion. A minor amount of Work, as determined by and at the discretion of the Project Manager, such as installation of minor accessories or items, a minor amount of painting, minor replacement of defective work, minor adjustment of controls or sound systems, or completion or correction of minor exterior work that cannot be completed as a result of weather conditions, will not delay determination of Substantial Completion. If prior written approval is obtained from City for purposes of Substantial Completion, specified areas of the entire Work or Project may be individually certified as Substantially Complete. In no event will Substantial Completion be deemed to have occurred unless and until: (i) a temporary certificate of occupancy has been issued by the appropriate Governmental Authorities (as applicable) and (ii) all terms and Work required under this Agreement have been fulfilled by Contractor and same will have also been approved and accepted by City, subject only to the Punch List items.

6.3.3.2 If requested by City, Contractor must complete and turn-over to City the Project on a phased basis. Each phase will have a separate inspection by the Project Manager, a Punch List generated, and then an inspection by City with final approval and acceptance only after the

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Project Manager's Punch List.

6.4 **PARTIAL UTILIZATION**

6.4.1 City at City's option may use and occupy any substantially completed parts of the Work which has specifically been identified in the Agreement Documents, or which City, the Design Professional and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose, without significant interference with Contractor's performance of the remainder of the Work, provided, however, if the portion of the Work to be used or occupied has not been found to be substantially complete, City must do so in accordance with Section 6.3 prior to such occupancy.

6.4.2 In lieu of the issuance of a Certificate of Substantial Completion as to part of the Work, City may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, City and Contractor agree in writing as to the division of responsibilities between City and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

6.4.3 Substantial Completion of or City's beneficial occupancy of a part of the Project will not alter the fact that the one-year warranty for the whole Project starts at the date of Final Completion of the whole Project.

6.5 **FINAL ACCEPTANCE**

6.5.1 Unless otherwise expressly agreed to in writing by City, Final Acceptance must be obtained by no later than 30 Days (60 Days for federally funded agreements) after the date of Substantial Completion. Failure to timely obtain Final Acceptance will be a material breach of the Agreement.

6.5.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance, City and Contractor will jointly inspect to verify that the remaining items of Work have been completed. There will be no partial acceptance. Final Acceptance will not occur until all items of Work, including Punch List Items, have been completed to City's satisfaction as reflected in the written Final Acceptance.

6.5.3 Final Payment will not be due, owing, or paid by City until Final Acceptance is issued.

6.5.4 Landscape Establishment Period. Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will begin on the date of Final Acceptance of the Project and will run 90 Calendar Days thereafter. Landscape Establishment Period requirements are detailed in General Conditions Appendices, attached herein.

6.6 **CONTINUATION OF WORK**

6.6.1 Permitting Contractor to continue and finish the Work or any part of it after the time fixed for its completion (whether milestone, phase, Substantial Completion or Final Acceptance) or after the date to which the time fixed for any completion may have been extended, does not operate as a waiver by City of any rights under the Agreement Documents, law or equity.

6.6.2 Furthermore, the timely completion of the Work being of the utmost importance under this Agreement, notwithstanding the existence of one or more disputes between the parties

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concerning the scope of the Work, the Project Schedule, Agreement Time, payments or any other matter, and further notwithstanding a party's invocation of the Dispute Resolution provisions specified in Appendix 6 of these General Conditions, unless City suspends the Agreement or Contractor's performance pursuant to Section 10 of these General Conditions, Contractor will continue to prosecute the Work, including any Change Order work or Extra Work Orders, in a diligent and timely manner and not stop, slow down or impede by action or inaction the progress of the Work, including commencing performance of and thereafter completing any additional work called out in any Change Order or Extra Work Order issued by Project Manager with the approval of City, so long as City makes payment to Contractor in accordance with Section 8 of these General Conditions.

SECTION 7 - AGREEMENT PRICE

7.1 UNIT PRICE AGREEMENTS

7.1.1 The Agreement Price for all Unit Price Agreements will be the amount set forth in the Agreement or Change Order multiplied by the verified quantity provided.

7.1.2 Measurements of quantities to determine the total Agreement Price must be in accordance with MAG Specification §§ 109.1 and 109.2.

7.1.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2 CHANGE ORDERS

7.2.1 Unit Price Change Orders. The Change Order Price for all Unit Price Change Orders will be the amount set forth in the Change Order multiplied by the verified quantity provided.

7.2.2 Measurements of quantities to determine the total Change Order Price must be in accordance with MAG Specifications §§ 109.1 and 109.2.

7.2.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2.4 MAG Specification § 109.4.1 is modified as follows: Before § 109.4.1, the following is added: Any deduction or increase in the Agreement Price must be supported by a signed, written Change Order fully executed by City, and supported by such backup as the Project Manager may require.

7.3 SALES TAX

Contractor is required to pay all applicable sales tax in accordance with the law of the state of Arizona and this cost must be included in all Agreement Prices. When equipment, materials or supplies generally taxable to Contractor are eligible for a tax exemption due to the nature of the Project, Contractor must assist City in applying for and obtaining such tax credits and exemptions which will be paid or credited to City.

SECTION 8 - PAYMENT

8.1 PAYMENT FOR CONSTRUCTION SERVICES

8.1.1 Payment for the Work will be made in accordance with MAG Standard Specification § 109 as amended below.

8.1.2 Contractor must submit to City for review a completed Contractor Payment Request signed

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by Contractor, covering the Work completed as of the date of the Request and accompanied by such supporting documentation as is required by the Agreement Documents and also as City may reasonably require. A Contractor Payment Request will not be considered complete unless it is accompanied by an updated Project Schedule and a certification that the on-site, red lined, as built Drawings are up to date. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably, securely stored at the Site or at another location (such as a bonded warehouse) agreed to in writing, the Contractor Payment Request must also be accompanied by such data, satisfactory to City, as will establish City's title to the material and equipment and protect City's interest therein, including applicable insurance. Each subsequent Contractor Payment Request must include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Contractor Payment Requests.

8.1.3 Except for Work performed under a JOC Agreement, the Contracting Agency will retain 10 percent of all estimates as a guarantee for complete performance of the Agreement in accordance with Arizona Revised Statutes Section 34-221 or 34-607. The Contractor may elect to deposit securities in lieu of retention in accordance with Arizona Revised Statutes Section 34-221, Paragraph C.5. or 34-607, Paragraph B.5.

8.1.4 The payment process functions as follows: Prior to the payment cycle date, Contractor must send a draft Contractor Payment Request to Project Manager. The Project Team will review the Request and agree upon any necessary adjustments. Contractor must certify the final Request by signing and returning to Project Manager.

8.1.5 When construction of the Project is fifty percent (50%) completed, Contractor may request payment of one-half of the retention pursuant to A.R.S. § 34-609(B)(3), subject to all of City's rights to withhold or offset payments, and other rights of City, under the Agreement.

8.1.6 City reserves the right under A.R.S. § 34-609(B)(3) to reinstate the ten percent (10%) retention if City determines that satisfactory progress is not being made.

8.1.7 Contractor's Warranty of Title.

8.1.7.1 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Contractor Payment Request, whether incorporated in the Project or not, will pass to City at the time of payment, free and clear of all liens, claims, security interests, and encumbrances, provided that this will not preclude the Contractor from installing metering devices or other equipment of utility companies or municipalities, the title of which is commonly retained by the utility company or municipality.

8.1.7.2 No materials, supplies, or equipment for the Work under this Agreement will be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein, or any part thereof, is retained by the seller or supplier.

8.1.7.3 Nothing contained in this Section will defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Section must be inserted in all subcontracts and material agreements, and notices of its provision must be given to all persons furnishing materials for the Work when no formal agreement is entered into for such materials.

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8.2 **PAYMENT UPON SUBSTANTIAL COMPLETION**

8.2.1 No payment will be made upon Substantial Completion, except for a regularly-scheduled monthly progress payment, as allowed by Section 8.2.2.

8.2.2 No further payments will be made to Contractor until Final Acceptance.

8.3 **FINAL PAYMENT**

8.3.1 Subject to all of City's rights to withhold or offset payment, and other rights under the Agreement, Final Payment including remaining retainage will be paid only after:

a. Work has been fully completed (including completion of all incorrect or incomplete work items) and the written Final Acceptance has been issued by City;

b. Necessary operating manuals, any excess materials and supplies necessary for matching materials and supplies incorporated into the Work, acceptable sewer video results (if applicable), and complete "as-built" Drawings (including the Building Information Model, if required by the Agreement Documents) have been delivered to City, as specified in this Section 8.3;

c. Full and unconditional lien waivers and releases by Contractor and any person performing labor or supplying material, machinery, fixtures, or tools for the Work have been delivered to Contractor;

d. All conditions and requirements imposed by City or any financing entity for the corresponding disbursement have been met; and

e. Contractor delivers to City a Contractor Payment Request requesting Final Payment.

8.3.2 Contractor must also submit a signed copy of Contractor's Affidavit Regarding Settlement of Claims, Appendix 3 to these General Conditions, and Certificate of Completion, Appendix 7 to these General Conditions, prior to Final Payment.

8.3.3 In addition, if required under the Project Specific Special Provisions, Contractor must compile a complete equipment list and maintenance manual to be submitted to City as a precondition to Final Payment. The list must include the following items for all equipment supplied under the Plumbing, Electrical, Air Conditioning, Elevator, and other Special Equipment Specifications:

a. Name, Model and Manufacturer.

b. Complete parts lists and Drawings.

c. Local source of supply for replacement parts along with suppliers' telephone numbers.

d. Local service organizations serving the equipment and their telephone numbers.

e. All tags, inspection slips, instruction packages, etc., removed from equipment must be properly identified as to pieces of equipment from which they were taken.

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8.3.4 Contractor must also deliver to City, prior to Final Payment, one (1) digital (in the format specified by City), and if requested by City, one (1) hard copy, of any applicable Maintenance manuals. Each manual must include all manufacturer's operation and maintenance instructions and "as-built" Drawings with the list herein specified. It must also include all other diagrams and instructions necessary to properly operate and maintain the equipment, the name, address and telephone number of Contractor and all Subcontractors involved.

8.4 **CITY'S RIGHT TO WITHHOLD PAYMENT**

City may withhold payment to such extent as may be necessary in City's opinion to protect City from loss for which Contractor is responsible, including, without limitation, if any of the following conditions exist:

a. Defective Work not remedied;

b. Third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to City is provided by Contractor;

c. Failure of Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

d. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Agreement Price;

e. Damage to City or another Contractor;

f. Reasonable evidence that the Work will not be completed within the Agreement Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

g. Failure to carry out the Work in accordance with the Agreement Documents; or

h. Contractor is in default of any of its other obligations under the Agreement Documents.

8.5 **JOINT/DIRECT CHECKS**

To promote the timely completion and progress of the Work or when appropriate and necessary, payments to Contractor may be made jointly to Contractor and its employees, agents, Subcontractors and suppliers, or any of them. For federally funded agreements, see federal provisions for additional requirements for the joint check process.

8.6 **PAYMENT NOT A WAIVER**

No payment (nor use or occupancy of the Project by City) will be deemed acceptance or approval of the Work or as a waiver of any claims, rights, or remedies of City.

8.7 **LIENS AND BOND CLAIMS**

Contractor must make all payments, in the time required, of all labor and materials furnished to Contractor in the course of the Work and must promptly furnish evidence of such payments as City may require. Contractor must pay when due all claims arising out of performance of the Work covered by this Agreement for which a lien may be filed either against the real estate or leasehold interest of City, or against payments due from City to Contractor, or for which a claim may be made against any payment or performance bond or both. To the fullest extent permitted by law, Contractor agrees that no liens or other claims in the nature of a lien against the real estate, leasehold, or other interest of City,

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against payment due from City to Contractor, or against any payment or performance bond, must be filed or made in connection with the Work by any party who has supplied professional services, labor, materials, machinery, fixtures, tools, or equipment used in or in connection with the performance of this Agreement, and Contractor agrees to remove or to cause to be removed any such liens or claims in the nature of a lien or bond claim within 10 Days upon receiving notice or obtaining actual knowledge of the existence of such liens or claim. In addition, Contractor agrees to defend, indemnify, and hold harmless City from and against any and all such liens and claims. This paragraph does not apply to claims and liens of Contractor due to non-payment for work performed.

8.8 **FINANCIAL RECORDKEEPING AND CITY'S AUDIT RIGHT**

8.8.1 Records for all Agreements between City and Contractor must, upon reasonable notice, be open to inspection and subject to audit, scanning, and reproduction during normal business working hours. Such audits may be performed by any City's representative or any outside representative engaged by City for the purpose of examining such records. City or its designee may conduct such audits or inspections throughout the term of this Agreement and for a period of five years after Final Payment or longer if required by law. City's representatives may (without limitation) conduct verifications such as counting employees at the Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Contractor employees, field and agency labor, Subcontractors, and vendors.

8.8.2 Contractor's "records" must include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in City's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Agreement Document. Such records must include (hard copy, as well as computer readable data if it can be made available), written policies and procedures; time sheets; payroll registers; payroll records; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, negotiation notes, etc.); original bid estimates; estimating work sheets; correspondence; Change Order files (including documentation covering negotiated settlements); back-charge logs and supporting documentation; invoices and related payment documentation; general ledger, information detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of interest to City or the Project in connection with Contractor's dealings with City or the Project (all foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of any or all of the following:

a. Compliance with Agreement requirements for deliverables;

b. Compliance with approved Plans and Specifications;

c. Compliance with § 14.9 below;

d. Compliance with Agreement provisions regarding the pricing of Change Orders;

e. Accuracy of Contractor representations regarding the pricing of invoices; or

f. Accuracy of Contractor representations related to claims submitted by

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Contractor or any of their employees.

8.8.3 Contractor must require all payees (examples of payees include Subcontractors, Suppliers, Insurance Carriers, etc.) to comply with the provisions of this Section by including the requirements hereof in a written agreement between Contractor and payee. Contractor will ensure that all payees (including those entering into lump sum agreements) have the same right to audit provisions contained in this Agreement included in their agreements with Contractor.

8.8.4 City's authorized representative(s) (including, without limitation, Project Manager) must have reasonable access to Contractor's facilities, must be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement and must be provided adequate and appropriate work space, in order to conduct audits in compliance with this Section.

8.8.5 If an audit inspection or examination in accordance with this Section, discloses overpricing or overcharges to City (of any nature) by Contractor or Contractor's Subcontractors in excess of $100,000 in addition to making adjustments for the overcharges, the reasonable actual cost of City's audit must be reimbursed to City by Contractor. Any adjustments or payments which must be made as a result of any such audit or inspection of Contractor's invoices or records must be made within a reasonable amount of time (not to exceed 90 Days) from presentation of City's findings to Contractor.

8.8.6 In addition to the normal paperwork documentation Contractor typically furnishes to City, Contractor agrees to furnish, upon written request from City, any of the documentation necessary for City to exercise its audit rights under this Section 8.8 in computer readable file formats (Word, Excel, or .pdf), as City may designate.

8.8.7 City, its authorized representative, and the appropriate agency, reserve the right to audit Contractor's records in compliance with local, state or federal policies, statutes or at City's discretion, within three (3) years of Final Acceptance of the Work.

SECTION 9 - CHANGES TO THE AGREEMENT

9.1 **FIELD ORDERS**

City may authorize minor changes in the Work not involving an adjustment in the Agreement Price or the Agreement Times, which are consistent with the overall intent of the Agreement Documents. These may be accomplished by a written Field Order on the standard form approved and executed by City. Such Field Orders must be binding and Contractor must perform the change promptly. If Contractor believes that a Field Order justifies an increase in the Agreement Price or Agreement Time, Contractor may make a claim therefor as provided in Section 7.2.

9.2 **EXTRA WORK/CHANGES IN THE WORK**

9.2.1 City reserves the right to make such changes in the Plans and Specifications for the Work, as it may deem appropriate and any such change as set forth in a written Change Order must be deemed a part of this Agreement as if originally incorporated herein.

9.2.2 In the event City and Contractor cannot agree on the terms of a Change Order, or when circumstances otherwise require, the Project Manager has the authority to direct the Contractor to perform extra work, if the work in question is an item not provided for in the

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Agreement as awarded. The Project Manager will have the authority to determine, based upon factual evidence presented by the Contractor, whether the work in question is an item not provided for in the Agreement as awarded. If the Project Manager directs the Contractor to perform extra work, the Project Manager's instructions will include a price that the Contractor cannot exceed in charging the City for the extra work. Upon receipt of the Project Manager's directions to perform extra work, the Contractor must promptly proceed with the extra work and document the actual cost thereof. Contractor's right to payment for extra work will be determined under Subsection 9.2.4 below. The Contractor is responsible to manage the extra work to ensure that the price limits set by the Project Manager are not exceeded. Contractor must perform the extra work and submit documentation for the actual cost of the extra work to the City. A Change Order will be issued to cover this work.

9.2.3 Contractor will not be entitled to payment for extra work unless a written Change Order, in form and content prescribed by City, has been executed by City. On all requests for Change Orders, Contractor must specify the increased or decreased costs and whether it believes any extensions of time will be necessary to complete its Work as modified by the Change Order. If extra work is performed under Subsection 9.2.2 above, a corresponding Change Order will be prepared, approved and processed by City before payment can be made to Contractor.

9.2.4 In general, pricing for Change Orders will include the same mark-up percentages that were in effect when the Agreement was awarded. The cost or credit to the City resulting from a change in the Work is subject to Appendix 1 (Policy Statement for Calculating Delays and Damages) and will be determined, based on the type of pricing for the Agreement involved, as follows:

a. By mutual acceptance of a lump sum properly itemized in a form acceptable to City;

b. By unit prices stated in the Agreement Documents;

c. When the City determines that a Unit Price Book Job Order associated with a Job Order Agreement requires a Change Order, by using the same Total Cost Data and CCI that are in effect when the Change Order is anticipated to be issued; or

d. By actual cost and a percentage fee covering overhead and profit, as follows:

(i) Contractor will perform the extra work and be compensated for actual cost of labor, materials and equipment.

(ii) Contractor will have the right to add the fee percentage applicable to the Work under the Agreement, or if no such fee has been agreed to by the parties, not more than five percent (5%) to the Subcontractor's prices for authorized extra work performed solely by Subcontractors. Such percentage will include all of Contractor's charges for overhead, profit, administration and supervision.

(iii) Contractor or Subcontractor will have the right to add the fee percentage applicable to Work under the Agreement for self-performed extra work, or if no such fee has been agreed to by the parties, Contractor's or Subcontractor's maximum total allowable additions for overhead, profit, administration and supervision will

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not exceed ten percent (10%) of actual verifiable labor, materials and equipment for such self- performed extra work.

9.2.5 Any agreement which modifies the terms of the Agreement (including Change Orders) will be approved in writing by the Project Manager. Once properly executed by both parties, these modifications to the Agreement will have the same effect as if they had been included in the original Agreement.

9.3 **ACCURACY OF CHANGE ORDER PRICING INFORMATION**

9.3.1 Subject to Sections 9.3.2 through 9.3.4, signature by the contracting parties constitutes full accord and satisfaction between City and Contractor for all costs, damages, and expenses of whatever kind of nature, including delay, impact or acceleration damages, which may be occasioned by a Change Order of other modification of the Agreement agreed to in writing.

9.3.2 Accurate Change Order Pricing Information: Contractor agrees that it is responsible for submitting accurate cost and pricing data to City to support its Fixed Price, Unit Price, or Cost Plus Change Order Proposals or other Agreement Price adjustments under the Agreement. Contractor further agrees to submit Change Order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the Agreement with respect to pricing of change orders. Contractor agrees that any "buy-out savings" on Change Orders will accrue 100% to Owner. "Buy-out savings" are defined as any savings negotiated by the Contractor with a Subcontractor or a Material Supplier after receiving approval of a Change Order amount that was designated to be paid to a specific Subcontractor or Supplier for the Approved Change Order work.

9.3.3 Right to Verify Change Order Pricing Information: Contractor agrees that City, through its designated representative, will have the right to examine, copy, and scan the records of the Contractor, Subcontractor or Sub-Subcontractor's records (during the Agreement period and up to three years after final payment is made on the Agreement) to verify the accuracy and appropriateness of the pricing data used to price all Change Order proposals or claims. Contractor agrees that if City determines the cost and pricing data submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the Agreement regarding pricing of Change Orders, an appropriate Agreement Price adjustment will be made. Such post-approval Contact Price adjustments will apply to all levels of contractors and Subcontractors and to all types of Change Order proposals, specifically including Fixed Price, Unit Price, and Cost Plus Change Orders.

9.3.4 Requirements for Detailed Change Order Pricing Information: Contractor agrees to provide a detailed breakdown of allowable labor and labor burden cost (i.e., base wage rate of applicable classifications of workers, payroll taxes, and insurance and benefits costs). This information will be used to evaluate the potential cost of labor and labor burden related to Change Order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. Information is not intended to establish fixed billing or Change Order pricing labor rates. However, at the time Change Orders are priced, the submitted cost data for labor rates may be used to price Change Order work. The accuracy of any such agreed upon labor rate cost components used to price Change Orders will be subject to later audit. Approved Change Order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

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9.4 **EMERGENCIES**

In any emergency affecting the safety of persons or property, Contractor will act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Agreement Price or Agreement Time resulting from emergency work will be determined as provided in this Section.

9.5 **DIFFERING SITE CONDITIONS**

9.5.1 If Differing Site Conditions are encountered at the Project Site, then notice by the observing party must be given to the other party promptly before conditions are disturbed (to the extent practicable) and in no event later than 14 Days after first observance of the conditions. City will promptly investigate such conditions and, if City determines that Differing Site Conditions exist and they materially cause an increase in the cost of, or time required for, performance of any part of the Work, Contractor will be entitled to equitable adjustment in the Agreement Price or Construction Schedule (and other time requirements), or both. If it is determined by City that the conditions at the Project Site are not Differing Site Conditions and no change is justified, then City will so notify Contractor in writing, stating the reasons. Claims in opposition to such determination must be made within 14 Days after City has given notice of its decision. If City and Contractor cannot agree on an adjustment in the Agreement Price or Construction Schedule (and other time requirements), the adjustment may be submitted to dispute resolution as provided these General Conditions.

9.6 **CHANGES IN LAWS, REGULATIONS, OR LEGAL REQUIREMENTS OR TAXES**

In the event of a material change in applicable Laws, Regulations, or Legal Requirements, or taxes subsequent to the date of the Agreement by the parties, Contractor may be entitled to a Change Order, in City's discretion, to the extent Contractor can document to the satisfaction of City that such change significantly increases Contractor's actual cost of performance of the Work.

SECTION 10 -SUSPENSION AND TERMINATION

10.1 **SUSPENSION**

City may suspend the Agreement and Contractor's performance in accordance with MAG Specifications § 105.1 and 108.7.

10.2 **TERMINATION BY THE CITY FOR CAUSE**

10.2.1 MAG Specifications § 108.11 applies to the Agreement.

10.2.2 City may also terminate the Agreement if City determines, in its sole discretion that Contractor has:

a. After prior written notice, refused or failed to supply enough properly skilled workers or proper materials;

b. After prior written notice, failed to make payment to Subcontractors for materials or labor in accordance with the respective agreements between Contractor and the Subcontractors;

c. After prior written notice, disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;

d. After prior written notice, repeatedly failed to comply with written directives from City;

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e. Is adjudged as bankrupt or insolvent;

f. Made a general assignment for the benefit of creditors;

g. Appointed a trustee or receiver for itself or any of its property;

h. Filed a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws; or

i. Otherwise breached a provision of the Agreement Documents or any other Agreement between City and Contractor.

10.2.3 When any of the above reasons exist, City may terminate the Agreement, without prejudice to any other rights or remedies of City, after giving Contractor and Contractors' surety, if any, 7 Days written notice of City's intent to terminate the Agreement and Contractor's failure to cure any such reasons. Upon such termination, City may: (1) take possession of the Site and of all materials thereon owned by Contractor; or (2) finish the Work by whatever reasonable method City may deem expedient. When City terminates the Agreement for one of the reasons state above, Contractor will not be entitled to receive further payment until the Work is finished. If the unpaid balance of the Agreement Price existing at the time of such termination exceeds the costs and expenses of finishing the Work and any other damages incurred by City, such excess will be paid to Contractor. If such costs, expenses and damages exceed such unpaid balance, Contractor must pay the difference to City. This obligation for payment will survive termination of the Agreement.

10.3 **TERMINATION BY CITY FOR CONVENIENCE**

City may also terminate the Agreement at any time for its convenience upon 7 Days written notice to Contractor specifying the termination date. In the event of termination which is not the fault, in whole or in part, of Contractor, City will pay to Contractor only such compensation, including reimbursable expenses, due for Work properly performed on the Project prior to the termination date. Upon any termination of the Agreement, no further payments will be due from City to Contractor.

10.4 **A.R.S. § 38-511**

The Agreement is subject to, and may be terminated by City in accordance with, the provisions of A.R.S. § 38-511.

SECTION 11 -INSURANCE AND BONDS

11.1 **INSURANCE REQUIREMENTS**

11.1.1 After Agreement award, the Contractor must furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement may not be deemed to apply to required Worker's Compensation coverage.

11.1.2 The Contractor and any of its Subcontractors must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

11.1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

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11.1.4 The City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Contractor from liabilities that might arise out of the performance of the Agreement services under this Agreement by Contractor**,** its agents, representatives, employees, or Subcontractors and the Contractor is free to purchase any additional insurance as may be determined necessary.

11.1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve the Contractor from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

11.1.6 Use of Subcontractors: If any Work is subcontracted in any way, the Contractor must execute a written agreement with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of the Contractor in this Agreement. The Contractor is responsible for executing the Agreement with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

11.2 **MINIMUM SCOPE AND LIMITS OF INSURANCE**

11.2.1 The Contractor must provide coverage with limits of liability not less than those stated below.

11.2.1.1 Commercial General Liability-Occurrence Form. Contractor must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.2 Automobile Liability-Any Automobile or Owned, Hired and Non-Owned Vehicles. Contractor must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Contractor owned, hired, and non-owned vehicles assigned to or used in the performance under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.3 Workers Compensation and Employers Liability Insurance. Contractor must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance of Work under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

11.2.1.4 Builders' Risk/Installation Floater Insurance. The Contractor bears all responsibility for loss to all equipment or Work under construction. Unless waived in writing by the City the Contractor will purchase and maintain in force Builders' Risk/Installation Floater insurance on the entire Work until completed and accepted by the City. This insurance will be Special Causes of Loss policy form, (minimally including perils of fire, flood, lightning, explosion, windstorm and hail, smoke, aircraft and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, and collapse), completed value, replacement cost policy form equal to the Agreement Price and all subsequent modifications. The Contractor's Builders'

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Risk/Installation Floater insurance must be primary and not contributory.

a. Builders' Risk/Installation Floater insurance must cover the entire Work including reasonable compensation for architects and engineers' services and expenses and other "soft costs" made necessary by an insured loss. Builders' Risk/Installation Floater insurance must provide coverage from the time any covered property comes under the Contractor's control and or responsibility, and continue without interruption during course of construction, renovation and or installation, including any time during which any Project property or equipment is in transit, off Site, or while on Site for future use or installation. Insured property must include, but not be limited to, scaffolding, false work, and temporary buildings at the Site. This insurance must also cover the cost of removing debris, including demolition as may be legally required by operation of any law, ordinance, regulation or code.

b. The Contractor must also purchase and maintain Boiler and Machinery insurance with the same requirements as Builders' Risk/Installation Floater insurance cited above if the Work to be performed involves any exposures or insurable property normally covered under a Boiler and Machinery insurance policy or made necessary as required by law or testing requirements in the performance of this Agreement. The Contractor will be responsible for any and all deductibles under these policies and the Contractor waives all rights of recovery and subrogation against the City under the Contractor- Builders' Risk/Installation Floater insurance described herein.

c. Builders' Risk/Installation Floater Insurance must be maintained until whichever of the following first occurs: (i) final payment has been made; or, (ii) until no person or entity, other than the City, has an insurable interest in the property required to be covered.

d. The Builders' Risk/Installation Floater insurance must be endorsed so that the insurance will not be canceled or lapse because of any partial use or occupancy by the City.

e. The Builders Risk/Installation Floater insurance must include as named insureds, the City, the Contractor, and all tiers of Subcontractors and others with an insurable interest in the Work who will be named as additional insureds unless they are able to provide the same level of coverage with the City and Contractor named as additional insureds. Certificates must contain a provision that the insurance will not be canceled or materially altered without at least 30 Days advance notice to the City. The City must also be named as a Loss Payee under the Builders' Risk/Installation Floater coverage.

f. The Builders Risk/Installation Floater insurance must be written using the Special Causes of Loss policy form, replacement cost basis.

g. All rights of subrogation under the Builders Risk/Installation Floater insurance are, by this Agreement, waived against the City, its officers, officials, agents and employees.

h. The Contractor is responsible for payment of all deductibles under the Builders' Risk/Installation Floater insurance policy.

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11.2.1.5 Pollution Liability Insurance (Including Errors and Omissions). For Job Orders, Pollution Liability Insurance is only required if applicable and determined on a project specific basis. Contractor must maintain Pollution Liability Insurance with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate for losses caused by pollution conditions including coverage for bodily injury, property damage, defense costs, clean-up costs, and completed operations that arise from the operations of Contractor as described in this Agreement.

a. The policy must provide for complete professional service coverage, including coverage for pollution liability that is a result of a breach of professional duties.

b. The policy must provide for protection again claims for third-party bodily injury, property damage, or environmental damage caused for pollution conditions resulting from general contracting activities for which Contractor is legally liable.

c. The policy must provide for cleanup costs when mandated by governmental entities, when required by law, or as a result of third-party claims.

d. Completed Operations Coverage must be kept in place for up to the statute of repose.

e. The policy must be endorsed to include the following additional insured language: "City, its elected officials, trustees, employees, agents, and volunteers must be named as additional insureds with respect to liability arising out of the activities performed by, or on behalf of Contractor".

f. If Work under this Agreement requires the transportation of any hazardous material or regulated substances, Contractor must carry Auto Liability with a CA 9948 endorsement or equivalent.

g. If Work under this Agreement requires the disposal of any hazardous materials from the job site, Contractor must obtain a certificate of insurance for Pollution Legal Liability from the disposal site operator with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate.

11.3 **ADDITIONAL POLICY PROVISIONS REQUIRED**

11.3.1 Self-Insured Retentions or Deductibles. Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

11.3.2 The Contractor's insurance must contain broad form contractual liability coverage.

11.3.3 The Contractor's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees will be in excess of the coverage provided by the Contractor and must not contribute to it.

11.3.4 The Contractor's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

11.3.5 Coverage provided by the Contractor must not be limited to the liability assumed under the

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indemnification provisions of this Agreement.

11.3.6 The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by the Contractor for the City.

11.3.7 The Contractor, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. The Contractor must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming the required Additional Insureds set forth herein.

11.3.8 If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

11.3.9 Insurance Cancellation During Agreement Term.

11.3.9.1 If any of the required policies expire during the life of this Agreement, the Contractor must forward renewal or replacement Certificates to the City within 10 Days after the renewal date containing all the required insurance provisions.

11.3.9.2 Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after 30 Days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then 10 Days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the require notice, the Contractor or its insurance broker must notify the City of any cancellation, suspension, non-renewal of any insurance within 7 Days of receipt of insurers' notification to that effect.

11.3.10 City as Additional Insured. The above-referenced policies are to contain, or be endorsed to contain, the following provisions:

11.3.10.1 The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, the Contractor including the City's general supervision of the Contractor; Products and Completed Operations of the Contractor; and automobiles owned, leased, hired, or borrowed by the Contractor.

11.3.10.2 The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Agreement.

11.4 BONDS AND OTHER PERFORMANCE SECURITY

11.4.1 After Agreement award, Contractor must provide a Performance Bond and a Payment Bond, each in an amount equal to the full amount of the Agreement Price.

11.4.2 Each such bond must be executed by a surety company or companies holding a Certificate

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of Authority to transact surety business in the State of Arizona, issued by the Director of the Arizona Department of Insurance and must be named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. A copy of the Certificate of Authority must accompany the bonds. The Certificate must have been issued or updated within two (2) years prior to the execution of this Agreement. The bonds must be written or countersigned by an authorized representative of the surety who is either a resident of the state of Arizona or whose principal office is maintained in this state, as by law required.

11.4.3 The bonds must be made payable and be acceptable to City. The bond forms for the performance and payment bonds must be in the forms required under A.R.S. § 34-221, *et. Seq.,* as in Appendices 4 and 5 of these General Conditions.

11.4.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Agreement Documents, Contractor must promptly furnish a copy of the bonds or must permit a copy to be made.

11.4.5 All bonds submitted for this Project must be provided by a company which has been rated AM Best rating of A- or better for the prior four quarters by the latest edition of the 'Results Best's Key Rating Guide (Property/Casualty)" published by the A.M. Best Company.

11.4.6 Personal or individual bonds are not acceptable.

11.4.7 If the surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent, or Contractor's right to do business is terminated in any state where any part of the Project is located, or it ceases to meet the requirements of this Section 11.4, Contractor must within 5 Days thereafter substitute another Bond and surety, both of which must be acceptable to City.

SECTION 12 - INDEMNIFICATION

12.1 To the extent permitted by law, the Contractor and its owners, officers, directors, agents, employees, and subconsultants (collectively "lndemnitor") must indemnify, save, and hold harmless the City and its officers, officials, agents, and employees (collectively "lndemnitee") from any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation, and litigation) (collectively "Claims") caused or alleged to be caused, in whole or in part, by the negligent, reckless, wrongful, or willful acts, errors, or omissions of Indemnitor in connection with this Agreement. This indemnity includes any Claim or amount arising out of or recovered under workers' compensation laws or on account of Indemnitor's failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, or court decree. Indemnitor must indemnify lndemnitee from and against any and all Claims, except those arising solely from lndemnitee's own negligent, reckless, wrongful, or willful acts, errors, or omissions. Indemnitor is responsible for primary loss investigation, defense, and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Indemnitor agrees to waive all rights of subrogation against lndemnitee for losses arising from or related to this Agreement. Indemnitor's obligations under this provision survive the termination or expiration of this Agreement.

SECTION 13 -DISPUTE RESOLUTION

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13.1 All disputes arising out of or relating to the Agreement, the Work or the Project, other than termination under Section 10, will be resolved pursuant to the Dispute Resolution process set forth in Appendix 6 of these General Conditions, and not pursuant to MAG Specifications § 110.

13.2 Contractor agrees that during any dispute between the parties, Contractor will continue to perform its obligations under the Agreement until such dispute is resolved.

13.3 Notwithstanding any other provision in this Agreement, City has the right to immediately file in court and pursue an action for a temporary restraining order and injunctive relief against Contractor if City determines that such action is necessary to protect its interests under the Agreement, to obtain specific performance of any provision of the Agreement, to advance the completion of the Project, or to protect health, welfare and safety.

SECTION 14 - MISCELLANEOUS PROVISIONS

14.1 AGREEMENT DOCUMENTS

14.1.1 The Agreement Documents are intended to permit the parties to complete the Work and all obligations required by the Agreement Documents within the Agreement Times for the Agreement Price. The Agreement Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

14.1.2 It is the intent of the Agreement Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Agreement Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Agreement Documents or from prevailing custom or trade usage as being required to produce the intended result must be provided by Contractor whether or not specifically called for at no additional cost to City.

14.1.3 The Agreement Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Agreement Documents), Contractor's Bid or Proposal (including documentation accompanying the Bid and any post-Bid documentation submitted prior to Agreement award) when attached as an exhibit to the Agreement, the accepted Project Schedule, the Notice to Proceed, the Performance Bond, the Payment Bond, Project Design, Engineering and Specifications, these General Conditions, the Project Specific Special Provisions, Technical Specifications, Agreement Drawings, as the same may be more specifically identified in the Agreement, Change Orders, Work Change Directives, Field Orders and the written interpretations and clarifications of the Design Professional or City representative and Modifications issued after execution of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Agreement Documents.

14.1.4 In the event of any inconsistency, conflict, or ambiguity between or among the Agreement Documents, the Agreement Documents will take precedence as follows from highest to lowest: Change Orders, Addenda, Agreement, Project Specific Special Provisions, General Conditions, Technical Specifications, Drawings/Plans, Chandler Amendments to MAG Standard Specifications and Chandler Standard Details, and MAG Uniform Standard Specifications and Details for Public Works Construction. If applicable to this Agreement, Federal Provisions prevail.

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14.1.5 On the Drawings, given dimensions will take precedence over scaled measurements and large scale drawings over small-scale drawings.

14.1.6 Clarifications and interpretations of the Agreement Documents will be issued by the Design Professional through the City.

14.1.7 The headings used in this Agreement or any other Agreement Documents, are for ease of reference only and must not in any way be construed to limit or alter the meaning of any provision.

14.1.8 The Agreement Documents form the entire agreement between City and Contractor. No oral representations or other agreements have been made by the parties except as specifically stated in the Agreement Documents.

14.1.9 The Agreement Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party in the form of a Change Order.

14.1.10 Re-Use of Documents. Neither Contractor nor any Subcontractor, manufacturer, fabricator, supplier or distributor will have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of the Design Professional; and they must not re-use any of them on extensions of the Project or any other project without written consent of City and the Design Professional and specific written verification or adaptation by the Design Professional.

14.2 **REFERENCE STANDARDS**

14.2.1 Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, will mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Agreement Documents.

14.2.2 The provisions of any such standard, specification, manual or code, or any instruction of a Supplier will not change the duties or responsibilities of City, Contractor, Design Professional or Project Manager, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Agreement Documents, nor will any such provision or instruction assign to City, Contractor, Design Professional, or any of their agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Agreement Documents.

14.3 **COMPLIANCE WITH ARIZONA LAW AND FEDERAL LAW**

14.3.1 Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Contractor hereby warrants to the City that the Contractor and each of its subcontractors ("Subcontractors") must comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A).

14.3.2 A breach of the Contractor Immigration Warranty constitutes a material breach of this Agreement and subject to penalties up to and including termination of this Agreement.

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14.3.3 The City retains the legal right to inspect the papers of any Contractor or Subcontractor employee who works on this Agreement to ensure that the Contractor or Subcontractor is complying with the Contractor Immigration Warranty. The Contractor agrees to assist the City in the conduct of any such inspections.

14.3.4 The City may, at its sole discretion, conduct random verifications of the employment records of the Contractor and any Subcontractors to ensure compliance with Contractors Immigration Warranty. The Contractor agrees to assist the City in performing any such random verifications.

14.3.5 The provisions of this Article must be included in any agreement the Contractor enters into with any and all of its subcontractors who provide services under this Agreement or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

14.4 **HAZARDOUS ENVIRONMENTAL CONDITIONS**

14.4.1 Contractor will not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Agreement Document to be within the scope of the Work. Contractor will be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

14.4.2 If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition. Contractor must immediately:

a. Secure or otherwise isolate such condition;

b. Stop all Work in connection with such condition and in any area affected thereby; and

c. Notify City and promptly thereafter confirm such notice in writing.

14.4.3 City will promptly retain a qualified expert to evaluate such condition or take corrective action, if any.

14.4.4 Contractor will be responsible for any and all civil or criminal penalties, fines, damages, or other charges imposed by any regulatory agency or court for sewage discharges that are in violation of applicable statutes and laws and that are a result, direct or indirect, of work performed under this Agreement. Contractor will also be responsible for reimbursement to City for administration, reporting, and tracking expenses required as a result of any spill event. In the event the regulatory agency or court imposes a probationary period, Contractor must post bond for the probationary period to ensure that all such costs are reimbursed to City. This responsibility will apply whether penalties are imposed directly on Contractor or any of its Subcontractors, or the City of Chandler. Contractor must defend and indemnify City against such penalties. Regulatory agencies may include, but are not limited to, the Arizona Department of Environmental Quality (ADEQ) and the United States Environmental Protection Agency (USEPA).

14.5 **COOPERATION AND FURTHER DOCUMENTATION**

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Contractor agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of the Agreement Documents.

14.6 **ASSIGNMENT**

Neither Contractor nor City will, without the written consent of the other assign, transfer or sublet any portion of this Agreement or part of the Work or the obligations required by the Agreement Documents, any such assignment will be void, will transfer no rights to the purported assignee, and would be a material breach of the Agreement.

14.7 **SUCCESSORS**

Contractor and City intend that the provisions of the Agreement Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

14.8 **LAWFUL PRESENCE**

Pursuant to A.R.S. §§ 1-501 and 1-502, City is prohibited from awarding an agreement to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming the identification provided is genuine. This requirement will be imposed at the time of agreement award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

14.9 **NO BOYCOTT OF ISRAEL CERTIFICATION**

By Contractor's signature on this Agreement, Contractor certifies under A.R.S. § 35-393.01 that Contractor is not currently engaged in and for the duration of this Agreement will not engage in a boycott of Israel.

14.10 **NO THIRD PARTY BENEFICIARY**

Nothing under the Agreement Documents will be construed to give any rights or benefits in the Agreement Documents to anyone other than City and Contractor, and all duties and responsibilities undertaken pursuant to the Agreement Documents will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party, unless otherwise expressly set forth in the Agreement Documents.

14.11 **GOVERNING LAW AND VENUE**

The Agreement and all Agreement Documents will be deemed to be made under, and will be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any court action to enforce any provision of the Agreement or to obtain any remedy with respect hereto must be brought in the Superior Court, Maricopa County, Arizona, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such Court.

14.12 **SEVERABILITY**

If any provision of the Agreement Documents or the application thereof to any person or circumstance will be invalid, illegal or unenforceable to any extent, the remainder of the affected provision, the remainder of the Agreement Documents, and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

14.13 **LEGAL REQUIREMENTS**

At all times relevant to its entry into this Agreement and performance of the Services and the Work, Contractor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project, and the Agreement, including, without limitation, those set

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forth on Exhibit C of the Agreement.

14.14 **PARTIAL INVALIDITY**

If any provision of the Agreement is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

14.15 **ATTORNEYS' FEES**

Should either party to the Agreement bring an action to enforce any provision of the Agreement, the prevailing party will be entitled to recover reasonable attorneys' fees and costs in connection therewith.

14.16 **CONFLICT OF INTEREST**

14.16.1 Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, existing prior to the execution of the Agreement. Further, Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, if Contractor gains such interest during the course of this Agreement. If Contractor gains financial or economic interest in the Project during the course of this Agreement, this may be grounds for terminating this Agreement. Any decision to terminate the Agreement must be at the sole discretion of City.

14.16.2 Contractor will not engage the services on this Agreement of any present City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Agreement Modifications for this Agreement.

14.16.3 Contractor agrees that it will not perform services on this Project for a contractor, subcontractor, or any supplier, not covered under this Agreement.

14.17 **INDEPENDENT CONTRACTOR**

Contractor is and must be an independent contractor. Any provisions in the Agreement Documents that may appear to give City the right to direct Contractor as to the details of accomplishing the Work or to exercise a measure of control over the Work means that Contractor must follow the wishes of City as the results of the Work only. These results must comply with all applicable laws and ordinances.

14.18 **NOTICE OF INJURY**

Should City or Contractor suffer injury or damage to their person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim must be made in writing to the other party within 7 Days of the first observance of such injury or damage.

14.19 **CONFIDENTIALITY**

Contractor, for the benefit of City, hereby agrees it will not release or cause or permit to be released to the public any press notices, publicity (oral or written) or advertising promotion relating to, any statement regarding, or any other public announcement or disclosure or cause or permit to be publicly announced or disclosed, in any manner whatsoever, the specific terms and conditions of this Agreement or any comment relating to the Project or the Site. Notwithstanding the foregoing, Contractor will be entitled to disclose the terms of the Agreement to the extent required by law or in the course of enforcing or defending a claim or action hereunder. Contractor must give City reasonably prompt notice of any disclosure or statement made pursuant to this provision.

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14.20 **DATA CONFIDENTIALITY**

14.20.1 As used in the Agreement, "data" means all information, whether written or verbal, including plans, specifications, renderings, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the City in the performance of this Agreement.

14.20.2 Contractor agrees that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to City in connection with the Contractor's performance of this Agreement is confidential and proprietary information belonging to City.

14.20.3 Except as specifically provided in this Agreement, Contractor or its Subcontractors must not divulge data to any third party without prior written consent of City. Contractor or its Subcontractors must not use data for any purposes except to perform Work required under this Agreement. These prohibitions will not apply to the following data provided Contractor has first given the required notice to City:

a. Data which was known to Contractor or its Subcontractors prior to its performance under this Agreement unless such data was acquired in connection with Work performed for City;

b. Data which was acquired by Contractor or its Subcontractors in its performance under this Agreement and which was disclosed to Contractor or its Subcontractors by a third party, who to the best of Contractor's or its Subcontractor's knowledge and belief, had the legal right to make such disclosure and Contractor or its Subcontractors are not otherwise required to hold such data in confidence; or

c. Data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its Subcontractors are subject.

14.20.4 In the event the Contractor or its Subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its Subcontractors became privy as a result of any other agreement with City, the Contractor must first notify City as set forth in this Section of the request or demand for the data. The Contractor or its Subcontractors must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure.

14.20.5 Unless prohibited by law, within 10 Days after completion of services for a third party on real or personal property owned or leased by City, the Contractor must promptly deliver, as set forth in this Section, a copy of all data to City. All data will continue to be subject to the confidentiality agreements of this Agreement.

14.20.6 Contractor or its Subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agree to compensate City if any of the provisions of this Section are violated by Contractor, its employees, agents, or Subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section will be deemed to cause irreparable harm that justified injunctive relief in court. Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this

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Agreement without notice.

14.21 **SURVIVAL**

All warranties, representations and indemnifications by Contractor must survive the completion or termination of this Agreement.

14.22 **COVENANTS AGAINST CONTINGENT FEES**

Contractor warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of City Council, or any employee of City has any interest, financially, or otherwise, in the firm. For breach or violation of this warrant, City will have the right to annul the Agreement without liability or at its discretion to deduct from the Agreement Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

14.23 **NO WAIVER**

The failure of either party to enforce any of the provisions of the Agreement Documents or to require performance of the other party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor will it affect the validity of the Agreement Documents or any part thereof, or the right of either party to thereafter enforce each and every provision.

14.24 **NONEXCLUSIVE REMEDIES**

The remedies set forth in this Agreement are cumulative and not exclusive, and failure to exercise any remedy (including, without limitation, any right to terminate) will not preclude any party from exercising any other right in seeking any other remedy available to it at law or in equity.

14.25 **PROJECT COMMUNICATIONS**

14.25.1 All communications concerning the performance of the Work or the Project will be provided to the designated Project Manager and Contractor's Representative set forth in Article 1 of the Agreement. City may change the designated Project Manager and, subject to Section 4.4.20 of these General Conditions, Contractor may change Contractor Representative, by written notice to the other.

14.25.2 Project communications may be exchanged by e-mail, but email communications cannot change the terms of the Agreement or the Scope of Work, or effectuate any change that requires a written Change Order.

14.25.3 When any provisions of the Agreement Documents requires Contractor or the Design Professional to give written notice to City, it will be deemed to have been validly given if delivered in person or if delivered at or sent by registered or certified mail, postage prepaid, to the Parties indicated in Agreement Article 1, incorporated by reference.

14.25.4 When any provisions of the Agreement Documents requires City, Project Manager, or the Design Professional to give written notice to Contractor, it will be deemed to have been validly given if delivered in person to the person designated in the Agreement Documents as Contractor's Resident Superintendent, or if delivered at or sent by registered or certified mail, postage prepaid, to Contractor at the last address in the Agreement Documents or such substitute address which Contractor designates in writing, or to the business address known to the giver of notice.

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14.26 **DRUG FREE WORKPLACE PROGRAM**

14.26.1 City has adopted a policy establishing a drug free workplace for itself and as a requirement for Contractors doing business with City, to ensure the safety and health of employees working on City projects.

14.26.2 Contractor must require a drug free workplace for all employees working under the Agreement. Specifically, all employees of Contractor who are working under an agreement with City must be notified, in writing, by Contractor that they are prohibited from the manufacture, distribution, dispensation, possession or unlawful use of a controlled substance in the workplace.

14.27 Failure to require a drug free workplace in accordance with the City's policy may result in termination of the Agreement and possible debarment form bidding on future City projects.

SECTION 15 - PROVISIONS APPLICABLE SOLELY TO GMP AND COST-BASED AGREEMENTS, CHANGE ORDERS, AND JOB ORDERS

15.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 apply to GMP and Cost-Based Agreements, Change Orders, and Job Orders, together with the additional definitions set forth below.

Baseline Cost Model –
A breakdown and estimate of the scope of the Project developed by CM@Risk pursuant to Section 17.5 of these General Conditions.

CM@Risk or Construction Manager at Risk –
The person or firm selected by City to provide pre-construction and/or construction services as detailed in a Construction Manager at Risk Agreement with City. In these General Conditions, the term "Contractor" includes CM@Risk under both Pre-Construction and Construction Services Agreements.

CM@Risk Fee or Contractor's Fee –
An agreed to percentage in an accepted GMP that represents the Contractor's fee for performance of the Work.

Agreement Documents –
Where compensation under the Agreement is based upon a GMP accepted by City, the term "Agreement Documents" also includes the accepted GMP Proposal.

Agreement Price –
Where compensation under the Agreement based upon a GMP accepted by City, the term "Agreement Price" refers to the GMP.

Cost-Based Agreement, Change Order, or Job Order –
A Agreement, Change Order, or Job Order where the Agreement Price is based upon the actual cost of performing the Work, subject to the terms of the Agreement Documents, including this Section 15. These would include those generally referred to as "Cost of the Work plus a Fee with a GMP," "Time and Materials," or "Cost Plus a Fee."

Cost of the Work –
The direct costs necessarily incurred by Contractor in the proper, timely, and complete performance on the Work. The Cost of the Work will include only those costs set forth in Section 15.2 of these

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General Conditions.

Deliverables –
The work products prepared by Contractor in performing the scope of work described in the Agreement. Some of the major deliverables to be prepared and provided by Contractor during pre-construction may include but are not limited to: the Baseline Cost Model and Schedule that validate City's plan and budget, Construction Management Plan, Detailed Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, Detailed Cost Estimates, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, Constructability Review, Cost Control Log, Traffic control and phasing plans and others as indicated in this Agreement or required by the Project Team.

Pre-Construction Services Agreement –
The Agreement entered into between City and the CM@Risk for Pre-Construction Services to be provided by the CM@Risk, including, without limitation, the generation of a GMP Proposal. If the GMP Proposal is accepted by City and a Construction Agreement is entered into between City and CM@Risk, the duties, obligations and warranties of the CM@Risk under the Pre-Construction Services Agreement survive and are incorporated into the resulting Construction Agreement.

Pre-Construction Services –
The services to be provided under the Pre-Construction Services Agreement, including Section 17 of these General Conditions.

Detailed Project Schedule –
The Detailed Project Schedule developed by the CM@Risk for the review and approval of the Project Manager in accordance with Section 17.3 of these General Conditions, if applicable.

General Conditions Costs –
Those costs set forth in Section 4 of Appendix 9 to these General Conditions.

GMP Plans and Specifications –
The plan and specifications upon which the Guaranteed Maximum price Proposal is based.

GMP Proposal –
The proposal of Contractor submitted pursuant to Section 17.7 of these General Conditions for the entire Work and/or portion (phases) of the Work.

Guaranteed Maximum Price or GMP –
The Guaranteed Maximum Price set forth in the Agreement, Change Order, or Job Order if applicable.

15.2 **AGREEMENT PRICE**

15.2.1 The Agreement Price for all Agreements, Change Orders, and Job Orders based upon payment of the Cost of the Work plus a Fee with a GMP, time and materials, or cost-plus a fee will be the Cost of the Work incurred plus the Fee agreed to in writing by City, limited to the amount of the GMP, if agreed to. Unless otherwise expressly provided in the Agreement, Change Order, or Job Order, all Cost Based pricing will be subject to and limited to GMP.

15.2.2 The Agreement Price may only be changed as set forth in Section 9 above.

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15.2.3 Only costs specifically designated as reimbursable costs are eligible for payment by City or may be charged against the Agreement Price. All other costs will not be paid by City and will not be chargeable against the Agreement Price.

15.2.4 Cost-Based Agreements. For Agreements, Change Orders, or Job Orders, reimbursable costs must be determined pursuant to Appendix 9 to these General Conditions, Cost of the Work, and not by MAG Specifications §109.5.

15.3 **ALLOWANCES**

15.3.1 Contractor must include in the Agreement Price all Allowances stated in the Agreement Documents and agreed to in writing by City. Items covered by these Allowances must be supplied for such amounts and by such persons as City may direct, provided Contractor will not be required to employ persons against whom Contractor makes a reasonable objection. Materials, labor, and equipment under an Allowance will be selected by City in accordance with a schedule to be mutually agreed upon by City, Design Professional and Contractor or otherwise in reasonably sufficient time to avoid delay in the Work.

15.3.2 Unless otherwise provided in the Agreement Documents:

15.3.2.1 These Allowances must cover the cost to Contractor, less any applicable trade discount, of the materials, labor, and equipment required by the Allowances, delivered at the Site, and all applicable taxes;

15.3.2.2 Contractor's costs for unloading and handling on the Site, labor, installation costs, overhead, profit and other expenses relating to materials, labor, and equipment required by the Allowance must be included in the Agreement Sum and not in the Allowance; and

15.3.2.3 Whenever the cost is more or less than the Allowance, the Agreement Sum must be adjusted accordingly by Change Order, the amount of which will recognize the difference between actual costs for an Allowance item and the amount of the Allowance item and changes, if any, in handling costs on the Site, labor, installation costs, overhead, profit and other expenses.

15.4 **CONTINGENCY**

An agreed to amount in the GMP that may only be used in accordance with the terms set forth in these General Conditions and with prior written approval by the City.

15.4.1 Construction Contingency. This GMP includes a dollar amount listed as a Construction Contingency which will be readily available for increased costs for subcontractors, material, and equipment subject to prior approval of City, which approval will not be withheld unreasonably. The Construction Contingency may also be used, at the discretion of City, to reimburse CM@Risk for unexpected costs due to (a) scope gaps between trade subcontractors; (b) agreement default by trade subcontractors; (c) unforeseen field conditions, but only as defined in Section 9.5 above; (d) work completed to meet the intent of the design, but which was not indicated on the plans; (e) costs overruns not covered by allowances; (f) costs of corrective work not provided for elsewhere; and (g) implementation of any Recovery Plan. Cost for which CM@Risk desires to be paid from the Construction Contingency must be documented by CM@Risk on a time and materials basis and are subject to verification by City. If agreed to by City, a "Use of Contingency" form will be executed by both parties authorizing the actual cost of the work to be paid and included in the Work Item Direct Costs. The Construction Contingency is not allocated to any particular

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item of the Project but may be used for any portion of the work as determined above. Any amount not used in the Construction Contingency will belong to City and will reduce the GMP.

15.4.2 Owner's Contingency. This GMP also includes a dollar amount listed as an Owner's Contingency which may be used only by the City (owner department) for upgrades and changes in scope or other changes not already included within the intent of the Project Program. City will provide CM@Risk with a Work Change Directive authorizing CM@Risk to perform the additional work and to transfer funds from the Owner's Contingency to the Work Item Direct Costs category to be paid with such direct costs. These additional costs will be in an amount mutually agreed upon by CM@Risk and City or will be documented by CM@Risk on a time and materials basis and are subject to verification by City. Any amount not used in the Owner's Contingency will belong to the City and will reduce the GMP.

15.5 **REDUCTION IN RETENTION**

If the Agreement Price is based upon a GMP, in order to receive payment of one-half of the retention as set forth in Section 8.1.5 above, Contractor must also submit to the Project Manager a complete accounting of the Actual Reimbursable Cost of the Work to date, including all such documentation (including, without limitation, invoices, subcontract, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the actual reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. The Project Manager's determinations as to Actual Reimbursable Cost of the Work will be the basis of payment until final Project Closeout and Final Payment under the Agreement.

15.6 **FINAL PAYMENT**

If the Agreement Price is based upon a GMP, as a further condition precedent to Final Payment by City, Contractor must submit to the Project Manager a complete final accounting of the Actual Reimbursable Cost of the Work, including all such documentation (including, without limitation, invoices, subcontracts, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the Actual Reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. Disputes relating to the Final Cost of the Work will be subject to City's audit rights under Sections 8.8 above and 15.7 below, and the dispute resolution process under Section 13 above.

15.7 **OPEN BOOK**

On any GMP-based or Cost-Based Agreement, Job Order, or Change Order, City may attend any and all meetings or discussions pertaining to the Project, including bid openings, and must have access to all books, invoices, accounts, memoranda, correspondence, and written communications or records of any kind pertaining to the Project, including without limitation, those stored in electronic format.

15.8 **DIFFERING SITE CONDITIONS AND/OR CHANGE IN LAWS**

A Change Order for increased costs under Section 9.5 or 9.6 above will only be considered

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or granted by City to the extent such actual, documented costs are justified.

SECTION 16 - PROVISIONS APPLICABLE SOLELY TO JOB ORDER AGREEMENTS (JOC)

16.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Sections 2 and below will apply to all Job Order Agreements and Job Orders. In addition, the definitions set forth in Section 15.1 above will apply to all Cost-Based Job Orders.

Agreement –
Includes the Job Order Master Agreement and Job Order Project Agreements issued and agreed to by City and JOC Contractor.

JOC Contractor's Coefficient –
A numerical factor that represents JOC Contractor total costs (indirect and direct costs, sales tax, profit, etc.) and other adjustments for market conditions.

Job Order Request for Proposal (RFP) –
The Request for Proposals issued by City for each Job Order Project Agreement relating to a specific Project.

Job Order Cost Proposal –
The Proposal submitted by JOC Contractor in response to a Job Order Request for Proposal (RFP) issued by City to develop a Job Order Project Agreement for a specific Project.

Guaranteed Maximum Price (GMP) Job Order –
Job Order under which JOC Contractor is compensated for actual costs incurred.

Job Order Project Agreement (Job Order) –
The agreement for a specific project, as it may be modified by all Change Orders, executed by the Parties, which incorporates the terms and conditions of the Job Order Master Agreement.

16.2 **ORDERING AND PROCESSING PROCEDURES FOR JOB ORDERS**

16.2.1 The process for developing and issuing a Job Order for a particular Project consists of three (3) procedures: (1) issuance of a RFP by City; (2) JOC Contractor's response to the RFP in the form of JOC Contractor's Job Order Cost Proposal; and (3) Issuance of a Job Order by City, as set for below.

16.2.2 RFP's For Job Orders

16.2.2.1 City will provide to JOC Contractor RFP with a Scope of Work (SOW) describing the Work to be performed, which may include special instructions and conditions, material submittal requirements, and, if applicable, a complete set of sketches, construction drawings and specifications for the Job Order.

16.2.2.2 Some Job Order RFP's will be issued by City without detailed sketches, drawing and specifications and will rely on JOC Contractor to produce them for City review and approval and is considered to be Pre-Construction and incidental design services included in JOC Contractor's overhead for GMP Job Orders. In addition JOC Contractor will not be reimbursed for any Pre-Job Order costs, including proposal preparation, attendance during negotiations, or site visits.

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16.2.3 JOC Contractor's Job Order Cost Proposal

16.2.3.1 JOC Contractor must respond within ten (10) calendar days of the RFP date or site visit, whichever is later or as otherwise indicated on a case-by-case basis, by submitting JOC Contractor's Job Order Cost Proposal to the City representative.

16.2.3.2 Unless otherwise required under the terms of the RFP, JOC Contractor's Job Order Cost Proposal must include the following.

a. JOC Contractor's Job Order Cost Proposal in PDF and electronic format;

b. A Project Schedule and schedule of values that reflects the costs of each work element on the schedule. The schedule must show all milestones (e.g., permits, submittals, ordering materials, demolition, work phases, closeout and completion date); and

c. Necessary documentation will be required to indicate that adequate scoping, layout, setup and planning to accomplish the Work has been done. Examples of documentation that might reasonably be expected include sketches, drawings, calculations, catalog cuts and specifications produced to a level of detail and skill that could be expected of experienced, competent Project Managers with five or more periods experience in their respective trade.

16.2.3.3 JOC Contractor must select Subcontractors based on qualifications alone or on a combination of qualifications and price and must not select Subcontractors based on price alone. A qualifications and price selection may be a one-step selection based on a combination of qualifications and price or two-step selection. In a two-step selection, the first step must be based on qualifications alone and the second step may be based or a combination of qualifications and price or on price alone.

16.2.3.4 Upon request, JOC Contractor must provide City with copies of Subcontractor quotes and the basis for selection of each Subcontractor.

16.2.3.5 If City objects to a selected Subcontractor, City will make the objection and the reasons for the objection known to the JOC Contractor. JOC Contractor must then present an acceptable Subcontractor for the applicable discipline. City will not unreasonably object to or withhold approval of a Subcontractor.

16.2.3.6 For self-performed work, the City retains the right to have the JOC Contractor establish JOC Contractor's costs by bidding their costs against at least three (3) other interested trade Contractors. No self- performed work will be allowed to be performed on a lump sum basis.

16.2.4 Issuance of Job Order

16.2.4.1 City Representative will compare the JOC Contractor's Job Order Cost Proposal with the City's estimate, schedules and other requirements, and then, if the City Representative determines it is in the best interest of City, arrange a meeting with JOC Contractor, at which time the JOC Contractor's Job Order Cost Proposal will be discussed and negotiated.

16.2.4.2 If the City Representative determines that it is in the best interest of the City, City will then issue a Job Order to JOC Contractor for execution.

16.2.4.3 Specific Job Orders may vary, but unless agreed to by City in writing otherwise, the content

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of Job Orders under the Agreement will generally be as follow, all of which will be signed and/or initialed by JOC Contractor's designated representative:

a. The description of the Scope of the Work and Project Schedule (attached as Exhibit A to the Job Order);

b. The address or location of the Work;

c. The Agreement Price for Work (Construction) included in the Project (attached as Exhibit B to the Job Order);

d. The name of the JOC Contractor representative for the Project;

e. The Drawings and Specifications for the Project;

f. If any shop drawings, project date and/or samples are required for the Job Order, the date for delivery of each required item (included in the Project Schedule, Exhibit A to the Job order); and

g. Project Specific Provisions, if any, in Exhibit A to the Job Order, including, without limitation, whether any of the following are required: Pre-Construction Conference, weekly progress meetings, field office, storage enclosure, materials and equipment handling facility, submittals, shop drawings, product data, equipment list, samples, project manual, schedule of values, Construction progress schedule, narrative reports, progress report, progress charts, progress photographs, materials status report, Construction diagram, Construction status report, operation and maintenance data, operating maintenance instructions and parts list, and as-build drawings.

16.2.5 Job Order Intent. Each Job Order will be interpreted to include all items reasonably necessary to complete the Project under that Job Order as described in the scope of the Work in that Job Order. All Work must be performed in a professional manner and all materials used must be new and of the highest quality and of the type best adapted to their purpose, unless otherwise specified. The Notice to Proceed date, and the award date established therein, will be deemed an integral part of the Job Order the same as if set forth therein.

16.3 **INCIDENTAL DESIGN SERVICES**

16.3.1 This effort includes all "extensions of design" for systems that are typically specified in a performance oriented manner by consultants and designers. Examples include: fire sprinkler systems, fire alarm and sprinkler systems, DDC controls, control systems, prefabricated metal building and similar situations. These designs are normally provided under submittals as a shop drawing with engineering backup and as appropriate, seals of registered engineers specializing in the particular system.

16.3.2 Incidental design includes all documents, sketches, schematic diagrams, floor plan layouts, equipment schedules and other documents produced by the JOC Contractor to define the work required for projects that the City does not develop formal or abbreviated designs requiring a seal by a registered engineer. Incidental design does not include preparation of designs requiring an architect or engineer seal.

16.3.3 JOC Contractor represents, covenants, and agrees, and contractually assumes the obligation to furnish, all of the required Design Services through properly licensed and

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experienced Design Professionals in complete accordance with all of the duties imposed on a Design Professional under the Agreement Documents, Laws, Regulations, or Legal Requirements, and the common law.

16.3.4 All Design Documents (and all other Project-related documents, models, computer drawings and other electronic expression, photographs and other expressions CADD, and BIM files and images included) that JOC Contractor and/or JOC Contractor's Design Professional(s) prepare in connection with a Job Order and the copyrights therein (collectively, the "Instruments of Service") will be the property of City. JOC Contractor covenants and agrees to execute any additional document reasonably requested by City to confirm such assignment without any additional compensation.

16.4 **CONSTRUCTION SERVICES**

16.4.1 The following subsections of this Section 16.4 set forth requirements beyond those set forth in Section 4 above which apply to Construction Services performed under a Job Order.

16.4.2 JOC Contractor must perform the Work using only those firms, team members and individuals designated by JOC Contractor consistent with each Job Order or otherwise approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

16.4.3 Construction Phasing

16.4.3.1 City use of the facilities is anticipated while the Work is being performed. The Work must be planned and accomplished so that there will be a minimum of interference and inconvenience to occupants in the building and agencies in the vicinity and to other craftsmen who may have to do work in the affected facilities. Any blockage of building exits or driveways must be coordinated in advance.

16.4.3.2 If applicable, furniture, portable office equipment and wall appurtenances not rigidly fastened to the walls must be moved by JOC Contractor, protected from damage and replaced to the original position upon completion of the work. If the work required by the Job Order will not allow furniture and portable office equipment to be replaced to its original position, new locations will be designated by City. Incidental costs associated with moving one-piece furnishings up to approximately 150 pounds to perform such tasks as painting, carpet or tile replacement, etc., are considered a general cost of building renovation and must be included in the JOC Contractor's Coefficient. Costs for large scale or wholesale removal and replacement of large quantities of desks or modular workstations, copiers, multiple full file cabinets, etc. to another location or storage outside the work space, or disassembly and reassembly of modular furniture is not considered part of the JOC Contractor's Coefficient and will be priced separately.

16.4.3.3 The work must, so far as practicable, be done in definite sections or divisions and confined to limited areas which must be completed before work in other sections or divisions are begun.

16.4.4 Work Site Conflicts. In the event of a conflict between JOC Contractor and others in an occupied facility or where other Contractors are performing work on the same facility under other Agreements, City will decide to dispute and that decision will be final.

16.4.5 Ownership of Work Product. Work Product prepared or otherwise created in connection

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with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, JOC Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

16.5 **OPTIONAL LIQUIDATED DAMAGES**

16.5.1 Specific Job Orders. City will have the right to assess liquidated damages in relation to any specific JOC Project Agreement as set forth below.

16.5.2 Substantial Completion Liquidated Damages. JOC Contractor acknowledges and agrees that if JOC Contractor fails to obtain Substantial Completion of the Work within the Agreement Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and JOC Contractor agree that if JOC Contractor fails to achieve Substantial Completion of the Work within the Agreement Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

16.5.3 Final Acceptance Liquidated Damages. For the same reasons set forth in Section 16.5.2 above, City and JOC Contractor further agree that if JOC Contractor fails to achieve Final Acceptance of the Work within the Agreement Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under any specific JOC Project Agreement.

16.5.4 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 may apply to any specific JOC Project Agreement.

16.5.5 City may deduct liquidated damages assessed pursuant to this Section 16.5 from any unpaid amounts then or thereafter due JOC Contractor under the Agreement or any specific JOC Project Agreement between JOC Contractor and City. Any liquidated damages not so deducted from any unpaid amounts due JOC Contractor must be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable to JOC Contractor.

16.6 **PERFORMANCE MEASUREMENT**

16.6.1 Performance Assessment. After the Final Acceptance of Work under each Job Order, City will complete a written evaluation of the performance of JOC Contractor on the Job Order.

16.6.2 Consideration in Assignment of Work. JOC Contractor's record of cost, schedule and quality performance and comparative assessments will be significant considerations in City's determination whether to award future Job Orders. JOC Contractor agrees that any determination by City not to not award future Job Orders or Option periods based on performance will be at the sole discretion of City.

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SECTION 17 - PROVISIONS APPLICABLE SOLELY TO PRE-CONSTRUCTION SERVICES FOR CONSTRUCTION MANAGER AT RISK

17.1 ADDITIONAL DEFINITIONS

The definitions set forth in Section 2 and 15.1 above will apply to all Pre-Construction Services Agreements.

17.2 GENERAL

17.2.1 CM@Risk must perform the Services required by, and in accordance with the Agreement Documents and as outlined in Exhibit A of the Agreement to the satisfaction of the Project Manager, exercising the degree of care, skill, diligence and judgment a professional construction manager experienced in the performance of such services for construction and/or facilities of similar scope, function, size, quality, complexity and detail to the Project in urban areas throughout the United States, would exercise at such time, under similar conditions. CM@Risk must, at all times, perform the required services consistent with sound and generally accepted engineering principles and construction management and construction contracting practices.

17.2.2 As a participating member of the Project Team, CM@Risk must provide to City and Design Professional a written evaluation of City's Project Program and budget, each in terms of the other, with recommendations as to the appropriateness of each. CM@Risk must prepare a Baseline Cost Model that validates City's budget. The Baseline Cost Model must include all assumptions and basis of estimates in enough detail so that the Project Team can compare future detail estimates to the Baseline Cost model for variances. City and Design Professional will provide all the reasonably required data that is available in order to reach agreement between the team members that the Baseline Cost Model is an accurate projection of the costs of the Project.

17.2.3 CM@Risk must attend Project Team meetings, which may include, but are not limited to, bi- weekly Project management meetings, Project workshops, special Project meetings, construction document rolling reviews, public meetings and partnering sessions. CM@Risk attendance at design or other meetings in which CM@Risk is provided the opportunity but does not actively participate and/or is not properly prepared is not acceptable. Repeated instances of non-participation and/or lack of preparedness will be grounds for termination of CM@Risk Agreement for default.

17.2.4 CM@Risk must provide Pre-Construction Services, described herein, in a timely manner and consistent with the intent of the most current Drawings and Specifications. CM@Risk must promptly notify City in writing whenever CM@Risk determines any Drawings or Specifications are inappropriate for the Project and/or cause changes in the scope of Work that deviates more than the allowed contingencies within the Baseline Cost Model or requires an adjustment in the Baseline Cost Model, Detailed Cost Estimate, Detailed Project Schedule, GMP Proposals and/or in the Agreement Time for the Work, to the extent such as established.

17.2.5 CM@Risk when requested by City, must attend, make presentations and participate as may be appropriate in public agency and or community meetings, relevant to the Project. CM@Risk must provide drawings, schedule diagrams, budget charges and other materials describing the Project when their use is required or appropriate in any such public agency meetings.

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17.2.6 Ownership of Work Product. All Work Product prepared or otherwise created in connection with the performance of this Agreement, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or material, in whatever form created (e.g., electronic or printed) and in all media now know or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

17.2.7 CM@Risk represents to City in completing Pre-Construction Services and providing the reports and analysis required thereunder, that Work can be properly and timely constructed within the GMP Proposal, if accepted. CM@Risk does not assume any design responsibilities unless specifically called for in the scope of work, but CM@Risk will be responsible for their errors, omissions or inconsistencies included in the Work.

17.3 **DETAILED PROJECT SCHEDULE**

17.3.1 The fundamental purpose of the Detailed Project Schedule is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize that Deliverable as a basis for managing and monitoring all member's compliance with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the Detailed Project Schedule requirements. CM@Risk must, however, develop and maintain the Detailed Project Schedule on behalf of and to be used by the Project Team based on input from the other Project Team members. The Baseline Project Schedule must be developed as part of the Baseline Cost Model. The Detailed Project Schedule must use the Critical Path method ("CPM") technique, unless required otherwise, in writing by City. CM@Risk must use scheduling software acceptable to City to develop the Detailed Project Schedule. The Detailed Project Schedule must be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Detailed Project Schedule must indicate milestone dates for the phases once determined. As part of construction phase, City may require CM@Risk to prepare a "resource loaded" schedule for all work, including work performed by Subcontractors, detailing each of the project tasks and the required/anticipated number of personnel per day for each task. CM@Risk must also indicate on the schedule its ability to meet said required/anticipated personnel requirements.

17.3.2 CM@Risk must include and integrate in the Detailed Project Schedule the services and activities required of City, Design Professional and CM@Risk including all construction phase activities based on the input received from City and the Design Professional. The Detailed Project Schedule must define activities as determined by City to the extent required to show: (a) the coordination between preliminary design and various pre-construction documents, (b) any separate long-lead procurements, (c) any permitting issues, (d) any land, right-of-way, or easement acquisition, (e) bid packaging strategy and awards to Subcontractors and Suppliers, (f) major stages of construction, (g) start-up and commissioning, and (h) occupancy of the completed Work by City. The Detailed Project Schedule must include by example and not limitation, proposed activity sequences and durations for design, procurement, construction and testing activities, milestone dates for actions and decisions by the Project Team, preparation and processing of shop drawings

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and samples, delivery of materials or equipment requiring long-lead time procurement (if any), milestone dates for various construction phases, Total Float for all activities to the extent authorized by City, relationships between the activities, City's occupancy requirements showing portions of the Project having occupancy priority, and proposed dates for Final Acceptance.

17.3.3 A Baseline Project Schedule must be initiated with the project Baseline Cost Model and agreed to by the project team at the same time. CM@Risk must update and maintain a detailed Project Schedule throughout pre-construction such that it will not require major changes at the start of the construction phase to incorporate CM@Risk's plan for the performance of the construction phase Work. CM@Risk must provide updates and/or revisions to the Detailed Project Schedule for use by the Project Team, whenever required, but no less often than at the Project Team meetings. CM@Risk must include with such submittals a narrative describing its analysis of the progress achieved to-date vs. the Baseline Project Schedule, including any concerns regarding delays or potential delays, and any recommendations regarding mitigating actions.

17.3.4 If phased construction is deemed appropriate at the time of developing the Baseline Cost Model or during the development of the Detailed Project Schedule, and City approves, CM@Risk must review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work, with the objective of reducing the Project Schedule and/or Cost of the Work. CM@Risk must take into consideration such factors as natural and practical lines of work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability, and any other factors pertinent to saving time and cost.

17.3.5 Long Lead Time Items. As part of developing the Detailed Project Schedule, CM@Risk must identify all long lead time materials, fabrications, equipment, or other items which may impact the Project Schedule and may require early action on the part of the Project Team. Dates for selecting and ordering long lead time items will be included and highlighted in the Detailed Project Schedule

17.3.6 Equipment Plan. Contractor must develop an Equipment Plan that addresses all rental and owned equipment, regardless of whether such equipment will be provided by CM@Risk or subcontractor(s), that will be necessary to construct the Project and the cost of which will be included as a Cost of the Work in the GMP Proposal. The Equipment Plan will seek to minimize the cost of the equipment to City and maximize the efficient and coordinated use of the equipment for completion of the Project. The Equipment Plan will not only include the costs and allowable lease rates for the equipment, but will also include an equipment schedule that will be incorporated into the Detailed Project Schedule and the Schedule of Values submitted with the GMP Proposal.

17.4 **DESIGN DOCUMENT REVIEWS**

17.4.1 CM@Risk must evaluate periodically the availability of labor, materials/equipment, cost-sensitive aspects of the design; and other factors that may create an unacceptable variance to the Baseline Cost Model and/or Baseline Project Schedule.

17.4.2 CM@Risk must recommend, in conjunction with the Project Team, those additional surface and subsurface investigations that, in its professional opinion, are required to provide the necessary information for CM@Risk to construct the Project. These additional

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investigations, if agreed to be necessary by the Project Manager and the Design Professional, will be acquired by City and copies of the reports will be provided to CM@Risk.

17.4.3 CM@Risk must meet with the Project Team as required to review designs during their development. CM@Risk must familiarize itself with the evolving documents through pre- construction. CM@Risk must proactively advise the Project Team and make recommendations on factors related to construction costs, and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems, and, labor and material availability. CM@Risk must furthermore advise the Project Team on proposed site improvements, excavation and foundation considerations, as well as, concerns that exist with respect to coordination of the Drawings and Specifications. CM@Risk must use established value analysis principles in recommending cost effective alternatives.

17.4.4 CM@Risk must routinely conduct constructability and bid-ability reviews of the Drawings and Specifications as necessary to satisfy the needs of the Project Team. The reviews must attempt to identify all discrepancies and inconsistencies in the Construction Documents especially those related to clarity, consistency, completeness and coordination of Work of Subcontractors and Suppliers.

17.4.4.1 CM@Risk must evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) module/preassembly design is prepared to facilitate fabrication, transport and installation; (e) sequences of Work required by or inferable from the Drawings and Specifications are practicable; (f) the design has taken into consideration efficiency issues concerning access and entrance to the site, laydown and storage of materials, staging of site facilities, construction parking, and other similar pertinent issues; and (g) the design maintains continued operation of the existing City systems and maintains traffic on adjacent roadways. CM@Risk must also review the Drawings and Specifications to ensure that what is depicted therein can be constructed as designed and must promptly inform the Project Team of any issues.

17.4.4.2 CM@Risk must check cross-reference and complementary Drawings and sections within the Specifications and in general evaluate whether: (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies; (b) named materials and equipment are commercially available and are performing well, or otherwise, in similar installations; (c) Specifications include alternatives in the event a requirement cannot be met in the field; and (d) in its professional opinion, the Project is likely to be subject to Differing Site Conditions.

17.4.4.3 The results of the reviews must be provided to Project Team in formal, written reports clearly identifying all reviewed documents and the discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. CM@Risk must meet with Project Team to discuss any findings and review reports.

17.4.4.4 CM@Risk's reviews must be from a Contractor's perspective, and though it will serve to eliminate/reduce the number of RFIs) and changes during the construction phase, responsibility for the Drawings and Specifications will remain with the Design Professional and not CM@Risk.

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17.4.5 It is CM@Risk's responsibility to assist the Design Professional in ascertaining that, in CM@Risk's professional opinion, the Construction Documents are in accordance with applicable Laws, Regulations, or Legal Requirements, building codes, sound engineering principle's rules and regulations. If CM@Risk recognizes that portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, sound engineering principle's rules and regulations, it must promptly notify the Project Team in writing, describing the apparent variance of deficiency. However, the Design Professional is ultimately responsible for the compliance of the Drawings and Specifications with those laws, statutes, ordinances, building codes, rules and regulations.

17.4.6 The Project Team will routinely identify and evaluate using value analysis principles and alternate systems, approaches, design changes that have the potential to reduce Project costs while still delivering a high quality and fully functional Project consistent with the Project Program. If the Project Team agrees, CM@Risk in cooperation with the Design Professional, will perform a cost/benefit analysis of the alternatives and submit such in writing to the Project Team. City, through the Project Manager, will direct which alternatives will be incorporated into the Project. The Design Professional will have full design responsibility for the review and incorporation of CM@Risk suggested alternatives into the Drawings and Specifications. CM@Risk must analyze the costs and schedule impacts of the alternatives against the Baseline Cost Model and Schedule and provide a recommendation for the Project Team's consideration and City's approval prior to the establishment of the GMP.

17.5 **BASELINE COSTS MODEL, DETAILED COST ESTIMATES, AND SCHEDULE OF VALUES**

17.5.1 At the conclusion of the Master Planning and Programming, if required, CM@Risk will review all available information regarding the design and scope of the Project using CM@Risk's experience in performing similar work, knowledge of similar projects and current and projected construction costs and, based upon that review, must develop a Baseline Cost Model for review by the Project Team and approval by City. Once approved by City, the Baseline Cost Model will be continually referenced as detailed estimates are created as the design progresses throughout Pre-Construction until the final GMP for the entire Project is established. A final GMP for the entire Project must be established and approved by City prior to the start of construction. It is the responsibility of CM@Risk to ensure City has sufficient information to evaluate and approve a final GMP prior to the time necessary to start construction so construction can be completed within the Agreement Time. The Project Detailed Cost Estimate will be the best representation from CM@Risk of what the complete functional Project's construction costs will be as indicated by the most current available documents and will be constantly checked against the Baseline Cost Model. CM@Risk must communicate to the Project Team and assumptions made in preparing the Baseline Cost Model. The Baseline Cost Model must support CM@Risk's Detailed Cost Estimates and may be broken down initially as dictated by the available information, as required by City.

17.5.2 After receipt of the Design Professional's most current documents from certain specified pre- construction milestones, CM@Risk must provide a draft Detailed Cost Estimate including a detailed written report detailing any variances to the Baseline Cost Model and Baseline Project Schedule. The Design Professional and CM@Risk will reconcile any disagreements on the estimate to arrive at an agreed upon Detailed Cost Estimate for the construction costs based on the scope of the Project through that specified pre-construction milestone. Pre-Construction milestones applicable to this paragraph are:

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Master Planning and Programming, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Drawings, If no consensus is reached, City will make the final determination. If the Project Team requires additional updates of the Detailed Cost Estimate beyond that specified in this paragraph, CM@Risk must provide the requested information in a timely manner.

17.5.3 If at any point the Detailed Cost Estimate submitted to City exceeds the previously accepted Baseline Cost Model or previously approved Detailed Cost Estimate agreed to as set forth in Section 17.5.2 above, CM@Risk must make appropriate recommendations to project Team on means/methods, materials, and or other design elements that it believes will reduce the estimated construction costs, such that it is equal to or less than the established Project Team's Baseline Cost Model.

17.5.4 Unless other levels of completion are agreed to in writing in the Construction Documents, at 50% Construction Drawings and included with the associated report, CM@Risk must also submit to the Project Team for review and approval a Schedule of Values that complies with the following requirements. The Schedule of Values must be based on City standard bid schedule and highlight significant variances from any previously submitted Schedule of Values. The Schedule of Values must be directly related to the breakdowns reflected in the Detailed Project Schedule and CM@Risk's Detailed Cost Estimate. In addition, the Schedule of Values must: (a) detail unit prices and quantity take-offs, (b) detail all other contingencies and unit price Work shown and specified in the detailed design documents.

17.5.5 CM@Risk is to track, estimate/price and address the Project Team's overall project cost issues that arise outside of the Baseline Cost Model and the latest approved Detailed Cost Estimate such as: City generated changes, Project Team proposed changes, alternate system analysis, constructability items and value engineering analysis. The system used to implement this process will be referred to as the Design Evolution Log. This is to be addressed between the Baseline Cost Model and the Master Planning and Programming Detailed Cost Estimate, and then (unless other levels of completion are agreed to in writing in the Construction Documents) between the Detailed Cost Estimates for each of the pre-construction milestones thereafter, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Documents, and the bid packages for all Phases.

17.5.6 Upon request by City, CM@Risk must submit to City a cash flow projection for the Project based on the current updated/revised Detailed Project Schedule and the anticipated level of payments for CM@Risk during the design and construction phases. In addition, if requested by City and based on information provided by City, CM@Risk must prepare a cash flow projection for the entire Project based on historical records for similar types of projects to assist City in the financing process.

17.5.7 Construction Water. CM@Risk must estimate the quantity of water to be used and include the cost thereof in each Detailed Cost Estimate and GMP Proposal provided by City.

17.6 **SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS**

17.6.1 There are two ways to select Subcontractors and major Suppliers prior to submission of a GMP Proposal: (1) qualifications-based selection; or (2) a combination of qualifications and price. Except as noted below, the selection of Subcontractors/Suppliers is the sole responsibility of CM@Risk. In any case, CM@Risk is solely responsible for the performance of the selected Subcontractors/Suppliers, and for compliance with the requirements of

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Title 34 of the Arizona Revised Statutes in the selection of a Subcontractors/Suppliers, to the extent applicable. CM@Risk must comply with its Subcontractor Selection Plan submitted with its Statement of Qualifications.

17.6.2 City may approve the selection of a Subcontractor(s) or Suppliers(s) based only on their qualifications when CM@Risk can demonstrate it is in the best interest of the Project. All Work that is performed, after such a qualifications-based selection, for a price that is negotiated by CM@Risk will be billed in accordance with the GMP for actual costs and may be subject to audit by City.

17.6.2.1 Qualifications based selection of a Subcontractor(s)/Supplier(s) should only occur prior to the submittal of the GMP Proposal.

17.6.2.2 If a Subcontractor/Supplier selection plan was submitted and agreed to by City, CM@Risk must apply the plan in the evaluation of the qualifications of a Subcontractor(s) or Supplier(s) and provide City with its review and recommendations.

17.6.2.3 CM@Risk must receive written City approval for each selected Subcontractor(s) and Supplier(s).

17.6.2.4 CM@Risk must negotiate costs for services/supplies from each Subcontractor/Supplier selected under this method.

17.6.3 All Work must be competitively bid unless a Subcontractor or Supplier was selected pursuant to Section 17.6.2 above.

17.6.3.1 CM@Risk must develop Subcontractor and Supplier interest, submit the names of a minimum of three qualified Subcontractors or Suppliers for each trade in the Project for approval by City and solicit bids for the various Work categories. If there are not three qualified Subcontractors/Suppliers available for a specific trade or there are extenuating circumstances warranting such, CM@Risk may request approval by City to submit less than three names. Without prior written notice to City, no change in the recommended Subcontractors/Supplies will be allowed.

17.6.3.2 If City objects to any nominated Subcontractor/Supplier or to any self-performed Work for good reason, CM@Risk must nominate a substitute Subcontractor/Supplier that is acceptable to City.

17.6.3.3 CM@Risk must distribute Drawings and Specifications, and when appropriate, conduct a Pre- Bid Conference with prospective Subcontractors and Suppliers.

17.6.3.4 If CM@Risk desires to self-perform certain portions of the Work, it must request to be one of the approved Subcontractor bidders for those specific bid packages. CM@Risk's bid will be evaluated in accordance with the process identified below. If events warrant and City concurs that it is necessary in order to ensure compliance with the Project Schedule and/or the most recent Detailed Cost Estimate, CM@Risk may be authorized to self-perform Work without bidding or rebidding the Work. When CM@Risk self-performs work without bidding, only the actual costs associated with performing the Work in accordance with the approved GMP will be billed and may be subject to audit by City.

17.6.3.5 CM@Risk must receive, open, record and evaluate the bids; provided, however, that if CM@Risk or one of its affiliates is bidding to self-perform the Work that is the subject of the bid, then the bids must be received, opened, recorded and evaluated by Project Manager

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instead of CM@Risk. Bids for each category of Work must be opened and recorded at a pre-determined time. The apparent low bidders must be interviewed to determine the responsiveness of their proposals. In evaluating the responsiveness of bid proposals CM@Risk, in addition to bid price, may consider the following factors: past performance on similar projects, qualifications and experience of personnel assigned, quality management plan, approach or understanding of the Work to be performed, and performance schedule to complete the Work. The final evaluation of Subcontractor/Supplier bids must be done with Project Manager in attendance to observe and witness the process. CM@Risk must resolve any Subcontractor/Supplier bid withdrawal, protest or disqualification in connection with the award at no increase in the Cost of Work.

17.6.4 CM@Risk will be required to prepare two different reports on the subcontracting process.

17.6.4.1 Within fifteen days after each major Subcontractor/Supplier bid opening process; CM@Risk must prepare a report for City's review and approval identifying the recommended Subcontractors/Supplier for each category of Work. The report must detail: (a) the name of the recommended Subcontractor/Supplier and the amount of the Subcontractor/Supplier bid for each sub-agreement; (b) the sum of all recommended Subcontractor/Supplier bids received; (c) and trade work and its cost that CM@Risk intends to self-perform, if any.

17.6.4.2 Upon completion of the Subcontractor/Supplier bidding process, CM@Risk must submit a summary report to City of the entire Subcontractor/Supplier selection process. The report must indicate, by bid process, all Subcontractors/Suppliers contacted to determine interest, the Subcontractors/Suppliers solicited, the bids received and costs negotiated, and the recommended Subcontractors/Suppliers for each category of Work.

17.6.5 The approved Subcontractors/Suppliers will provide a Schedule of Values with their bid proposals, which will be used to create the overall Project Schedule of Values.

17.6.6 If after receipt of sub-bids or after award to Subcontractors and Suppliers, City objects to any nominated Subcontractor/Supplier or to any self-performed Work without any reasonable basis, CM@Risk must nominate a substitute Subcontractor or Supplier, preferably if such option is still available, from those who submitted Subcontractor bids for the Work affected. Once such substitute Subcontractors and Suppliers are consented to by City, CM@Risk's proposed GMP for the Work or portion thereof must be correspondingly adjusted to reflect any higher or lower costs form any such substitution.

17.7 **GMP PROPOSAL**

17.7.1 When a GMP Proposal is submitted for a phase of the Work, the GMP will have a Detailed Cost Estimate of the Costs of the Work (as set forth in Section 15.2) in each phase of the Work that is being proposed plus the current estimate for all other Work. City will not approve the GMP for the phase of work without a total estimate for the complete Project. City may request a GMP Proposal for all or any portion of the Project and at any time during pre-construction. Any GMP Proposals submitted by CM@Risk must be based on and consistent with Baseline Cost Model and the current update/revised Detailed Cost Estimate at the time of the request and include any clarifications or assumptions upon which the GMP Proposal(s) are based.

17.7.2 A GMP Proposal for the entire Project will be the sum of the Cost of the Work, CM@Risk Fee, and General Conditions Cost. CM@Risk guarantees to complete the Project at or less than

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the final GMP Proposal amount plus approved Change Orders. CM@Risk will be responsible for any costs for expenses that would cause the Cost of the Work actually incurred, including the Construction Fee and General Conditions Costs, to exceed the GMP.

17.7.3 CM@Risk must prepare its GMP Proposal in accordance with City's request for GMP Proposal requirements based on the most current completed Drawings and Specifications at that time, which unless otherwise directed by City in writing, will be at 100% Construction Drawings. CM@Risk must mark the face of each document of each set upon which its GMP Proposal is based. These documents must be identified as the GMP Plans and Specifications. CM@Risk must send one set of those documents to the Project Manager, keep one set and return the third set to the Design Professional.

17.7.4 An updated/revised Detailed Project Schedule, Equipment Plan, and Schedule of Values must be included in any GMP Proposal(s), all of which must reflect the GMP Plans and Specifications the Detailed Project Schedule must be shown in relationship to the Project Schedule and identify any variance to the Baseline Project Schedule. Any such Detailed Project Schedule updates/revisions must continue to comply with the requirements of Section 17.3.1 through 17.3.5.

17.7.5 GMP Proposals(s) Review and Approval

17.7.5.1 CM@Risk must meet with the Project Team to review the GMP Proposal(s) and the written statement of its basis. In the event the Project Team discovers inconsistencies or inaccuracies in the information presented, CM@Risk must make adjustments as necessary to the GMP Proposal.

17.7.5.2 If during the review and negotiation of GMP Proposals design changes are required, City may authorize and cause the Design Professional to revise the GMP Plans and Specifications to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised GMP Plans and Specification will be furnished to CM@Risk. CM@Risk must promptly notify the Project Team in writing if any such revised GMP Plans and Specifications are inconsistent with the agreed upon assumptions and clarifications.

17.7.6 All portions of or items comprising the GMP Proposal are subject to audit by City, as deemed appropriate by City, including, without limitation, any based upon unit prices or Work to be self- performed by CM@Risk, or its affiliates.

17.8 **PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES**

17.8.1 Requests for monthly payments by CM@Risk for Pre-Construction Services must be submitted monthly and must be accompanied by a progress report, detailed invoices and receipts, if applicable. Any requests for payment must include, as a minimum, a narrative description of the tasks accomplished during the billing period, a listing of any Deliverables submitted, and copies of any Subconsultants' requests for payment, plus similar narrative and listings of Deliverables associated with their Work. Payment for services negotiated as a lump sum will be made in accordance with the percentage of work completed during the preceding month.

17.8.2 In no event will City pay more than seventy-five (75%) of the Agreement Price until acceptance of ALL Pre-Construction Services and award of the final approved Construction Services Agreement for the entire Project by City Council. If CM@Risk does not prepare a

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GMP Proposal that is acceptable to City, or the GMP Proposal exceeds the City's Construction Budget, then CM@Risk understands and acknowledges that it will forfeit any right to receive the 25% of the Agreement Price being retained by City.

17.8.3 CM@Risk agrees that no charges or claims for costs or damages of any type will be made by it for any delays or hindrances beyond the reasonable control of City during the progress of any portion of Pre-Construction Services specified in this Agreement. Such delays or hindrances, if any, will be solely compensated for by an extension of time for such reasonable period and may be mutually agreed between the parties. It is understood and agreed, however, that permitting CM@Risk to proceed to complete any such Services, in whole or in part after the date to which the time of completion may have been extended, will in no way act as a waiver on the part of City of any of their respective legal rights herein.

17.8.4 No compensation to CM@Risk will be allowed contrary to Article I, Chapter I, Title 34 of the Arizona Revised Statutes.

17.8.5 If any service(s) executed by CM@Risk is abandoned or suspended in whole or in part, for a period of more than 180 days through no fault of CM@Risk, CM@Risk is to be paid for the services performed prior to the abandonment or suspension.

17.9 **SURVIVAL OF THE DESIGN SERVICES AGREEMENT, DUTIES, OBLIGATIONS AND WARRANTIES**

If the GMP Proposal is accepted by City and a Construction Agreement is entered into between City and CM@Risk, the duties, obligations and warranties of CM@Risk under the Pre- Construction Services Agreement survive and are incorporated into the resulting Construction Agreement.

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SECTION 15 – APPENDICES

The following Appendices attached hereto are referenced in the General Conditions and are incorporated herein.

Appendix 1 – Policy Statement for Calculating Delays and Damages
Appendix 2 – Cost Reduction Incentive Proposals for Design Bid Build Agreements
Appendix 3 – Contractor's Affidavit Regarding Settlement of Claims
Appendix 4 – Forms of Performance Bond
Appendix 5 – Forms of Payment Bond
Appendix 6 – Dispute Resolution
Appendix 7 – Certificate of Completion
Appendix 8 – Construction Sign Detail
Appendix 9 – Cost of the Work (Applicable solely to Construction Manager at Risk and Job Order Contracting)
Appendix 10 Landscape Establishment Period

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CALCULATING DELAYS AND DAMAGES

The purpose of this policy statement is to establish guidelines and procedures for negotiation between the Contractor and City of Chandler relating to compensation for delays pursuant to Arizona Revised Statutes (A.R.S.) 34-221(F). This policy statement contains notice requirements in addition to those set forth in the Agreement Documents, and will be the Agreement Provision contemplated by that statute.

NOTE: As used herein, the term "Engineer" will refer to the City of Chandler City Engineer or his/her designated representative. Nothing in this Policy Statement will be construed to void any provision in the Agreement which requires timely notice of delays or provides for arbitration or any other procedure for settlement or provides for liquidated damages.

I. TYPES OF DELAYS:

For the purposes of this document, there are essentially four types of delays encountered by City of Chandler Construction Contractors; excusable/compensable, excusable/non-compensable, non- excusable, and concurrent. Only delays that extend Agreement Completion Time set forth in the Agreement Document will be considered for issues relating to Agreement extensions or additional compensation. All other delays are considered to be activity delays and do not entitle the Contractor to either time extensions or additional compensation. Agreement Completion Time will be defined as the date set forth in Maricopa Association of Governments (MAG) Uniform Standard Specification Section 101 and as may be modified by the Agreement Documents.

A. Excusable/Compensable:

These are delays caused solely by the City's actions or inactions, are unreasonable under the circumstances, and which were not within the contemplation of the parties to the Agreement at or prior to the time of execution of the Agreement. Since the Contractor presumably has no control over the events causing the delay, he may be entitled to both Agreement time extensions and additional compensation for delay damages. Further, he/she may be entitled to additional compensation from the impact of that delay on other work. Examples of excusable/compensable (E/C) delays include: failure to properly locate an underground City-owned utility within 2 feet of the actual location; failure to relocate City-owned utilities far enough in advance of construction in an area where the Contractor is scheduled to work that it delays start or completion of the Contractor's regularly scheduled work; failure to provide City-furnished equipment or materials in a timely manner if required by the Agreement; failure to acquire necessary Right-of-Way or Public Utility Easements prior to the Contractor beginning Work in the area; failure to timely return Shop Drawings or other Agreement Submittals in accordance with the Agreement; unreasonable delay by the City in making decisions which affect critical activities; surveying errors when the City is contractually responsible for providing Project Surveying. This list is not meant to be all inclusive, but is intended merely as examples of the type of City action or inaction which can result in a Contractor's claim for additional time and compensation.

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B. Excusable/Non-compensable:

These are delays over which neither the City nor the Contractor had control. Since both parties to the Agreement have been potentially damaged by the delay, but neither have caused it, only Time Extensions are warranted. Examples of excusable, non-compensable (E/N) delays include: unusually severe weather; fire; acts of God; failure of non-City owned utilities (SRP, CenturyLink, Cable TV, Southern Pacific Railroad, and Southwest Gas, etc.) to properly or timely locate accurately; failure of non-City owned utilities to relocate in advance of construction; the voluntary or involuntary filing for Bankruptcy protection by a Supplier or Subcontractor which causes the Supplier/Subcontractor to fail to meet a contractual deadline provided the Contractor can provide documentation that he/she executed the required Purchase Orders/Subcontract Agreements and received delivery schedules which, if met, would have eliminated the delay; delays as a result of an incomplete shutdown of a City or non-City owned utility main (the City does not guarantee a complete shutdown). This list also is not necessarily all inclusive but merely indicative of type and class of E/N delays.

C. Non-excusable/Non-compensable:

These are delays caused by the actions or inactions of Contractor or an officer, employee, agent, Subcontractor, Supplier or any other party for whom the Contractor is responsible. Since the Contractor has assumed responsibility for the risks associated with the events that caused the delay, he/she are not entitled to either time extensions or monetary delay damages. All non-excusable delays are also non-compensable. Examples of non- excusable, non-compensable (N/N) delays include: failure to perform by the Contractor, its Subcontractors and/or Suppliers (except as noted in section I.B above); failure to provide adequate labor, materials, and/or equipment on the Project; failure to perform contractually-required coordination with utilities, agencies and other Contractors; failure to notify the Engineer, in writing, of delay impacts within two working days, as required by MAG 104.2.3, or the next work day, as required by MAG 109.8.2; failure to timely submit Shop Drawings; failure to pothole or otherwise visually locate utilities sufficiently ahead of the Work to allow the Engineer to direct corrective action when necessary; delays due to retesting of previously failed work, re-inspection, and/or restaking resulting from faulty workmanship, poor quality control, or lack of compliance with Agreement Specifications. Again, this list is not necessarily all inclusive.

D. Concurrent:

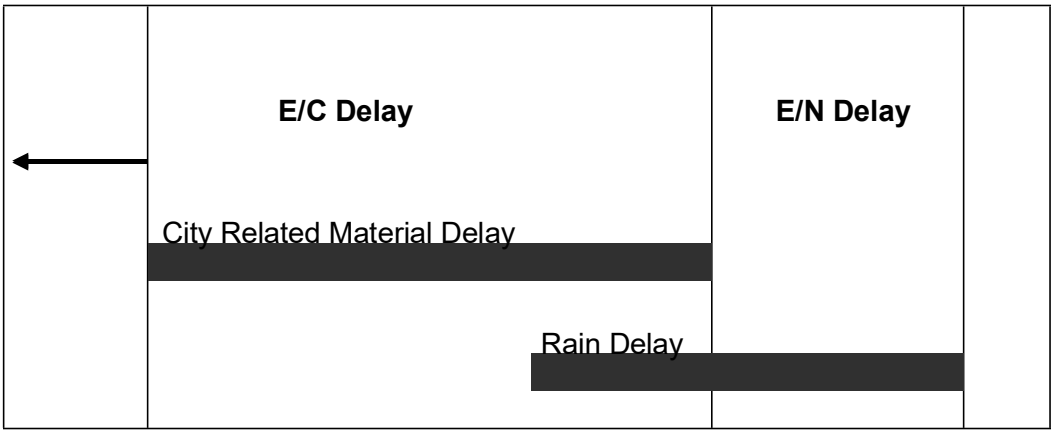
When two or more delays occur simultaneously or overlap, each delay is analyzed separately to determine its impact on the overall project completion date based on when that delay started. Once again, only those delays which actually extend the Agreement completion time are considered as delays. The concurrent delay is considered an additional delay only to the extent it prolongs the delay to the Agreement Completion Time beyond the date that the one it is concurrent with had already delayed that date. For example, if two delays are concurrent, and one is five days long and the second is seven days long, the second concurrent delay will only extend the Agreement Completion Time by two days. The same method of analysis is

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used when there are multiple concurrent delays. Only those extending the Project Completion Date are considered to be delays for the purposes of this policy. The portion of each concurrent delay that delays the completion of the work is classified in the same manner as described previously for individual delays and being either E/C, E/N or N/N.

An example of a concurrent delay is where the City delays furnishing material, but the Contractor could not have installed it anyway due to unusually severe weather. The effect of the first delaying activity will extend for the full duration and will be considered controlling on the Contractor's schedule. A subsequent, concurrent delay will thereafter only be considered to effect the project completion (if at all) once the first delaying activity has ceased to impact the project completion. In this case, if the unusually severe weather continued and delayed the work after the material was delivered, the first portion of the delay would be classified E/C (delay for material) and the second as E/N (delay due to unusually severe weather). Using the procedure set forth above, the entire concurrent portion would be considered E/C as shown in the chart which follows.

Example of a Concurrent Delay:



II. ANALYZING THE DELAY:

The Contractor must provide all documents required or requested by the Engineer to analyze the delay(s). It is important to understand that, prior to the delay analysis, delays and their impacts are alleged issues. The information the Contractor provides will be compared with the Inspector's Daily Log, Schedules and other available Project information and together they will support or refute that delays occurred and, if so, how they impact other work and the overall project completion. The Contractor's delay in providing these documents will be considered prima facie evidence that either the delay did not occur or it did not impact the Project Completion Date and any claim for time extension or damages will be denied.

The Engineer will accept delay analyses in CPM format, as these may demonstrate to his/her satisfaction whether or not Project Completion has been impacted by a specific event. If the Contractor chooses not to use CPM scheduling procedures, then the burden will be on the Contractor to prove to the Engineer's satisfaction that the Project Completion has been impacted. The procedures

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below assume that the Contractor is using CPM scheduling methods. As a minimum the Contractor must provide the following materials to the Engineer:

A. As-Planned Schedule. The initial construction schedule, required by the Agreement Documents, will be considered the baseline schedule. It is to the Contractor's advantage that the As-Planned (baseline) Schedule be as detailed as possible in order for delays, as they occur, to be incorporated into the schedule in representative locations. It is also to the Contractor's advantage to use a computer software program to generate the schedule since updated schedules are required monthly by the Agreement Documents and since updated schedules are required to support delays and requests for additional compensation for delays. The As-Planned (baseline) Schedule must be presented in network format which clearly shows the interrelationships of the activities. The Contractor must also provide a printout of the activities showing early start, early finish, late start, late finish, duration and float. The activity list printout must also indicate predecessor and successor activities.

B. As-Built Schedules. The as planned (baseline) schedule must be updated with complete progress-to-date information (actualized) up to the date of the start of the alleged delay. Each updated schedule will serve as the as-built schedule for analyzing the alleged delay and provide a new baseline as-planned schedule for the next delay. This process must be repeated for each alleged delay as it occurs. In updating the baseline schedule, the alleged delay must be treated as an activity and inserted into the schedule as a predecessor to the impacted activity (ies). When an activity that has already started is impacted, it is preferable to divide this activity into two parts and show the impact affecting the second part. For schedules which incorporate a time line (or data date), the delay activity must be inserted at the time it actually occurred. Some software scheduling programs have a PAUSE-RESUME feature that can be used to facilitate the requirements. The updated schedule must also be accompanied by a listing of activities as with the baseline schedule. This activities list must contain the alleged delay as an activity showing the duration and the activities which are predecessors and successors to it. When computer generated schedules are used, the Contractor must provide, in electronic media format, the complete data files for the updated schedule that included the delay activity, preferably either in Suretrak or in Microsoft Project. Each electronic media must contain a label identifying the Project name, Contractor's name, program name and version number, data date and project finish date.

C. Other Documents: In order to determine the amount of the alleged delay and if it is compensable, the Contractor must provide all backup documentation relevant to the issue and as required by the Engineer. This documentation must include copies of such items as: purchase orders; delivery schedules; correspondence; memoranda of telephone calls; force account daily worksheets (initialed by the Inspector); payroll data; estimating (bid) worksheets; and any other materials which may be requested by the Engineer.

D. Procedure: Only after receipt of sufficient documentation will the Engineer analyze each alleged delay and determine if it is supported or refuted. If supported, the Engineer will determine if it is excusable or non-excusable, compensable or non-

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compensable. If the Engineer determines that the delay did not affect the Project Completion, the as-planned schedule, which has been updated to the date of the alleged delay, must be revised to indicate this. If the Engineer determines the delay did occur but was N/N, then no time extension will be granted. It is imperative that an actualized schedule be submitted as soon as the occurrence of the alleged delay is known. In no event will the Contractor submit an actualized updated schedule later than 60 days after the occurrence of the alleged delay becomes known.

If the Engineer determines the delay did occur and was excusable but, due to a reason listed in section I.B. is non-compensable, he/she will determine the length of the E/N delay and prepare a Change Order to add that time to the Agreement. The Engineer's decision will be final.

If the Engineer determines the delay was excusable and compensable, he/she will determine the length of the E/C delay and proceed to review the Contractor's damage calculations in accordance with Section III. The Engineer will check the Contractor's calculations, review the backup documentation provided, and prepare a Change Order to cover both the additional compensation and the time extension. The Engineer's decision on both the time extension and additional compensation for the delay will be final.

If the issue involves a concurrent delay, the Engineer will analyze available data to determine the portions which are E/C, E/N, and/or N/N as described above. The Engineer will proceed to determine the length of E/C delay and verify the Contractor's delay damage calculations, if any are provided. Upon completion of this review, the Engineer will prepare a Change Order for the Contractor's review and signature. The Engineer's decision regarding excusable delay and additional compensation for the delay is final.

The amount of time the Engineer will require to analyze the alleged delay(s) will depend upon the Engineer's workload, the complexity of the delay analysis, availability of supporting data, extent of cooperation by the Contractor, and other factors beyond the Engineer's control. It is entirely possible other delay(s) may occur while the Engineer is analyzing particular claim for delay(s). The Engineer's failure to respond to the Contractor in a set period of time will not be used as the basis for a further delay claim or as justification for extending and existing delay claim. The time required for delay analysis by the Engineer will not be counted against the time allotted for processing Final Payment as required by (MAG Section 109.7(B)) or the release of retention and Final Payment as prescribed by A.R.S. Arizona Revised Statutes §34-221.

III. CALCULATING MONETARY DELAY DAMAGES:

Additional compensation for delay, when authorized by the Engineer, will be calculated in accordance with MAG Section 109.5 ACTUAL COST WORK with the following exceptions:

A. No additional compensation or other monetary damages will be awarded or paid for any loss of anticipated profits by the Contractor, Subcontractors or Suppliers.

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B. No additional compensation or other monetary damages will be awarded for home office overhead or non-project general conditions of the Contractor, Subcontractors or Suppliers.

C. Equipment:

1. Contractor-owned equipment rate calculations must be computed in accordance with Section 109.04(D)(3), Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction," 2008 or latest edition and as modified herein. Year and regional adjustment factors must be based on the most recent publications of the Rental Rate Blue Book for Construction Equipment, published by the Equipment Guide-Book Company, San Jose, CA, same as provided by ADOT and in print as of the date of alleged delay. In no event will the compensation for Contractor-owned equipment exceed the purchase price, including tax, paid by the Contractor for the equipment. Compensation will not be allowed for small tools or equipment that show a daily equipment rental rate of less than $5.00 per day or for unlisted equipment that has a value of less than for hundred dollars ($400.00).
2. For leased and rented equipment or equipment not otherwise listed in the Blue Book, rental contracts, or other supporting data will be used to establish the hourly rate. No hourly operating expense will be allowed for delay on standby equipment. In no case will equipment be considered for rental which exceeds the hourly rate for the first eight hours and the daily rate divided by eight for all additional hours as compared with similar equipment listed in the Blue Book. The hourly standby rate must be computed as the lesser of:

    a. Dividing the monthly invoice or rental value by 176 hours per month when the equipment is utilized by the Contractor for more than three weeks;

    b. Dividing the monthly invoice or rental value by 40 hours per week when the equipment is utilized by the Contractor for more than three days.

    In no event will compensation be paid for delay at more than 8 hours per day or 40 hours per week.

3. Except for vehicles used by supervisory personnel, all equipment will be paid at the "standby" rate during the delay period.

4. Equipment brought solely to mitigate the delay (such as pumps, light plants, etc.) may be paid in accordance with ADOT section 109.04(D) (3).

5. The Blue Book regional adjustment will apply in determining rental rates.

D. Material:

Allowable material charges may include, in addition to material incorporated in the

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work material used to mitigate the delay such as barricades, plates, shoring, cold mix, etc. Except in emergencies the Contractor will not employ such material without the prior written approval of the Engineer.

E. Labor:

1. Except for Supervisory Personnel (Superintendent, Project Engineer, and Foremen), labor wages will not be paid after the first one-half day of claimed delay or impact. It is expected the Contractor will reassign or layoff unneeded employees.

2. For Foreman wages to be included, that Foreman must have been actively employed on the project prior to the commencement of the delay and be directly responsible for the activity being delayed.

3. Labor burden must be actual amounts incurred but must not exceed the ADOT approved rate.

F. All costs (equipment, material, and labor) must be substantiated by the City of Chandler's Daily Work Reports.

IV. DOCUMENT REQUIRED FOR CLAIM ANALYSIS:

For purposes of reviewing the Contractor's request for additional compensation, it will be required that the Contractor submit the following listed information. Information requested must be prepared on forms which are substantially similar to the City of Chandler's Daily Work Report form, a copy of which is attached as an exhibit.

A. Labor:

For each employee, laborer, and foreman, for which compensation is requested: Name, classification, dates of work performed, daily hours worked, total hours worked, labor rates, labor burden rates, overtime or premium time charges. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Certified payroll reports for the period of work claimed.
2. Accounting of Fringe Benefits – certified by a CPA.
3. Contractor's and Subcontractor's daily field reports and daily diaries.

B. Materials:

For all materials for which compensation is requested, if any, total quantities of materials, prices, extensions and transportation costs must be provided on a daily basis. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Invoices for all materials incorporated.
2. Weigh tickets.
3. Purchase orders.

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4. Delivery schedules.
5. Quotes or proposals from manufacturers or supplier.
6. Freight bills, Bills of Lading, or other documentation to show transportation costs.
7. Restocking charges-invoices from vendor.

C. Equipment:

For all equipment, the Contractor must provide the Engineer with the designation, dates and hours of usage, dates and hours of standby, if any, daily hours, total hours, rental rates and extension for each unit of equipment and machinery. Rental rates will be as established in Section III. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Owned:
   a. Purchase contracts(s).
   b. Depreciation schedule(s).
   c. Invoices for fuel, lube, repairs and other operating costs.

2. Leased:
   a. Lease agreement with hourly rate, overtime rate, double shift rate, etc.
   b. Invoices or other documentation showing hours worked on a daily basis.

D. Subcontractors/Owner-Operators:

In the event the Contractor submits a claim which includes requests for compensation for Subcontractors of Owner-Operators, the same information requested of the Contractor must be provided by the Subcontractor/Owner-Operator. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Bid/Estimate work sheets and/or spreadsheets.
2. Subcontract Agreements or Agreements with Owner-Operator.
3. All invoices and billing statements received from the Subcontractor/Owner-Operator which relates to the amount requested.

E. Miscellaneous:

Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Evidence of payment for bonds and insurance premiums (MAG 109.5.6).
2. Taxes – unless the Contractor can show otherwise, taxes are reimbursable at 65% of the total cost (less bonds and insurance).

V. TIME LIMIT ON SUBMISSIONS OF CLAIM FOR DELAY OR IMPACT DAMAGES:

No claims for delay or impact damages will be considered or allowed more than 45 days after the event or occurrence which the Contractor claims gives rise to the delay or impact. In no event will a

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claim for delay or impact damages be considered after submission by the Contractor of the Final Payment Request.

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COST REDUCTION INCENTIVE PROPOSALS FOR DESIGN BID BUILD AGREEMENTS

The Contractor may submit to the Engineer proposals for modifying the Plans, Specifications, or other requirements of the Agreement for the sole purpose of reducing the total cost of Project construction. The proposals must not impair in any manner the essential functions or characteristics of the project; including but not limited to service life, economy of operations, ease of maintenance, desired appearance, compatibility with existing or planned equipment, standardization of systems, or design and safety standards.

It must not be inferred from this Policy that the Engineer is required to consider any proposal submitted.

Submissions that propose changes in the basic design of a bridge, propose changes in pipe line size, materials, bedding conditions, pipe specifications; or that propose any change in pavement design will not be considered.

Proposals submitted pursuant to this Policy will be identified as Cost Reduction Incentive Proposals. They must be submitted in writing and, at a minimum, contain the following.

1. Complete the attached or similar cost reduction incentive proposal form.

2. A description of both the existing Agreement Requirements for performing the work and the proposed changes.

3. All Engineering Drawings and computations necessary for the thorough and expeditious evaluation.

4. An itemization of the existing Agreement Requirements that must be changed if the Proposal is adopted and a recommendation as to the manner in which the change should be made.

5. A detailed estimate of the cost of performing the Work under the existing Agreement and under the proposed changes, including the cost of developing and implementing the changes.

6. The Agreement items affected by the proposed changes and any variations in quantities resulting from the changes.

7. An objective estimate of any effects the proposal will have on collateral cost to the City, costs of related items, and cost of maintenance and operation.

8. A statement as to the effect that the Proposal will have on the time for the completion of the Project.

9. A statement as to the time by which a Change Order adopting the Proposal must be executed or when the Engineer must have given verbal approval.

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Proposals will be processed expeditiously; however, the City will not be liable for any delay in acting upon any Proposal nor for any failure to accept any Proposal pursuant to this Special Provision.

The Engineer will be the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of the Proposal. The Contractor will be notified in writing by the Engineer as to whether his/her Proposal has been accepted. The decision by the Engineer is final.

When the City deems such action to be appropriate, it reserves the right to require the Contractor to share equally in the cost to the City of investigating, evaluating, and processing the proposal as a condition for the consideration of such Proposal. Such cost must be shared whether the Proposal is accepted or rejected. When such a condition is imposed, the City will estimate these costs and the Contractor must indicate his acceptance thereof in writing. Such acceptance will authorize the City to deduct the Contractor's share of the costs from any monies due or that may become due to the Contractor under the Agreement.

If the Contractor's Proposal is accepted in whole or in part, the necessary Agreement Modifications and Agreement Price Adjustments will be affected by the execution of a Change Order which will specifically state that it is executed pursuant to this Special Provision.

The Contractor must continue to perform the work in accordance with the requirements of the Agreement until a Change Order incorporating the Proposal has been executed or until he/she has been given verbal approval by the Engineer that his/her Proposal has been accepted. If the Change Order has not been executed or he/she has not been given verbal approval on or before the date specified on the attached cost reduction incentive proposal form or on or before such other date as the Contractor may have subsequently specified in writing, the Proposal may be deemed to be rejected.

The executed Change Order will incorporate the changes in the Plans, Specifications, or other requirements of the Agreement which are necessary to permit the Proposal, or such part of it which has been accepted, to be put into effect, and will include any condition – upon which the City's approval thereof is based, if such approval is conditional. The executed Change Order may also extend the time for the completion of the Agreement if such an extension has been deemed to be warranted by the Engineer as a result of his evaluation of the Proposal.

The executed Change Order will also establish the estimated net savings in the cost of performing the Work attributable to the Proposal effectuated by the Change Order. In determining the net savings, the right is reserved to the Engineer to disregard the Agreement bid prices if, in his/her judgment, such prices do not represent a fair measure of the value of the Work to be performed or to be deleted. The net savings will be established by determining the Contractor's cost of performing the Work, taking into account his/her cost of developing the Proposal and implementing the change, and reducing this amount by any ascertainable collateral costs to the City. The executed Change Order may provide that the Contractor be paid 50 percent of the estimated net savings amount.

The executed Change Order may also provide for the adjustment in Agreement prices. Agreement prices may be adjusted by subtracting the City's share of the accrued net savings.

The amount specified to be paid to the Contractor in the executed Change Order which effectuates a Cost Reduction Proposal will constitute full compensation to the Contractor for the Cost Reduction

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Proposal and the performance of the work thereof pursuant to the said Change Order.

Upon acceptance of a Cost Reduction Incentive Proposal, any restrictions imposed by the Contractor on its use or on disclosure of the information will become void, and the City thereafter will have the right to use all or any part of the Proposal without obligation or compensation of any kind to the Contractor.

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COST REDUCTION INCENTIVE PROPOSAL FORM

TO: CIP City Engineer

FROM:

PROJECT NAME: LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

DATE:

Summary of Change (Brief description of proposed change including advantages and disadvantages):

ESTIMATED COST SUMMARY (Attached detailed estimate):

A.	Original Cost:	$
B.	Proposed Cost:	$ _____
C.	Construction Savings (A-B):	$ _____
D.	Gross Savings (Included OH %, Bond %)	$ _____
E.	Contractor Implementing	$_____
F.	City Implementing Cost:	$_____
	Reduction in Agreement Price (C+D-E-F) x 50%:	$ _____

Date by which a Change Order must be issued so as to obtain maximum cost reduction:

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona
Date _____

Project Name: LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)
City Project No.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the total compensation of $_____, as set out in the final pay application, as full and complete payment under the terms of the Agreement, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20____.

_____
CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

_____
Notary Public

_____
My Commission Expires

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PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____(hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated

the _____ day of _____, 20___ for construction of **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY), CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, and conditions of the Agreement during the original term of the Agreement and any extension of the Agreement, with or without notice of the Surety, and during the life of any guaranty required under the Agreement, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the Agreement that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

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PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Agreement amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), as Principal, and _____(hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, the Principal and Surety bind themselves, and their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a certain written Agreement with the Obligee, dated the _____ day of _____, 20___ for construction of **LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY), CITY PROJECT NO.: ST2001.401; FEDERAL NO.: CHN-0(246)D; ADOT NO.: T0243 01C** which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said Agreement, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Agreement.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

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DISPUTE RESOLUTION

A. INFORMAL DISPUTE RESOLUTION

The parties to the Agreement agree that time is of the essence in relation to performance of the Agreement and completion of the Project, therefore any and all disputes in relation to the Agreement will initially be referred to the Project Manager, the Design Professional Representative and/or the Contractor Representative as applicable to the dispute, for immediate resolution. If, after good faith efforts to reach a resolution, none is reached, any party to the dispute may submit the dispute to the Dispute Resolution Representative ("DRR") process set forth below, which is intended to be an expedited process.

B. DISPUTE RESOLUTION REPRESENTATIVE ("DRR") PROCESS

1. The Parties under the Agreement agree that all claims and disputes in relation to the Project which are not resolved in the ordinary course of the Project ("Claim" or "Claims") will, as a prerequisite to any mediation, or litigation of the Claim, first be submitted for resolution between the designated Dispute Resolution Representatives of the Parties as set forth herein (the "DRR Process").

2. The DRR Process will be initiated through service of a DRR Notice as set forth below:

   a. For claims by the Contractor or the Design Professional, the DRR Process will be initiated by the party asserting the claim serving written notice on the City setting forth in detail: (i) the basis for the claim; (ii) the effect of the Claim upon the construction of, and/or Project Schedule for, the Project;
   (iii) the specific relief requested, the amount thereof, and how such was calculated; (iv) the parties involved in the Claim, and how they are involved; (v) the specific Agreement provisions in the Agreement Documents (including, if applicable, drawings and specifications) which apply; and (vi) efforts made to date to resolve the Claim.

   b. For claims by the City, the DRR process will be initiated by the City providing written notice to the other parties of the basis and amount of its claim, the parties involved in the Claim, and how they are involved, the provisions in the Agreement Documents that apply, and the relief requested.

   c. The DRR Notice will be hand-delivered and e-mailed to the other parties' designated Dispute Resolution Representatives.

3. The other parties will respond in writing to the DRR Notice ("DRR Response") within ten (10) calendar days of receipt of the DRR Notice, setting forth those items set forth in the DRR Notice that they agree with, dispute, and/or have questions concerning. The DRR Response will be hand-delivered and e-mailed to the other parties' Dispute Resolution Representatives.

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4. The designated Dispute Resolution Representatives for the Parties to the claim will then meet as soon as possible and in any event within twenty (20) calendar days of submission of the DRR Notice (regardless of whether a DRR Response has been submitted by all parties involved in the dispute), at a mutually agreed upon time and place, to attempt to resolve the Claim based upon the DRR Notice and DRR Response.

5. At any time after the first meeting required above, either party may terminate the DRR Process by written notice to the other party.

6. The parties may agree, in writing, to extend or modify the time limits or other provisions of the DRR process in relation to a specific pending Claim.

7. Unless otherwise designated in a written notice to the other parties, the City and the representatives of the Contractor and of the Design Professional will act as the parties' designated Dispute Resolution Representatives.

8. If a resolution of the Claim is reached, that resolution must be set forth in writing and must be signed by the Parties' designated Dispute Resolution Representative. If the resolution involves a change in any Agreement Documents, the Agreement Price, the Project Schedule, or any other change requiring a written Change Order or Amendment, the parties must execute an appropriate written Change Order or Amendment pursuant to the terms of the Agreement Documents.

C. MEDIATION

1. Unless extended by written agreement of the parties involved in the dispute, any Claim not resolved through the DRR process set forth above within five (5) calendar days after the meeting required under B (4) above, or after the DRR is terminated pursuant to B (5) above, whichever is earlier, will be submitted to mediation as a condition precedent to litigation by either party.

2. The mediation will be commenced by written demand upon the other party for mediation. If the parties cannot agree upon a mediator within ten (10) calendar days of the written demand, either party may make a request to the Civil Presiding Judge of the Maricopa County Superior Court to appoint a mediator. The mediation will occur within forth (40) calendar days of the written demand for mediation, unless the parties agree, in writing, to a longer period of time.

3. The qualifications for the mediator will be that he/she be: (a) an experienced mediator, arbitrator or litigator of construction disputes; and (b) having engaged a significant portion of his/her time involving and/or resolving construction disputes for at least the past five (5) years.

4. Each party will provide to the other party and the mediator all of the information and documentation required under B(1) and (2) above, together with any additional information and documentation which the party believes relevant. In addition, the parties will exchange, and provide to the mediator such additional memoranda, information and/or documentation, as the

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mediator may request, and in the form and at such times, as the mediator may direct.

5. The parties will share the mediator's fee and any filing fees equally. The mediation will be held in Chandler, Arizona, unless another location is mutually agreed upon. Agreements reached in mediation will be specifically enforceable in any court having jurisdiction thereof.

D. LITIGATION

Any claim arising out of or related to the Agreement, except Claims relating to aesthetic effect and except those claims waived as provided for in the Agreement Documents, must be resolved through litigation in the Maricopa County, Arizona Superior Court.

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CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CERTIFICATE OF COMPLETION

PROJECT NAME:	**LINDSAY ROAD IMPROVEMENTS (OCOTILLO ROAD TO HUNT HIGHWAY)**		
CITY PROJECT NO.:	**ST2001.401**		
FEDERAL NO.:	**CHN-0(246)D**	**ADOT NO:**	**T0243 01C**

(*This section to be completed by Prime*)
I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER FOR THIS PROJECT HAVE BEEN DELIVERED IN ACCORDANCE WITH THE AGREEMENT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE AGREEMENTOR UNDER THE AGREEMENT HAVE BEEN COMPLETED AS OF THE COMPLETION DATE LISTED HERE:

FINAL ACCEPTANCE DATE:	

PRIME CONTRACTOR:

FIRM NAME:			
PRINCIPAL:			
TITLE:			
SIGNATURE:		DATE:	

CERTIFIED BY [*INSERT NAME AND TITLE OF PARTY THAT OVERSEES CONSTRUCTION*]:

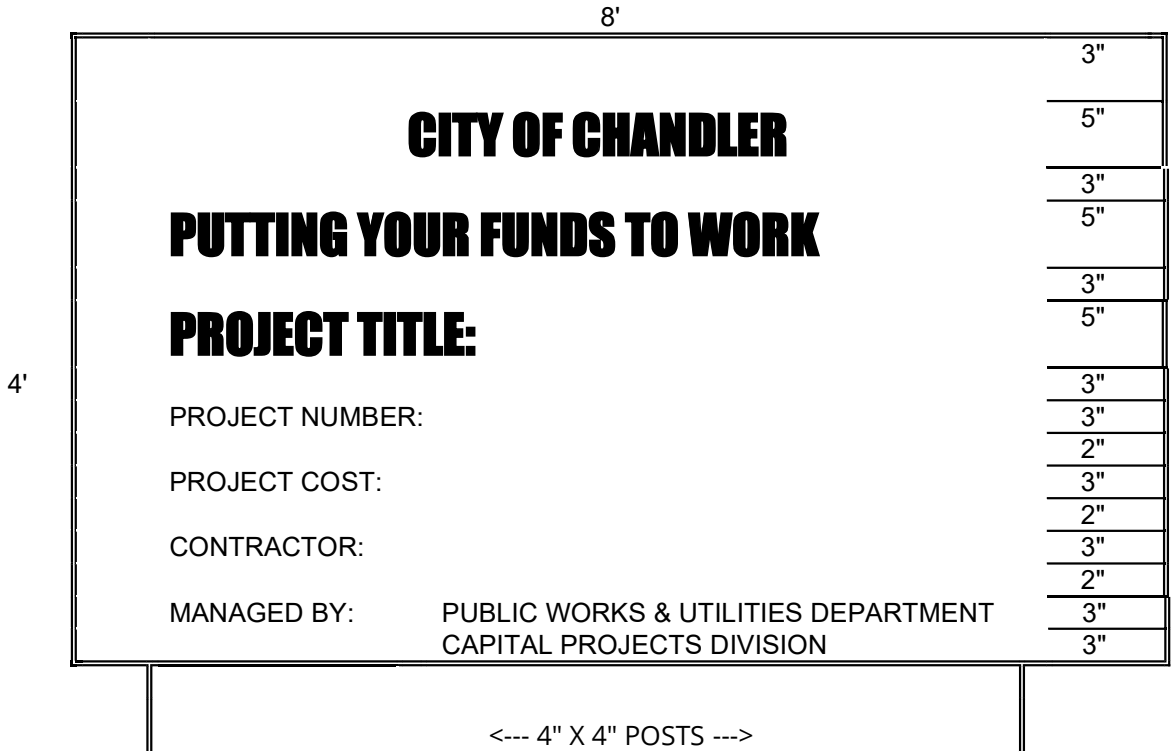
FIRM NAME:			
SIGNATURE:		DATE:	

PROJECT ACCEPTED BY CITY OF CHANDLER:

NAME:			
SIGNATURE:		DATE:	

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CONSTRUCTION SIGN DETAIL



NOTES:

SIGN(S) MUST BE FURNISHED AND ERECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION. POSTS MUST BE ANCHORED A MINIMUM OF TWO FEET INTO THE GROUND. BOTTOM OF SIGN MUST BE A MINIMUM OF FOUR FEET ABOVE THE GROUND.

TYPICAL PROJECT IDENTIFICATION SIGN FOR GENERAL PROJECTS MUST BE NON-REFLECTORIZED GREEN BACKGROUND, AND NON-REFLECTORIZED WHITE LETTERS AND NUMERALS.

ONE SIGN MUST BE ERECTED FOR BUILDINGS AND OTHER LIMITED AREA SINGLE SITES. FOR MULTIPLE SITES, ONE SIGN MUST BE ERECTED AT EACH SITE.

FOR LINEAR PROJECTS ONE HALF MILE OR LONGER, PLACE ONE SIGN AT EACH END OF THE PROJECT.

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COST OF THE WORK

(APPLICABLE SOLELY TO CONSTRUCTION MANAGER AT RISK AND JOB ORDER CONTRACTING)

SECTION 1 – COSTS TO BE REIMBURSED

1.1 Cost of the Work

The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs must be at rates not higher than the standard paid at the place of the Project except with prior consent of City. The Cost of the Work will include only the items set forth in this Section 1.

1.2 Labor Costs

1.2.1 Wages of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with City's approval, at off-site workshops. Cost to be reimbursed will be the actual wages paid to the individuals performing the work.

1.2.2 Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site with City's approval. No Contractor personnel stationed at the Contractor's home or branch offices will be charged to the Cost of the Work. Non-field office based Contractor management and support personnel are expected to provide service and advice from time to time throughout the job and his/her time devoted to Project matters is considered to be covered by the Contractor's Fee.

1.2.3 Wages and salaries of Contractor's supervisory or administrative personnel who would normally be stationed at the field office in accordance with Section 1.2.2 but who become engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of his/her time required for the Work. Employee bonuses and/or costs associated with Employee Stock Ownership Plans ("ESOP") will not be considered reimbursable labor or labor burden costs and will be considered non-reimbursable costs considered to be covered by the Contractor's Fee.

1.2.4 Costs paid or incurred by Contractor for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holiday, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Subparagraphs 1.2.1 through 1.2.3.

1.2.4.1 Cost of the Work will include the actual net cost to Contractor for worker's compensation insurance attributable to the wages chargeable to the Cost of Work per this Agreement. The actual net cost of worker's compensation must take into consideration all cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, any applicable weekly maximums, etc. Contractor may charge an estimated amount for worker's compensation insurance costs, but will make appropriate cost adjustments to actual costs within 45 days of receipt of actual cost adjustments from the insurance carrier.

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1.2.4.3 Overtime wages paid to salaried personnel (if approved in advance in writing by City) will be reimbursed at the actual rate of overtime pay paid to the individual. No time charges for overtime hours worked on the Project will be allowed if the individual is not paid for the overtime worked.

1.2.4.4 Any overtime premium or shift differential expense to be incurred by Contractor for hourly workers will require City's advance written approval before the incremental cost of the overtime premium or shift differential will be considered a reimbursable cost. If the Contractor is required to work overtime as a result of an inexcusable delay or other coordination problems caused by the Contractor or anyone he/she is responsible for, the overtime premium and/or shift differential expense portion of the payroll expense and related labor burden costs will be considered as cost not to be reimbursed.

1.2.4.5 Reimbursable labor burden costs will be limited to payroll taxes, worker's compensation insurance, the employer's portion of union benefit costs for union employees working on the Project, and the actual verifiable fringe benefit costs incurred by Contractor for non-union individuals working on the Project subject to the following maximum percentages for the following reimbursable non-union fringe benefit costs. The following maximums (as a percentage of reimbursable actual wages by individual) will apply for each of the following types of fringe benefit costs specifically attributable to each of the non-union personnel working on the Project:

- Medical Insurance, Dental, Life & AD&D Insurance: 12.00%
- Holiday, vacation and other paid time not worked: 10.00%
- Pension Plan Contributions to Vested Employee Account, Simplified Employee Pension Plans, or 401K matching plans (Note: ESOP related costs are covered by the Contractor Fee) 10.00%

For non-union personnel, no other fringe benefit costs (other than the three specific categories listed immediately above, will be considered reimbursable Cost of Work. Any labor burden costs that are in excess of the amounts considered reimbursable or are otherwise not considered reimbursable under the terms of this agreement are intended to be covered by the Contractor Fee.

1.3 Subcontract Costs

1.3.1 Payments made by Contractor to Subcontractors in accordance with the requirements of the subcontracts.

1.3.2 For Scope of Work Bid Packages typically performed by Subcontractors, Contractor may "self- perform" such work on an actual cost basis subject to an agreed upon Guaranteed Maximum Price for the "self-performed work". The Contractor must, unless agreed to by City in writing, bid his/her proposed guaranteed Maximum Price for the work to be "self-performed" against at least three other interested trade Contractors. All savings under any such Subcontract for "self-performed work" must be applied to reduce the Cost of Work under the Agreement and the Guaranteed Maximum Price. For purposes of defining "self-performed work" subject to this provision, any division of Contractor, or any separate Contractor or Subcontractor that is partially owned or wholly owned by the Contractor or any of his/her employees or employee's relatives will be considered a related party entity and will be subject to this provision regarding "self-performed work". No self-performed work will

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be allowed to be performed on a Fixed Price basis.

1.3.3 Contractor (with respect to its Suppliers, Subcontractors and all lower tier Subcontractors) must provide City advance written notice and must obtain City's approval for any proposed Subcontract Change Order, Material Purchase Order, or other financial commitment in an amount in excess of $5,000 prior to placing such order or entering into such agreement (regardless of whether or not any such commitment will affect the prime Agreement Guaranteed Maximum Cost). It is agreed that sums applicable to any Subcontract Change Order, Purchase Order or other financial commitment entered into in violation of the above notice and approval requirement will not be included in the amounts owning to Contractor, Subcontractors or Suppliers whether as Costs of the Work or as reasonable termination costs in the event of termination.

1.4 Costs of Material and Equipment Incorporated in the Completed Construction

1.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

1.4.2 Costs of materials described in the preceding Subparagraph 1.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, in any, will become City's property at the completion of the Work or, at City's option, may be sold by the Contractor. Any amounts realized from such sales must be credited to City as a deduction from the Cost of Work.

1.4.3 Proceeds from the sale of recyclable materials, scrap, waste, etc. will be credited to job cost.

1.5 Costs of Other materials and Equipment, Temporary Facilities and Related Items

1.5.1 Costs, including transportation and storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers, that are provided by the Contractor at the site and fully consumed in the performance of the Work; and cost (less salvage value) of such items if not fully consumed, whether sold to others or retained by Contractor. Cost for items previously used by Contractor will mean fair market value.

1.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by Contractor at the site, whether rented from Contractor or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented will be subject to City's prior written approval.

1.5.2.1 The Projected usage for each piece of equipment to be rented for use on the Project and the estimated total rentals must be considered by Contractor before the piece of equipment is rented so that an appropriate rent versus buy decision can be made. Purchased equipment must be considered "job owned". At the completion of the Project, Contractor must transfer title and possession of all remaining job-owned equipment to City, or Contractor may keep any such equipment for an appropriate fair market value credit to job cost, which will be mutually agreed to by City and Contractor.

1.5.2.2 Each piece of equipment to be rented must have hourly, daily, weekly and monthly rates and

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the most economical rate available will be reimbursed based on the circumstances of actual need and usage of the piece of equipment while it is stationed at the jobsite. When the piece of equipment is no longer needed for the work, no rental charges will be reimbursed if the piece of equipment remains at the jobsite for the convenience of Contractor.

1.5.2.3 Equipment Rental Rates

1.5.2.3.1 Compensation for equipment used on the Project will be paid in accordance with the Equipment Plan submitted by Contractor in the accepted GMP Proposal and no payments will be made in excess of the rates set forth in the Equipment Plan, or actual documented costs, whichever is less.

1.5.2.3.2 All equipment rental rates and costs are subject to City's right to audit when submitted as part of Equipment Plan and/or at any time during the Project.

1.5.2.4 The aggregate rentals chargeable for each piece of Contractor owned tools or equipment must not exceed 50% of the fair market value of such equipment at the time of its commitment to the Work. The original purchase price and date of purchase of the equipment will be documented with a copy of the purchase invoice for the piece of equipment. Such aggregate limitations will apply and no further rentals will be charged even if a piece of equipment is taken off the job and is later replaced by a similar piece of equipment. For purposes of computing the aggregate rentals applicable to aggregate rental limitations, rental charges for similar pieces of equipment will be combined if the pieces of equipment were not used at the same time.

1.5.2.5 Fair market value for used material and equipment as referred to in the Agreement Documents will mean the estimated price a reasonable purchaser would pay to purchase the used material or equipment at the time it was initially needed for the job. Note: This is usually lower than the price a reasonable purchaser would pay for similar new construction material or construction equipment.

1.5.2.6 All losses resulting from lost, damaged or stolen tools and equipment will be the sole responsibility of Contractor, and not City, and the cost of such losses will not be reimbursable under the Agreement.

1.5.2.7 Contractor will be required to maintain a detailed equipment inventory of all job-owned equipment (either purchased and charged to job cost or job-owned through aggregate rentals) and such inventory must be submitted to City each month. For each piece of equipment, such inventory should contain at a minimum (1) original purchase price or acquisition cost (2) acquisition date (3) approved Fair Market Value at the time the piece of equipment was first used on the job and (4) final disposition.

1.5.2.8 All costs incurred for minor maintenance and repairs will be reimbursed at actual cost. Such costs include routine and preventative maintenance, minor repairs and other incidental costs. Repairs and/or replacement of a capital nature are considered to be covered by the rental rates. Major repairs and overhauls are not considered routine and ordinary; consequently such costs are not reimbursable and are intended to be covered by the rental rates.

1.5.3 Costs of removal of debris from the Site.

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1.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

1.5.5 That portion of the reasonable expenses of Contractor's personnel incurred while traveling in discharge of duties connected with the Work.

1.5.5.1 No travel expenses will be reimbursed to Contractor's representatives unless Project related travel required them to travel to a destination more than 100 miles from the Project location. Any travel involving airfare will require advance written approval by an authorized City's representative.

1.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, if approved in advance by the City.

1.5.7 Reproduction costs will be the actual costs of reproduction subject to a maximum of five cents ($.05) per square foot for prints and a maximum of five cents ($.05) per 8 ½ by 11-inch page for offset print or photo copied agreement documents, specifications, etc. Telephone costs will be the actual costs paid to the third party telephone company for the field office telephone.

1.6 Miscellaneous Costs

1.6.1 That portion of insurance and bond premiums that can be directly attributed to the Agreement. The City will reimburse Contractor for contractually required bond at time of first pay application for GMP and Cost-Based Agreements upon receipt of proof of payment from the Contractor. If the Contractor completes Work for less than the Agreement Price, Contractor must credit the City a pro- rated amount for the unused portion of the bond payment

1.6.1.1 Contractor's actual cost for insurance will be considered to be included within the Maximum limit for General Conditions Costs. All premiums for any insurance and bonds required for the Project must reflect the net actual costs to Contractor after taking into consideration cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, refunds, etc.

1.6.1.2 The amount to be reimbursed to Contractor for all contractually required insurance will be actual costs not to exceed a total of 2% of the Agreement Value, unless Contractor establishes to City's satisfaction that the actual cost is higher and City agrees to such actual higher cost in writing. If Contractor's cost of contractually required insurance is greater than the amount agreed to be reimbursed per this Agreement Provision, the difference will be considered to be covered by the Contractor's Fee. The City will reimburse Contractor for contractually required insurance on a monthly basis for GMP and Cost-Based Agreements. If Contractor can demonstrate substantial savings by paying for all insurance in advance, the City may agree to reimburse all insurance costs at time of first pay application for GMP and Cost-Based Agreements with proof of payment from Contractor.

1.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work.

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1.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which Contractor is required by the Agreement Documents to pay.

1.6.4 Fees of laboratories for tests required by the Agreement Documents, except those related to defective or nonconforming Work and which do not fall within the scope of ¶ 1.7.3 below.

1.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Agreement Documents; the cost of defending suites or claims for infringement of patent rights arising from such requirement of the Agreement Documents; and payments made in accordance with legal judgments against Contractor resulting from such suites or claims and payments of settlements made with City's consent. However, such costs of legal defenses, judgments and settlements must not be included in the calculation of the Contractor's Fee or subject to the Guaranteed Maximum Price.

1.6.6 Data processing costs related to the Work. However, any such data processing costs will be limited to the cost of personal computer hardware used at the field office in the normal day to day administration, management and control of the Project. The aggregate charges for any such hardware must not exceed the Fair Market Value of the hardware at the time it was brought to the field office. If the total charges for any particular piece of hardware reach an amount equal to the Fair Market Value, that particular piece of hardware must be turned over to City whenever it is no longer needed for the Project. If Contractor elects to keep the particular piece of hardware, the job costs must be credited with a mutually agreeable amount which will represent the Fair Market Value of the particular piece of hardware at the time it was no longer needed for the job. Software or other costs associated with the use of computer programs will not be considered to be a reimbursable cost and will be considered to be covered by the Contractor's Fee.

1.6.7 Deposits lost for causes other than Contractor's negligence or failure to fulfill a specific responsibility to City as set forth in the Agreement Documents.

1.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between City and Contractor, reasonably incurred by Contractor in the performance of the Work and with City's prior written approval; which approval will not be unreasonably withheld.

1.6.9 Expenses incurred in accordance with Contractor's standard personnel policy for relocation and temporary living allowances of personnel required for the Work, if pre-approved by City in writing. If City authorizes the reimbursement of relocation costs, the reimbursable relocation expenses will be limited to a maximum of $50,000 per person. Any relocation cost incurred by Contractor in excess of the amount reimbursed by City will be considered to be covered by the Contractor's Fee.

1.7 Other Costs and Emergencies

1.7.1 Other costs incurred in the performance of the Work if and to the extent approved in advance in writing by City.

1.7.2 Costs due to emergencies incurred in taking action to prevent threatened damage, injury or

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loss in case of an emergency affecting the safety of persons and property.

1.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by Contractor, Subcontractors or Suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of Contractor and only to the extent that the cost of repair or correction is not recoverable by Contractor from insurance, sureties, Subcontractors or Suppliers.

1.8 Related Party Transactions

1.8.1 The term "related party" will mean a parent, subsidiary, affiliate or other entity having common ownership or management with Contractor; any entity in which any stockholder in, or management employee of, Contractor owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of Contractor. The term "related party" includes any member of the immediate family of any person identified above.

1.8.2 If any of the costs to be reimbursed arise from a transaction between Contractor and a related party, Contractor must notify City in writing of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If City, after such notification, authorizes in writing the proposed transaction, then the cost incurred will be included as a cost to be reimbursed, and Contractor must procure the Work, equipment, goods or service from the related party, as a Subcontractor. If City fails to authorize the transaction, Contractor must procure the Work, equipment, goods or service from some person or entity other than a related party.

SECTION 2 – COSTS NOT TO BE REIMBURSED

2.1 The Cost of Work must not include:

2.1.1 Salaries and other compensation of Contractor's personnel stationed at Contractor's principal office or offices other than the site office, except as specifically provided in Subparagraphs 1.2.2 and 1.2.3.

2.1.2 Expenses of Contractors' principal office and offices other than the site office.

2.1.3 Overhead and general expenses, except as may be expressly included in Section 1.

2.1.3.1 Costs of Contractor's home office computer services or other outside computer processing services will be considered overhead and general expense. Accordingly, Contractor should not plan to perform any such computer related services or alternatives at the field office when such services or functions can be performed at Contractor's home or branch offices, or other outside service locations.

2.1.4 Contractor's capital expenses, including interest on Contractor's capital employed for the Work.

2.1.5 Rental costs of machinery and equipment, except as specifically provided in subparagraph 1.5.2.

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2.1.6 Except as provided in Subparagraph 1.7.3 of the Agreement, costs due to the negligence or failure to fulfill a specific responsibility of Contractor, Subcontractors and Suppliers or anyone directly or indirectly employed by any of them or for whose acts of them may be liable.

2.1.7 Any cost not specifically and expressly described in Section 1.

2.1.8 Costs, other than costs included in Change Orders approved by City that would cause the GMP to be exceeded.

SECTION 3 – DISCOUNTS, REBATES, REFUNDS AND SAVINGS

3.1 Cash discounts obtained on payments made by Contractor will accrue to City if (1) before making the payment, Contractor included them in an Application for Payment and received payment therefore from City, or (2) City has deposited funds with Contractor with which to make payments; otherwise, cash discounts will accrue to Contractor. Trade discounts, rebates, refunds and amounts received from sales or surplus materials and equipment will accrue to City, and Contractor must make provisions so that they can be secured.

3.1.1 Cost of the Work will be credited with all insurance policy discounts, performance and payment bond rebates or refunds, refunds or return premiums from any Subcontractor default insurance, refunds or rebates from any Contractor controlled insurance programs applicable to the Project, merchandise rebates of any nature, refunds of any nature, insurance dividends; and a portion of any volume rebates or free material credits earned with purchase of material or other goods and services charged to the job.

3.1.2 "Cash" discounts which may accrue to Contractor will be limited to a maximum of 1.5% of invoice cost. Any portion of "Cash" discounts greater than 1.5% will automatically accrue to City if Contractor is eligible to take advantage of the discounts.

3.2 Amounts that accrue to City in accordance with the provisions of Paragraph 3.1 will be credited to City as a deduction from the Cost of the Work.

3.3 Any and all savings on the GMP, or any separately guaranteed items comprising the GMP, will belong to City, subject to any express right in the Agreement for Contractor to share in savings. Savings are subject to City's right to audit, and may be audited separately.

SECTION 4 – GENERAL CONDITIONS COSTS

4.1 General Conditions Costs may include, but are not limited to, the following types of costs incurred by Contractor during construction of the Work to the extent they are reimbursable Costs of the Work as delineated above: payroll costs for Work conducted at the site, payroll costs for the superintendent and full-time general foremen, payroll costs for management personnel resident and working on the site workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), administrative office personnel, costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the site, costs of liability insurance premiums not included in labor burdens for direct labor

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costs, costs of bond premiums, costs of consultants not in the direct employ of Contractor or Subcontractors, fees for permits and licenses.

4.2 General Conditions Costs may be paid on a percentage of the Agreement Price or on a lump/stipulate sum basis as set forth in the Agreement. All costs included in the General Conditions Costs will not be separately invoiced to or paid by City.

4.3 The total amount of General Conditions Costs for the Work may be divided by the number of days allowed for performance of the Work, to determine a fixed daily rate for General Conditions Costs that may be used in computing the General Conditions Costs allocated to any period of time, or for any adjustments in the General Conditions Costs agreed to in writing by City.

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LANDSCAPE ESTABLISHMENT PERIOD

Section 1 – Description and General

Contractor is in direct control of work performed under the Landscape Establishment Period. If work is subcontracted, a representative of the Contractor will be present at the site of the work for all hours that the subcontractor works. Subcontracting of Landscape Establishment work will be permitted for weed eradication with herbicides, because of special licensing. A licensed temporary service may be used to supply labor to Contractor if Contractor has received approval from City Representatives. Contractor will submit the required subcontract documentation.

Contractor must provide adequate personnel to accomplish the required maintenance of the plant materials at intervals acceptable to City Representatives.

If not healthy at the end of the maintenance period, the maintenance must be continued until the plant material is approved by City.

1.1 Time and Schedule

Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will be per General Conditions Section 6.5.4.

1.2 Planted Stock and Seeding Establishment

1.2.1 Tree planting and staking must be per City of Chandler Standard Detail C-801.

1.2.2 All trees will stand erect on their own without stakes when brought to this site. If the tree cannot stand on its own when nursery stakes are removed, the tree will be removed and replaced.

1.3 Pre-Emergent Herbicide and Weed Control

1.3.1 Contractor will provide three applications of an approved pre-emergent herbicide on all unpaved areas of the project, as directed by City Representatives, to control weed growth in all areas of the project. The number of applications may be increased as directed by the City Representative, and at no additional cost to City, if the City Representative deems additional applications are required to control weed growth.

1.3.2 Application sequence will be approved in advance by City. The first application of pre-emergent will be completed prior to the application of Decomposed Granite and will be included with the cost of the Decomposed Granite as specified and part of the Construction Phase portion of work. The second application of pre-emergent will be completed after installation of the Decomposed Granit and no later than half-way through the Landscape Establishment Period. The third and final application of pre-emergent will be applied 15 days prior to completion of the Landscape Establishment portion of the project. The second and third pre-emergent applications will be included with the cost of Landscape Establishment. Watering will be completed in accordance with the manufacturer's recommendations, as included and as related to each application.

1.3.3 The pre-emergent herbicide will be applied in accordance with the Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

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1.3.4 The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

1.3.5 Contractor is responsible for the removal and disposal of all trash and debris that during the Landscape Establishment Period. Contractor will keep the project in a neat and orderly manner during the duration of the Landscape Establishment Period.

1.4 Water

The water used during Landscape Establishment to properly maintain the plant material will be furnished by City, at designated sources from within the project limits, at no charge to Contractor. Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

1.5 Plant Material Replacements

The plant material replacement will be considered as included in the work for Landscape Establishment, and will be made at no charge to the City.

1.5.1 Shrub and Plant Replacement - During the second half of the Landscaping Establishment period, Contractor will provide, where required, plant replacements as follows:

Original Size	**Replacement Size**
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
36-inch box	48-inch box

1.5.2 Tree Replacement – During the second half of the Landscape Establishment Period, Contractor will provide plant material replacements for existing plants that die as follows:

Existing Plant Material Sizes	**Replacement Size**
Trees:	
2-inch Caliper	24-inch box
4-inch Caliper	36-inch box
6-inch Caliper and greater	54-inch box
Shrubs:	
All Existing Shrubs	15 gallon

1.6 Measurement and Payment

See Technical Specifications for Measurement Payment provisions.

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EXHIBIT C

TECHNICAL SPECIFICATIONS

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CHANDLER arizona

LINDSAY ROAD IMPROVEMENTS

HUNT HIGHWAY TO OCOTILLO ROAD

CITY OF CHANDLER PROJECT NO. ST2001.401

FEDERAL PROJECT NO. CHN-0(246)D

ADOT PROJECT NO. T0243 01C

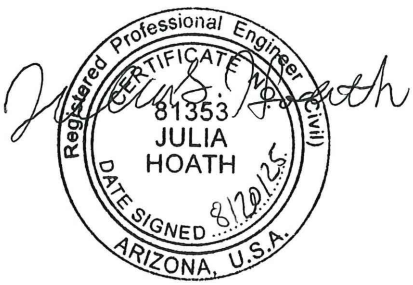
TECHNICAL SPECIFICATIONS

PREPARED FOR:

CITY OF CHANDLER
PUBLIC WORKS & UTILITES
CAPITAL PROJECTS

PREPARED BY:

Kimley»Horn
1661 E. Camelback, Suite 400
PHOENIX, AZ 85016



DATE: AUGUST 2025

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PART A: BID ITEMS

The following items, though not a comprehensive list, are non-payment items being considered incidental to the project, the costs of which are to be included within other bid items:

Saw cutting
Locating (or pothole) of new or existing utilities
Concrete curb and gutter transition, MAG Std. Det. 221
Curb transition, MAG Det. 220-2 and 221
SWPPP preparation and document maintenance
Contractor's site office or yard
Roadway sweeping
Any and all permits - preparation costs and permit fees
Protective fencing or plating for open trenches
Photographing and videotaping of the project
Preparation of record drawings
Crown line
Temporary pavement as required for all pipeline and underground work
Temporary or permanent berming for private flood irrigation
Removal of existing landscape irrigation pipe, tubing, and equipment

ITEM NO. 1 CONSTRUCTION SURVEYING AND LAYOUT

Description:

The Contractor will furnish all labor, materials, and equipment necessary to perform all surveying, staking, laying out of control lines, and verifications of the accuracy of all existing control points that are delineated in the Contract Documents. The work will be done under the direction of a Registered Land Surveyor (RLS) licensed to practice in the State of Arizona.

Construction Requirements:

Staking Outline: Prior to beginning any survey operations, the Contractor will furnish to the Engineer, for approval, a written outline detailing the method of staking, interval of stakes, marking of stakes, grade control for various courses of materials, referencing, structure control, and any other procedures and controls necessary for survey completion. A part of this outline will also be a schedule that will show the sequencing of the survey and layout work, throughout the course of the contract, listing a percentage of completion for each month.

Field Books: The Contractor will furnish field books to be used for recording survey data and field notes. These books will be available for inspection by the City at any time and

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will become the property of the City upon completion of the work.

Survey Control Verification: Control Points (horizontal and vertical) -The existence and location of all survey monuments, bench marks, and control points will be verified prior to demolition or construction activity. Immediately notify the City of Chandler Project Manager when location discrepancies greater than 0.02 foot horizontal or 0.01 foot vertical are found. All datum will be based upon the City of Chandler datum.

Control Lines: Construction control lines with grade breaks, transition points, horizontal and vertical curves, etc., will be established and referenced prior to construction.

Temporary Bench Marks: Temporary bench marks will be established prior to construction, maintained and periodically verified for accuracy throughout the construction phase.

Pre-Construction Location Survey: All existing features will be located prior to construction, referenced to survey monuments along control lines by stationing in accordance with the construction documents and by offset distance from the control lines. All features will be re-locatable after construction. Distances measured will be within 0.01 foot.

Survey monuments: The land surveyor will follow the requirements of A.R.S. § 33-103 when establishing, replacing or setting Public Land System Survey monuments at Section or Quarter Section corners and will follow the requirement in Section 9(C) of the Arizona Boundary Survey Minimum Standards when establishing new or replacement boundary monuments and witness corner monuments. Finally, land surveyors will also comply with the requirements of A.R.S. § 104 through 106 when establishing, replacing or setting any type of boundary monument. Whenever any monuments are established, including those set to replace missing or damaged monuments of a previous survey, those actions require the surveyor to create and record a survey drawing documenting the new monumentation as established.

Water and Sewer Line Appurtenances: Water and sewer line surface appurtenances such as manholes, valves, and cleanouts that lie within the construction area will be located and noted on the Contractor's approved construction documents prior to any demolition or excavation.

Match Points and Removals: Verify the location (horizontal and vertical) of existing facilities to which the project connects. Immediately notify City Representatives when location discrepancies of connecting facilities greater than 0.10 foot horizontal or 0.02 foot vertical are found.

Construction Stakes: The Contractor will set construction stakes and marks establishing lines and grades for road work, curbs, gutters, sidewalks, structures, buildings, centerlines for utilities and necessary appurtenances, and other work as indicated in the Contract Documents and will be responsible for their conformance with the Project Plans and Technical Specifications.

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The stakes will be established in accordance with the following guidelines which represent the minimum standard and the Contractor will provide additional stakes and controls necessary to perform the work. The Contractor will be held responsible for the preservation of all stakes and marks and will replace, at no additional cost to the City, any construction stakes or marks which have been carelessly or willfully destroyed by any party.

(a) Roadway: Subgrade stakes will be set to subgrade elevation at 50 foot intervals on straight sections, 25 foot intervals through vertical curves, on horizontal curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves and grade breaks. Stakes will be set at crown lines, at grade break lines, and at edges of pavement which do not abut concrete curb and gutter or at the edge of pavement abutting vertical curbs or other structures whose surface grade will not be flush with the finished pavement grade. Quarter lines will be staked where the distance between the crown line stakes and the curb and gutter face exceeds 20 feet. ABC stakes will be set to ABC elevation at 33 foot intervals on straight sections, 25 foot intervals through vertical curves, on horizontal curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves, and grade breaks. Stakes will be set at crown lines, at grade breaks, and at edges of pavement which do not abut concrete curb and gutter or at the edge of pavement abutting vertical curbs or other structures whose surface grade will not be flush with the finished pavement grade. Quarter lines will be staked where the distance between the crown line stakes and the curb and gutter face exceeds 20 feet.

(1) Where the existing pavement will be milled and inlayed, the Contractor will provide 10-foot grid interval surface control horizontally and vertically.

(2) Pavement edges will be controlled by utilizing a wire control mechanism or screeding along a concrete gutter or other structure whose surface grade is flush with the finished pavement grade. Stakes will be set to finished elevation at 33 foot intervals on straight sections, 25 foot intervals on curves with radius of 600 feet or less, and/or slopes of less than 0.4%, and the beginning and end of horizontal and vertical curves, and grade breaks.

(b) Sidewalk and Bike Paths: Stakes are not required for sidewalks five feet or less in width which are adjoining existing curb and gutter.

(1) Sidewalk stakes will be set to grade on an offset and tacked for line at 25 foot intervals at the beginning and end of horizontal and vertical curves and grade breaks.

(c) Storm Sewer and Drainage: All cuts will be to the invert of the pipe, given to the nearest 0.01 of a foot.

(1) Stakes for storm sewer will be driven flush with the existing ground, set on an offset at 50 foot intervals. Stakes will be marked with the offset and indicated cut.

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(2) Wyes for laterals will be marked with a line only stake.

(3) Manholes will be marked with the offset and indicated cut to top of manhole grade and inverts.

(4) Stakes for storm water inlets, two per inlet, will be set on a line normal to the roadway at the center line of the inlet five and ten feet from the face of curb. The stakes will be marked with the offset to the face of curb and the cut or fill to the top of curb and inverts.

(5) Cut sheets will be supplied to the Contractor and City of Chandler Inspector.

(d) Water: All cuts will be to the invert of the pipe, given to the nearest 0.10 of a foot.

(1) Stakes for water will be driven flush with the existing ground, set on an offset at 50 foot intervals and specified grade breaks. Stakes will be marked with the offset and indicated cut.

(2) Fittings or other critical points such as tees will be marked with a line only stake.

(3) Fire hydrants will be located with two stakes per hydrant set parallel with the roadway five feet from the centerline of the hydrant. The stakes will be marked with the offset to the hydrant and indicated cut to the top of curb at the centerline of the hydrant.

(4) Water meters will be located with two stakes per meter set parallel with the roadway five feet from the centerline of the meter. The stakes will be marked with the offset to the meter and indicated cut to the top of curb at the centerline of the meter.

(5) Cut sheets will be supplied to the Contractor and City of Chandler Inspector.

(e) Traffic Signing, Striping and Detector Loops: The Contractor will delineate the procedures and controls to be utilized in the Staking Outline.

(f) Inspection and Acceptance of Work: The City reserves the right to make inspections and random checks of any portion of the staking and layout work. If, in the City's opinion, the work is not being performed in a manner that will assure proper control and accuracy of the work, the City may order any or all of the staking and layout work redone at no additional cost.

Measurement and Payment:

Construction Surveying and Layout will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work as described herein and required to provide all necessary survey stakes and control. The approved schedule showing the sequencing and percentage of the survey and layout work will be the basis on which monthly progress payments will be made. This schedule will be subject to periodic review, at the request of either party, if the survey and layout

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work lags or accelerates. If necessary, the schedule will be revised to reflect changes in survey and layout progress. When approved, the revised schedule will become the basis for payment.

ITEM NO. 2 GPS DATA COLLECTION (ESRI – ARCGIS GEODATABASE FORMAT)

Description:

This work under this item will consist of furnishing all labor, materials, and equipment necessary to provide survey grade GPS / GIS data meeting the following requirements for all facilities to be owned and/or operated by the City of Chandler.

Construction Requirements:

(a) ESRI File Geodatabase format:

All GPS point data, along with corresponding GIS Attribute data, must be submitted in ESRI File Geodatabase format. The City of Chandler will provide an electronic copy of the File Geodatabase in ESRI ArcGIS format upon submitting the "Request for Public Records" form in Appendix B. All public record requests must be initiated on-line at https://www.chandleraz.gov/government/departments/development-services/public-records-request. A copy of the request must be sent to the designated City of Chandler Representative.

(b) Data dictionary and Attribute data:

Attribute data should be provided for each of the GPS'd Utility Feature listed in section 'd' below. All Attribute data should conform to the ESRI File Geodatabase format.

(c) Coordinate System:

Horizontal Datum: Arizona State Plane Coordinates, Central Zone NAD83 (HARN)
Vertical Datum: NAVD88.

(d) Point Data for GPS:

(1) Water System Features:

(2) Water main location (top of pipe), size and material (one coordinate provided every 100 feet minimum) and at fittings.

(3) Water fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.

(4) Water valve location (center of valve box cover), size and type.

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(5) Fire hydrant location (top of hydrant), manufacturer and year.

(6) Water service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.

(7) Water blow-off and air release valve location (center of cover), size, type and manufacturer.

(8) Water manhole or vault location (center of cover), size and type.

(9) Waste Water System Features:

(10) Sewer manhole and cleanout location (center of cover), size, material, and cover type.

(11) Sewer gravity main location (invert of pipe), size, material and flow direction (from) at all manholes, cleanouts and structures.

(12) Sewer service line location, size and material (at connection to main, and termination at cleanout, or stub out at edge of the easement or ROW).

(13) Sewer force main location (top of pipe), size, and material (one coordinate provided every 100 feet minimum) and at fittings.

(14) Sewer force main (and gravity) fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Wye, Other.

(15) Sewer force main valve location (center of valve box cover), size and type.

(16) Sewer force main air release valve location (center of cover), size, type and manufacturer.

(17) Sewer force main manhole or vault location (center of cover), size and material.

(18) Sewer structure (center of structure), type (diversion, junction box)

(19) Reclaimed Water System Features:

(20) Reclaimed main location (top of pipe), size, and material (one coordinate provided every 100 feet minimum) and at fittings.

(21) Reclaimed fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.

(22) Reclaimed valve location (center of valve box cover), size and type.

(23) Reclaimed service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW),

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size and material.

(24) Reclaimed blow-off and air release valve location (center of cover), size, type and manufacturer.

(25) Reclaimed manhole or vault location (center of cover), size and type.

(26) Storm Water System Features:

(27) Storm manhole and cleanout location (center of cover), size, material, and cover type.

(28) Storm gravity main location (invert of pipe), size, material, and flow direction (from) at all manholes, cleanouts, and structures.

(29) Storm structure location (center of structure), type and category including:

(30) Drywell, Catch Basin, Scupper, Bubbler Box, Collection Vault.

(31) Standard GPS Metadata on all points collected: Date, Time, Height, Horiz_Precision, Vert_Precision, Northing, Easting, Surveyor, Datafile, and Comments

(32) Streetlights

(e) Electronic Data Submittal:

Each submittal must consist of

(1) ESRI – ArcGIS Geodatabase with cumulative data and attribute, and

(2) Construction plans with collected utilities clearly redlined and changes marked

(3) The frequency of data submittal will be every two weeks after water, sewer, reclaim or storm assets go into the ground. Submittals can be emailed to: GIS@Chandleraz.gov

Measurement and Payment:

GPS Data Collection (ESRI – ArcGIS Geodatabase Format) will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work as described herein, including submittal and acceptance by City of Chandler.

No payment will be made for rejected GPS Point Data.

ITEM NO. 3 CONTRACTOR QUALITY CONTROL

See City of Chandler General Conditions.

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Measurement and Payment:

Contractor Quality Control will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work, complete in place.

ITEM NO. 4 EROSION CONTROL (SWPPP PREPARATION, INSTALLATION, MAINTENANCE, AND REMOVAL)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to prepare the SWPPP plan, furnish, install, maintain and remove (if applicable) erosion control best management practices as specified in the Project Plans and directed by City Representatives.

Materials:

All materials will conform to the requirements of ADOT Standard Specifications. Section 810-2.

Construction Requirements:

All work under this item will be completed in conformance with the Project Plans and all applicable City, County, State, and Federal regulations.

Measurement and Payment:

Erosion Control (SWPPP Preparation, Installation, Maintenance, and Removal) will be measured as a single complete unit of work and paid at the contract lump sum price, which price will be full compensation for the work described herein and complete in place.

No payment will be made for rejected best management practices, for maintenance after a storm event, or for damage by the Contractor. No allowance will be made for extra material used in overlapping at splice joints.

ITEM NO. 5 MOBILIZATION/DEMOBILIZATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to conform to MAG Uniform Standard Specifications Section 109.10.

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Measurement and Payment:

Mobilization/Demobilization will be measured as a single complete unit of work and paid at the contact lump sum price, which price will be full compensation for the work, complete in place.

ITEM NO. 6 CLEARING AND GRUBBING

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to conform to MAG Uniform Standard Specifications Section 201. The Contractor should review the landscape plans to identify trees to be protected in place. The Contractor will clear and grub only the areas required to construct the project improvements.

Construction Requirements:

All work under this item will be completed in conformance with MAG Uniform Standard Specifications Section 201 in its entirety except as modified herein.

Burning of trash, debris, plant material, wood, or any other waste material will not be allowed.

Measurement and Payment:

Clearing and Grubbing will be measured as a single complete unit of work and paid at the contact lump sum price, which price will be full compensation for the work, complete in place. No separate measurement will be made for trees 12 inches or less in diameter at 1-foot above the original ground surface.

ITEM NO. 7 REMOVE TREE, DIAMETER > 12 IN

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to remove and dispose of existing trees more than 12 inches in diameter, including roots and stumps from the project area, as shown on the Project Plans, in accordance with the requirements of MAG Uniform Standard Specifications Section 201 in its entirety except as modified herein.

Construction Requirements:

All tree removal personnel will have a minimum of one-year experience in large tree

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removal and be supervised at all times by a foreman with a minimum of two years' experience. Background information on all personal associated with this task, along with references that will verify experience, will be submitted to City Representatives at the pre-construction meeting.

Remove trees in sections by performing cutting operations from the top down, utilizing cranes or boom trucks to control the fall of large pieces of trunk, branches and any tree debris.

Cut trees flush with existing grades. All stumps will be ground to a minimum of three feet below existing grade including the removal of all roots that are at that same elevation below existing grade with the cost for these removals included under this bid item.

Cavities resulting from the removal of stumps and roots will be backfilled with material approved by City Representatives. The material will be compacted to a density of not less than 95 percent of the maximum density as determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual and as directed and approved by City Representatives.

Contractor will coordinate with City Representatives no less than two weeks prior to this work to tag all trees designated for removal.

Upon removal, trees will become property of the Contractor.

Burning of the removed trees will not be permitted. All tree materials resulting from removal will be removed from the jobsite during the same work day period. No debris larger than one square inch will remain after the removal process is completed.

Measurement and Payment:

Remove Tree, Diameter > 12 In will be measured as a unit each for each tree removed and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including excavation and subsequent backfill, compaction, hauling, obtaining permits, and disposing of the trees.

ITEM NO. 8 EARTHWORK FOR RETENTION BASINS

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the excavation (or fill) to construct the retention basins as depicted by the contours and elevations shown within the details of the drainage plans. The work will also include adjustments for any structures or landscaping in existing retention basins as specified in the Project Plans.

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Construction Requirements:

All grading for Earthwork for Retention Basins will be constructed in accordance with the requirements of with ADOT Standard Specifications Section 203.4, except as modified herein.

All basins constructed will be percolation tested in accordance with the double-ring infiltrometer test ASTM D3385. The results of the tests will be submitted to the City for evaluation prior to the acceptance of the basin grading.

Retention basin slopes will not exceed 4:1 horizontal to vertical.

Measurement:

Earthwork for Retention Basins will be measured per cubic yard, including percolation tests. The Engineer will compute the quantities of material excavated by a method which in his opinion is best suited to obtain an accurate determination.

Payment:

The accepted quantity of Earthwork for Retention Basins, measured as provided above, will be paid for at the contract unit price per cubic yard, which price will be full compensation for the work, complete in place. Payment will include adjustments and grading around existing structures and landscaping. No additional payment will be made for grading beyond the “match points” or extent of the new drainage contour lines, as specified in the Project Plans or as a result of disturbance by the Contractor.

No additional payment will be made for the percolation tests, the cost being considered incidental to this item.

ITEM NO. 9 RIPRAP, D50=6 IN, T=12 IN

Description:

The work under this item will include furnishing of all materials, labor, and equipment necessary to install riprap at locations and dimensions as specified in on the Project Plans including filter fabric.

Materials:

Riprap stone will comply with MAG Uniform Standard Specifications Sections 701.2 and 703 in their entirety. All riprap will have a d_{50} size of six inches and thickness (T) of 12 inches. Filter Fabric will comply with MAG Uniform Standard Specification Section 796 in its entirety.

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Construction Requirements:

Riprap will be constructed in accordance with MAG Uniform Standard Specification Section 220.

Measurement and Payment:

Riprap, D50=6 In, T=12 In will be measured per cubic yard and will be paid for at the contract unit price per cubic yard, which price will be full compensation for the item, complete in place, including filter fabric.

ITEM NO. 10 SUBGRADE PREPARATION
ITEM NO. 11 FARM ROAD PER MAG SPECIFICATION 301

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the excavation for the grading and construction of the roadway and the farm road on APNs 304-81-922A and 304-81-989A as specified in the Project Plans.

Construction Requirements:

Subgrade Preparation and Farm Road Per MAG Specification 301 will comply with MAG Standard Specifications Section 205 and 301 in its entirety, except as modified herein.

Measurement:

Subgrade Preparation and Farm Road Per MAG Specification 301 will be measured per square yard including roadway excavation, borrow excavation, and fill construction.

Payment:

The accepted quantity of Subgrade Preparation and of Farm Road Per MAG Specification 301, measured as provided above, will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

ITEM NO. 12 AGGREGATE BASE COURSE, 5 IN THICK
ITEM NO. 13 AGGREGATE BASE COURSE, 12 IN THICK
ITEM NO. 14 AGGREGATE BASE COURSE, 18 IN THICK

Description:

The work under these items will consist of furnishing all materials, labor, and equipment

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necessary for the placement and construction of the aggregate base course as specified in the Project Plans.

Materials:

Aggregate Base will all comply with MAG Standard Specifications Section 702 in its entirety, except as modified herein.

The graded aggregate base course will meet City requirements, as shown in the table below:

Select Aggregate Base Conditions

SIEVE SIZE (PER ASTM D422-63)	PERCENT PASSING BY WEIGHT
1 1/4 INCH	100
No. 4	38-65
No. 8	25-60
No. 30	10-40
No. 200	3-12
P.I. MAX	5

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 310 in its entirety, except as modified herein.

Measurement:

Aggregate Base, per thickness as specified in the Project Plans, will be measured per square yard.

Payment:

The accepted quantities of Aggregate Base, per thickness as specified in the Project Plans, measured as provided above, will be paid for at the contract unit price per square yard which price will be full compensation for the work, complete in place. Payment will include the excavation of in-situ material to reach depths specified on the Project Plans, percolation tests, and filter fabric.

No additional payment will be made for the excavation of in-situ material to reach depths as specified in the Project Plans, percolation tests or filter fabric, the cost being considered incidental to this item.

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ITEM NO. 15 PAVEMENT STRUCTURAL SECTION PER RWCD DETAIL 42

Description:

The work under this item consists of furnishing all labor, equipment and materials necessary to furnish and install access road surfacing, including 6" thick ABC and subgrade preparation, at the locations and grades shown in the Project Plans.

Materials:

All materials will conform to detail RWCD-42.

Construction Requirements:

Comply with detail RWCD-42 in its entirety. All work on RWCD access road surfaces is subject to the RWCD General Notes provided in the Project Plans.

Measurement:

Pavement Structural Section Per RWCD Detail 42 will be measured as square yard.

Payment:

The accepted quantities of Pavement Structural Section Per RWCD Detail 42, measured as provided above, will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

ITEM NO. 16 ASPHALTIC CONCRETE PAVEMENT (2 IN SURFACE COURSE, A-12.5 EVAC)
ITEM NO. 17 ASPHALTIC CONCRETE PAVEMENT (3 IN SURFACE COURSE, A-12.5 EVAC)
ITEM NO. 18 ASPHALTIC CONCRETE PAVEMENT (3 IN BASE COURSE, A-19 EVAC)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for mixing at a plant, hauling, and placing a mixture of aggregate materials, mineral admixture and asphalt binder to form a pavement course upon a previously prepared base or sub base at all locations as specified in the Project Plans.

Materials:

Asphalt Concrete Pavement mix design will conform to current East Valley Asphalt Committee (EVAC) Conventional List of Hot Mix Approved Asphalt Mixes as follows:

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2 in surface course will be A-12.5

3 in surface course will be A-12.5

3 in base course will be A-19

For current EVAC specifications see City of Mesa website located here: http://www.mesaaz.gov/business/engineering/approve-products-equipment-natural-gas-line-contractors.

Surface course paving of milled surfaces will conform to MAG 710.

Construction Requirements:

The work under this item will comply with MAG Standard Specifications Section 321 in its entirety, except as modified herein.

The base prepared by the Contractor, on which the asphalt concrete pavement is to be placed, will be smooth, firm, and true to grade and cross-section as specified in the Project Plans, and will be so maintained throughout the period of placing asphalt concrete. If necessary, in order to obtain the above specified base condition, and if ordered by City Representatives, a leveling course of asphalt concrete compacted in layers not exceeding 2 inches in thickness or aggregate base will be spread to level irregularities such as dips, depressions, and sags. All irregularities such as humps or high spots will be removed in order to provide a smooth base of uniform grade and cross-section, so that subsequent surfacing will be of uniform thickness. No additional compensation will be allowed for furnishing and placing these materials and for all work incidental to the correcting of irregularities will be considered as included in the contract price for asphalt concrete pavement.

Cold joints between pavement sections will be saw cut.

Surface course paving of milled surfaces will conform to MAG 710. Tack coat will be applied to milled surface prior to paving. Tack coat is described under a separate item.

Measurement and Payment:

Asphaltic Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard which price will be full compensation for the work, complete in place.

No additional payment will be paid for saw cutting associated with cold joints.

Measurement and payment for tack coat between lifts as well as for milled surfaces will be paid for under a separate item

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ITEM NO. 19 PORTLAND CEMENT CONCRETE PAVEMENT (PCCP) 9 IN THICK

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete bus bays and private driveways as specified in the Project Plans.

Materials:

Portland Cement Concrete Pavement will comply with MAG Standard Specifications Section 725 in its entirety, except as modified herein.

Construction Requirements:

The work under these items will comply with MAG Uniform Standard Specifications Section 324 in its entirety, as well as City Details C-230 and C-231.

Measurement and Payment:

Portland Cement Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place.

ITEM NO. 20 BITUMINOUS TACK COAT SS-1H, DILUTED

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to apply a bituminous tack coat at all locations as specified in the Project Plans or as directed by City Representatives.

Materials:

Bituminous Tack Coat will be SS-1h type or approved equal and will conform to MAG Standard Specification Section 713 in its entirety.

Construction Requirements:

Bituminous Tack Coat will comply with MAG Standard Specifications Section 329 in its entirety, except as modified herein.

Tack coat will be applied at the rate of no less than 0.08 gallons per square yard or as directed by City Representatives.

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Measurement:

Bituminous Tack Coat will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

No additional payment will be made for application of Bituminous Tack Coat SS-1H, Diluted, the cost being considered incidental to this item.

ITEM NO. 21 SURFACE SEAL

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to complete surface seal of all areas identified on the Project Plans and as directed by City Representatives. The work will include cleaning and routing out appropriate cracks, cleaning and sweeping, and applying crack seal to appropriate cracks.

Materials:

Mineral aggregate gradation will conform to MAG Standard Specifications Section 715, Table 715-1, Type II.

Crack seal will be Deery-Crafco 220 or approved equal.

Surface seal shall be Polymer Modified Rejuvenating Emulsion Fog Coat (PMRE) from EGRON, or approved equal.

Construction Requirements:

The work under this item will comply with MAG Standard Specifications Section 331 in its entirety.

Prior to surface seal, pavement is to be cleaned and routed for appropriate cracks, cleaned and swept, and crack sealed with Deery-Crafco 220 or approved equal.

Contractor shall seal all cracks having an average clear opening ¼" or greater. All cracks with an average clear opening of less than 1/4 inch shall not be sealed unless directed to do so by City Representatives. All cracks between asphalt and curb or gutter shall be sealed regardless of clear opening size unless directed by City Representatives. Contractor shall contact City Representatives for filling of cracks 2" or wider.

Immediately prior to applying the sealant, Contractor shall thoroughly clean cracks and remove any loose particles, grass, grass roots, weeds, dust and other deleterious substances by means of high velocity compressed air or other methods prior approved by City Representatives. The compressor used shall be capable of a sustaining a

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minimum pressure of 90 psi. The crack cleaning equipment shall be capable of cleaning cracks to a minimum depth of ½" and shall be capable of dust containment (typically by a vacuum apparatus) by filtering particulate matter 10 micrometers or less in diameter with no dust clouds visible to the naked eye as determined by the City Representative. The conventional method of openly blowing out cracks with compressed air with no dust containment shall not be an acceptable crack cleaning method.

Crack cleaning shall be inspected and approved by the City Representative prior to the application of crack sealant.

Contractor shall place sealant so as to completely fill the crack and form a lap of greater than 1" on each side. Immediately after the application, a rubber squeegee or other acceptable means shall be used to level the sealant flush with the existing pavement surface. After cooling, the sealant shall not shrink more than ¼" below the pavement surface.

Sealant shall be heated to between 325°F and 400°F (163°C and 204°C) for at least ½ hour prior to application. Sealant shall only be applied to clean, dry cracks that have been approved by the City Representative from the bottom up to the surface level. Contractor shall provide certificates on all temperature gauges. The dates of the certificates shall be within the previous three (3) month period.

The sealant shall be intended to be placed entirely within the crack. Blotter material may be required to prevent asphalt rubber bleed and/or pickup of sealant by vehicular traffic. Contractor shall install blotter material of a type acceptable to City and at the direction of the City Representative at no additional cost to the City. Typical blotter material shall be made up of sand/silica sand and cannot include powdered cement. Any blotter material must be pre-approved by the City Representative.

Measurement and Payment:

Surface Seal will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place.

No additional measurement or payment will be made for crack sealing, asphalt emulsion, blotter, and aggregate, the cost being considered incidental to this item.

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ITEM NO. 22 VERTICAL CURB & GUTTER, TYPE A, H=6 IN, MAG DET 220-1
ITEM NO. 23 CONCRETE DEEPENED CURB & GUTTER, TYPE A, H=6 IN, MODIFIED MAG DET 220-1
ITEM NO. 24 CONCRETE SINGLE CURB, TYPE A, H=4 IN, MAG DET 222
ITEM NO. 25 END OF MEDIAN RAMP, CITY DET C-225

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct new curb and gutter, single curb, and end median ramp at locations as specified in the Project Plans.

Materials:

Curb & Gutter and transitions will comply with MAG Details 220-1, 220-2, 221, and 222. Single Curb, Type A will conform to MAG Detail 222. End Median Ramp will comply with City Detail C-225.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 340 in its entirety, MAG Details 220-1, 220-2, and 222, special detail on project plans, and City Detail C-225. Concrete curb/curb and gutter transitions will be constructed in accordance with MAG Detail 221.

Measurement:

Vertical Curb & Gutter, Deepened Curb & Gutter, and Single Curb will be measured per linear foot, including median nose transitions and curb and gutter transitions. End of Median Ramp will be measured as a unit for each, including concrete median paving and concrete curbs at the end of median ramp.

Payment:

Vertical Curb & Gutter, Deepened Curb & Gutter, and Single Curb, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place.

End of Median Ramp, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including concrete median paving and concrete curb at the end of median ramp.

No additional payment will be paid for median nose transitions or curb/curb and gutter transitions, the cost being considered incidental to this item.

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ITEM NO. 26 CONCRETE HEADER (TO MATCH EXISTING)
ITEM NO. 27 CONCRETE HEADER (6 IN)

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to construct concrete header with a medium broom finish at the locations as specified in the Project Plans, including new medians and restoration of existing header curb impacted by the project improvements, and in accordance with the details shown on the Project Plans, these Technical Specifications, and the requirements of the MAG Standard Specifications.

Materials:

All materials will conform to MAG Standard Specifications Sections 342 in its entirety.

Construction Requirements:

The Contractor will be responsible for forming the concrete headers per the detail shown on the Project Plans and City Detail C-225. Prior to placing the concrete header, the Contractor will obtain approval from City Representatives for the finish and forming to ensure it is consistent with the layout as specified in the Project Plans and that the finish is acceptable prior to proceeding with the work.

All exposed edges will have a 1/4-inch radius.

Concrete Header (To Match Existing) and Custom Header Curb (Match In-Kind) shall match the style, color, and dimensions of the existing adjacent concrete header curb or the existing header curb that is being replaced.

Measurement and Payment:

Concrete Header will be measured by the linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work complete in place.

ITEM NO. 28 CONCRETE SIDEWALK, MAG DET 230

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary construct new concrete sidewalk per MAG Detail 230 at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 230 in their entirety, except as modified herein.

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Construction Requirements:

Comply with Section 4.72 of City of Chandler Engineering & Design Standards Manual and MAG Detail 230 in their entirety and all City of Chandler supplements, except as modified herein.

Measurement and Payment:

Concrete Sidewalk will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in place.

ITEM NO. 29 DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, COC DETAIL C-257

ITEM NO. 30 DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, COC DETAIL C-258-1

ITEM NO. 31 DIRECTIONAL CONCRETE CURB RAMP WITH DETECTABLE WARNING, COC DETAIL C-258-2

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment necessary to construct directional concrete curb ramps at locations as specified in the Project Plans.

Materials and Construction Requirements:

All materials and work will conform to City of Chandler (COC) Details C-257, C-258-1, C-258-2, and C-249 in their entirety, including all COC supplements, Section 4.7 of the COC Engineering and Design Standards Manual, and MAG Standard Specifications.

Detectable Warning will be per COC approved products list, Section 4.7.2 of the COC Engineering and Design Standards Manual, and Details C-257, C-258-1, C-258-2, and C-249.

The work under this item includes construction of the adjacent concrete sidewalk areas, concrete curb, and detectable warnings as shown per City Details C-257, C-258-1, C-258-2, and C-249, and as specified in the Project Plans and all City of Chandler supplements.

Measurement and Payment:

Directional Concrete Curb Ramps will be measured as a unit for each, including detectable warnings, additional sidewalk area, and concrete curb as specified in the Project Plans.

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The accepted quantities of Concrete Curb Ramps, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place.

No additional payment will be made for detectable warnings, additional sidewalk area or concrete curb, the cost being considered incidental to this item.

ITEM NO. 32 DRIVEWAY ENTRANCE, MAG DET. 250-2, RESIDENTIAL

Description:

The work under these items will consist of furnishing all materials, labor and equipment necessary construct new concrete driveway entrances at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 250-2 in its entirety.

Construction Requirements:

The work under these items will comply MAG Detail 250-2 in its entirety, except as specified in the Project Plans and all City of Chandler supplements

Measurement and Payment:

Driveway Entrances will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in place.

ITEM NO. 33 CONCRETE VALLEY GUTTER, MAG DET 240

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct new concrete apron and valley gutters at all locations as specified in the Project Plans.

Materials and Construction Requirements:

All materials and work will conform to MAG Detail 240 in its entirety, including all City of Chandler supplements except as modified herein.

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Measurement and Payment:

Concrete Valley Gutter will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, complete in place.

ITEM NO. 34 INTERLOCKING CONCRETE PAVERS

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to complete the installation of decorative interlocking concrete pavers within the medians or as otherwise as specified in the Project Plans.

Materials:

The Interlocking Concrete Pavers will be Acker-Stone Industries Street Stone I (3”x6”, 6”x6”) / Street Stone II (6”x9”) type, Gila River color, and Random Ashlar pattern, or approved equal per City of Chandler Approved Products List. All other materials will comply with MAG Detail 225.

Construction Requirements:

The work under this item will comply with MAG Detail 225 and COC Detail C-225. The subgrade surface, 4-inch aggregate base course (ABC) base, and 1-inch sand bedding will each be compacted to a density of not less than 95 percent of the maximum density as determined in accordance with the requirements of the applicable test methods of the ADOT Materials Testing Manual, as directed and approved by City Representatives.

A sample of the pavers and layout pattern will be submitted to the City of Chandler for approval at least two weeks before the start of work. Installation of decorative interlocking concrete pavers will not begin until the submitted samples and layout pattern have been approved by City Representatives.

Measurement and Payment:

Interlocking Concrete Pavers will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, compete in place, including samples, preparation of the subgrade, ABC base, sand and design of layout pattern.

ITEM NO. 35 ADJUST MANHOLE FRAME & COVER PER MAG DTL NO. 422 & MAG SPEC 345, WITH CONCRETE COLLAR PER COC DTL C-401

ITEM NO. 36 REMOVE AND REPLACE EXISTING CAST IRON MANHOLE FRAME AND COVER WITH COMPOSITE MANHOLE FRAME AND

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COVER PER COC DTL C-400, AND ADJUST TO GRADE PER COC DTL C-401, TYPE 'B'

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to remove and replace all existing sanitary sewer manhole frames and covers with composite manhole frames and covers and adjust them to match the final surface grade at all locations as specified in the Project Plans. This work will include application of a corrosion-protective coating system per City of Chandler Standard Detail C-401.

The Contractor shall comply with the City of Chandler Specifications for Corrosion-Protective Manholes. The City shall supply composite frame, cover, and grade rings to be installed by the Contractor as well as the construction of a new concrete collar. Training on the composite installation is required by the City prior to obtaining City supplied materials.

Materials:

All materials shall conform to City of Chandler Standard Details C-400 and C-401.

Corrosion-protective coating system materials in accordance with MAG Section 626 and City MAG Supplement Section 626 shall be one of the systems included on the City of Chandler list of approved products.

All composite adjustment ring materials shall comply with City of Chandler Standard Details C-400 and C-401 and the City of Chandler list of approved products.

The City shall supply the composite frame, cover, and grade rings to the Contractor.

Construction Requirements:

The work under this item will comply with City Details C-400 and C-401.

All manholes shall have a corrosion-protective coating system applied to all exposed surfaces, with the application completed in accordance with the manufacturer's specifications and the City of Chandler's specifications.

Measurement and Payment:

Remove & Replace Manhole Frame & Cover and Adjust to Grade will be measured as a unit per each and will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place.

No payment will be made to furnish manhole cover, to be provided to the Contractor by the City.

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ITEM NO. 37 ADJUST MANHOLE RIM PER RWCD DETAIL 37

Description:

The work under this item consists of furnishing all labor, equipment and materials necessary to adjust existing RWCD manholes at the locations and grades shown in the Project Plans.

Materials:

All materials will conform to detail RWCD-37.

Construction Requirements:

Comply with detail RWCD-47 in its entirety. All work on RWCD manholes is subject to the RWCD General Notes provided in the Project Plans.

Measurement:

Adjust Manhole Rim will be measured as each.

Payment:

The accepted quantities of Adjust Manhole Rim, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place.

ITEM NO. 38 ADJUST VALVE BOX & COVER, MAG DET 391 TYPE C WITH CONCRETE COLLAR PER COC STD DET C-307
ITEM NO. 39 ADJUST WATER METER BOX & COVER TO GRADE

Description:

This work shall consist of furnishing all labor, materials, and equipment necessary to reset frames and covers for proposed and existing water and reclaimed water valve boxes at all locations indicated on the Project Plans.

Materials:

All materials shall conform to MAG Uniform Standard Specifications Sections 610 and 630.

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Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 345 and 610, MAG Standard Detail 270 and 391-1 and 391-2, and City of Chandler Standard Details C-307, C-317, C-401 in their entirety, including all City of Chandler supplements except as modified herein.

Measurement:

Adjust Valve Box & Cover and Adjust Water Meter Box & Cover will be measured as a unit for each.

Payment:

The accepted quantities of Adjust Valve Box & Cover and Adjust Water Meter Box & Cover, measured as provided above, will be paid for at the contract unit price each which price shall be full compensation for the work, complete in place.

ITEM NO. 40 ADJUST ZAYO FIBER VAULT LID TO GRADE, PROTECT CONDUITS IN-PLACE

Description:

This work shall consist of furnishing all labor, materials, and equipment necessary to adjust the existing Zayo fiber vault lids to grade at all locations indicated on the Project Plans.

Materials:

All materials shall conform to Zayo construction requirements.

Construction Requirements:

Comply with Zayo and City of Chandler construction requirements for private fiber utilities. Existing Zayo conduits and fiber must be protected in-place.

Measurement:

Adjust Zayo Fiber Vault will be measured as a unit for each.

Payment:

The accepted quantities of Adjust Zayo Fiber Vault, measured as provided above, will be paid for at the contract unit price each which price shall be full compensation for the work,

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complete in place. No additional payment shall be made for coordination with Zayo, the cost being considered incidental to this item.

ITEM NO. 41 REMOVE PIPE, BACKFILL & COMPACT

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for the removal of abandoned pipes (all types) at locations as specified in the Project Plans or as directed by City Representatives, including, but not limited to, private irrigation pipelines along as specified in the Project Plans.

Construction Requirements:

Removal of abandoned pipes, backfilling, and compaction will comply with MAG Standard Specifications Section 350 in its entirety except as modified herein.

Measurement and Payment:

Remove Pipe, Backfill & Compact will be measured per linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place. No additional payment will be made for cutting, plugging, capping, backfilling, compaction, hauling, proper disposal, or temporary pavement, the cost being considered incidental to this item.

ITEM NO. 42 REMOVE ASPHALTIC CONCRETE PAVEMENT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing asphaltic concrete pavement and Portland cement concrete pavement at locations as specified in the Project Plans.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety.

Measurement and Payment:

Remove Asphaltic Concrete Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place.

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ITEM NO. 43 MILL AND REMOVE BITUMINOUS PAVEMENT, 2 IN

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for milling, removal, and disposal of existing bituminous pavement as well as cleaning, sweeping, and crack seal at locations as specified in the Project Plans.

Construction Requirements:

Mill, removal, and disposal of existing bituminous pavement at a depth of two inches will comply with MAG Standard Specifications Section 317 in its entirety.

The milled surface is to be cleaned to route out appropriate cracks. The surface is then to be cleaned and swept. Crack seal (Deery-Crafco 220 or approved equal) is to be applied to appropriate cracks to prepare for paving.

Contractor shall seal all cracks having an average clear opening ¼" or greater. All cracks with an average clear opening of less than 1/4 inch shall not be sealed unless directed to do so by City Representatives. All cracks between asphalt and curb or gutter shall be sealed regardless of clear opening size unless directed by City Representatives. Contractor shall contact City Representatives for filling of cracks 2" or wider.

Immediately prior to applying the sealant, Contractor shall thoroughly clean cracks and remove any loose particles, grass, grass roots, weeds, dust and other deleterious substances by means of high velocity compressed air or other methods prior approved by City Representatives. The compressor used shall be capable of a sustaining a minimum pressure of 90 psi. The crack cleaning equipment shall be capable of cleaning cracks to a minimum depth of ½" and shall be capable of dust containment (typically by a vacuum apparatus) by filtering particulate matter 10 micrometers or less in diameter with no dust clouds visible to the naked eye as determined by the City Representative. The conventional method of openly blowing out cracks with compressed air with no dust containment shall not be an acceptable crack cleaning method.

Crack cleaning shall be inspected and approved by the City Representative prior to the application of crack sealant.

Contractor shall place sealant so as to completely fill the crack and form a lap of greater than 1" on each side. Immediately after the application, a rubber squeegee or other acceptable means shall be used to level the sealant flush with the existing pavement surface. After cooling, the sealant shall not shrink more than ¼" below the pavement surface.

Sealant shall be heated to between 325°F and 400°F (163°C and 204°C) for at least ½ hour prior to application. Sealant shall only be applied to clean, dry cracks that have been approved by the City Representative from the bottom up to the surface level. Contractor shall provide certificates on all temperature gauges. The dates of the certificates shall be within the previous three (3) month period.

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The sealant shall be intended to be placed entirely within the crack. Blotter material may be required to prevent asphalt rubber bleed and/or pickup of sealant by vehicular traffic. Contractor shall install blotter material of a type acceptable to City and at the direction of the City Representative at no additional cost to the City. Typical blotter material shall be made up of sand/silica sand and cannot include powdered cement. Any blotter material must be pre-approved by the City Representative.

Measurement and Payment:

Mill and Remove Bituminous Pavement will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place, including all asphalt milling around structures, removal and disposal of milled materials, cleaning, sweeping, and crack sealing to prepare for paving.

ITEM NO. 44 REMOVE AND DISPOSE CONCRETE PAVERS

Description:

The work under this item shall consist of removal and disposal of existing concrete pavers as necessary for the accomplishment of the improvements shown on the Project Plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 350 in its entirety, including all City of Chandler supplements except as modified herein.

Measurement and Payment:

Remove Concrete Pavers will be measured by square foot and will be paid for at the contract unit price per square foot which price shall be full compensation for the work, complete in place. No additional payment will be made for excavation, backfilling, compaction, the cost being considered included in this item

ITEM NO. 45 REMOVE CONCRETE CURB AND CURB AND GUTTER
ITEM NO. 46 REMOVE CONCRETE HEADER
ITEM NO. 47 REMOVE CONCRETE DITCH AND BACKFILL & COMPACT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing concrete curb & gutter, header curb and concrete ditch at locations as specified in the Project Plans.

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Construction Requirements:

Removal and disposal will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing the identified concrete improvements in their entirety. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Removal of identified concrete improvements will be measured per linear foot and will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, including all removals, disposals, backfilling, and compaction, complete in place.

ITEM NO. 48 REMOVE CONCRETE SIDEWALKS, DRIVEWAYS, AND SLABS
ITEM NO. 49 REMOVE VALLEY GUTTER

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing concrete sidewalks, driveways, slabs, and valley gutters at locations as specified in the Project Plans.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, except as modified herein.

The Contractor will be responsible for removing and disposal of the identified concrete improvements in their entirety. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove Concrete Sidewalk, Driveway, Slabs, and Valley Gutter will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the work, including all removals, disposals, backfilling, and compaction, complete in place.

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ITEM NO. 50 REMOVE DIRECT BURY POLE, MAST ARM, AND FIXTURE
ITEM NO. 51 REMOVE FIXTURE, POLE, MAST ARM, AND FOUNDATION

Description:

The work under this item will include the furnishing of all materials, equipment and labor for removing Streetlight poles, mast arms, fixtures, foundations, and equipment within the project limits.

Construction Requirements:

The Contractor will coordinate all work associated with the streetlight systems (i.e. de-energizing the system, etc.) with SRP Power. The Contractor will be responsible for removing all existing Streetlight poles, luminaires, mast arms, and associated appurtenances within the project limits. All associated street light material and equipment, including poles, will be disposed of by the Contractor at their expense.

The Contractor will backfill the excavated area per MAG Standard Specifications Section 350.

Measurement:

Remove Direct Bury Pole and Mast Arm, Remove Luminaire and Mast Arm from Traffic Signal Pole, and Remove Fixture, Pole, Mast Arm and Foundation will be measured as a unit for each light pole removed including luminaires, mast arms, and associated appurtenances.

Payment:

The accepted quantities of Remove Direct Bury Pole and Mast Arm, Remove Luminaire and Mast Arm from Traffic Signal Pole, and Remove Fixture, Pole, Mast Arm and Foundation, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be paid for the disposal of removed materials, the cost considered being included in this bid item.

ITEM NO. 52 REMOVE EXISTING HPS FIXTURE

Description:

The work under this item will include the furnishing of all materials, equipment and labor for removing and disposing of existing high pressure sodium light fixtures within the project limits.

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Construction Requirements:

The Contractor will coordinate all work associated with the streetlight systems (i.e. de-energizing the system, etc.) with SRP Power. The Contractor will be responsible for removing all existing luminaires within the project limits. All associated light material will be disposed of by the Contractor at their expense.

Measurement:

Remove Existing HPS Fixture will be measured as a unit for each light fixture removed.

Payment:

The accepted quantities of Remove Existing HPS Fixture, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be paid for the disposal of removed materials, the cost considered being included in this bid item.

ITEM NO. 53 RELOCATE EXISTING PRIVATE LIGHTS

Description:

The work under this item will include the furnishing of all materials, equipment and labor for removing and relocating existing private lights, including foundations, poles, mast arms, fixtures, pull boxes, and associated electrical equipment to match existing or approved equal as noted on the plans for APN 304-81-996. Contractor shall clearly identify existing condition of the lights prior to removal and/or construction.

Construction Requirements:

The Contractor will coordinate all work associated with the streetlight systems (i.e. de-energizing the system, etc.) with SRP Power and the private property owner, as applicable. The Contractor will be responsible for removing and relocating all existing private light poles, foundations, luminaires, mast arms, pull boxes and associated appurtenances within the project limits, as indicated on the project plans. The contractor must pour new foundations for the relocated private lights to match the existing foundations or an approved equal.

Relocate Existing Private Lights will comply with MAG Standard Specifications Section 350 in its entirety. The Contractor will backfill the excavated area per MAG Standard Specifications Section 350.

If an approved equal is selected in lieu of relocating the existing lights, the contractor will

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verify if the property owner wants the existing lights returned to their possession. If the property owners do not want the existing lights, contractor to haul off and dispose.

Measurement:

Relocate Existing Private Lights will be measured as a unit for each light pole relocated including foundations, luminaires, mast arms, and associated appurtenances.

Payment:

The accepted quantities of Relocate Existing Private Lights, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be paid for mounting, hardware, paint, appurtenances, private electrical connections, or private light disposal, should an approved equal be constructed. These costs will be considered incidental to this item.

ITEM NO. 54 REMOVE PULL BOX

Description:

The work under this item shall consist of the removal and disposal of pull boxes at the locations as shown on the project plans and as specified herein.

Construction Requirements:

The removal of pull boxes will only occur after all cables and conductors have been removed from the conduits entering and exiting the pull box. The contractor will remove and dispose of the existing pull boxes. After the pull box has been removed, the excavated area shall be completely backfilled and compacted and returned to its former state before removal. Excavation, backfill and compaction shall conform to the requirements of MAG Standard Specifications Section 350.

Measurement:

Remove Pull Box will be measured per each pull box removed.

Payment:

Remove Pull Box, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place.

No additional measurement or payment will be made for disposal off-site of the pull box, removal of cables, conductors, and conduit, backfill and compaction, the cost being considered as included in the price of the contract item.

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ITEM NO. 55 REMOVE AND SALVAGE SIGN ASSEMBLY

Description:

The work under this item consists of furnishing all equipment, labor, and materials necessary to removal and salvage existing signs at locations as specified in the Project Plans or directed by City Representatives.

Construction Requirements:

The Contractor will be responsible for removing, salvaging, storing, and delivering the identified existing signs, and if necessary, removing the existing sign foundation, sign post, hardware and appurtenances and salvaging as required.

At least two week prior to removal of signs, the Contractor will make arrangements for the City Representative to inspect all items to determine which items are salvageable. Any items not salvageable, as determined by the City, will be disposed of by the Contractor at his expense. All salvaged items will be returned to the City of Chandler storage yard at 1800 S/ McQueen Road, Chandler, Arizona. Any items determined to be salvageable prior to removal and then damaged during the removal or delivery will be replaced at no cost to the City.

The work shall include any necessary excavation and backfilling, to remove foundation and to return the existing ground to its former state before removal. The Contractor shall completely backfill and compact the foundation excavation area in accordance with the City requirements and MAG Standard Specifications Section 350.

The Contractor will utilize the existing stop signs and other signing items instead of temporary signing at those locations as much as possible until the existing signing items are no longer determined to be necessary. All items to be removed and which will not be incorporated into the new work, will be removed in a manner which will not produce unnecessary damage or disturbance. The Contractor will not disturb any other signs, sign posts, foundations, or object marks, not specifically indicated on the Projects Plans or in the technical specifications to be removed unless otherwise direction by City Representatives.

Any items which are not identified to be removed but which are damaged as a result of the construction will be replaced at the Contractor’s expense.

Measurement and Payment:

Remove and Salvage Sign will be measured as a unit for each and will be paid for at the contract unit price per each, which price shall be full compensation for the work, complete in place.

No additional payment will be made for hauling, storing, delivery, removal, or disposal offsite of the signs, sign posts, foundations, hardware, backfill and compaction, the cost being considered incidental to this item.

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ITEM NO. 56 REMOVE FENCE
ITEM NO. 57 REMOVE WALL
ITEM NO. 58 REMOVE GATE

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of existing fences, walls and gates at locations as specified in the Project Plans, including all appurtenance, such as, but not limited to foundations, hardware, and termination of electrical.

Construction Requirements:

The work under these items will comply with MAG Standard Specifications Section 350 in its entirety, including all except as modified herein.

The Contractor will remove the fences, walls, and gates, including foundations, hardware, posts, lighting, and backfill, compaction, and disposal.

The Contractor will be required to notify property owners 30 days prior to wall removal and coordinate materials to be salvaged to the property owner including but not limited to existing light fixtures, existing wrought iron, and other existing features.

The Contractor will remove the segment of existing power feed (to wall lighting) that is in conflict with the project improvements and terminate beyond the alignment of the new wall.

The Contractor will not remove existing fences and gates until new or temporary fence and gates have been fully erected, except as needed to construct new fence and gate connections to existing fence.

Measurement:

Remove Fence and Remove Wall will be measured per linear foot along the center of the fence or wall.

Remove Gate will be measured as a unit for each, including hardware, posts, foundations, backfill, compaction and disposal.

Payment:

The accepted quantity of Remove Fence and Remove Wall, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place.

The accepted quantity of Remove Gate, measured as provided above, will be paid for at the contract unit price for each, which price will be full compensation for the work, complete in place.

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No separate payment will be made for the removal, disposal, or salvage of hardware, posts, lighting, hardware, and foundations, backfill and compaction, removal of existing power feed and termination beyond the alignment of the new wall, the cost being considered incidental to this item.

ITEM NO. 59 RELOCATE FENCE
ITEM NO. 60 RELOCATE PRIVATE GATE
ITEM NO. 61 RELOCATE HORSE STEPOVER GATE

Description:
The work under this item consists of furnishing all equipment, labor, and materials necessary to remove and relocate the existing private gates, including mounting assembly, lighting, fixtures, conduit, foundations, key pads, call boxes, automatic gate operators/openers, remotes, and associated electrical equipment to match existing or approved equal at the following locations:

- North and south driveways of APN 304-81-011A (vehicle gates)
- South driveway of APN 304-81-996 (pedestrian gate)
- APN 304-81-996 near Cloud Rd (horse stepover gate)
- Driveway of APN 304-81-988A (vehicle gate)

The work under this item also consists of furnishing all equipment, labor, and materials necessary to remove and relocate the existing private fencing and livestock guards along the frontage of APN 304-81-996, including but not limited to fence panels, mounting assembly, anchors, foundations, livestock guards, and all other associated appurtenances.

Construction Requirements:
The work under these items will comply with MAG Standard Specifications Section 350 in its entirety.

Contractor shall clearly identify existing condition of the gates and fencing at least 30 days prior to removal, relocation and/or construction to ensure that the existing gates and fencing can be removed and reinstalled in the proposed location. If the existing gates and fencing are not suitable to be relocated or there are issues, the Contractor will notify the City immediately.

The Contractor will be required to notify property owners and the City 30 days prior to gate or fence relocation and coordinate materials to be salvaged to the property owner, if any, including but not limited to existing light fixtures, existing wrought iron, existing fence portions, and other existing features. The Contractor is required to coordinate with private property owners during construction, including but not limited to before gate removal and before gate re-installation.

If an approved equal is selected in lieu of relocating the existing gate or fence, the

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Contractor will verify if the property owner wants the existing gate or fence returned to their possession. If the property owners do not want the existing gate or fence, Contractor to haul off and dispose.

The Contractor will not relocate existing fences and gates until temporary fence and gates have been fully erected.

Measurement and Payment: Relocate Private Gate and Relocate Horse Stepover Gate will be measured by each and will be paid for as such, which price will be full compensation for the work, complete in place. Relocate Fence will be measured per linear foot along the center of the fence and will be paid for as such, which price will be full compensation for the work, complete in place.

No additional payment will be made for mounting, hardware, paint, appurtenances, private electrical connections, automatic gate operators/openers, keypads, call boxes, and gate or fence disposal, should an approved equal be constructed. These costs will be considered incidental to this item.

ITEM NO. 62 REMOVE CATCH BASIN
ITEM NO. 63 REMOVE CONCRETE SCUPPER

Description:

The work under these items will consist of furnishing all materials, labor, and equipment for the removal and disposal of scuppers and catch basins at locations as specified in the Project Plans.

Construction Requirements:

Removal and disposal of scuppers and catch basins will comply with MAG Standard Specifications Section 350 in its entirety, including all except as modified herein. The work includes removal and disposal of the grates, backfill and compaction of the excavated area.

Measurement and Payment:

Remove Catch Basin and Remove Concrete Scupper will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for removal and disposal of the grates, backfill and compaction of the excavated area, the cost being considered included in this item.

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ITEM NO. 64 REMOVE EXISTING RIPRAP

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment for the removal and disposal of existing riprap at locations as specified in the Project Plans.

Construction Requirements:

Removal and disposal of riprap will comply with MAG Standard Specifications Section 350 in its entirety.

Measurement and Payment:

Remove Riprap will be measured per square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the work, complete in place. No additional payment will be made for the disposal of riprap, the cost being considered incidental to this item.

ITEM NO. 65 REMOVE AND SALVAGE TRAFFIC SIGNAL

Description:

The work under this item will consist of furnishing of all materials, labor, and equipment for removing and salvaging traffic signals, including the foundations, poles, luminaires, mast arms, vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, interconnect cabling, interconnect pull boxes, and incidental traffic signal equipment.

Construction Requirements:

At least two weeks prior to removals, the Contractor and City Representative will inspect all traffic signals and equipment to determine which items are salvageable.

Prior to the delivery of any salvaged material or equipment, the Contractor will make arrangements for the City to inspect all items. Any material or equipment not salvageable, as determined by the City, will be disposed of by the Contractor at his expense. Any items determined to be salvageable prior to removal and then damaged during the removal will be replaced at no cost to the City.

The Contractor will remove the existing interconnect cabling and interconnect pull boxes at locations as specified in the Project Plans.

The Contractor will be responsible for removing all existing traffic signal foundations,

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poles, luminaires, mast arms, vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, interconnect cabling, interconnect pull boxes, and incidental traffic signal equipment at locations as specified in the Project Plans. All salvaged luminaires, mast arms, and poles will be returned to the City of Chandler storage yard at 1800 S. McQueen Road, Chandler, Arizona. All remaining traffic signal components, including but not limited to vehicular and pedestrian signal heads, mounting assemblies, video detection, emergency preemption, are to be salvaged and delivered to the Operations Yard at 249 E. Chicago Street, Chandler, Arizona.

Pole foundations will be removed completely. The Contractor will backfill the excavated area per the City's requirements for backfilling and compaction.

Measurement and Payment:

Remove and Salvage Traffic Signals will be measured as a single complete unit of work and paid for at the contract lump sum price, which price will be full compensation for the work, complete in place, including delivery and disposal.

ITEM NO. 66 REMOVE AND DISPOSE MAILBOX

Description:

The work under this item will consist of furnishing all materials, labor, and equipment for removing mailboxes at locations as specified in the Project Plans or as directed by City Representatives. Foundation removal, if required, will also be included in this work.

Construction Requirements:

Remove mailboxes will comply with MAG Standard Specifications Section 350 in its entirety.

Prior to the removal of mailboxes, the Contractor will make arrangements for the City to inspect all items. Any mailboxes deemed not salvageable, as determined by the City, will be disposed of by the Contractor at his expense.

The work under this item will also include the removal of foundations, backfill, and compaction.

For each mailbox, the Contractor shall protect-in-place the existing mailbox or provide a temporary mailbox during construction as directed by the United States Postal Service (USPS), until the permanent mailbox is installed. If a temporary mailbox is installed, the Contractor shall coordinate with the USPS prior to removal of the existing mailbox to ensure continued mail service throughout construction duration. Temporary mailboxes shall be of a similar size to the existing mailbox.

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Measurement:

Remove and Dispose Mailbox will be measured as a unit for each mailbox removed including foundation, appurtenances, backfill and compaction, and disposal.

Payment:

The accepted quantities of Remove and Dispose Mailboxes, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be paid for foundation removal, backfill, compaction, and disposal of removed items, the cost being considered incidental to this item.

No additional payment will be paid for materials or installation of temporary interim mailboxes or USPS coordination, the costs being considered incidental to this item.

ITEM NO. 67 REMOVE EXISTING WATER METER
ITEM NO. 68 REMOVE EXISTING BACKFLOW PREVENTER
ITEM NO. 69 REMOVE EXISTING FLUSHING PIPE ASSEMBLY
ITEM NO. 70 REMOVE EXISTING FIRE HYDRANT

Description:

The work under this item shall consist of removal of existing water meters, existing backflow preventer assemblies, existing fire hydrants, and existing fire department connections necessary for the accomplishment of the improvements as shown on the project plans.

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 350 in its entirety, including all City of Chandler supplements except as modified herein.

Measurement:

The above items shall be measured by the each.

Basis of Payment:

The accepted quantities of the above items measured as provided above, will be paid for at the contract unit price per each which price shall be full compensation for the work, complete in place.

ITEM NO. 71 ABANDON EXISTING WATERLINE, LOCATE TEE, DISCONNECT STUB FROM TEE, PLACE MJ PLUG, AND ABANDON WATER

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VALVE PER DETAIL ON SHEET 132

Description:

The work under this item will include the furnishing of all materials, personnel, and equipment necessary to abandon existing waterlines of the sizes and materials at the locations shown on the Project Plans.

Work includes abandoning existing water stubs by locating the existing tee, removing the valve, and installing a mechanical joint plug. The contractor shall abandon the existing valve as shown on the project plans.

Construction Requirements:

All work and materials will comply with MAG Specification Section 350 and appropriate City of Chandler Supplements, except as modified herein.

The Contractor will expose the stub connection at tees/crosses/valve and disconnect pipe from valve, install blind flange or mechanical joint plug. The remaining water or reclaimed water stub will be abandoned in-place. Exposed pipe ends will be capped with concrete.

No field cuts of restrained pipe are permitted without prior approval of City Representatives.

Restrained joints for fittings will be mechanical joint fittings with wedge-type mechanical pipe-grippers or flange. The wedges will be ductile iron heat treated to a minimum hardness of 370 BHN. The mechanical joint restraint will have a working pressure of 350 psi.

All pipe and fittings will be wrapped in a polyethylene sleeve.

Potable waterline work will require preparation and adherence to a Maintenance of Plant Operation (MOPO). Work for this will be included under the MOPO item.

Measurement:

The above item will be measured by the each. There will be no measurement for fittings, thrust blocks, adaptors, couplings, polywrap, testing, or other materials and labor needed to abandon the existing potable water and reclaimed water stubs, unless otherwise quantified in the bid schedule, these items will be considered incidental to this item.

Additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason in order to abandon the existing potable water and reclaimed water stubs will be included in the measurement for this item.

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Payment:

The accepted quantities, measured as provided above, will be paid for at the contract unit price per each as indicated above, which price will be full compensation for the item, complete in place. There will be no additional payment for restrained joints, fittings, thrust blocks, adaptors, couplings, temporary paving, or other materials and labor needed to abandon the existing potable water and reclaimed water stubs as shown on the Project Plans, the cost of these items will be considered incidental to this item.

No payment will be made for additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason in order to abandon the existing potable water and reclaimed water stubs as shown on the Project Plans.

ITEM NO. 72 METAL MAILBOX AND POST

Description:

The work under this item will consist of furnishing all materials, labor, and equipment to replace mailboxes at locations as specified in the Project Plans or as directed by City Representatives. Foundation replacement, if required, will also be included in this work.

Construction Requirements:

The work under this item will also include new foundations for the relocated mailboxes and any appurtenances necessary for installation at new location.

For each mailbox, the Contractor shall protect-in-place the existing mailbox or provide a temporary mailbox during construction as directed by the USPS, until the permanent mailbox is installed. If a temporary mailbox is installed, the Contractor shall coordinate with the USPS prior to removal of the existing mailbox to ensure continued mail service throughout construction duration. Temporary mailboxes shall be of a similar size to the existing mailbox.

Measurement:

Metal Mailbox and Post will be measured as a unit for each mailbox replaced, including foundation and appurtenances.

Payment:

The accepted quantities of Metal Mailbox and Post, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

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No additional payment will be paid for new foundation or appurtenances, the cost being considered incidental to this item.

No additional payment will be paid for materials or installation of temporary interim mailboxes or USPS coordination, the costs being considered incidental to this item.

ITEM NO. 73 COMBINED MASONRY MAILBOX AND FOUNDATION
ITEM NO. 74 COMBINED MASONRY MAILBOX AND FOUNDATION (MATCH IN-KIND)

Description:

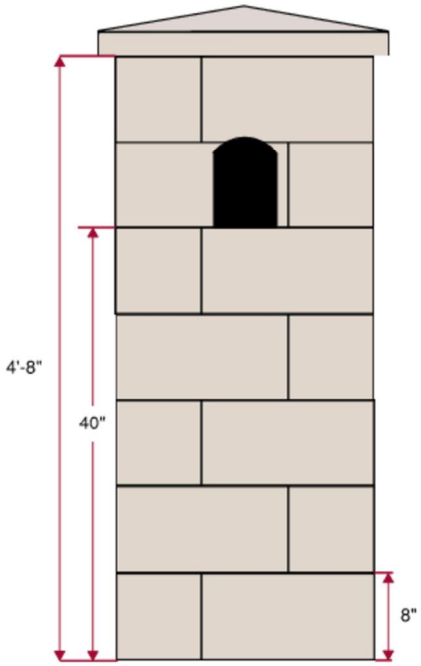
The work under this item will consist of furnishing all equipment, labor, and materials necessary to install new combined mailboxes and foundations within the project limits as shown on the Project Plans or directed by City Representatives. Masonry mailboxes will serve the following properties and be installed in the locations as shown on the Project Plans:

- APN 304-81-994
- APN 304-81-999
- APN 304-81-993
- APN 304-81-996 (Match Color and Style In-Kind to Existing)

Construction Requirements:

The Contractor will submit shop drawings to the City Representative for review and approval of each mailbox installation 30 days prior to any removals. Masonry mailboxes for APNs 304-81-994, -999, and -993 should match the style and color of the concrete masonry wall that will be constructed in front of those properties. A concept of the style and color for these is included below, but is not to be used in place of a shop drawing:

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CONCRETE MASONRY MAILBOX
(CONCEPTUAL LAYOUT, SUBJECT TO US POSTAL SERVICE COORDINATION)

COLOR TO MATCH SMOOTH FACE BLOCK USED IN CITY-STANDARD CONCRETE MASONRY WALL
(WALNUT CREEK BY ECHELON OR APPROVED EQUAL)

The masonry mailbox for APN 304-81-996 shall match the height, size, color, and style of the existing masonry mailbox in-kind. The Contractor will submit shop drawings to the City Representative for review and approval of this mailbox installation 30 days prior to any removals.

The Contractor will contact the local Postmaster for the correct height and set back before installing mailboxes at the new locations.

Mailbox installation will include concrete foundation with minimum Class A concrete and follow approved Postmaster details. The Contractor will coordinate with the Postmaster for an approved detail to serve the described properties prior to construction.

For each mailbox, the Contractor shall protect-in-place the existing mailbox or provide a temporary mailbox during construction as directed by the USPS, until the permanent

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mailbox is installed. If a temporary mailbox is installed, the Contractor shall coordinate with the USPS prior to removal of the existing mailbox to ensure continued mail service throughout construction duration. Temporary mailboxes shall be of a similar size to the existing mailbox.

Measurement:

The items listed above will be measured as a unit for each combined mailbox constructed, including backfill and compaction, foundations, and materials.

Payment:

The accepted quantities of the items listed above, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place.

No additional payment will be paid for materials or installation of temporary interim mailboxes or USPS coordination, the costs being considered incidental to this item.

ITEM NO. 75 CLUSTER MAILBOX UNIT AND FOUNDATION

Description:

The work under this item will consist of furnishing all equipment, labor, and materials necessary to install new cluster mailbox units and its foundation within the project limits as shown on the Project Plans or directed by City Representatives. Cluster mailboxes will serve the following properties and be installed in the locations as shown on the Project Plans:

Four (4) properties east of Lindsay Road and Horseshoe Drive will be served by a cluster mailbox unit located east of the northeast corner of Lindsay Road and Horseshoe Drive. These properties are currently served by individual mailboxes on the east side of Lindsay Road at approximately Station 231+00. The APNs that will be served by this cluster mailbox unit are: 304-75-010M, 304-75-010N, 304-75-010P, and 304-75-010Q.

Note that APN 304-75-010T, which directly fronts Lindsay Road, will not be served by this cluster mailbox unit and foundation, but will have its own individual metal mailbox and post.

Construction Requirements:

The Contractor will submit shop drawings to the City Representative for review and approval of each mailbox installation 30 days prior to any removals.

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The Contractor will contact the local Postmaster for the correct height and set back before installing mailboxes at the new locations.

Mailbox installation will include concrete foundation with minimum Class A concrete and follow approved Postmaster details. The Contractor will coordinate with the Postmaster for an approved detail to serve the described properties prior to construction.

For each mailbox, the Contractor shall protect-in-place the existing mailbox or provide a temporary mailbox during construction as directed by the USPS, until the permanent mailbox is installed. If a temporary mailbox is installed, the Contractor shall coordinate with the USPS prior to removal of the existing mailbox to ensure continued mail service throughout construction duration. Temporary mailboxes shall be of a similar size to the existing mailbox.

Measurement:

The item listed above will be measured as a unit by each Cluster Mailbox Unit and Foundation constructed, including backfill and compaction, foundations and materials.

Payment:

The accepted quantities of the item listed above, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place.

No additional payment will be paid for materials or installation of temporary interim mailboxes or USPS coordination, the costs being considered incidental to this item.

ITEM NO. 76 RELOCATE RWCD IRRIGATION WATER ORDER BOX

Description:

The work under this item consists of furnishing all equipment, labor, and materials necessary to remove and reinstall the existing RWCD Irrigation water order sign-up box located at Lindsay Road and Cloud Road in front of the existing RWCD gates. The box shall be reinstalled at the location specified in the Project Plans or as directed by City or RWCD Representatives.

Construction Requirements:

The Contractor will be responsible for removing and reinstalling the existing RWCD order sign-up box, and if necessary, removing the existing foundation, sign post, hardware and appurtenances and reinstalling the order box on new sign post and foundation with new

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hardware and appurtenances.

The work under this item will comply with MAG Standard Specifications Section 350 and all RWCD requirements.

45 days prior to the removal of the order sign-up box, the Contractor will coordinate with RWCD to inspect the order sign-up box to be removed. If the box is deemed not salvageable, as determined by the RWCD Representative, it will be disposed of and a new order box shall be furnished and installed. If the order box is damaged during removal or storage, it will be replaced at no cost to the City or RWCD.

Measurement and Payment:

Remove and Reinstall Sign will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for new hardware, appurtenances, post, foundation, backfill, compaction or disposal, the cost being considered incidental to this item.

ITEM NO. 77 REMOVE AND REINSTALL SIGN

Description:

The work under this item consists of furnishing all equipment, labor, and materials necessary to remove and reinstall existing signs at locations as specified in the Project Plans or directed by City Representatives.

Construction Requirements:

The Contractor will be responsible for removing, storing, and reinstalling the identified existing signs, and if necessary removing the existing sign foundation, sign post, hardware and appurtenances and reinstalling sign to a new sign post and foundation or light pole with new hardware and appurtenances.

The work under this item will comply with MAG Standard Specifications Section 350 and City of Chandler Standard Detail C-613.

Prior to the removal of signs, the Contractor will make arrangements for the City Representative to inspect all signs to be removed. Any signs deemed not salvageable, as determined by the City Representative, will be disposed of by the Contractor at his expense. Any signs damaged during removal or storage will be replaced at no cost to the City.

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Measurement and Payment:

Remove and Reinstall Sign will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for new hardware, appurtenances, sign post, foundation, backfill, compaction or disposal, the cost being considered incidental to this item.

ITEM NO. 78 TRAFFIC CONTROL

Description:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Construction Requirements:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Measurement:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

Payment:

Traffic Control is per City's General Conditions and MAG Uniform Standard Details for Public Works Construction, Section 401 "TRAFFIC CONTROL".

ITEM NO. 79 UNIFORMED OFF-DUTY LAW ENFORCEMENT OFFICER

Description:

The work under this item will consist of coordinating, scheduling, and utilizing Local Law Enforcement Officers for traffic control purposes, as required by the City. The Contractor is encouraged to first utilize City of Chandler officers for off-duty law enforcement officer services. Should City of Chandler officers not be available for the time(s) requested by the Contractor, the Contractor may utilize officers from other jurisdictions with prior approval by City Representatives. In all cases, the Contractor will be responsible for obtaining, coordinating, and paying all costs for local enforcement officers and their vehicles.

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Construction Requirements:

A uniformed off-duty law enforcement officer shall not be scheduled to work more than 12 consecutive hours unless an emergency exists. In an emergency situation, the Contractor shall coordinate with the officer to remain in their current capacity until another officer can take over.

Measurement:

Off-duty officer services will be measured for each hour a uniformed off-duty law enforcement officer and authorized vehicle is employed directly by the Contractor and authorized in advance by the City Representative. Off-duty officer services will be rounded to the nearest hour.

Uniformed off-duty law enforcement officer services used outside the project limits will not be reimbursed under this item. The project limits are defined as the construction work zone as shown on the approved traffic control plan for the specific area under construction.

Payment:

The accepted quantities of Uniformed Off-Duty Law Enforcement Officer, measured as provided above, will be paid for at the contract unit price per hour, which price will be full compensation for the work, complete in place, including vehicle and workman's compensation.

ITEM NO. 80 SURVEY MARKER, TYPE A, MAG DET 120
ITEM NO. 81 SURVEY MARKER, TYPE B, MAG DET 120

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary install survey markers, of the type indicated, at all locations as specified in the Project Plans.

Materials:

All materials will conform to MAG Detail 120.

Construction Requirements:

The work under this item will comply with MAG Detail 120 in its entirety, including all City of Chandler supplements except as modified herein.

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Measurement and Payment:

Survey Marker will be measured as a unit for each and will be paid for at the contract unit price.

ITEM NO. 82 6 FT HIGH CHAIN LINK FENCE, ADOT STD DWG C-12.20, TYPE 1
ITEM NO. 83 CHAIN LINK GATE, ADOT STD C-12.20

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct new chain link fence and gates at all locations as specified in the Project Plans. The gate widths called out on the Project Plans are measured from center of attachment post to center of attachment post, not from hinge to hinge.

Materials:

All materials will conform to ADOT Standard Specifications Section 903.

Construction Requirements:

Comply with ADOT STD C-12.20.

Measurement:

Chain Link Fence will be measured per linear foot, including excavation, backfill, compaction, foundations, posts, post caps, hardware, paint, and appurtenances necessary to construct fence.

Chain Link Fence Gate will be measured as a unit for each, including excavation, backfill, compaction foundations, posts, post caps, hardware, paint, and appurtenances.

Payment:

The accepted quantities of Chain Link Fence, a measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place.

The accepted quantities of Chain Link Fence Gate, a measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for excavation, backfill, compaction, foundations, posts, post caps, hardware, paint, and appurtenances, the cost be considered incidental to this item.

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ITEM NO. 84 CORRAL FENCE (MATCH-IN-KIND) (APN 304-81-996)
ITEM NO. 85 CORRAL GATE (MATCH-IN-KIND) (APN 304-81-996)

Description:

This work will consist of furnishing all labor, materials, and equipment necessary to construct new corral fences and gates and connect to existing for APN 304-81-996.

Materials:

All materials will match existing. The Contractor will submit shop drawings to City Representative for approval.

Construction Requirements:

The Contractor will comply with shop drawing submittal approved by City Representative. Gate color, height, and style shall match existing. Note that gate width varies by location and does not always match existing. Width is shown on the Project Plans. The gate widths called out on the Project Plans are measured from center of attaching post to center of attaching post, not from new gate hinge to new gate hinge.

Measurement:
Corral Fence will be measured per linear foot, including excavation, foundations, posts, braces, and hardware.

Corral Gate will be measured as a unit for each, complete in place.

Payment:
The accepted quantities of Corral Fence (Match-in-Kind), measured as provided above, will be paid for at the contract unit price per linear foot which price will be full compensation for the work, complete in place.

The accepted quantities of Corral Gate (Match-in-Kind), measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place.

ITEM NO. 86 AUTOMATIC SWING GATE (SOLID INFILL)
ITEM NO. 87 MANUAL SWING GATE (SOLID INFILL)
ITEM NO. 88 AUTOMATIC SWING GATE (WROUGHT IRON)
ITEM NO. 89 MANUAL SWING GATE (WROUGHT IRON)
ITEM NO. 90 HALF AUTOMATIC, HALF MANUAL SWING GATE (SOLID INFILL) (APN 304-81-993)
ITEM NO. 91 AUTOMATIC SWING GATE AND BRICK PILASTERS (MATCH COLOR AND STYLE IN-KIND) (APN 304-81-996)

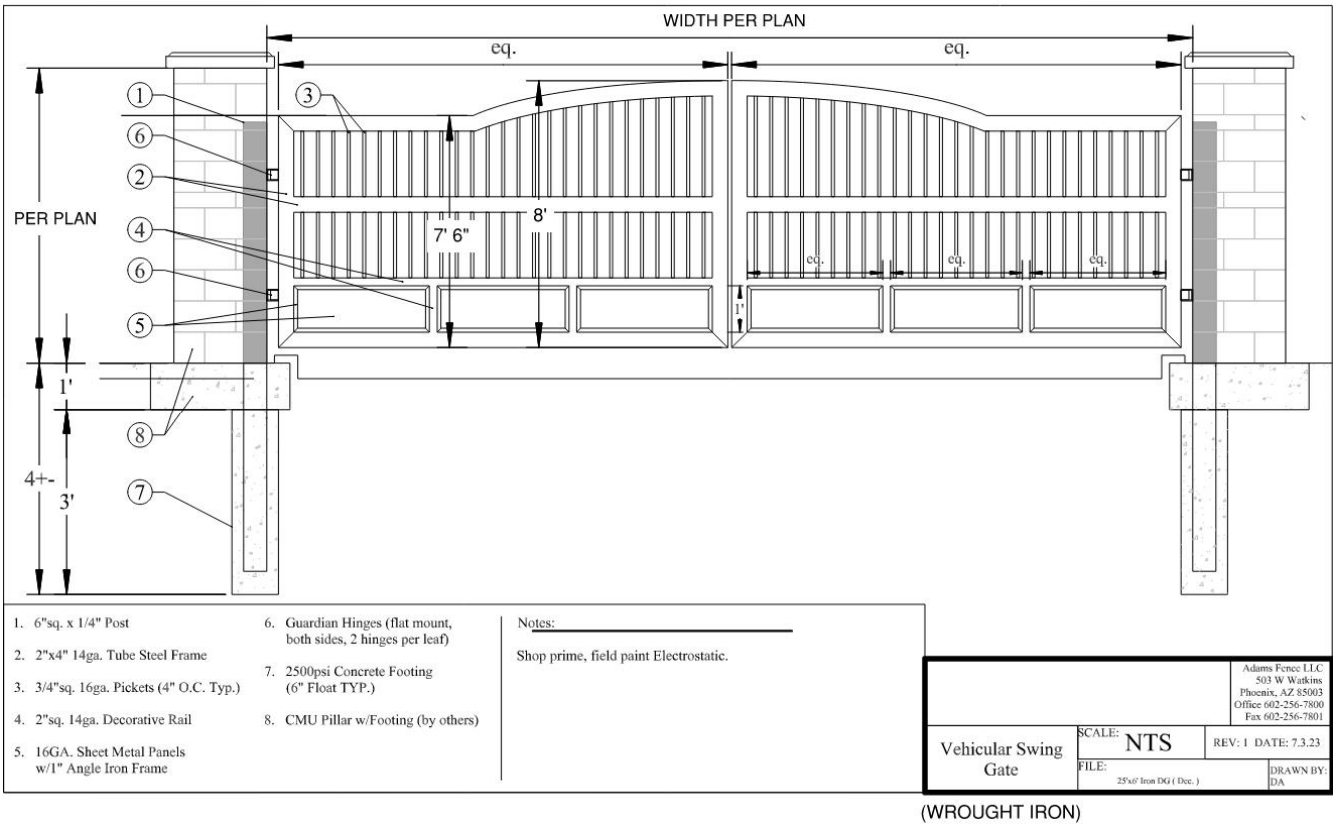
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Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct new gates for private property entrances, including mounting assemblies, lighting (for gate locations that already have existing lighting), foundations, footings, fixtures, gate operators (for automatic gates), conduit, call boxes, pull boxes, key pads (for gate locations that have existing key pads), remotes, and associated electrical equipment.

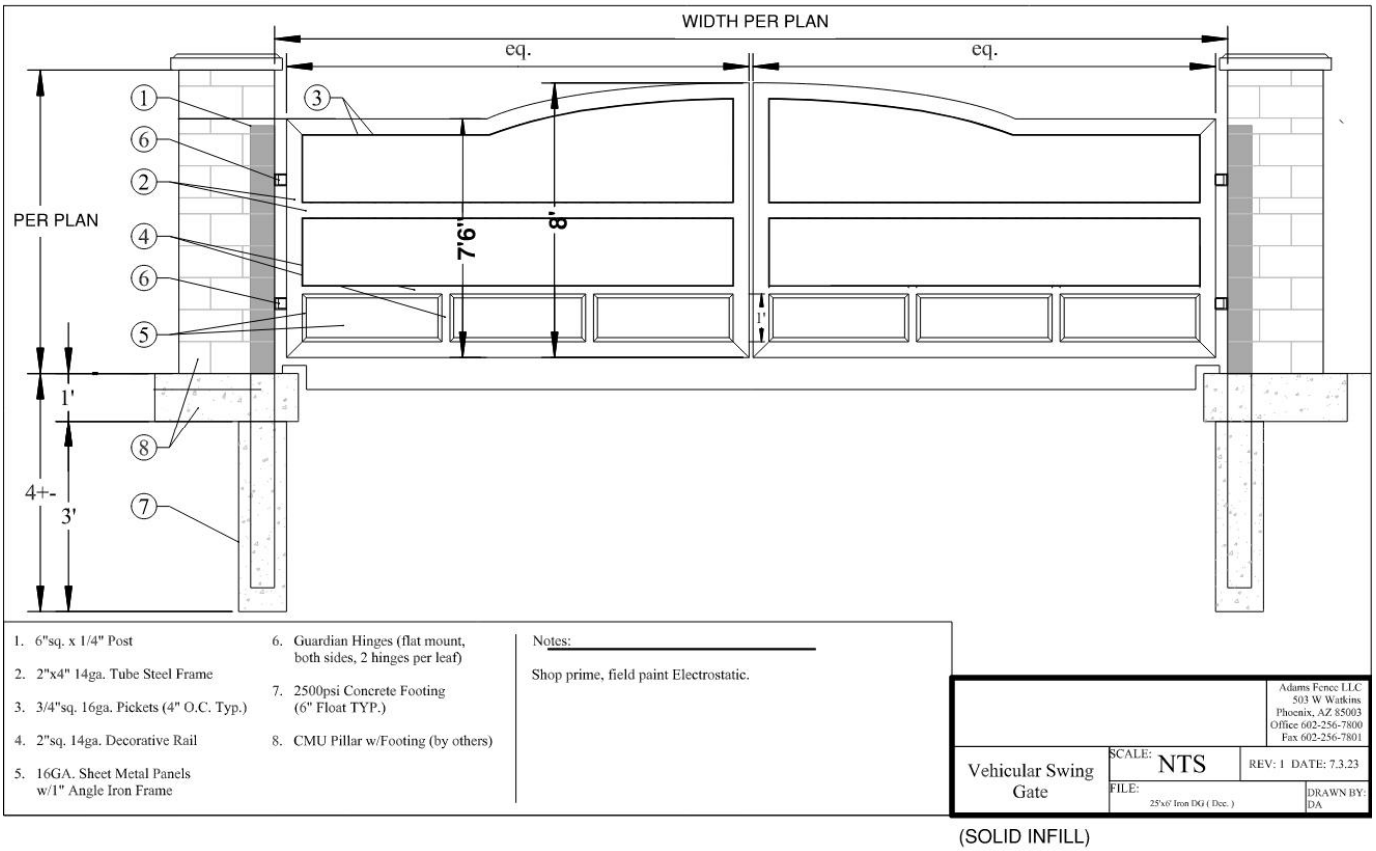
Materials:

The Automatic Swing Gate (Solid Infill), Manual Swing Gate (Solid Infill), Automatic Swing Gate (Wrought Iron), Manual Swing Gate (Wrought Iron), and Half Automatic, Half Manual Swing Gate (Solid Infill) shall be approved by the City via shop drawing submittal by the contractor. Concepts of the style of the wrought iron and solid infill gates are included below, but are not to be used in place of shop drawings.



(WROUGHT IRON)

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(SOLID INFILL)

Gates shall include a corrosion-resistant coating.

Gate width and height specifications are as follows: The gate height will be 8 feet tall at the center. The gate width varies by location and is specified in the Project Plans. Note that unless otherwise specified, these widths are measured from the center of one wall pilaster to the center of the opposite wall pilaster, rather than from the new gate hinge to the new gate hinge. New gate widths may or may not match the existing gate widths.

Except for the Manual Swing Gate (Wrought Iron) for the north driveway at APN 304-81-993, which shall be a single-panel swing gate, all gates shall be double-swing gates.

All gates must be designed and constructed to be coherent with the existing color, texture, style, and material characteristics of the adjoining structures, including WROUGHT IRON FENCE, CONCRETE MASONRY WALL (PARTIAL VIEW FENCE), CONCRETE MASONRY WALL (FULL WALL), and CONCRETE MASONRY WALL (FULL WALL WITH LIGHTED GLASS BLOCK IN COLUMN). See details on Project Plans. All gates must visually integrate with the above-mentioned fences and masonry walls to maintain a coherent and uniform appearance. This includes using similar hues and shades for color, matching surface textures, and ensuring stylistic consistency in design patterns and material types.

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Each gate must have flat-mount hinges on both sides. Each half (panel) of the gate must include at least two hinges, making a total of at least four hinges per double-swing gate.

The gate operator/opener to be installed for Automatic Swing Gate (Wrought Iron), Automatic Swing Gate (Solid Infill), and Gate (Match Color and Style In-Kind) shall be LiftMaster HDSW24UL Heavy-Duty Variable Speed Swing Gate Operator, or City-approved equal.

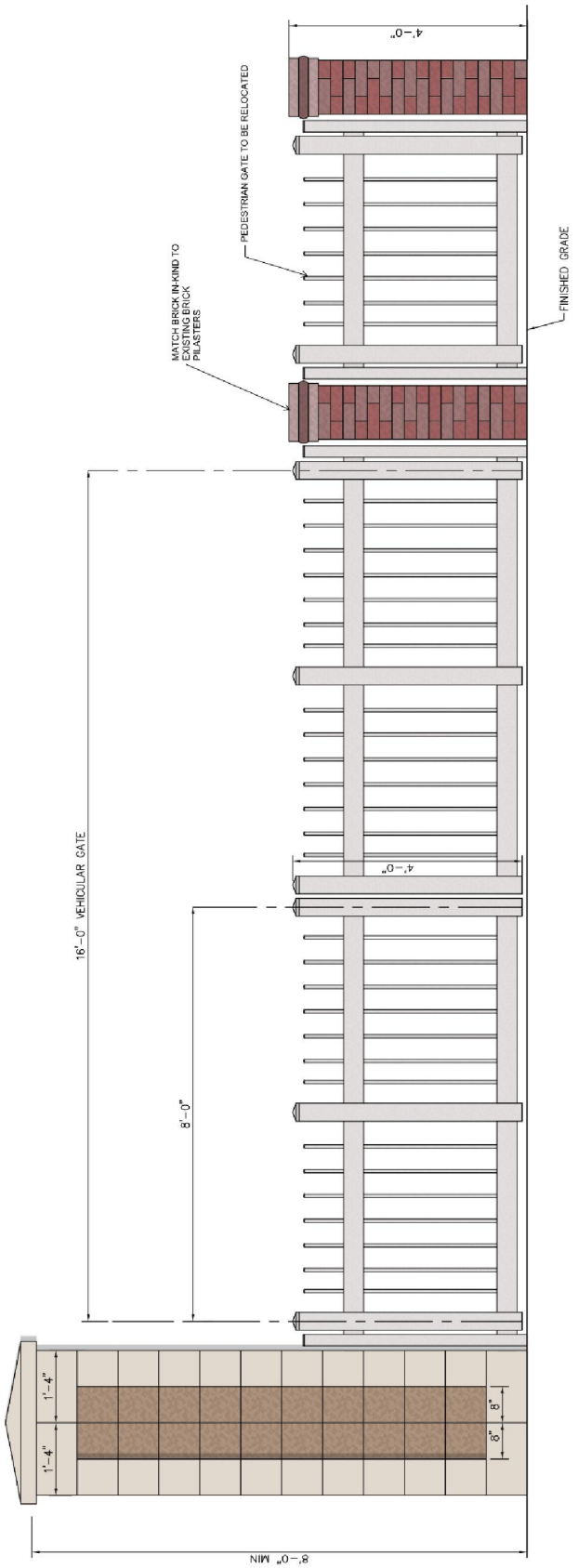
For the Half Automatic, Half Manual Swing Gate (Solid Infill) located at the south driveway of APN 304-81-993, the north half (panel) of the gate must be automated and powered by a solar panel, while the south half (panel) must be manually operable. The northern panel shall be capable of swinging open automatically to at least 130 degrees from the closed position to ensure that it does not obstruct the driveway. It shall also stop in a position that avoids blocking the grass area behind the driveway. The gate operator/opener to be installed for the northern panel of Half Automatic, Half Manual Swing Gate (Wrought Iron) shall be able to be solar-powered during regular operation and manually operable in case of a power loss.

The Manual Swing Gate (Solid Infill) for the driveway of APN 304-81-995 shall be configured to swing open/closed in both directions (into the property and out of the property).

The keypad/call box for APN 304-81-993 shall have functionality similar to what currently exists and will include Bluetooth or WiFi capabilities. The keypad/call box for APN 304-81-994 (to be located west of the northern panel of the south gate) shall have the same functionality as the existing keypad/call box.

Gate and Brick Pilasters (Match Color and Style In-Kind) is fully custom and applies only to the automatic gate for the south driveway of APN 304-81-996, off of Vallejo Street. New brick pilasters must also match color and style in-kind. A concept of the style and color for this gate is included below, but is not to be used in place of a shop drawing:

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Construction Requirements:

The Contractor will submit shop drawings and product specifications to the City Representative for review and approval of each gate installation for each property 60 days prior to any gate removals and prior to ordering gates. The Contractor will follow manufacturer requirements.

The Contractor will be required to make private electrical connections for gate operators (for automated gates), keypads, call boxes, and wall lighting as necessary. This includes the construction of a new pull box, new conduit, and conductors to connect to the private power feed (terminated near new wall alignment under REMOVE WALL item).

Construction methods must comply with International Building Code requirements.

During construction at APN 304-81-994, the Contractor must ensure that the south driveway entrance remains accessible with a fully operational automated vehicle entry gate at all times. Also for APN 304-81-994, the north driveway entrance has an existing electrical stub-out for future use with an automatic gate. The location is unknown. Although the project will be installing a manual gate at this location, the Contractor will be required to locate the existing electrical stub-out and relocate it within the private property for future use.

Measurement:

The items listed above will be measured as a unit for each, complete in place.

Payment:

The accepted quantities of the items listed above, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No additional payment will be made for excavation, backfill, compaction, mounting, mounting assemblies, foundations, lighting, footings, gate operators, gate openers, conduit, electrical conductors, keypads, call boxes, remotes, fixtures, posts, post caps, hardware, paint, and appurtenances, or private electrical connections, the cost being considered incidental to this item.

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ITEM NO. 92 LANDSCAPE ESTABLISHMENT – NINETY (90) DAYS

Description:

The Construction Phase of the contract will consist of all items under this contract other than items covered under the Landscape Establishment item. When all work is completed under the Construction Phase of the contract and approved by City Representatives, Landscape Establishment of the contract will begin. No work or contract time under the Landscape Establishment phase of the project will begin until all work under the Construction Phase is considered complete by City Representatives.

The water used during Landscape Establishment to properly maintain the plant material will be furnished by the City of Chandler, at designated sources from within the project limits, at no charge to the Contractor. The Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

During the second half of the Landscaping Establishment period, the Contractor will provide, where required, plant replacements as follows:

Original Size	Replacement Size
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
48-inch box	54-inch box

During the second half of the Landscape Establishment period, the Contractor will provide plant material replacements for existing plants that die as follows:

Existing Plant Material Sizes	Replacement Size
Trees:	
2-inch Caliper	24-inch box
4-inch Caliper	36-inch box
6-inch Caliper and greater	54-inch box
Shrubs:	
All Existing Shrubs	15 Gallon

The plant material replacement will be considered as included in the work for Landscape Establishment and will be made at no charge to the City of Chandler.

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General:

The Prime Contractor will be in direct control of work performed under Landscape Establishment. If work is subcontracted, due to labor shortage, a representative of the Prime Contractor will be present at the site of the work for all hours that the subcontractor works. Subcontracting of Landscape Establishment work will be permitted for weed eradication with herbicides, because of special licensing. A licensed temporary service may be used to supply labor to the prime if the prime has received approval from City Representatives. The Prime Contractor will submit the required subcontract documentation.

The Landscape Establishment period will be 90 days.

Planted Stock and Seeding Establishment:

Materials and labor required for tree guying will be considered as included in the cost paid for under for the Landscape Establishment item.

All trees will stand erect on their own without stakes when brought to this site. If the tree cannot stand on its own when nursery stakes are removed, the tree will be removed and replaced.

The Contractor will provide three applications of an approved pre-emergent herbicide on all unpaved areas of the project, as directed by City Representatives, to control weed growth in all areas of the project. The number of applications may be increased as directed by the City Representative, and at no additional cost to the City, if the City Representative deems additional applications are required to control weed growth.

Application sequence will be approved in advance by the City of Chandler. The first application of pre-emergent will be completed prior to the application of Decomposed Granite and will be included with the cost of the Decomposed Granite as specified and part of the Construction Phase portion of work. The second application of pre-emergent will be completed half-way through the Landscape Establishment period. The third and final application of pre-emergent will be applied 15 days prior to completion of the Landscape Establishment portion of the project. The second and third pre-emergent applications will be included with the cost of Landscape Establishment. Watering will be completed in accordance with the manufacturer’s recommendations, as included and as related to each application.

The pre-emergent herbicide will be applied in accordance with the requirements of the Decomposed Granite items of these Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

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Contractor is responsible for the removal and disposal of all trash and debris during the Landscape Establishment period. Contractor will keep the project in a neat and orderly manner during the duration of the Landscape Establishment period.

The Contractor will supply City of Chandler with a minimum of 250 white colored marking flags for the purpose of conducting the monthly Landscape Establishment inspections per the acceptance of City Representatives.

Measurement and Payment:

Landscape Establishment will be measured as a single complete unit of work and paid for at the contract unit lump sum price, which price will be full compensation for the work, complete in place.

Partial payments may be made for Landscape Establishment. Payment will be based upon the length of the landscaping establishment period as specified in these technical specifications, and the contract lump sum price for this item.

ITEM NO. 93 SHRUB – 1 GAL
ITEM NO. 94 SHRUB – 5 GAL
ITEM NO. 95 AGAVE (12 TO 18 IN HEIGHT)
ITEM NO. 96 TREE – 48 IN BOX, 3 IN CAL MIN

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to plant shrubs, agave, and trees, of the size and type indicated, at all locations as specified in the Project Plans.

Control stationing, application of rodent repellent by mechanical or chemical means, removal of excess material(s), and general plant care and maintenance will also be completed in accordance with the requirements of Section 430 of MAG Standard Specifications, these Technical Specifications, and as required and approved by City Representatives.

Materials:

Amendments with each cubic yard of soil conditioner will consist of 25 pounds of agricultural gypsum, 1 pound of water soluble or powdered soil sulfur and 9 pounds of slow release Isobutylidene diurea fertilizer 25-4-8. Soil sulfur will be 85-95 percent pure soil sulfur.

Amendments will be inspected separately before adding to soil conditioner to ensure quality control. Pre-packaging of amendments is prohibited.

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Within 60 calendar days of the Notice of Award, the Contractor will furnish a complete Plant Availability List of all the plantings needed for this project. The list will include the confirmed nursery source for the planting stock, assuring the availability of each plant material and the size specified herein.

The list will include the species name (botanical, common, and varietal), size and quantity of the plant material, the confirmed source for the plant material as evidenced by an invoice or contract with the confirmed source and the approximate date the plant material will be delivered to the jobsite. This Plant Availability List will be submitted in triplicate to City Representatives.

Approval of the Plant Availability List by City Representatives does not relieve the Contractor of the responsibility for providing plantings that will pass the inspection required elsewhere in the MAG Standard Specifications or these Technical Specifications.

Prior to planting, the selection of trees will be approved by the City Representatives. The Contractor will meet with the project Landscape Architect at up to three (3) local nurseries or wholesale plant providers to select and tag trees for use in the project. Local nurseries will be defined as those located within the Phoenix Metro Area. Nursery visits will occur a minimum of three (3) months prior to planting. The selected trees may be purchased and stored at the nursery, under continued care of the nursery, until time of planting. No planting will occur during the months of June through September.

To properly plant maintain and care for the plant material, water used during landscape construction will be furnished by the City of Chandler at the designated water meter sources from within the project limits, at no cost to the City.

Trees will be maintained in a straight vertical position during both the Construction Phase and the Landscape Establishment Phase of the project.

The Contractor will be responsible for the care of the trees and damage caused by improper support of the trees or due to construction activities. If necessary, or if required by City Representatives, all staking and bracing of trees will be completed as detailed on the Project Plans.

Construction Requirements:

Immediately after planting, all plants will be irrigated with the irrigation system until the backfill soil around and below the roots and the root ball itself is brought to 100 percent water holding capacity.

Plant pits and root balls will not be allowed to be flooded and totally saturated. Water will not be used to accomplish soil compaction around the root ball.

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The soil for back-filling the planting pits will confirm to Section 430 of MAG Standard Specifications.

All trees will be staked per City of Chandler standard details and are considered incidental to the tree planting.

All trees located within five feet of any utility, edging of paving, curb, or wall within the public right-of-way shall be installed with root barrier panels.

The Contractor will layout the planting pits in accordance with the Project Plans and control stationing along the curb edge using a starting location, methods, and markings approved by City Representatives. The planting layout will be according to the Project Plans. Triangular spacing shown are minimums only; actual spacing may vary.

The flagging will remain in the center of the planting pit until planting starts.

The Contractor will pay special attention to the infestation of weeds and grasses. If either of these items are found in the planting pits, it could result in immediate removal and disposal of the plant. The planting pit will be excavated and inspected to assure complete eradication of roots or rhizomes which may have grown into the area. This work and associated materials will be the responsibility of the Contractor and will be completed at no additional cost to the City.

All water used during the planting operation phase of the project will be the responsibility of the Contractor and will be provided at no additional cost to the City.

Measurement and Payment:

Shrubs, agave, and trees will be measured as a unit for each item planted and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

No payment will be made for shrubs, agave, and trees selected for inspection and not planted or for the care and protection of shrubs, agave, and trees prior to the beginning of the landscaping establishment period, the costs being considered as included in the prices paid for trees accepted and paid for under this bid item. No payment will be made for root barrier the costs being considered as included in the price paid for trees.

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ITEM NO. 97 DECOMPOSED GRANITE, 1 ¼ IN SCREENED, DESERT GOLD
ITEM NO. 98 DECOMPOSED GRANITE (TO MATCH EXISTING)

Description:

The work under these items consists of the following:

- Eradicating existing grasses and weeds with an approved herbicide and by mechanical methods. Also included will be furnishing and applying herbicide mixed in water.
- Grading surfaces upon which decomposed granite will be placed to ensure proper drainage.
- Furnishing, placing, and compacting and decomposed granite, which will include all excavation and back filling.
- Included in the granite work is maintaining these areas free of weeds and trash/debris during the construction and landscape establishment phases of the project.

All work under this section will be completed in accordance with the details shown on the Project Plans, MAG Standard Specifications Section 430 and 795, and the requirements of these Technical Specifications.

Materials:

Decomposed Granite to be placed at the specified in locations shown on the Project Plans will be approved for color and gradation requirements prior to placement. The color to be used on the project will have the same color range as those listed below and will be approved by the City of Chandler representative prior to processing or placement.

Desert Gold Color Table

COLOR	GRANITE NAME	SOURCE
Gold	Desert Gold	Rock Pros
Gold	Express Gold	Pioneer Landscape Materials
Gold	Belmont Gold	Custom Landscape Materials

Granite color will be no lighter in coloration than the lightness of the specified colors above.

Granite will have no more than 10 percent of the lighter color pigments (white and cream

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color pigmentations) in the decomposed granite mix.

For color verification of the specified color and/or for approval of an alternate color, the Contractor will provide a 10-ton material sample for each color required on the project for review.

Criteria to be used for approval for project granite color will be based on the following:

- Similarity to the granite color sample designated as the desired granite control color of the project
- Conformance to the material samples maintained by the City of Chandler
- If referenced similar color decomposed granite was used on previous Chandler projects
- The material's appearance after being wet and then dried

Each decomposed granite color approved for construction will be acquired from a single source.

Color and gradation requirements for the Decomposed Granite (To Match Existing) will be submitted by the Contractor to the City Representatives along with a decomposed granite sample for approval prior to ordering and installation. Decomposed Granite (To Match Existing) may vary in size, gradation, and color by location. Each type, regardless of size, gradation, and color, will be included under this item, and each type will be submitted and approved prior to ordering and installation.

Gradation requirements for Decomposed Granite, 1 ¼ IN Screened, Desert Gold are as follows:

Decomposed Granite 1 ¼ Inch Screened, Desert Gold	
Sieve Size	Percent Passing
1 ¼ Inch	95-100
1 Inch	20-30
¾ Inch	0-5
½ Inch	0-4
3/8 Inch	0-3
¼ Inch	0-2

The salvage and reuse of existing granite material from the project area will not be allowed. All decomposed granite will be new. Each decomposed granite material will come from a single source to ensure uniformity of color.

All samples of decomposed granite will be supplied by the Contractor for approval prior to ordering and installation. The Contractor will receive approval from the City of Chandler for alternate granite color and/or color changes for decomposed granite prior to installation.

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Construction Requirements:

Decomposed Granite to be used on the project and all granite samples prior to placement on the job site must meet the following requirements:

- Copy of the environmental permit for each granite source pit.
- Written acknowledgement from each supplier that they can provide the quantity of Granite Material required to complete the project.
- Written acknowledgement that granite supplier material will be provided within the contract time frame.
- The cost for any approved alternate decomposed granite color will be paid for at the contract bid price.
- The Contractor will provide a 5-gallon bucket sample for each color required on the project and each proposed alternate color
- All samples provided will be cleaned and washed and will be leveled and cover an area of about 10 feet by 10 feet, and will be identified at the jobsite with a sign measuring 1-foot x 1-1/2 feet, with double staking behind the sign, and placed securely into the ground adjacent to the granite mulch color(s) samples(s).
- Labeling of decomposed granite signs will first list on line one the name of the product, and on the second line will appear the name of the supplier. Text for labeling will be waterproof, clearly legible, printed, and 1-inch capitalized text.
- Contractor will utilize one of each of the pre-bid opening colors at the same contract bid price if an alternate color is not approved.
- All granite samples provided after bidding acceptance are to be clean and washed, leveled covering an approximate spread area of 10 feet x 20 feet, and signed identifying the product and source.
- Alternate granite samples will have been cleared by City Representatives prior to color(s) submittal and on-site placement for review and approval.
- Alternate granite samples submitted after award of contract will be submitted a minimum of 30 days prior to granite installation for review and approval.

The granite color review and approval process will be coordinated by the Contractor with City Representatives and requires a 1-week minimum advance notice by the Contractor through the City Representatives. All granite colors and color alternates are as approved by City of Chandler. Granite colors are evaluated by comparison to approved color samples and existing decomposed granite.

The Contractor will remove all non-planted vegetation from all areas designated to receive decomposed granite (by chemical or mechanical means) and maintain the designated areas “vegetation-free” for a minimum period of 40 working days prior to placement of the

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granite mulch and decomposed granite, or as specified by the City Representative.

Prior to placement of the decomposed granite, designated areas to receive granite mulch and decomposed granite will be completely free of all grass, weeds, or other miscellaneous vegetation growth.

When using herbicides, a pre-emergent herbicide (Gallery, Surflan, Barricade or equivalent) will be applied to all granite material areas in the manner recommended by the manufacturer to prevent germination of noxious weeds. The Contractor will comply with all applicable portions of Subsection 803-3.02 of the ADOT Standard Specifications.

The subgrade upon which the decomposed granite is placed, will be graded and compacted to promote proper drainage, as approved by the City Representative.

The subgrade will be compacted to between 85 to 90 percent of the maximum proctor density, as determined in accordance with the requirements of Arizona Test Methods 230 or 235, depending on the test method used to determine the compaction density (Sand Cone or Nuclear Method).

All vehicles used for spreading, grading and raking the decomposed granite will have one set of wheels with floatation tires having a minimum width of 18 inches to allow equal compaction.

Decomposed Granite and Decomposed Granite (To Match Existing) will be placed to a depth as indicated on the Project Plans and details. After rough spreading and rough grading of the granite mulch within the designated areas, the decomposed granite will be raked evenly and thoroughly to blend the different gradation sizes.

The use of conveyor belt type of equipment for placing granite mulch and decomposed granite will not relieve the Contractor from the requirements of compacting the granite mulch and decomposed granite with equipment as described herein.

After placement, the granite mulch and decomposed granite will be saturated with water to an optimum moisture level as recommended by the supplier. The City Representatives will approve the amount of water necessary to aid in the compaction of the granite mulch, prior to application.

During the final spreading and final grading operations, all surfaces within the granite mulch and decomposed granite areas will be passed over by the spreading and grading equipment a minimum of two-times.

Equipment operations for spreading, grading, raking, chemical application, water settling, and other operations will be done in a manner that uniformly maximizes the vehicle‘s wheel compaction over the surface area.

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The pre-emergent herbicide will be applied in the manner recommended by the manufacturer to prevent germination of noxious weeds.

Pre-emergent herbicide will be applied to the designated granite mulch and decomposed granite areas as specified in the MAG Standard Specifications. The City of Chandler requires three (3) applications of pre-emergent.

After placing, spreading and grading the granite mulch and decomposed granite, the Contractor will water settle the total thickness of the granite mulch and decomposed granite, to remove the fine material from the surface. The water settling operation, noted above, will be completed by applying water at minimum depth of 1/2 inch over the decomposed granite placed or as approved by the City Representative.

Measurement and Payment:

Decomposed Granite, 1 ¼ IN Screened, Desert Gold and Decomposed Granite (To Match Existing), will be measured by the square yard and will be paid for at the contract unit price per square yard, which price will be full compensation for the item, complete in place. Payment will include all required or requested samples, grading, compaction, pre-emergent herbicide, all erosion repair work and other related activities as described and specified herein, and as specified in the Project Plans or as required by City Representatives.

No additional payment will be made for all erosion repair work or compaction of soil, as specified herein, the cost being considered incidental to this item.

Contractor will be responsible for all erosion repairs on project site that may occur during decomposed granite mulch color review and approval process at no additional payment to the Contractor.

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ITEM NO. 99 LANDSCAPE / IRRIGATION RESTORATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to restore the existing landscape and irrigation in areas that are disturbed by construction. The decomposed granite installation for areas above and beyond what is shown on the Project Plans and included under the Decomposed Granite (To Match Existing) is included in this bid item. Contractor will renew and replace the existing decomposed granite and stabilized decomposed granite to match replaced decomposed granite within these restoration areas. The concrete header installation for areas above and beyond what is shown on the Project Plans and included under the Concrete Header (To Match Existing) is included in this bid item. Work in this bid item includes any sprinkler irrigation restoration associated with the disturbed areas.

Materials:

Any disturbed existing irrigation system will require that the Contractor re-construct the irrigation system using the emitters, sprinklers, valves, piping, fittings, controllers, wiring, and other components, of sizes and types to match existing equipment and as called for in the contract documents.

All replacement or repair materials will match the existing materials that have been damaged. Irrigation materials and components will be from the same manufacturer as originally installed. Emitters and sprinklers will have the same volume output as original. PVC pipe may be from a different manufacturer, but the grade will be as originally installed. All mainline fittings will be Schedule 80, all lateral fittings will be Schedule 40.

Turf Restoration area will receive ‘Midiron Hybrid Bermuda’ sod or approved equal and will be inspected and approved by City Representatives at the site upon delivery to conformity to specifications. If installation occurs between October 15th to April 15th, turf restoration areas will receive ‘Premium Rye Grass’ seed. Sod will be nursery grown, strongly rooted, 2 years old, and free of weeds, undesirable plants and other material which will be detrimental or will hinder the proper development of the sod.

Landscape materials and decomposed granite will be replaced to match existing conditions. Contractor will walk site with City Representatives to inspect Landscape and Irrigation Restoration areas prior to construction activities.

Construction Requirements:

Contractor will verify exact limits of disturbance with City Representatives in areas specified in on the Project Plans as Landscape and Irrigation Restoration Areas. All work will be in accordance with these Technical Specifications and MAG Standard Specifications.

Contractor will identify and coordinate limits of disturbance areas where appropriate with City Representatives prior to beginning of construction activities. Contractor will contact

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City Representatives for review and approval of all Landscape and Irrigation Restoration materials prior to installation.

The work will also consist of reconstructing, rerouting, modifying, or repairing the existing irrigation system in areas specified in on the Project Plans. The Contractor will be required to repair and/or replace all disturbed or damaged irrigation components, returning their operation to 100 percent within 24 hours following initial disturbance of the irrigation components. The existing irrigation that will be impacted includes the drip irrigation system for the trees, shrubs and ground covers, as well as the sprinkler irrigation system for the turf areas. The work will include furnishing and installing the various irrigation sleeves, piping, drip emitters, gate valves, electric control valves, wiring, and valve boxes, including required excavation and backfill at the specified in locations shown on the Project Plans or as directed by the City Representatives.

All work will be in accordance with the details shown on the Project Plans, or as directed by the City Representatives and the requirements of these Technical Specifications. The existing irrigation components will be protected and maintained in their current condition where feasible or repaired, replaced, extended and reconnected in areas including, but not limited to, those areas that are disturbed during the construction, areas shown on the Project Plans or as directed by City Representatives. The Contractor will be required to maintain water to all existing plant materials throughout the duration of the contract using repairs, reconnections, replacements or rerouting of the system as approved by City Representatives. The Contractor will ensure that the entire existing and new irrigation systems within the project limits are operational and functional and will test and receive approval from City Representatives prior to proceeding with other related work. The City Representatives will inspect and give approval prior to backfilling.

The system will be constructed to grades and conform to areas and locations as shown on the drawings.

Protection of Existing Vegetation: The work will include the protection of all existing plant material. Contractor will take great care to protect in place all existing plant material. Contractor will replace in like kind and size existing plant material removed, damaged, or destroyed at no cost to the City and to the satisfaction of City Representatives. The Contractor will identify, and the City Representatives will review existing plant materials within the disturbance areas. Salvage and relocate or replace all plant material in conflict with the construction as designated in Landscape and Irrigation Restoration Areas in like kind and size per the direction of City Representatives.

Identify, protect, and maintain existing vegetation within the protected areas indicated on the Contract Drawings during the Contract from the Notice-To-Proceed to Final Acceptance. Perform the Work of this Section in accordance with the standards of the Tree Care Industry Association (TCIA). Do not perform work within the protected areas unless approved by City Representatives. Do not store materials within the protected areas. Do not permit vehicle parking, foot traffic, or other activity not approved in writing by City Representatives within the protected areas. Provide labor and new and undamaged materials that constitute “Best Practice” to meet the letter and intent of this

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Contract. Follow the safety requirements of ANSI Z133.1.

Verification of Conditions: Prior to the start of construction, Contractor will conduct onsite inspections of plants and vegetation with the City of Chandler Representative and identify and inventory the plants and vegetation that are to remain in place during this area tour. Field measure and stake Project improvements as needed for establishing the location and limits of disturbance.

Construction within Protected Areas:

Demolition and Construction Activities: Contractor will perform demolition and construction activities within protected areas in a manner that minimizes damage to tree roots and branches. Use hand tools where necessary. Make minimal use of construction equipment within the protected areas. Use such equipment within the protected area only when approved by City Representatives. Tree pruning will be performed by a Certified Arborist. Notify the City Representatives 72 hours prior to the use of the equipment within the protected areas.

Provide bridging materials, such as protective planking, in protected areas where construction equipment operates. When utilities must be installed within protected areas, bore under the protected areas whenever possible instead of digging open trenches through them.

Excavating around Trees and Shrubs: Contractor will excavate around trees and shrubs within protected areas only where indicated on the Project Plans. When work that may impact protected plants occurs, plan the work to assure minimal disturbance to the plants, follow good horticultural practices, and direct pruning and wound treatment in accordance with this Section.

Protecting Root Systems: Contractor will protect root systems from damage due to runoff or spillage of noxious materials in solution during storage or construction activities. Protect root systems from flooding or soil erosion. Provide a minimum of two layers of untreated burlap as a covering over exposed root face areas. Do not disturb or excavate protected root zone areas unless specifically authorized to do so by City Representatives. Where trenching for utilities is required within protected areas, excavate under or over roots by hand digging under the authority of City Representatives. If large roots are encountered, or if a condition potentially fatal to the plant is observed, notify City Representatives prior to continuing or commencing work. Do not cut main lateral roots or taproots, those 2-1/2 inches in diameter or greater; however, smaller roots that interfere with the installation of new work may be cut. Cut smaller roots with sharp pruning instruments, but do not break or chop roots. Excavate root systems by hand in areas where new construction is required within protected areas. Use a narrow-tine spading fork to expose roots. Cut exposed roots back from the new construction. Do not permit exposed roots to dry out before permanent backfills is placed. Provide temporary earth cover, or pack the roots with peat moss, and wrap the roots with burlap. Water and maintain the roots in a moist condition, and temporarily support and protect them from damage until they are permanently relocated and covered with backfill. Provide imported

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topsoil backfill to cover exposed roots in soil cuts. Do not overload root zones by placing backfill above the existing grade.

Protecting, Restoring, or Modifying Irrigation System: The work under this item will consist of testing, reconstructing, or modifying the existing irrigation systems that are damaged by the construction or as specified in on the Project Plans for modification. Prior to construction activities, the Contractor will stake areas that are designated to be disturbed. The Contractor, along with City Representatives, will meet with the maintenance representative, owner, owner representative, for each area within the project that is designated to be disturbed to determine where the existing and functioning irrigation system is located and how it is operated. The Contractor will be required to repair and or replace all disturbed or damaged irrigation components to 100 percent operational. The Contractor will ensure that all reconnections (water and power) have been tested and approved by City Representatives prior to back filling. Prior to final acceptance and during the maintenance period specified, the contractor and the City Representatives will meet again with the designated representative to engage each and every irrigation system that has been disturbed or that is adjacent to this project. The Contractor will ensure that each system has been returned to a fully operational and functional system and that all deficiencies have been corrected. All work will comply with these plans and Technical Specifications.

The underground location of the irrigation facilities is unknown. The Contractor will take care to minimize disturbance to these areas.

All construction will be coordinated to ensure that the existing irrigation system and its associated electrical controls are fully functional within 24 hours of modifications. Work activities that require more than 24 hours of outage will be coordinated with City Representatives for approval and alternate irrigation methods such as truck watering or temporary “rain or rent” systems will be required as directed by City Representatives. The cost of alternate irrigation methods necessary due to extended irrigation system outages will be at the Contractor’s expense, at no cost to the Department.

All work will be in accordance with the details shown on the Project Plans, or as directed by City Representatives and the requirements of these Specifications. All work will be inspected and approved by City Representatives prior to backfilling and will comply with all the requirements of Section 808 Water Distribution as specified in the most recent edition of the ADOT Standard Specifications for Road and Bridge Construction.

Repair/Restoration: The Contractor will restore all landscape areas and other surface improvements that were to remain in place, but that have been damaged by the Contractor’s actions or omissions. Restore landscape areas as nearly as possible to the original condition.

Repairing Damaged Plants: Where damage to vegetation has occurred, Contractor will prune plants in accordance with Tree Care Industry Association (TCIA) standards to remove branches from the work area, and where needed to maintain the health of the plant. Remove material in a manner that yields minimal impact and is approved by City

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Representatives.

Replacing Damaged Plants: The Contractor will remove plants that were identified by City Representatives to remain in place, but that are damaged during the course of the work to an extent that they cannot be repaired; and replace the damaged plants with new plants of the same type and value. Remove and replace damaged plants as directed by the City Representatives. Base the value of plants that are to be replaced on the criteria found in the Council of Tree and Landscape Appraisers' "Guide for Plant Appraisal", as evaluated by City Representatives. The contractor will remove and replace damaged plants at no additional cost to the City. Plants will be replaced at the following sizes or as directed by City Representatives:

Existing Plant Material Size	Replacement Size
Trees:	
2" Caliper	24" Box
4" Caliper	36" Box
6" Caliper	54" Box
All Existing Shrubs	5 Gallon

Clean up the ground areas under plants remaining in place as directed by City Representatives. Wash off foliage that becomes soiled, or when directed to do so by City Representatives. Remove materials that fall or flow into protected areas. Provide protective barriers as needed or as directed by City Representatives to prevent materials from falling or flowing into protected areas.

Waste Management: Contractor will gather and dispose of spoils and vegetative waste, including dead and damaged plants and the trimmings accumulated from the operations to clear and remove existing vegetation. Dispose of spoils and vegetative waste off-site in conformance with the regulations imposed by the local authorities, and in an area approved for such disposal by the local authorities.

Maintenance of Vegetation: Contractor will care for and maintain existing vegetation within protected areas as indicated on the Project Plans. Provide water and labor as needed for plant health, growth, and for washing down soiled foliage. Provide fertilizer, deep root fertilization, pesticides, anti-desiccants, and other materials and labor as needed to maintain the existing plants in a healthy and growing condition. Provide plant maintenance for the duration of the Contract, until Final Acceptance.

Record Drawings: The Contractor will keep and maintain separate record drawings ("field redlined record drawings"), corrected shop drawings, or other drawings necessary for the Engineer to show the landscape and irrigation work as constructed. These field redlined record drawings will be kept on the worksite and they will be maintained clear, accurate and current as changes occur that may differ with the bid set construction documents and addenda. All landscape and irrigation related elements buried or backfilled will be recorded in the "field redlined record drawings" prior to burial and backfilling occurs. The Contractor will submit the updated field redlined record drawings with monthly pay estimates to City Representatives. Complete field redlined record

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drawings that the Contractor maintains will be submitted to City Representatives in a format that will allow City Representatives to create the formal record drawings. The Contractor will submit the field redlined record drawings to City Representatives prior to the end of each construction phase. No extra measurement or direct payment will be made for this work; the cost being considered included in the price of the contract items.

Measurement and Payment:

Landscape / Irrigation Restoration Areas will be measured per square yard and will be paid for at the contract unit price per square yard, which will be full compensation for the work, complete in place, including all costs, materials, equipment, labor, and operations necessary for the furnishing and full restoration of all plant materials, decomposed granite, turf grass, drip and sprinkler irrigation, and other miscellaneous items to the satisfaction of City Representatives.

ITEM NO. 100 SCH. 40 PVC IRRIGATION PIPE SLEEVE 2 IN
ITEM NO. 101 SCH. 40 PVC IRRIGATION PIPE SLEEVE 4 IN

Description:

The work under these items will consist of furnishing all materials, labor and equipment necessary to install pipe sleeves as specified in the Project Plans, or at locations determined on site at the time of installation in accordance with the requirements of ADOT Standard Specifications, these Technical Specifications, and approved by the City Representative.

Materials:

Irrigation pipe sleeves will be PVC Schedule 40, belled ends, solvent weld. Pipe and fittings will conform to the requirements of Subsection 808-2.01 (I) (1) of the ADOT Standard Specifications.

Construction Requirements:

All sleeve installation will conform to the plan detail when crossing paved roadways and 18 inches minimum when placed beneath a sidewalk.

Sleeves will be installed through the use of open trench.

The Contractor will locate all existing utilities prior to the installation of the sleeves.

The Contractor will repair any existing utilities damaged during the sleeve installation at no cost to the City.

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Measurement and Payment:

Irrigation Pipe Sleeves will be measured per linear foot of pipe furnished and installed and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place, as described herein and/or on the Project Plans including pipe, and all trenching, bedding, backfill, compaction, trench shoring, potholing, utility locating and incidentals as specified herein and as shown on the Project Plans.

No additional payment will be made for trench shoring, supplying the sand bedding material or in coordinating the efforts with City Representatives in verifying all sleeve locations, the cost being considered incidental to this item.

ITEM NO. 102 SCH. 40 PVC IRRIGATION PIPE ¾ IN (PURPLE)
ITEM NO. 103 SCH. 40 PVC IRRIGAITON PIPE 1 IN (PURPLE
ITEM NO. 104 SCH. 40 PVC IRRIGATION PIPE 2 IN
ITEM NO. 105 CLASS 200 PVC IRRIGATION PIPE ¾ IN
ITEM NO. 106 CLASS 200 PVC IRRIGATION PIPE 1 IN

Description:

The work under these items consists of furnishing all materials, labor, and equipment necessary to install polyvinyl chloride (PVC) pipe and fittings of the various sizes complete, including excavation and backfilling at the locations as specified in the Project Plans, Details, and these Technical Specifications.

Materials:

Pipe and fittings will be polyvinyl chloride, hereinafter PVC, conforming to the requirements of Subsection 808-2.01 (I) (1) of the ADOT Standard Specifications.

At specific locations shown and noted in the Project Plans, pipe shall be integrally colored purple and marked for use with reclaimed water. This requirement is optional for sleeves. This requirement is in anticipation of future availability of treated effluent. No extra payment will be made for the purple coloring.

For integrally colored purple pipe, PVC solvent weld primer shall be Christy's Purple Primer, IPS P-70, Oatley Purple Primer or approved equal.

All materials and fittings will be new and of the manufacturer's most current design. Plastic pipe and fittings will be installed in accordance with the requirements specified herein and the manufacturer's recommendations.

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Bedding and Cover Material:

Bedding and cover material for PVC piping, flexible emitter hose and 24-volt wiring will conform to the following gradation requirements when tested in accordance with Arizona Test Method 201:

Sieve Size	Percent Passing
No. 4	100
No. 16	30 - 80
No. 50	0 - 30
No. 100	0 - 25
No. 200	0 - 20.0

All pipe installed for use with a non-potable irrigation system shall be integrally colored purple and marked for use with reclaimed water. No extra payment will be made for the purple coloring.

Construction Requirements:

Installation of PVC pipe and fittings will conform to the requirements of Subsection 808-3.03 of the ADOT Standard Specifications.

All piping will be installed as detailed on the Project Plans and will have a minimum cover as shown.

The Contractor will furnish to City Representatives, prior to pipe installation, all installation instructions as published by the plastic pipe and fitting manufacturers. Installation of PVC piping and fittings will be in accordance with the published instructions, the project documents and as directed by City Representatives.

Sub-main and lateral pipe sections downstream of control valves with hydraulic flows of less than 0.5 gallons per minute as shown on the Project Plans will be thoroughly flushed and have the remote control valve's flow control stem properly adjusted, all to the satisfaction and approval of City Representatives. The cost for this work will be included in the cost of contract items.

No emitter laterals or piping will be installed through or beneath plant pits. Minimum distance between plant pit perimeter and piping will be 18 inches. The maximum distance between the plant pit and piping will be governed by maximum emitter supply tubing lengths as specified on the Project Plans.

All trenches excavated for the irrigation systems will be backfilled within five working days from the day they are excavated. Barricades will be placed by excavated ditches located within 30 feet of the traveled way in a manner acceptable to the Project Manager. Open ditches beyond 30 feet from the traveled way will be delineated in a manner

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acceptable to City Representatives.

Flush end caps will be installed as shown on the Project Plans or as directed by City Representatives to promote good flushing of the entire irrigation system.

The emitter lateral end cap assembly will be installed at the locations indicated on the Project Plans and in accordance with the requirements of the Technical Specifications.

The end plug unit with resilient sealed, unscrewing cap will be of the socket, solvent-weld type, constructed of glass-filled polypropylene. The PVC lateral-to-riser fitting will be a socket, solvent-weld, Schedule 40, 90-degree elbow fitting. The flexible PVC hose will be manufactured from 100 percent virgin polyvinyl chloride resin and will have the following physical characteristics:

O.D.	0.840 inch
I.D.	0.546 inch (min.)
Wall	0.147 inch (min.)

Measurement and Payment:

Irrigation Pipe will be measured on a per linear foot basis and will be paid for by the linear foot, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

ITEM NO. 107 WATER METER (1 IN LANDSCAPE IRRIGATION SERVICE)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install new potable water service with meter, connections, corporation stop, curb stop, appurtenant fittings, water meter box and cover, copper service pipe (type K) and pavement replacement as required at the location shown on the Project Plans or as directed by City Representatives. The Contractor will perform all required operations to install the new water service, including coordination, inspections, permitting, account establishment, and any fees, with the City of Chandler.

Materials:

All materials will conform to City of Chandler Standards unless otherwise as specified in the Project Plans or in these Technical Specifications.

Construction Requirements:

Potable water service construction will conform to City of Chandler Standards and the details in the Project Plans.

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The Contractor will measure the static water pressure on site at each point of connection as soon as practical and report the results in writing to City Representatives.

The Contractor will coordinate the installation of the water service, including completing any applications and obtaining any necessary permits for the water service installations. The accounts for the new meters to serve medians will be established in the name of:

City of Chandler Streets Department

The Contractor will be responsible to secure from the City of Chandler all permits, pay all fees and deposits. The City will directly pay for all development and impact fees normally associated with the meter installation in medians. Once installed, the City will pay for all water delivered.

Measurement:

Water Meter (1 IN Landscape Irrigation Service) will be measured as a unit for each. No separate measurement will be made for copper service line.

Payment:

The Contractor will be reimbursed for the exact amounts paid to the City of Chandler for each water service with meter installed. The Contractor will provide the City of Chandler receipts for each meter installed. The Contractor may include a nominal fee for the required coordination with the City.

Water meters, where indicated, will be installed by the City of Chandler. The City of Chandler has agreed to waive water system and resource development fees. The Contractor will pay City of Chandler for required meter installation cost and required permits.

ITEM NO. 108 1 IN BACKFLOW PREVENTION UNIT (REDUCED PRESSURE)

Description:

The work under this item consists of furnishing and installing the backflow prevention unit assemblies for landscape irrigation, to include all grading, excavation and backfill, the backflow preventer unit, required pipe and fittings, concrete slab, an enclosure, and the removal and disposal of all excess materials off-site. Separate enclosures as described in these Technical Specifications are required at all locations.

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The work will also include the provision and installation of pipe and fittings from the one-inch water meter to the backflow prevention unit, and all other miscellaneous labor, equipment and materials required to construct the backflow prevention assembly as detailed in the plans, and according to the requirements of these Technical Specifications.

Materials:

The backflow preventer will conform to the requirements of Subsection 808-2.01(A)(3) of the Standard Specifications.

The copper pipe and fittings in the bid items will be as detailed and in accordance with the following:

1. The copper pipe will be Type “K” conforming to the requirements of ASTM B-88 for backflow prevention assemblies.
2. The copper or cast bronze fittings will conform to the requirements of ANSI STD B 16.22 and ANSI STD B 16.18.

The concrete pad will be as shown on the plans and concrete will be 2,500-psi at 28 days and will conform to the requirements of Section 922, Utility Concrete for Miscellaneous Construction, of the Standard Specifications. Reinforcing steel will conform to the requirements of Section 1003, Reinforcing Steel of the Standard Specifications.

The steel enclosure for the backflow prevention unit will be pre-manufactured. A commercial grade lock with two keys, compatible with the City of Chandler Maintenance Department locking system and approved by City Representatives, will be provided for each enclosure. The pre-manufactured enclosure will meet the following material requirements:

- The enclosure will be welded to the pipe and angle frame at 4-inch-on center and will be coated with heat applied powder-coated finish color, Desert Tan.

- The enclosure will be hinged on one end in order to allow access. The enclosure will be secured to the concrete slab with eyebolts, brackets and lock hasps provided by the manufacturer.

- The enclosure will be secured to the concrete slab on the other end by an eyebolt staple and a steel strap designed to fit over the eyebolt.

- The enclosure will be constructed of bent 1-¼ inch Schedule 40 pipe, 1 x 1 x 1/8 inch angle steel bottom rail and ½ -inch-13 gauge rolled, expanded steel.

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- The enclosure will be the size recommended by the enclosure manufacturer for the City of Chandler model of backflow preventer used and will be a minimum of 10 inches wide, 24 inches high and 20 inches long and large enough to accommodate the backflow preventer as detailed.

- A lock shield will be provided to protect the lock from vandalism. The lock shield will be constructed of 3/16-inch-thick steel and will measure approximately 2 inches by 4 inches. The lock shield will be an integral part of the enclosure.

Construction Requirements:

All backflow prevention reinforcing, anchor bolts and other embedded items will be in place and inspected by City Representatives prior to placing the concrete slab.

The concrete slab will be constructed at the locations and in accordance with the details shown on the project plans, these Technical Specifications and will be approved by City Representatives.

The contractor will excavate and grade the area of the enclosure as shown on project plans and as directed by City Representatives.

The surfaces upon which the enclosure slab is to be placed will be fine graded and compacted to a density of not less than 95 percent of the maximum density in accordance with the requirements of the Material Testing Manual of the Materials Section.

Concrete work will conform to the applicable requirements of Section 601 of the Standard Specifications. Unless otherwise detailed or specified all exposed concrete slabs will have a light, broom finish.

The enclosure will be installed according to the manufacturer's installation recommendations which describe how to set the enclosure on a partially hardened slab, while still embedding the eyebolt in the slab using slab pour voids and a wetter, more plastic concrete. Eyebolts, with nuts attached near the end of the threads will be wrapped in multiple layers using electrician's vinyl tape. Tamper-proof bolts provided by the manufacturer will be used to prohibit removal of brackets.

No penetrations will be located within eight inches of the edge of the concrete slab.

The Contractor will provide the conduit and stub-ups through the enclosure concrete slab at the locations shown for in coming and out-going supply lines.

Maximum length of copper pipe run from the water meter to the backflow preventer will not exceed 36 inches, or as approved by the water provider and City Representatives.

The Contractor is responsible for obtaining all permits necessary for the backflow preventer installation and the performance of all required testing and certification. The tester will be State Certified to perform the required tests.

The Contractor will measure the incoming water pressure at each new backflow prevention unit and report the results in writing to City Representatives, within (5) five

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working days from activation of the backflow preventer.

Measurement:

The 1 IN Backflow Prevention Unit (Reduced Pressure) will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as specified herein and in the project plans, including any coordination required with City and furnishing and placing steel enclosure and concrete pad.

No additional payment will be made for backflow prevention testing, the cost being considered incidental to this item.

ITEM NO. 109 1 IN MASTER VALVE

Description:

The work under this item consists of furnishing and installing master valves complete, including all necessary pipe and fittings, pressure regulator riser, wye filter, union, ball valve, ID tag, valve box and appurtenances, excavation, and backfilling as required at the locations as specified in the Project Plans, Details, and these Technical Specifications.

Materials:

The valve will be a normally closed, electronically-actuated, diaphragm-operated, remote-control valve. The valve will be capable of operating between 20 and 150 PSI with a flow range that aligns with the minimum and maximum flows shown in the Irrigation Plans. For example, a 1” master valve has a flow range of approximately 0.5 and 25 gpm. See Irrigation Plans for size of master valve(s).

The valve will be available in either a globe or angle configuration in the 1-inch models with the 1-1/2- and 2-inch models having combination globe/angle body styles. All valve models will have Female National Pipe Thread (FNPT) inlets and outlets. When specified, the valve will be configured with British Standard Pipe threads. An optional Male National Pipe Thread (MNPT) inlet and outlet model and a MNPT inlet by Poly Barb outlet model will be available in the 1” globe style body. Both the 1-inch globe and angle valve models will be available with an optional, non-rising stem-type, flow control mechanism. This mechanism will be operable with a slotted screwdriver or with a removable flow control handle.

The body and bonnet will be molded of non-corrodible PVC, rated to 150 PSI. The bonnet bolts will be serviceable with a slotted screwdriver, Phillips screwdriver, or a hex wrench, and will be held captive in the bonnet when the bonnet is removed from the valve body. The diaphragm assembly will be of molded construction and will have a Santoprene seating material. The valve will be equipped with an internal filter as well as

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a self-cleaning metering rod, so only clean water can enter the solenoid chamber.

The valve will be available with an optional adjustable pressure-regulating device with a calibrated dial for setting of the outlet pressure. (The regulator will be capable of adjusting the outlet pressure from between 20 and 100 PSI when inlet pressure is 15 PSI or greater than regulated outlet pressure.) The regulated downstream pressure will remain constant regardless of variations in upstream pressure. The regulation will be maintained when valve is manually operated with use of internal bleed valve.

The standard solenoid will be a 24 VAC unit with a 350 mA inrush current and 190 mA holding current at 60 cycles and a 370 mA inrush current and 210 mA holding current at 50 cycles. When specified, the unit will be equipped with a DC latching solenoid for use with 12-volt battery-operated controllers. The solenoid will be an encapsulated, one-piece unit with captive plunger. It will be equipped with manual internal bleed capability to release the upper chamber water to the downstream piping, allowing the valve to open. The valve will have a manual bleed screw that provides an additional method for manual operation of the valve.

The valve box and extensions shall be of the size, type, and configuration as specified in the 1 IN Remote Control Valve, Electric item and shall be integrally colored tan.

Construction Requirements:

The Contractor will install the master valve at the locations as specified in the Project Plans Details.

Construction requirements will conform to the requirements of Section 808 Water Distribution of the ADOT Standard Specifications.

The Contractor will install the required conduit and conductors between the master valve and the automatic controller as detailed on the Project Plans and make necessary wire connections as required and directed by the manufacturer.

The master valve will serve as a shut-off safety valve when the pressure drops below a set pressure sensed by a pressure transducer.

Each master valve will be installed as detailed on the plans and per manufacturer's recommendations.

Measurement and Payment:

1 IN Master Valve will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including master valve and all necessary items as specified herein and in the Project Plans.

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ITEM NO. 110 CONTROLLER, AUTOMATIC (6 STATION)

Description:

The work under this item consists of furnishing and installing a solar-powered, automatic controller complete, including polycarbonate enclosure, breakaway mounting base, spare wires, pull boxes, excavation and backfilling at the locations designated on the Project Plans and in accordance with the details shown and these Technical Specifications.

Materials:

The controller shall be powered by four (4) 5000 mAH batteries, charged by a 10-watt solar panel. Battery life shall be displayed by LED indicators as a percentage of total life. Controller shall have 99 independent programs with 8 start times per program. The Controller shall be able to operate up to six (6) 24 VAC valve solenoids. One of the six (6) valves may be designated as a master valve if needed. Station times shall be 1 minute to 23 hours and 59 minutes in 1-minute increments. Controller shall have a 365-day calendar with weekday, interval (1-31), and odd/even scheduling. Controller shall have water budgeting (25-200%), start-time stacking within program, program looping and station stacking. Controller shall have programmable test cycle. Operation will have automatic and manual operation modes. Manual cycle shall operate one zone, multiple zones, or all zones of a program with programmable concurrent zones and run times. All controller programming and test operations shall be performed via a compatible “central control” software. Controller shall have non-volatile memory to retain program data and programmable rain-off. Controller shall have programmable rain sensor hook up and programmable master valve hook up. Electronic circuit breaker shall detect short- and open-circuit conditions on station output. Controller supports up to 1,500 feet of wire-path. Controller shall support firmware updates over the air via a cellular connection.

The 24-volt control and common wire for operation of remote control valves shall conform to the requirements of Subsection 808-2.01 (F) of the ADOT Standard Specifications. All control ("hot") wires shall be of a contrasting color to white common or ground wire. Black wire will not be acceptable for use on a 24-volt control circuit. Control wires to shrub valves shall be different color than those to tree valves. Wire color shall be as approved by the City Representative.

Two spare wires, sized to match the common wires for the controller and colored different that the control and common wires used, shall be run from the controller to the furthest valve on each wire segment. Loop the spare wires through each valve box on the segment coiling a 15-foot coil within each valve box.

Pull boxes shall match the valve box as specified under the 1 IN Remote Control Valve, Electric item.

Control and common wire sizes shall be of sizes indicated on the Project Plans. Individual control wires shall be installed to each remote control valve. Common wire installation

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shall be as detailed on the irrigation system plans (wiring schedules). Common wires within wire segments shall carry the entire distance to the controller. Each wire segment shall have at least one separate common wire.

Back-indication wires from sensors and safety devices shall consist of an individual control ("hot") wire from each device and one common ground wire for all devices common to one general location. The back indicator terminals shall be located at each automatic controller. Back indicator wires shall be a separate set of wires or cables than control wires.

The contractor shall install two additional (spare) back-indicators wire between the automatic controllers and the junction boxes adjacent to the filter.

No separate payment will be made for back-indicator wire, the cost being included in the price of the respective bid item.

Construction Requirements:

Contractor shall coordinate with City Representative on cellular communication with the master Baseline 3200 irrigation controller. Contractor shall contact Brandon Putman at (480) 782-2662 for coordination.

The controller enclosure shall be secured to the concrete pad as detailed on the Project Plans and as recommended by the manufacturer. Enclosure shall be NEMA 6P (IP68) Waterproof rated.

No separate payment will be made for automatic controller and enclosure installation.

Wire connections at remote control valves and at field splices shall be made with epoxy resin filled type wire connectors installed as recommended by the manufacturer. No field splices of 24 volt wiring shall be made. Necessary splices shall be made at remote control valve boxes, or separate splice boxes. Valve or junction boxes shall be of type specified in the 1 IN Remote Control Valve, Electric item.

Control and common wire placed through pipe sleeves shall be encased in 1-inch (minimum) schedule 40 PVC electrical sleeves for full length of the pipe sleeves. Conduit shall be increased in size as may be necessary for additional wires or required by the NEC.

Contractor shall prepare and implement a 12-month irrigation schedule, based on seasonal changes, with a minimum of three adjustments to the system within the year. The City Representative shall approve the schedule prior to implementation. The controller shall be programmed based on time and flow. The monthly projected hours of irrigation as well as gallons to be delivered, by valve group, according to the 12-month irrigation schedule shall be provided to the City Representative within 30 days following the start of the Landscape Establishment period.

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A wiring schematic shall be placed in each controller cabinet. The schematic shall show all wire connections including the wire connections at the controllers and field splices in pull or junction boxes, such as those not occurring in scheduled and planned valve boxes.

The work shall also include that the contractor supply a copy of the controller program for approval by the City Representative.

No separate payment will be made for 24-volt wire, installation, splice boxes, and conduit.

Measurement and Payment:

The Controller Automatic will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as described and specified herein and in the Project Plans.

No additional payment will be made for automatic controller and enclosure installation, the cost being considered incidental to this item.

ITEM NO. 111 1 IN REMOTE CONTROL VALVE, ELECTRIC

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing the remote control valves complete, including all necessary pipe and fittings, pressure regulator riser, wye filter, union, ball valve, ID tag, valve box and appurtenances, excavation, and backfilling as required at the locations specified in the Project Plans, Details, and these Technical Specifications.

Materials:

Each remote control valve will conform to the requirements of Subsection 808-2.01 (D) (1) of the ADOT Standard Specifications with the following exceptions:

The remote control valve will have a self-cleaning stainless steel screen that cleans itself continuously during flow/operation, as provided by ordering the optional automatic filter system. The remote control valve body will be constructed of glass filled nylon and will have a working pressure rating of 220 PSI and an operational flow range of 0.1 to 40 gallons per minute. The standard solenoid will be a 24 VAC unit with a 350 mA inrush current and 190 mA holding current at 60 cycles and a 370 mA inrush current and 210 mA holding current at 50 cycles. When specified, the unit will be equipped with a DC latching solenoid for use with battery-operated controllers. The solenoid plunger and the bonnet bolts will be captive.

All remote control valves and automatic controllers will be compatible and fully functional in all modes.

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All valves will include a plastic scrubber to clean the stainless steel screen of grit and other debris.

Valve ID tag will be made of Polyurethane Behr Desopan material, tan color, and 3" x 4" size will be installed on valve control wires with permanent printed black color 'controller letter – valve (station) number' on one side and bilingual "Warning Recycled Water Do Not Drink" message on other side.

Each regulator will meet the following minimum requirements:

Each regulator will have a flow range from 0.1 GPM to 8 GPM with a regulated nominal outlet pressure of 30 PSI with an inlet pressure range of 0 to 150 PSI.

Inlet fittings will be ¾ inch Female Pipe Threaded (FPT) inlet and outlet for installation, as detailed on the Project Plans.

The pressure regulator will be of the non-adjustable pre-set type consisting of a two-piece, sonic welded body molded from acrylonitrile butadiene styrene containing a valve housing of acetyl plastic and a rolling diaphragm of ethylene propylene (EPDM) material. The internal spring will be stainless steel.

The wye filter will be ¾" inch brass body with ¾" Male Pipe Thread (MPT) inlet and outlet. The filter will be accessed by unscrewing the cap from the body. The cap to body seal will be made with an "O" ring. The filter screen will be 100 mesh stainless steel. The pressure rating of the filter will be a minimum of 150 PSI.

A schedule 80 PVC union with minimum rating of 150 PSI will be installed after pressure regulator and filter to facilitate removal of all items within valve box if necessary.

The Contractor will provide an in-line, full port, single union, brass ball valve type shutoff valve with the following characteristics:

Pressure rating	220 PSI
O-rings	EPDM
Seat	EPDM or PTFE
Connections	FIPT threaded socket

The valve box, cover and necessary extensions will be as shown on the Project Plans and will be manufactured of molded, virgin plastic materials conforming to the following physical characteristics:

PROPERTY	**ASTM TEST METHOD**	**REQUIREMENT**
Tensile Strength	D-638	3400 PSI (minimum)
Deflection Temp @ 66 PSI Stress	D-648	170 degrees Fahrenheit

The valve box will be rectangular in configuration, measuring approximately 25 1/4 inches x 15 3/4 inches on the bottom by 15 inches in height. Box extensions will be of the top extension type with integral locking clips, and when installed will provide minimum

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6-inch height extension. Valve box lids shall be integrally colored tan in decomposed granite areas if using potable water, integrally colored green in turf if using potable water, and integrally colored purple in areas using non-potable water. All valve box lids shall be imprinted “Irrigation Control Valve”. Non-potable valve box lids shall additionally be imprinted “Reclaimed Water Do Not Drink”.

Valve boxes will receive 1” height heat branding labeling of the box indicating the ‘controller letter – valve (station) number’.

Geotextile fabric will be as indicated on the Project Plans details and conform to the following minimum material requirements:

Manufacturing process:	Spunbound
Material:	Polypropylene
Bonding process:	Thermal
Weight:	3.0 ounce minimum
Puncture resistance:	30 lbs. minimum
Mullen burst:	140 pounds per square inch
Trapezoidal tear	40 pounds minimum
Permeability-vertical water flow	85 feet per minute per square foot

Gravel for sumps will be rounded washed pea gravel conforming to AASHTO M-43 #8.

The control valve, pressure regulator, wye filter, ball valve, union, and ID tag will be completely exposed and accessible within the valve box. Box extensions will be installed as necessary to expose valves and appurtenances as required.

Measurement and Payment:

1 IN Remote Control Valve, Electric will be measured as unit per each and will be paid for at the contract unit price, per each, which price will be full compensation for the work, complete in place, including all necessary pipe and fittings, pressure regulator, wye filter, union, ball valve, ID tag, valve box, and appurtenances, excavation, and backfilling as described and specified herein and as shown on the Project Plans.

No additional payment will be made for the gravel sump or geotextile fabric, the cost being considered incidental to this item.

ITEM NO. 112 FLUSH END ASSEMBLY (DRIP)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing lateral flush valve assemblies at all locations as specified in Project Plans, Details, and these Technical Specifications.

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The required Flush Device Assembly (Drip) components include ball valve, necessary pipe, fittings, valve box, and all excavation and backfilling. Any removal and salvage after testing will be incidental to this item with no additional cost to the City.

Materials:

The lateral flush valve assembly ball valve will be constructed of PVC with ¾" female hose thread swivel inlet and ¾" male hose thread outlet.

Flex pipe will be ¾" schedule 40 I.P.S.

The valve boxes for lateral flush valves will be a round, one-piece 7" inch diameter at the top with a depth of 10 ¼ inches and with bolt down T-style cover.

Valve boxes will receive 1" height heat branding labeling of the box indicating "FC" for Flush Cap. Gravel sump and filter fabric will conform to the 1 IN Remote Control Valve, Electric item. Valve box lids will be integrally colored tan in decomposed granite areas if using potable water, integrally colored green in turf if using potable water, and integrally colored purple in areas using non-potable water.

Install the Valve Flush Device Assembly (Drip) with female hose swivel as inlet connected to Schedule 40 male adaptor and Schedule 40 flex pipe per the plan details.

Measurement Payment:

Flush Device Assembly (Drip) will be measured as a unit for each and will be paid for at the contract unit price per each, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

ITEM NO. 113 MULTI OUTLET EMITTER ASSEMBLY

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing the emitter assemblies, multi-outlet, including excavating and backfilling, at the locations specified in the Project Plans, Details, and these Technical Specifications.

Materials:

The emitter case will be made of durable black, heat resistant acetyl plastic material. It will be resistant to temperature variation, ultraviolet radiation, smog, (ozone), and common liquid fertilizer and weed spray. The case will completely encompass the silicone diaphragm, protecting it from potentially harmful environmental factors.

The emitters will be of the non-compensating, continuous flushing type, based on the pressure cascade principal using a series of flexible orifices.

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The emitter will be capable of continuous, clog free operation with 30 mesh (minimum) filtration. The emitter will be capable of being installed in all positions and maintain its given flow characteristics. The emitter will be non-adjustable and the flow regime will be maintained by flexible orifice silicone diaphragms.

The emitter will function with a system pressure range of 15 PSI minimum to 30 PSI maximum. The emitter flow variation of the 1 GPH emitter will not exceed 1.06 GPH at 120 degrees F. or 1.07 GPH at 150 degrees F. Emitter manufacturing variability will not exceed 0.05 GPH.

The multi-outlet emitter will be capable of delivering one of the following quantities from each of the six outlets of the emitter regardless of the number of outlets open:

G.P.H.	**at**	**P.S.I.**
0.60		20
0.71		25
0.80		30
	or	
1.00		20
1.15		25
1.34		30
	or	
2.00		20
2.30		25
2.68		30

The flexible polyethylene supply tubing will be for pressure application, manufactured from 100 percent Union Carbide G-Resin 7510 Natural 7 virgin resin with minimum two percent carbon black content and with the following physical characteristics:

I.D. 0.250-inches
O.D. 0.350-inches
Wall Thickness 0.050-inches

The flexible distribution tube for use with multi-outlet emitter will be a black vinyl blend suitable for use as emitter outlet tubing with the following physical characteristics:

I.D. 0.160-inches
O.D. 0.220-inches
Wall Thickness 0.030-inches

The distribution tube will be capable of being bent around a 7/8 inch mandrel without kinking.

The tube stake required to position the distribution tube will be manufactured of 20 percent glass-filled polypropylene, minimum 6-inch overall length with slotted top to retain the distribution tube as detailed at the location(s) shown on the Project Plans.

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Multi-outlet emitters will consist of the emitter unit, the ½" PVC lateral pipe, the ½" flex PVC nipple riser, flexible vinyl distribution tubing, emitter valve box, geotextile filter fabric, pea gravel sump and PVC fittings necessary to connect the emitter to the ¾" PVC supply lateral pipe.

The emitter valve box will be constructed of HDPE (high-density polyethylene) in a round conical shape with a 6 1/8" top diameter, 8" bottom diameter and an overall height of 8 ¾". The cover will be T-style fastened to box by twist and lock method. Valve box lids will be integrallyok. colored tan in decomposed granite areas if using potable water, integrally colored green in turf if using potable water, and integrally colored purple in areas using non-potable water.

The geotextile fabric for use beneath the pea gravel sump will conform to ADOT Standard Specification section 1014-4.02 Moderate Survivability Fabric (B) Woven.

The supply pipe from the ¾" PVC lateral to multi-outlet emitters will be ½ inch Class 315 PVC with Schedule 40 PVC 90-degree elbows.

Construction Requirements:

The multi-outlet emitter will be placed in an emitter valve box below grade with the distribution tube extending to the plants as detailed on the Project Plans.

The supply tubing for City of Chandler emitters will extend from the ¾" PVC lateral to the emitter and enable the emitter to be located so that the distribution tubing from the emitter to the plant does not exceed 15-foot in length.

The supply pipe for emitters will be ½" Class 315 PVC. The ½" PVC will enable placement of the emitter so that the distribution tubing can be placed per the Irrigation Emitter Layout detail included in the Project Plans. The supply pipe will be placed at 12" depth.

The number of emitters per riser circuit, as shown on the Project Plans, is approximate. The Contractor will add no more than two multi-outlet emitters per circuit, as detailed. Any additional emitters required and exceeding the above indicated amount must be approved by City Representatives prior to installation.

The Contractor will maintain a set of record data for all irrigation lines and equipment coordinating with the City of Chandler's GIS requirements. All GIS data collection of irrigation equipment to complete the record drawings that are tied to City coordinates will remain the responsibility of the Contractor at no cost to the City.

Measurement and Payment:

Multi Outlet Emitter Assembly will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, as specified herein and on the Project Plans.

No additional payment will be made for supply tubing, ½" PVC supply pipe, emitter valve box, geotextile fabric, pea gravel sump, distribution tube, or hose stake the cost being

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considered incidental to this item.

No additional payment will be made for deep water drip stakes, the cost being considered incidental to this item.

No additional payment will be made for GIS data collection and for producing the required record drawings, the cost being considered incidental to this item.

ITEM NO. 114 GATE VALVE (2 IN)

Description:

The work under this item consists of installing gate valves, including valve box, gravel, geotextile fabric, concrete support block, excavation and backfilling at the locations designated and in accordance with the details shown on the Project Plans and in accordance with the requirements of these Technical Specifications.

Materials:

Gate valves shall be in accordance with Subsection 808-2.01(B)(1) of the Specifications, with the exception that gate valves 2 inches and larger shall have a resilient wedge, square operating nut, and shall meet the requirements of AWWA C-509-80. Body shall be epoxy-coated, conforming to AWWA C-550).

The valve box for mainline gate valves shall be manufactured of rugged UV-resistant thermoplastic construction. The gate valve box body shall be black in color. One slot in the bottom of the box shall be provided to allow for installation of PVC pipe onto the assembly box. Box lids shall be boltable. The assembly box shall be constructed of HDPE with a static vertical load rating of 350 PSF. The dimensions of the unit shall be as follows: Height - 10.25 inches, Top Diameter - 10.0 inches, Base Diameter - 13.0 inches. A six inch Sch. 40 PVC sleeve shall be installed that is notched for the pipe and extends to within 2 - 4 inches from the bottom of the valve box lid.

End connections for all gate valves connected to PVC piping shall be restrained mechanical connection.

Valve boxes and lids shall be integrally colored tan in decomposed granite areas. Top and bottom sections shall be threaded to facilitate field adjustment as required. Sump rock shall be placed below the gate valve as detailed in the Project Plans.

Geotextile fabric and gravel shall be as specified in the 1 IN Remote Control Valve, Electric item.

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Construction Requirements:

Gate valves shall be line size as indicated by the mainline on the Project Plans.

Concrete support blocks for mainline gate valves shall be of type and size indicated on the Project Plans. Concrete supports shall be Utility concrete and shall be in accordance with the requirements of Section 922 of the ADOT Standard Specifications. Support blocks shall be installed under the gate valve body and shall not contact or support the adjacent pipe and fittings.

Support blocks shall be placed on undisturbed soil or soil that has been compacted as specified in Subsection 203-5.03B(4) of the Specifications. No separate payment will be made for the support block.

The Contractor shall provide two 5-foot-long operating handles to the City Representatives, the cost is considered included in the cost of contract items.

Sump rock shall be placed below the gate valve as detailed in the Project Plans.

Valve boxes shall receive 1 ½ inch high heat branding labeling of the box indicating the valve number.

Method of Measurement:

Gate valve (2”) will be measured on a per each basis.

Basis of Payment:

The accepted quantities of Gate Valve (2”), measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work complete in place, as described and specified herein and on the Project Plans.

No payment or direct payment will be made for the gravel sump or 5-foot-long operating handles, the cost considered included in the item.

ITEM NO. 115 DRIP INDICATOR

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing the drip indicator, including excavating and backfilling, at the locations specified in the Project Plans, Details, and these Technical Specifications.

Materials:

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Drip indicators shall be 12-inch and shall operate when system pressure exceeds 15 PSI. Drip indicators will have an operating range of 15 PSI to 100 PSI.

Drip indicators shall be installed with a ½" threaded x 12" flex pipe swing joint.

The drip indicator for use with a non-potable irrigation system shall be colored purple and marked for use with reclaimed water. No extra payment will be made for the purple coloring.

Warranty: There will be a minimum of a one (1) year warranty.

Construction Requirements:

Drip indicators shall be installed at locations shown and as detailed on the Project Plans.

Support blocks shall be placed on undisturbed soil or soil that has been compacted as specified in Subsection 203-5.03B(4) of the Specifications. No separate payment will be made for the support block.

Method of Measurement:

Drip Indicators will be measured on a per each basis.

Basis of Payment:

The accepted quantities of Drip Indicators, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work complete in place, as described and specified herein and on the Project Plans.

ITEM NO. 116 4 IN WHITE TRAFFIC PAINT STRIPE
ITEM NO. 117 4 IN YELLOW TRAFFIC PAINT STRIPE

Description:

The work under this item shall consist of cleaning and preparing the pavement surface, furnishing all materials, and applying white, water-borne, fast-dry or rapid-dry Type II (High build) traffic paint, and reflective glass beads at the locations shown on the plans, City Details, MUTCD, and associated ADOT Specifications, the requirements of these specifications, or as directed by the Engineer.

Materials:

The materials under this item will conform to the current editions of the City Details C-614, C-618, and C-623 and ADOT Standard Specifications Subsection 708-2, except as modified herein. Any materials not specifically covered shall meet the approval of the

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Engineer.

Construction Requirements:

The work under this item will conform to the layouts in the project plans, City Details C-614, C-618, and C-623 and ADOT Standard Specifications Subsection 708-3 except as modified herein, or unless otherwise revised by the Engineer.

Measurement:

Pavement marking paint will be measured by the linear foot along the centerline of the pavement stripe. Skips in dashed lines will not be included in the measurement. Length of pavement markings will be based on a 4-inch wide stripe. Measurement for striping with a plan width greater than the basic 4 inches as shown on the plans or directed by the Engineer will be made by the following method:

$$\frac{\text{Plan Width of Striping (inches)} \times \text{Linear Feet}}{\text{4 (inches)}}$$

No separate measurement or payment will be made for cleaning and preparing the pavement surface, including abrasive sweeping and high-pressure air spay, and for disposal of excess materials, cleaning fluids, and empty material containers, the cost being considered as included in contract items.

Payment:

Pavement striping of the type specified, measured as provided above, will be paid for at the contract unit price per linear foot for the total length of painted line applied to the nearest foot, which price shall be full compensation for the work, complete in place, including glass beads, as described, and specified herein and on the plans.

ITEM NO. 118 PAINT MEDIAN NOSE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to paint median noses at the locations as specified in the Project Plans.

Materials:

The materials under this item will conform to City Detail C-617.

Construction Requirements:

The work under this item will be completed per City Detail C-617.

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Measurement:

Paint Median Nose will be measured as a unit for each bull nose painted and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 119 4 IN WHITE THERMOPLASTIC TRAFFIC STRIPE

Description:

The work under these items shall consist of cleaning and preparing the pavement surface, furnishing all materials, and applying white thermoplastic reflectorized pavement markings using extrusion or ribbon dispensing devices of the required shape and thickness to the prepared pavement surface at the locations and in accordance with the details shown on the plans, the manufacturer's specifications, MUTCD, and the requirements of these specifications.

Materials:

The materials for these items shall conform to the current editions of the City Details C-614, C-618, and C-623, these specifications, and ADOT Standard Specifications Subsection 704-2, except as modified herein.

The preformed pavement markings must be a resilient white product with uniformly distributed glass beads throughout the entire cross-sectional area. Lines are to be capable of being affixed to asphalt pavements by the use of normal heat from a propane type of torch.

The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings will have resealing characteristics, including the capability of fusing with itself and previously applied thermoplastic when heated with a torch.

The markings must be able to be applied with no minimum ambient or surface temperature requirements.

Material must be composed of a modified ester rosin, aggreges, pigments, binders, and glass beads which have been factory produced as a finish product, which shall be designed to meet the requirement of the lasted MUTCD. The thermoplastic material will also conform to AASHTO, designation M249 Specifications for White Reflective Thermoplastic – Solid form, with the exception of the relevant differences for the material begin supplied in a performed state.

New pavement markings will have a uniform adequate nighttime retro-reflectivity when installed. The pavement markings will have an average minimum retro-reflectivity of three hundred fifty (350) millicandelas for white with an 88.76 degree entrance angle and a 1.05 degree observation angle.

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Graded Glass Beads: The material must contain a minimum of thirty (30) percent glass beads by weight and be uniformly distributed throughout the material. The beads will be clear and transparent and will not consist of more than twenty (20) percent of irregular fused spheroids, or silica. The index of refraction will not be less than 1.50. Test for roundness will conform to ASTMD-1155 Standard Test Method for Roundness of Glass Sphere requirements or latest revisions thereof. The material will be supplied with factory applied surface beads at a rate of one (1) pound per ten (10) square feet. The surface beads will have a minimum roundness of ninety (90%) percent and refractive index of 1.50.

White Pigments: Sufficient titanium dioxide pigment will be used to ensure a color equivalent to Federal Highway White Docket No. FHWA-99-6190 Table 5 and Table 6 was revised and corrected.

Skid Resistance: The surface of the material must provide a minimum resistance value of forty-five (45) British Pendulum (Tester) Number (PBN) with properly applied and embedded surface beads when tested according to ASTM E-303 Standard Test Method for Measuring Surface Frictional Properties.

Dimensions: The material must be supplied at a minimum thickness of ninety (90) mils or one hundred twenty-five (125) mils as ordered. The thickness measurement will exclude the top surface beads.

The material must be as sized in the FHWA, Standard sizes as shown in the MUTCD.

Environmental Resistance: The material must be designed for use in heavy traffic locations where a maximum wear and tear is present and resistant to deterioration due to exposure to sunlight, water, oil, gasoline, salt, or adverse weather conditions.

Construction Requirements:

The work under these items shall conform to the layouts in the plans, City Details C-614, C-618, and C-623, these specifications, and ADOT Standard Specifications Subsection 704-3, except as modified herein.

Application on Asphalt: The materials will be applied using a propane torch method recommended by the manufacturer. The material must be able to be applied with no preheating of the pavement to a specific temperature. The pavement will be clean, dry, and free of debris. Supplier must enclose application instructions with each box/package shipped.

Warranty: There will be a minimum of two (2) year guarantee/non-prorated warranty on workmanship, material, and durability under normal urban traffic conditions from date of delivery.

Satisfactory Performance Life: All supplied preformed, heat-fused thermoplastic material will be considered as providing satisfactory performance life if they do not deteriorate due to natural or environmental causes within their material warranty period as herein specified.

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Unsatisfactory performance conditions will be cause for immediate material rejections and replacement at no cost to the City. Unsatisfactory performance conditions include, but are not limited to, the display of the following:

- Bubbles, wrinkles, ripples, peeling, cracks, or breaks on any portion of the applied material greater than 1" x 1" in dimension. This requirement does not apply regarding minor defects around edges or other imperfections in the material due to failure of the asphalt substrate.
- Any shrinkage
- Significant visible delamination from the substrate
- Significant discoloration, including clouding or chalking of the surface.
- Loss of nighttime retro-reflectivity as observed at night under headlights and/or standard practices (including FHWA's minimum retro-reflectivity guidelines) will be used by the City to judge satisfactory performance.

Measurement:

Thermoplastic pavement longitudinal markings (i.e. edge lines and lane lines) and traverse markings (i.e. crosswalks and stop bars) will be measured by the linear foot along the centerline of the pavement marking line and will be based on a 4-inch wide line. Measurement for striping with a plan width greater than the basic 4 inches as shown on the plans or directed by the Engineer will be made by the following method:

$$\frac{\text{Plan Width of Striping (inches)} \times \text{Linear Feet}}{\text{4 (inches)}}$$

Crosswalk lines and stop bars traverse lines will be measured for centerline length and adjusted for withs other than 4 inches, as defined above.

No separate measurement or payment will be made for cleaning and preparing the pavement surface, including abrasive sweeping and high-pressure air spay, and for disposal of excess materials, cleaning fluids, and empty material containers, the cost being considered as included in contract items.

Payment:

The accepted quantities of 4 Inch White Thermoplastic Traffic Stripe, measured as provided above, will be paid for at the contract unit price, complete in place, including pavement surface preparation and glass beads.

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ITEM NO. 120 THERMOPLASTIC/PREFORMED SYMBOL LEFT TURN ARROW
ITEM NO. 121 THERMOPLASTIC/PREFORMED SYMBOL RIGHT TURN ARROW

Description:

The work under these items shall consist of cleaning and preparing the pavement surface, furnishing all materials and applying preformed reflectorized thermoplastic arrows to the pavement in accordance with the details shown on the project plans, the manufacturer's specifications, MUTCD, the requirements of the specifications.

Materials:

The materials for these items shall conform to the current editions of the City Details C-614, C-618, and C-623, the requirements of these specifications, and ADOT Standard Specifications Subsection 704-2, except as modified herein.

The preformed pavement markings must be a resilient white product with uniformly distributed glass beads throughout the entire cross-sectional area. Symbols are to be capable of being affixed to asphalt pavements by the use of normal heat from a propane type of torch.

The markings must be capable of conforming to pavement contours, breaks, and faults through the action of traffic at normal pavement temperatures. The markings will have resealing characteristics, including the capability of fusing with itself and previously applied thermoplastic when heated with a torch.

The markings must be able to be applied with no minimum ambient or surface temperature requirements.

Material must be composed of a modified ester rosin, aggreges, pigments, binders, and glass beads which have been factory produced as a finish product, which shall be designed to meet the requirement of the lasted MUTCD. The thermoplastic material will also conform to AASHTO, designation M249 Specifications for White Reflective Thermoplastic – Solid form, with the exception of the relevant differences for the material begin supplied in a performed state.

New pavement markings will have a uniform adequate nighttime retro-reflectivity when installed. The pavement markings will have an average minimum retro-reflectivity of three hundred fifty (350) millicandelas for white with an 88.76 degree entrance angle and a 1.05 degree observation angle.

Graded Glass Beads: The material must contain a minimum of thirty (30) percent glass beads by weight and be uniformly distributed throughout the material. The beads will be clear and transparent and will not consist of more than twenty (20) percent of irregular fused spheroids, or silica. The index of refraction will not be less than 1.50. Test for roundness will conform to ASTMD-1155 Standard Test Method for Roundness of Glass Sphere requirements or latest revisions thereof. The material will be supplied with factory applied surface beads at a rate of one (1) pound per ten (10) square feet. The surface

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beads will have a minimum roundness of ninety (90%) percent and refractive index of 1.50.

White Pigments: Sufficient titanium dioxide pigment will be used to ensure a color equivalent to Federal Highway White Docket No. FHWA-99-6190 Table 5 and Table 6 was revised and corrected.

Skid Resistance: The surface of the material must provide a minimum resistance value of forty-five (45) British Pendulum (Tester) Number (PBN) with properly applied and embedded surface beads when tested according to ASTM E-303 Standard Test Method for Measuring Surface Frictional Properties.

Dimensions: The material must be supplied at a minimum thickness of ninety (90) mils or one hundred twenty-five (125) mils as ordered. The thickness measurement will exclude the top surface beads.

The material must be as sized in the FHWA, Standard sizes as shown in the MUTCD.

Environmental Resistance: The material must be designed for use in heavy traffic locations where a maximum wear and tear is present and resistant to deterioration due to exposure to sunlight, water, oil, gasoline, salt, or adverse weather conditions.

Construction Requirements:

The work under these items will conform to the layouts in the Project plans, City Details C-614, C-618, and C-623, these specifications, and ADOT Standard Specifications Subsection 704-3, except as modified herein.

Application on Asphalt: The materials will be applied using a propane torch method recommended by the manufacturer. The material must be able to be applied with no preheating of the pavement to a specific temperature. The pavement will be clean, dry and free of debris. Supplier must enclose application instructions with each box/package shipped.

Warranty: There will be a minimum of two (2) year guarantee/non-prorated warranty on workmanship, material, and durability under normal urban traffic conditions from date of delivery.

Satisfactory Performance Life: All supplied preformed, heat-fused thermoplastic material will be considered as providing satisfactory performance life if they do not deteriorate due to natural or environmental causes within their material warranty period as herein specified.

Unsatisfactory performance conditions will be cause for immediate material rejections and replacement at no cost to the City. Unsatisfactory performance conditions include, but are not limited to, the display of the following:

- Bubbles, wrinkles, ripples, peeling, cracks, or breaks on any portion of the applied material greater than 1” x 1” in dimension. This requirement does not apply

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regarding minor defects around edges or other imperfections in the material due to failure of the asphalt substrate.

- Any shrinkage
- Significant visible delamination from the substrate
- Significant discoloration, including clouding or chalking of the surface.
- Loss of nighttime retro-reflectivity as observed at night under headlights and/or standard practices (including FHWA's minimum retro-reflectivity guidelines) will be used by the City to judge satisfactory performance.

Measurement:

Thermoplastic Preformed Left Turn Arrow and Right Turn Arrow will be measured by each unit applied.

Payment:

The accepted quantities of Thermoplastic Preformed Left Turn Arrow and Right Turn Arrow, measured as provided above, will be paid for at the contract unit price for each arrow applied, which price shall be full compensation for the item, complete in place, including necessary cleaning, and primer.

ITEM NO. 122 BIKE LANE SYMBOL SET, TYPE II (HIGH-BUILD)

Description:

The work under this item shall consist of cleaning and preparing the pavement surface, furnishing all materials and applying white water-borne, fast-dry or rapid-dry Type II (High-build) traffic paint, and reflective glass beads at the locations and in accordance with the details shown on the plans, MUTCD, and associated ADOT Supplements, the requirements of these specifications, or as directed by the Engineer.

Materials:

The material under these items shall conform to the City Details C-614 and C-623, and ADOT Standard Specifications Subsection 708-2. The Bike Lane Symbol Set must be waterborne pavement marking paint, Type II (High-build). Any materials not specifically covered shall meet the approval of the Engineer.

Construction Requirements:

The work under this item shall conform to the layouts in the project plans, City Details C-614 and C-623, and the ADOT Standard Specifications Subsection 708-3.

Measurement:

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Bike Lane Symbol Set will be measured by each painted symbol set applied.

No separate measurement or payment will be made for cleaning and preparing the pavement surface, including abrasive sweeping and high-pressure air spay, and for disposal of excess materials, cleaning fluids, and empty material containers, the cost being considered as included in contract items.

Payment:

Bike Lane Symbol Set, measured as provided above, will be paid for at the contract unit price for each painted symbol set, which price shall be full compensation for the work, complete in place, including glass beads, as described in the plans and specified herein.

ITEM NO. 123 REFLECTORIZED RAISED PAVEMENT MARKER (TYPE G, CLEAR, 1-WAY)
ITEM NO. 124 REFLECTORIZED RAISED PAVEMENT MARKER (TYPE D, YELLOW, 2-WAY)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install type G, type D, and type H reflectorized raised pavement markers at the locations as specified in the Project Plans.

Materials:

The reflectorized raised pavement markers and adhesives will conform to City Detail C-622.

Construction Requirements:

The work under these items will conform to the City Details C-614, C-620 C-622, and C-623, City of Chandler Engineering & Design Standards Manual, Chapter 4 – Street Design and Access Control, and as specified in the Project Plans.

Measurement and Payment:

Reflectorized Raised Pavement Marker (Type G, Clear, 1-Way), Reflectorized Raised Pavement Marker (Type D, Yellow, 2-Way), and Reflectorized Raised Pavement Marker (Type H, Yellow, 1-Way) will be measured as a unit for each pavement marker installed and will be paid for at the contract unit price, which price will be full compensation for the item, complete in place. No additional payment will be made for adhesive, the cost being considered incidental to this item.

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ITEM NO. 125 PERFORATED SIGN POST

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install perforated sign posts at the locations as specified in the Project Plans.

Materials:

The Perforated Sign Post will conform to City Detail C-613.

Construction Requirements:

The work under this item will conform to City Detail C-613.

Measurement and Payment:

Perforated Sign Post will be measured per linear foot of sign post installed and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place.

ITEM NO. 126 PERFORATED SIGN POST FOUNDATION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install concrete perforated sign foundations, including anchor, sleeve, and associated hardware to attach post to foundation at the locations as specified in the Project Plans.

Materials:

All materials required to install concrete perforated sign foundations and attachment of post will conform to City Detail C-613.

Construction Requirements:

The work under this item will conform to City Detail C-613 and as specified in the Project Plans.

Measurement and Payment:

Perforated Sign Post Foundation will be measured as a unit for each foundation installed and will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place. No additional payment will be made for anchor, sign post

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sleeves, and associated hardware to attach post to foundation, the cost be considered incidental to this item.

ITEM NO. 127 FLAT SHEET ALUMINUM SIGN PANEL, HIGH INTENSITY GRADE

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install the sign panels at locations as specified in the Project Plans.

Materials:

Sign Panels will meet the requirements of the ADOT Specifications Section 608 and will conform to all applicable current editions of the City Details.

Construction Requirements:

The Sign Panels will be installed per ADOT Standard Specifications Section 608 and will conform to all applicable current editions of the City Details.

Measurement:

Flat Sheet Aluminum Sign Panel will be measured per square foot for each panel furnished and installed.

Payment:

The accepted quantities of Flat Sheet Aluminum Sign Panel, measured as provided above, will be paid for at the contract unit price per square foot, which price will be full compensation for the item, complete in place, including hardware and appurtenances require to install sign.

ITEM NO. 128 NO. 7 PULL BOX
ITEM NO. 129 NO. 7 PULL BOX W/EXTENSION
ITEM NO. 130 NO. 9 PULL BOX

Description:

The work under these items shall consist of furnishing and installing pull boxes for traffic signals, including, excavating, backfilling, and compacting at locations as specified on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

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Materials:

All pull boxes, extensions and covers will be polymer concrete material and shall conform to the details and size as specified in the project plans. The material will conform to City Details C-103-1 and C-103-2, Section 5.6 of the City's Engineering and Design Standards Manual, and ADOT Standard Specifications Section 732, except as modified herein. Contractor to coordination with City CIP Inspector for marking on pull box cover. Markings will be clearly defined and uniform in depth and will be placed parallel to the long side of the lid.

Chipped or cracked pull boxes, covers, and extensions will not be accepted.

Pull box lids will be rated for traffic loads in locations where subject to vehicular traffic. Each lid will be furnished with two lock-down bolts.

Concrete pull boxes and lids will not be used.

Construction Requirements:

The pull boxes and extensions shall be installed in accordance with the plans, City Details C-103-1 and C-103-2, Section 5.6 of the City's Engineering and Design Standards Manual, and ADOT Standard Specifications Section 732, except as modified herein.

New pull boxes will be located out of sidewalks, but within the City right of way, as shown on the plans. Adjustments in pull box locations are allowed but are subject to City CIP Inspector approval.

Pull boxes will be installed at finished grade. Contractor will backfill around the pull box with select excavated material and thoroughly compact to within two inches of original grade. The compaction around the box will not cause the sides to deflect or any part of the box or lid to crack. The contractor will replace any cracked, broken, chipped, or damaged pull boxes or lids at no additional cost to the City.

All pull boxes will be left in clean conditions, free of dirt and debris upon completion of work.

Measurement:

Pull Box and Pull Box with Extension will be measured as a unit for each pull box installed.

Payment:

The accepted quantities for Pull Boxes and Pull Box with Extension, measured as provided above, will be paid for at the contract unit price each, which price shall be full compensation for the work, complete in place, including any excavating and backfilling necessary to complete work.

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ITEM NO. 131 PULL BOX, SRP LIGHTING (CONTRACTOR SUPPLIED AND INSTALLED)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for the installation of SRP approved lighting pull boxes for the streetlight system in accordance with the details and requirements as specified in the Project Plans.

Materials:

SRP Lighting Pull Boxes are to be furnished by the Contractor. Material specifications will be per SRP standards and as shown in City Details C-757-1 and C-757-2. This item will include the ground rod required in each new streetlight pull box and associated conductor clamps.

Construction Requirements:

The Contractor will furnish and install the lighting pull boxes in accordance with City Details C-757-1 and C-757-2 at the approximate locations as specified in the Project Plans. All pull boxes will be placed within proximity of the streetlight pole as shown in City Detail C-757-1 and should be located in the public utility easement where available. The pull boxes will be installed at finish grade.

Measurement:

SRP Lighting Pull Box (Contractor Supplied and Installed) will be measured as unit for each pull box furnished and installed, including pick up, and installation, materials, excavation, backfilling, conductor clamps, ground rod, fittings, elbows, caps, and solvent.

Payment:

Accepted quantities of SRP Lighting Pull Box (Contractor Supplied and Installed), measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the item, complete in place. No additional payment will be made for pick up, and installation, materials, excavation, backfilling, conductor clamps, ground rod, fittings, elbows, caps, and solvent, the cost being considered incidental to this item.

ITEM NO. 132 SCH. 40 PVC ELECTRICAL CONDUIT, 1 IN
ITEM NO. 133 SCH. 40 PVC ELECTRICAL CONDUIT, 2 IN
ITEM NO. 134 SCH. 40 PVC ELECTRICAL CONDUIT, 2 ½ IN (SRP SERVICE CONDUIT)
ITEM NO. 135 SCH. 40 PVC ELECTRICAL CONDUIT, 2 ½ IN (STREET LIGHTING

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PER SRP PLANS)
ITEM NO. 136 SCH. 40 PVC ELECTRICAL CONDUIT, 3 IN
ITEM NO. 137 SCH. 40 PVC ELECTRICAL CONDUIT, 4 IN
ITEM NO. 138 SCH. 40 PVC ELECTRICAL CONDUIT, 2-4 IN (DIRECTIONAL DRILL)
ITEM NO. 139 4 – 2 IN PVC INTERCONNECT CONDUIT
ITEM NO. 140 4 – 2 IN HDPE INTERCONNECT CONDUIT (DIRECTIONAL DRILL)

Description:

The work under these items shall consist of furnishing and installing electrical conduit for traffic signals and lighting, including horizontal directional drilling, boring, excavating, backfilling, and compacting at locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials:

Unless otherwise shown on the plans; bends, conduit fittings, expansion joints, 36-inch sweeps and other conduit accessories not specifically mentioned will be manufactured from a material similar to the connecting conduit. Conduit elbows used for fiber optic cable installations (including future installations) will be a minimum of 36-inches and for bends of 90 degrees or greater will be encased in 1- sack slurry or concrete for at least 12” beyond each bend or coupling joint, whichever is greater. All other conduit elbows will be a minimum of 24-inches.

Polyvinyl Chloride (PVC) conduit will conform to ADOT Standard Specifications Subsection 732-2.02.

Conduit runs which enter pole and cabinet foundations will consist of PVC.

The polyethylene base resin will meet the density requirement and melt index properties described herein. The density will not be less than 0.940 and not more than 0.955 g/CM3 in accordance with ASTM D 1505: Standard Test Method for Density of Plastics by the Density-Gradient Technique. The range for the melt index will be between 0.05 to 0.5g/10 minutes in accordance with ASTM D 1238: Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer.

Additives to the base resin will be included to provide heat stabilization, oxidation prevention and ultraviolet (UV) protection. It will utilize carbon black in the range of 2 to 3 percent for long term protection against UV degradation. The minimum protection period will be one year from date of manufacture in unprotected, outdoor storage in accordance with ASTM D 1603: Standard Test Method for Carbon Black in Olefin Plastics.

Conduit warning tape will be a minimum five-mil thick metallic detectable tape, with a minimum width of 3 inches. Warning tape will be highly resistant to alkalis, acids, and other destructive agents found in the soil.

Warning tape will have a continuous printed message warning of the location of

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underground conduits. The message will be in permanent ink specifically formulated for prolonged underground use and will bear the words, “CAUTION – ELECTRIC LINE BURIED BELOW” or “CAUTION – FIBER OPTIC CABLE BURIED BELOW” in black letters on a red (electric) or orange (communications) background. Where both electric and communication lines are in a single trench, both tapes, as described above will be provided.

Mule tape will be constructed of fiber and will be low-stretch and moisture-resistant. The rope will have a nominal pull strength of 2500-pounds. The mule rope will include a distance marking at intervals not to exceed two feet.

The materials for the Schedule 40 PVC Electrical Conduit, 2 1/2” (SRP Service Conduit) item will include 2.5-inch diameter schedule 40 PVC, 2500lb pull tape, trench, and all other materials incidental to this item of work, conforming to SRP specifications.

Construction Requirements:

All construction will be performed in accordance with the project plans. Where not included in these Specifications or other referenced specifications, the work under this item will be installed per ADOT Standard Specifications Section 732-3.

Open trenching will be backfilled, compacted and regraded to meet pre-disturbance condition within one day following the installation of the conduit, and in accordance with ADOT Standard Specifications.

Conduit runs shown on the plans are depicted to indicate the intended path from point to point. The actual pathway will be staked prior to any excavation and will be modified as necessary, as approved and directed by the City’s Representative, to avoid obstructions that will prevent the east of installation, obstacles and future maintenance or conformance with appropriate codes and specifications. Final conduit locations will be documented and submitted to the City’s Representative in the form of a record drawing.

Except for factory bends, conduit bends will have a radius of not less than that specified in the NEC. Conduit will be bent without crimping or flattening, using the longest radius practicable. Communications conduits will not deflect more than one inch per foot (1:12) vertically or horizontally, equivalent to a minimum radius of 6 feet.

If the 1:12 rule cannot be achieved, standard factory-made elbows of 11 1/4, 22 1/2, 30 or 45 degrees, with a minimum radius of 24 inches will be used. 90-deegree cumulative turns will be made of individual elbows with a minimum radius of 36 inches.

The contractor will trench and install the 2.5-inch diameter conduit at the approximate locations indicated on the plans. The conduit will be installed at a depth as shown on the plans from finished grade to the top of conduit. Each conduit will terminate in a pull box. Elbows will be the same size as the conduit with minimum 18-inch radius at the junction box and 24 inches at all other locations.

All conduit runs will be continuous from pull box to pull box, except at the City Representative’s approved splicing locations.

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Conduits will be at a minimum cover depth of 48 inches, or as indicated in the Project plans. Backfill compaction will be in accordance with ADOT Standard Specifications Subsection 203-5.03 (B) (4).

When conduit is protected and open areas cannot be installed at the minimum depths, it will be encased in Class B concrete, as defined in ADOT Standard Specifications Section 1006.

Conduit installation methods identified as “Trench” may be completed by a different installation method, if approved in advance by the City’s Representative as a means of facilitating installation or mitigating potential damage to existing surface and subsurface elements. If approved by the City’s Representative, the substitution of a different installation method for the original method of installation specified in the plans will be paid for at the original method of installation bid price of the conduit item.

All unoccupied conduits where work is performed will be sealed with a water-tight, corrosion-proof, removable, reusable, and vermin resistant conduit plug or cap. Prior to use, the conduit plug, or cap will be submitted to the City’s Representative for approval.

Occupied conduit where work is performed will be sealed with a conduit cap, as approved by the City’s Representative. The conduit cap must be water-tight, corrosion-proof, removable, and vermin resistant.

A three inch “Y” will be cut into the face of the curb directly over conduit located under rolled or vertical curbs.

The contractor will place warning tape in all trenches in which new PVC conduit is placed. Warning tape is not required in conduit segments where trenchless methods are used for installation. All warning tape will be buried at a depth of 12 inches below the finish grade.

Conduit under existing pavement, curbs and gutters, sidewalks, concrete flatwork, textured or decorative surfaces, and at other specified locations, will be installed by Horizontal Directional Boring (HDB) or Horizontal Directional Drilling (HDD) methods. Use of either method is allowed, subject to approval of the City’s Inspector.

The proposed bore profile will be submitted to the City’s Representative, after the contractor has completed the necessary potholing, and approved prior to beginning the operation at each location.

Directional boring/drilling will be used to install conduits along a prescribed path from the surface with minimal impact to the surrounding area. Installation will be performed in accordance with industry standards and as directed by the City’s Representative.

The contractor’s installation process shall utilize the “walkover” locating system, or other City Representative approved equivalent, for determining the installation profile. The installation equipment will register the depth, angle, rotation, and directional data. At the surface, equipment will be used to gather the data and relay the information to the equipment operator.

When enlargement of an installation hole is necessary, the hole will be at least 25 percent

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larger than the conduit to be installed, unless otherwise specified by the City's Representative. Pulling equipment such as grips, pulling eyes, and other attachment hardware external to the conduit will be permitted as long as a wooden dowel is placed inside the conduit to prevent it from collapsing at the point of attachment when pull tension is at its peak. A swivel will be used with all pulling hardware when pulling back the conduit into the installation path. Drilling fluid will be pumped down the hole to provide lubrication for the conduit as it is pulled in. The pulling tension for installing conduit into the installation path will not exceed 75 percent of the conduit manufacturer's tensile strength rating in order to prevent the conduit from "necking down" or deforming.

All final installation profiles will be submitted to the City's Representative.

Interconnect conduit will be comprised of four 2-inch conduits, one conduit black in color and the three other conduits gray in color. All unused conduits will have 2500-pound detectable mule tape installed, with detectable members spliced across junction boxes to form a continuously detectable conduit run. All conduits will enter junction boxes using 45-degree sweeps with no less than a 36-inch radius. (unless otherwise specified).

All conduits will have a continuous 2500 lb. mule tape installed within and the ends sealed in a NEC approved manner to keep all moisture and foreign matter out of the conduit. Tying two sections of pull tape together is not allowed and will result in replacement by the contractor. For all conduits that require pull tape, the pull tape shall terminate at the end of the conduit with a minimum of two feet of coiled slack in each pull box. The mule tape traveling through conduit that terminates in a pull box, will have its wire ends connected to allow for a continuous locating signal to be used for the entire conduit run.

A #12 AWG copper conductor tracer wire will be installed within each conduit, or one tracer wire will be installed externally of the conduits, but alongside the conduits within the same bore or trench. Tracer wire must be electrically continuous. Any direct buried copper splice of the tracer wire must meet NEC requirements for direct buried electrical splices.

Existing underground conduit to be incorporated into a new system will be cleaned and blown out with compressed air.

No more than one week prior to installation of cable or conductors, all new and existing conduits in which cable or conductors are to be installed will be cleared/cleaned by pull through a mandrel with a diameter of 90 percent of the conduit inside diameter for PVC conduit. The conduit may be brushed or swabbed, if deemed necessary, prior to pulling the mandrel through conduit.

Where indicated on the plans, the contractor will remove and dispose of existing cables and/or conductors in existing conduits. Prior to their removal, all cables and/or conductors to be removed will be identified and marked at all intermediate pull boxes. Conduits to remain empty for future use will have a detectable mule tape installed.

Where multiple cables, conductors, mule tape, and/or new innerducts are required to be installed in the same conduit, all the materials will be installed at the same time.

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Conduit entering pull boxes will be capped with conduit end cap or plug fittings until wiring or cabling is installed.

Measurement:

Electrical Conduit will be measured by the linear foot for each diameter size as follows:

A. From center to center of pull boxes

B. From edge of foundation to center of pull box

C. From edge to edge of foundation

D. From end of conduit to center of pull box or foundation

E. From end to end of conduit when no pull boxes are used.

Payment:

The accepted quantities of Electrical Conduit, measured as provided above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for the work, complete in place, including excavation and backfill and incidentals any necessary to complete the work.

No direct payment will be made for conduit bends at pull boxes, expansion fittings, and coupling fittings, the cost being considered included in the price of this item.

No additional payment will be made for saw cutting, trenching, pavement removal, disposal and pavement replacement done as part of conduit installation, the cost being considered included in the price of this item.

ITEM NO. 141 SRP 12kV UNDERGROUND CONVERSION

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to trench and install conduit, including grading for SRP equipment pads and associated coordination that will be provided by the Contractor for the underground conversion per Project Plans. This work includes the underground relocation of the distribution line for both the underground conversion and underground relocation work.

Construction Requirements:

Work will consist of providing trench (or other means and methods as required) and conduit to construct SRP underground power conduit per the SRP plans. Work will need to be closely coordinated with SRP work. SRP will pull conductor through Contractor supplied and installed conduit and pull boxes. SRP will also be installing pad-mounted equipment. Contractor will provide graded areas at the equipment pad locations as

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shown on the plans.

This work will include trenching, jacking, drilling, excavating, grading for SRP concrete pads, placing and compacting backfill material in accordance with the locations shown on the Project Plans, including SRP plans, the requirements of these specifications, and SRP requirements and details as shown on the SRP plans.

Materials:

Electrical Conduit and conduit fittings will be listed by UL, conform to NEC standards, and adhere to SRP requirements and standards.

Excavating and compacting backfill material will be in accordance with SRP Standards.

SRP Pull Boxes will be listed by UL, conform to NEC standards, and adhere to SRP requirements and standards.

Measurement:

SRP Underground Conversion furnished and installed will be measured by linear foot of trench. All labor and materials for installing a complete conduit system, including, but not limited to conduit, pull boxes, excavating, compacted backfill material, trenchless installation methods, coordination with SRP, grading for SRP concrete pads, and restoration of effected area to original condition will be included as part of the unit of measurement.

Payment:

SRP Underground Conversion, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work described herein, including all incidentals necessary to complete the work, delivery, storage and handling of the materials.

No additional payment will be made for various types of means and methods as may be required for installation, such as horizontal directional drilling, in order to protect existing improvements, the cost being considered incidental to this item.

ITEM NO. 142 POLE FOUNDATION, TYPE A, ADOT DWG T-SL 4.01

Description:

The work under these items shall consist of furnishing all materials and constructing new foundations for traffic signal poles at the locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Pole foundations shall include all conduit, elbows, anchor bolts, grounding wire and

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reinforcing steel.

Materials:

The work under these items shall conform to ADOT Standard Drawing No. T-SL 4.01, ADOT Standard Specifications Subsection 731-2 in its entirety, except as modified herein, and the City' Approved Product List.

Construction Requirements:

The work under these items shall conform to City Standard Detail C-720, ADOT Standard Drawing No. T-SL 4.01, and ADOT Standard Specifications Subsection 731-3 in its entirety, except as modified herein.

The top of the foundation shall be flush with the surface of the adjacent ramp, curb or sidewalk.

Sidewalk and curb ramp may not be constructed on top of the pole foundation.

Contractor shall gain approval from City CIP Inspector prior to construction. If foundations are constructed and do not satisfy the plans and specifications, the contractor will be responsible for replacement at their own cost.

Measurement:

The foundations for traffic signal poles will be measured as a unit for each type of foundation furnished and installed.

Payment:

The accepted quantities of foundations for traffic signal poles, measured as provided above, will be paid for at the contract unit price each, for the type of foundation designated in the bidding schedule, complete in place, which price shall be full compensation for the work described and specified herein and, on the plans, including hardware, wire, excavation, backfill and incidentals necessary to complete the work.

No measurement or direct payment will be made for anchor bolts the cost being considered as included in the unit price paid for the foundations.

ITEM NO. 143 POLE FOUNDATION, TYPE KC MOD
ITEM NO. 144 POLE FOUNDATION, TYPE RC

Description:

The work under these items shall consist of furnishing all materials and constructing new foundations for traffic signal poles at the locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

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Pole foundations shall include all conduit, elbows, anchor bolts, grounding wire and reinforcing steel.

Materials:

The work under these items shall conform to City Details C-714, C-716, and C-718, ADOT Standard Drawing No. T-SL4.28, ADOT Standard Specifications Subsection 731-2, and the City' Approved Product List.

Construction Requirements:

The work under these items shall conform to City Details C-714, C-716, and C-718, ADOT Standard Drawing No. T-SL4.28, ADOT Standard Specifications Subsection 731-2, and the City's Engineering and Design Standards Manual.

Contractor shall refer to the ADOT Standard Drawing T-SL 4.28 for further information regarding, anchor bolt details, the bolt projection above foundation and the spacing between the top of foundation and the bottom of the pole base plate.

The top of the foundation shall be flush with the surface of the adjacent ramp, curb or sidewalk. The sidewalk and curb ramp may not be constructed on top of the pole foundation. Contractor shall gain approval from City CIP Inspector prior to construction. If foundations are constructed and do not satisfy the plans and specifications, the contractor will be responsible for replacement at their own cost.

Measurement:

The foundations for traffic signal poles will be measured as a unit for each type of foundation furnished and installed.

Payment:

The accepted quantities of foundations for traffic signal poles, measured as provided above, will be paid for at the contract unit price each, for the type of foundation designated in the bidding schedule, complete in place, which price shall be full compensation for the work described and specified herein and on the plans, including hardware, wire, excavation, backfill and incidentals necessary to complete the work.

No measurement or direct payment will be made for anchor bolts the cost being considered as included in the unit price paid for the foundations.

ITEM NO. 145 VEHICLE DETECTION SYSTEM

Description:

The work under this item shall consist of furnishing and installing a complete working

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vehicle detection system at the locations as specified in the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

A vehicle detection system shall consist of a complete assemblage of the vehicle detection equipment and requirements components for detecting vehicles and bicycles per the direction and approval of the City of Chandler Traffic Control Center (TMC) and Traffic Operations Supervisor, and the approval of the City CIP Inspector.

Materials:

The vehicle detection equipment will be the Ouster BlueCity OS1 2 Sensor Bundle (One Bundle per intersection). The vehicle detection system shall include all necessary equipment and accessories required to install a complete working detection system. The vehicle detection 2 Sensor Bundle (BC-BDL-EDGE-DL-PEROS1R7) shall include, but not be limited by the following items:

- Catalyst, GPU, AGX Orin, Standard Config, Revision 1: OG-CATL-GPU-AGXO-STDC-Rev01: One Per Bundle
- Lidar sensor - OS1 - 128 Channel Rev7: OS1-070-128U-AX-BR: Two Per Bundle.
- Accessory, Mount Kit, Outdoor, Pole Mount: OG-ACC-MNTK-OUT-PM: Two Per Bundle.
- Accessory, POE+, Splitter, OSDome/0/1 24V: OG-ACC-POE-SPLT-OS24V: Two Per Bundle
- Accessory, Mount Part, Splitter Mount: OG-ACC-MNTP-PSM: Two Per Bundle
- Software, Detect, Classic, Perpetual: OG-SW-DTCT-CLSC-PER: One Per Bundle
- Software, ITS Edge, Actuation, Perpetual: OG-SW-ITSE-ACT-PER: One Per Bundle

Sensor calibration and alignment shall be completed per manufacturer’s requirements. Contractor shall work with City TMC to ensure sensor calibration and alignments are correct.

The vehicle detection system will optimally detect vehicle passage and presence when the Lidar sensor is mounted 4-5 meters above the roadway, tilted 10 degrees down, and when the sensor is calibrated.

Warranty, Support and Service:

The contractor shall provide a minimum of one-year warranty for the vehicle detection system. Ongoing software support by the contractor shall include software updates of the sensor, modular cabinet interface unit and computer applications. These updates will be provided free of charge during the one-year warranty period. The contractor shall maintain

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a program for technical support and software updates following expiration of the warranty period.

Construction Requirements:

A member of the City's TMC will supervise the installation and testing of the vehicle detection system.

The vehicle detection system shall be installed and optimized by an authorized Ouster representative per manufacturer's specifications using the Ouster Gemini Pole Mount Bracket on the signal pole.

The final mounting location shall be per manufacturer's requirements and approved by the City's TMC and City Traffic Operations Supervisor, which will inspect and approve the installation and mounting location of the sensor prior to acceptance.

Measurement:

The Vehicle Detection System will be measured as a complete unit of work for each detection system furnished and installed.

Payment:

The accepted quantity of Vehicle Detection System, measured as provided above, will be paid for at the contract lump sum price, which price shall be full compensation for the work described and specified herein and, on the plans, including sensors, cabling, mounting brackets, interface panels, software, and all other components necessary to provide a complete functional system.

ITEM NO. 146 TYPE A SIGNAL POLE, TYPE A, ADOT DWG T-SL 4.01

Description:

The work under these items shall consist of furnishing all materials and constructing new traffic signal poles at the locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials:

The work under these items will conform to ADOT Standard Drawing No. T-SL 4.01, City Approved Product List, and ADOT Standard Specifications Subsection 731-2.

Construction Requirements:

The work under these items will conform to City Standard Detail C-720, ADOT Standard Drawing No. T-SL 4.01 and in accordance with ADOT Standard Subsection 731-3 and City's Engineering and Design Standards Manual.

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Measurement:

The traffic signal poles will be measured as a unit for each type of pole furnished and installed.

Payment:

The accepted quantities of traffic signal poles, measured as provided above, will be paid for at the contract unit price each, for the type of pole designated in the bidding schedule, complete in place, which price shall be full compensation for the work described and specified herein and, on the plans, including all hardware, wire, and incidentals necessary to complete the work.

ITEM NO. 147 TYPE KC MOD SIGNAL POLE
ITEM NO. 148 TYPE RC SIGNAL POLE

Description:

The work under these items shall consist of furnishing all materials and constructing new traffic signal poles at the locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials:

The work under these items will conform to City Details C-714, C-716 and C-717, City' Approved Product List, and ADOT Standard Specifications Subsection 731-2, except as modified herein.

Construction Requirements:

The work under these items will conform to City Details C-714, C-716 and C-717, C-718, and C-720, ADOT Standard Drawing No. T-SL 4.28 and in accordance with ADOT Standard Subsection 731-3, except as modified herein, and City's Engineering and Design Standards Manual.

Measurement:

The traffic signal poles will be measured as a unit for each type of pole furnished and installed.

Payment:

The accepted quantities of traffic signal poles, measured as provided above, will be paid for at the contract unit price each, for the type of pole designated in the bidding schedule, complete in place, which price shall be full compensation for the work described and specified herein and, on the plans, including all hardware, wire, and incidentals necessary

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to complete the work.

ITEM NO. 149 AUDIBLE PEDESTRIAN PUSH BUTTON W/ SIGN

Description:

The work under this item shall consist of furnishing all materials, labor, and equipment necessary for installing audible pedestrian push buttons with signs at the locations as specified in the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials and Construction Requirements:

The work under this item will conform to ADOT Standard Drawing No. T-SL 11-1, ADOT Standard Specifications Subsection 735, and City of Chandler Approved Products List.

Contractor will work with the City's Traffic Management Center for the location and installation of the push buttons.

Measurement:

The Audible Pedestrian Push Button will be measured as a unit for each audible pedestrian push button furnished and installed.

Payment:

The Audible Pedestrian Push Button, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work complete in place, as specified herein and on the project plans and as specified herein.

ITEM NO. 150 20 FT MAST ARM (TAPERED)
ITEM NO. 151 55 FT MAST ARM (TAPERED)

Description:

The work under these items shall consist of furnishing all materials and constructing new mast arms for traffic signal poles at the locations shown on the project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials:

The work under these items will conform to City Details C-710, C-713, C-714 and C-717, City's Approved Product List, and ADOT Standard Specifications Subsection 731-2.

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Construction Requirements:

The work under these items will conform to City Details C-710 C-713, C-714 and C-717, and in accordance with ADOT Standard Subsection 731-3 and City's Engineering and Design Standards Manual.

Measurement:

The traffic signal mast arms will be measured as a unit for each type of mast arm furnished and installed.

Payment:

The accepted quantities of traffic signal mast arms, measured as provided above, will be paid for at the contract unit price each, for the type of mast arm designated in the bidding schedule, complete in place, which price shall be full compensation for the work described and specified herein and, on the plans, including all hardware and incidentals necessary to complete the work.

ITEM NO. 152 METER PEDESTAL CABINET

Description:

The work under this item shall consist of furnishing and installing meter pedestal cabinets at the locations shown in the project plans and in accordance with the details shown on the plans, the manufacturer's specifications, and the requirements of these specifications,

The meter pedestal cabinet assembly shall consist of the foundation, electrical equipment and components, and all necessary hardware and incidentals necessary to complete work.

Materials:

The meter pedestal cabinet shall conform to the City's Approved Products list, City Detail C-721, ADOT Standard Drawing No. TS 3-5, and ADOT Standard Specifications Section 734-2, except as modified herein.

The meter pedestal foundation will be 3,000 psi Class S concrete and will conform to ADOT Standard Drawing No. TS 2-6 and ADOT Standard Specifications Section 734-2, except as modified herein.

Construction Requirements:

The work under these items will conform to ADOT Standard Drawings No. TS 2-6 and TS 3-5, City Detail C-721, and in accordance with City's Engineering and Design Standard Manual, and ADOT Standard Specifications Section 734-3, except as modified herein.

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Measurement:

Traffic Signal Meter Pedestal Cabinet will be measured as a unit for each cabinet furnished and installed.

Payment:

The accepted quantities of Traffic Signal Meter Pedestal Cabinet, measured as provided above, will be paid for at the contract unit price each, complete in place, which price shall be full compensation for the work described and specified herein and, on the plans, including foundations, conduit, elbows, anchor bolts, and all other components necessary to provide a complete functional assembly.

ITEM NO. 153 CONTROL CABINET

Description:

The work under this item shall consist of furnishing and installing traffic control cabinet assembly at the location shown in the project plans and in accordance with the details shown on the plans, the manufacturer's specifications, and the requirements of these specifications,

The traffic control cabinet assembly shall consist of the foundation, controller, complete assemblage of electrical equipment and components for controlling the operation and timing of traffic control signals.

Materials:

The control cabinet will be a Mobotrex Atc 4-Door cabinet per City's Approved Products List and ADOT Standard Specifications Subsection 734-2, except as modified herein.

The traffic signal controller will be a McCain ATC EX2 TS2 Type 1 (per City's Approved Products List) Controller and will conform to the current editions of the ADOT Standard Specifications Section 734--2, except as modified herein.

The control cabinet foundation will be 4,000 psi Class S concrete and will conform to the manufacturer's specifications and ADOT Standard Specifications Subsection 734-2, except as modified herein.

Construction Requirements:

The work under these items will conform to City Detail C-723, the manufacturer's specifications, and ADOT Standard Specifications Section 734-3, except as modified herein.

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Measurement:

The traffic signal control cabinets will be measured as a unit for each cabinet assembly furnished and installed.

Payment:

The accepted quantities of traffic signal control cabinets, measured as provided above, will be paid for at the contract unit price each, complete in place, which price will be full compensation for the work described and specified herein and on the plans, including foundation, controller, service terminal boxes, cabinet mounted service enclosures, meter sockets, breaker panels, foundations, conduit, elbows, anchor bolts, clearance pad, auxiliary signal controls, external logic modules and all other components necessary to provide a complete functional assembly for controlling the operation and timing of traffic control signals.

ITEM NO. 154 EMPERGENCY PRE-EMPTION SYSTEM

Description:

The work under this item will consist of furnishing and installing emergency pre-emption system, at the locations as specified in the project plans and in accordance with the details shown on the plans and the requirement of these specifications.

The emergency pre-emption system shall consist of the vehicle sensors, phase selector cards, wires, and all appurtenances required for the operation of the system.

Materials:

The pre-emption system equipment will be Opticom Model No. 721 per the City's Approved Product List and conform to ADOT Standard Specifications Subsection 734-2, except as modified herein.

The pre-emption system will include the following equipment:

- Opticom 721 (One per Approach)
- 762 Phase Selector (Two per Traffic Signal Cabinet)
- Opticom 138 Detector Cable

Construction Requirements:

The emergency vehicle pre-emption system shall be furnished and installed as shown on the plans, and in accordance with these specifications and ADOT Standard Specification Subsection 734-3

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The pre-emption sensors will be mounted on the specified poles and for specified directions as indicated on the project plans. Sensors will be attached to the mast arm of the specified poles in a rigid and waterproof manner, with cables routed inside the mast arm and pole shaft to the cabinet. Sensors will be aimed by the contractor for maximum distance sensing.

The contractor is responsible for installing all components, making all connections and adjusting sensors for the emergency pre-emption system.

Phase selectors will be placed in the appropriate input file slots in the traffic signal controller cabinet by the contractor.

Preemption cables will run unspliced from the sensors to the existing controller cabinet and will be furnished and installed and terminated in the cabinet by the Contractor, under this item.

Preemption cables will be clearly tagged and marked in the controller cabinet and each pull box they pass through, designating the direction, phase or corner served. The Contractor is responsible for ensuring the emergency pre-emption system is properly aimed and ready for activation prior to the date of turn-on. The contractor will make any adjustments to sensor aiming or cabling, as requested by City Representatives and the City's TMC.

The pre-emption system will be tested by the contractor to insure proper operation.

Measurement:

Emergency pre-emption system will be measured as a unit for each pre-emption system furnished and installed.

Payment:

The accepted quantities for the emergency pre-emption system, measured as above, will be paid for at the contract unit price each, complete in place, which shall be in full compensation for the work described and specified herein and, on the plans, including pre-emption sensors, phase selector cards, cables, testing, and other components necessary to provide a complete functional emergency pre-emption system.

ITEM NO. 155 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE II)
ITEM NO. 156 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE IV)
ITEM NO. 157 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE V)
ITEM NO. 158 TRAFFIC SIGNAL MOUNTING ASSEMBLY (TYPE VII)

Description:

The work under these items shall consist of furnishing and installing traffic signal

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mounting assemblies at the locations as specified in the Project plans and in accordance with the details shown on the plans and the requirements of these specifications.

Materials:

The work under these items shall conform to the City's Approved Product List and ADOT Standard Specifications Section 733-2, except as modified herein.

Construction Requirements:

The work under these items shall conform to the City's Approved Product List and ADOT Standard Specifications Section 733-3, except as modified herein.

Measurement:

The traffic signal mounting assemblies will be measured as a unit for each type of mounting assembly furnished and installed.

Payment:

The accepted quantities of traffic signal mounting assemblies, measured as provided above, will be paid for at the contract unit price each, for the type of mounting assembly designated in the bidding schedule, which price shall be full compensation for the work, complete in place, as specified herein and on the project plans, including visors, backplates, and incidentals necessary to complete the work.

ITEM NO. 159 SIGN ASSEMBLY (IISNS)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for developing shop drawings and mounting details and installing the Internally Illuminated Street Name Signs (IISNS) as specified in the Project Plans.

Materials:

The work under this item will conform to the City of Chandler Standard Details C-606 and C-607 and the Manufacturer's requirements.

Construction Requirements:

The work under this item will conform to City of Chandler Standard Details C-606, C-607, and C-608 and the Manufacturer's requirements.

IISNS cabling will run un-spliced from the traffic signal control cabinet to the IISNS.

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Measurement and Payment:

Sign Assembly (IISNS) will be measured as a unit for each IISNS and will be paid for at the contract unit price each, for the IISNS designated in the bidding schedule, which price will be full compensation for the work, complete in place described and specified herein and on the Project Plans, including IISNS cabling, mounting brackets, and incidentals necessary to complete the work.

ITEM NO. 160 TRAFFIC SIGNAL FACE (TYPE F) (LED)
ITEM NO. 161 TRAFFIC SIGNAL FACE (FLASHING YELLOW ARROW) (LED)
ITEM NO. 162 TRAFFIC SIGNAL FACE (PEDESTRIAN) (MAN/HAND) (LED COUNTDOWN)

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install traffic signal indications and pedestrian signal indications at the locations as specified in the project plans and in accordance with the specifications.

Materials:

The work under these items will conform to the City's Approved Product List, ADOT Traffic Standard Drawings and ADOT Standard Subsection 733-2, except as modified herein.

All traffic signal indications will be Light Emitting Diode (LED) modules.

Vehicle type LED modules will fit in all standard, incandescent vehicle traffic signal housings. Each module will be complete, consisting of:

- A lens
- LED circuit board inclusive of all of the LEDs and required circuit components
- 36-inch 16 AWG wire leads with strain relief and quick connect terminals
- A rigid housing for protection in shipping, handling and installation
- A one-piece neoprene gasket.

Pedestrian Signal Module:

The pedestrian LED traffic signal module will fit the message of a 16 inch by 18-inch pedestrian signal housing built to the PTCSI Standard. The "HAND" and "MAN" symbol will be 12 inches in height and conform to PTCSI Standards.

Pedestrian LED signal modules will be designed so, that when operated over the specified ambient temperature and voltage range, the signal will attract the attention of, and be readable to, a viewer (both night and day) at all distances from 9.8 feet to 196.9

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feet (3 meters to 60 meters). The measured chromaticity coordinates of the LED pedestrian signal module will conform to the chromaticity requirements of Section 5.3 and Figure C of the PTCSI standard.

The LED pedestrian signal module will be man/hand overlay with fill-in figures for both the man and the hand. Outline and/or side-by-side modules will not be used.

The LED pedestrian signal module will conform to all other specifications in this document, where applicable.

The LED signal module will be rated for use in the ambient operating temperature range, measured at the exposed rear of the module, of -40oF to +165oF (–40 oC to +74 oC).

The LED signal module will be protected against dust and moisture intrusion per the requirements of NEMA Standard 250-1991, Section 4.7.2.l and 4.7.3.2, for Type 4 enclosures to protect all internal LED, electronic, and electronic components.

The LED signal module lens will be UV stabilized and scratch resistant.

The external lens surface for all vehicle signals will be smooth, with no raised features, to minimize the collection of dirt, diesel smoke, and other particulate contaminates, and to facilitate periodic cleaning. External lens facets are not allowed. The LED signal module lens will be UV stabilized and scratch resistant.

The LEDs will be mounted and soldered to a printed circuit board. The LED signal module will be watertight when properly mounted in an installed traffic signal housing. The LED signal module will utilize the same mounting hardware used to secure the incandescent lens and gasket assembly and only require a screwdriver or standard installation tool to complete the mounting into an existing traffic signal housing built to the VTCSH Standard. Unit will connect to existing electrical wiring utilizing quick connect terminal.

The LED signal module will be a single, self-contained device, not requiring on-site assembly for installation into an existing traffic signal housing. The power supply for the LED signal module will be an integral part of the module. The LED signal module assembly will weigh less than 5 pounds.

The assembly and manufacturing process for the LED signal module will be designed to assure all internal LED and electronic components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.

When necessary, modules will have a prominent and permanent vertical indexing indicator, i.e., UP ARROW or the word UP or TOP, for correct indexing and orientation inside signal housing.

Each individual LED signal module will be identified for Warranty purposes and clearly marked with:

- Manufacturer’s name
- Date of manufacture

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- Unit serial number
- Nominal operating voltage
- Power consumption in Watts

Environmental:

The LED signal module will operate over the temperature range of -40oF to +165oF (–40 oC to +74 oC). The LED signal module will be protected against dust and moisture intrusion per the requirements of NEMA Standard 250-1991, Section 4.7.2.l and 4.7.3.2, for Type 4 enclosures to protect all internal LED, electronic, and electronic components.

Electrical – Input:

LED signal modules will operate from a 60 +/- 3 cycle AC line power over a voltage range from 80 VAC RMS to 135 VAC RMS. The control circuitry will prevent current flow through the LEDs in the off state to avoid any false indication as may be perceived by the human eye. The LED traffic signal module will be operationally compatible with NEMA TS - 1 and NEMA TS - 2 conflict monitoring parameters.

Green LED signals will not illuminate for input voltages below 35 VAC RMS and will illuminate for all input voltages higher than 45 VAC RMS (voltage will be regulated above 80 VAC RMS). This requirement is so that a green indication will not illuminate due to a “floating” or high-impedance neutral connection.

All wiring and terminal blocks will meet the requirements of Section 13.02 of the VTCSH standard. Two secured, color coded, 36 inch (914 mm) long 600 V, 20 AWG minimum, jacketed wires, conforming to the National Electrical Code, rated for service at +221oF (+105oC), are to be provided for electrical connection.

The signal module on-board circuitry will include voltage surge protection to withstand high-repetition noise transients and low-repetition high-energy transients as stated in Section 2.1.6, NEMA Standard TS-2, 1992.

The individual LED light sources will be wired so that a catastrophic failure of one LED light source will result in the loss of not more than 5 percent of the signal module light output. One LED failure in an LED Signal Module will not affect any other LEDs. In case of a failure of one LED, only one LED will be lost and not an entire string or module.

Power factor will be 90% or greater, at nominal rated voltage, at 77oF (25 oC), after 60 minutes of operation.

Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption equal to or greater than 15 watts at 77oF (25 oC) will not exceed 20 percent. Total harmonic distortion induced into an AC power line by an LED signal module, operated at nominal operating voltage, with a power consumption less than 15 watts at 77oF (25oC) will not exceed 40 percent.

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The LED signal and associated on-board circuitry must meet Federal Communications Commission (FCC) Title 47, subpart B, Section 15 regulations concerning the emission of electronic noise.

Optical – Output:

The light intensity and distribution from LED signal modules will as a minimum, meet the current ITE and CAL TRANS standards and measurement criteria for vehicle traffic control, even after a 30-minute warm up of continuous operation.

Test data to verify the performance as meeting the ITE intensity requirements at +165oF (+74oC) will be supplied from either of the following (or another certified independent test lab):

Lighting Sciences
7630 East Evans Road
Scottsdale, AZ 85260

ETL Testing Laboratories
3933 US Route 11

Cortland, NY 13045-0950

The light output of all LED vehicle signal modules will also meet ITE specifications for chromaticity.

Fluctuations in line voltage over the range of 80 VAC to l35 VAC will not affect luminous intensity by more than +/- 10 percent.

LED traffic signals will be temperature compensated so as to maintain intensity at elevated temperatures. LED traffic signal will be tested and documented by CAL TRANS as being in compliance with CAL TRANS intensity standards at elevated temperatures.

The LEDs will not exhibit degradation of more than 30% of their initial light intensity following accelerated life testing (operating at +185oF (+85oC) and 85% humidity, for 1000 hours). AlGaAs technology is not acceptable.

Warranty:

All LED traffic signal modules supplied will be warranted for five years against manufacturing defects.

LED traffic signal modules will be performance warranted to be in compliance with ITE and CAL TRANS minimum intensity standards, at +165oF (+74 oC), after a period of three years, measured at 117 volts AC.

Failures due to acts of God, abuse, and accidents are excluded from warranty coverage.

The manufacturer expressly warrants that all goods furnished will conform to all

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specifications and appropriate standards, will be new, and will be free from defects in material or workmanship. The manufacturer warrants that all such goods will conform to any statements made on the containers or labels or advertisements for such goods and that any goods will be adequately contained, packaged, marked, and labeled. The manufacturer warrants that all goods furnished will be merchantable and will be safe and appropriate for the purpose for which goods of that kind are normally used. If the manufacturer knows or has reason to know the particular purpose for which the City intends to use the goods, the manufacturer warrants that such goods will be fit for such particular purpose. The manufacturer's warranty will run to the City, its successors, and assigns. The manufacturer agrees to replace or correct defects of any goods not conforming to the foregoing warranty promptly, without expense to the City, when notified of such nonconformity by the City, provided the City elects to provide the manufacturer with the opportunity to do so. In the event of failure of the manufacturer to correct defects in or replace nonconforming goods promptly, City, after reasonable notice to the manufacturer, may make such corrections or replace such goods and charge the manufacturer for the cost incurred by the City in doing so.

Construction Requirements:

The work under these items will conform to ADOT Standard Specifications Subsection 733-3, except as modified herein.

Measurement:

The traffic signal indications and pedestrian signal indications will be measured as a unit for each type of signal face furnished and installed.

Payment:

The accepted quantities of traffic signal indications and pedestrian indications, measured as provided above, will be paid for at the contract unit price each, for the type of signal face designated in the bidding schedule, complete in place, which price will be full compensation for the work as specified herein and on the project plans, including visors, backplates, lamps and incidentals necessary to complete the work.

ITEM NO. 163 POLE FOUNDATION, FOR C-751-1 POLE
ITEM NO. 164 STREET LIGHT POLE, C-751 WITH SINGLE DAVIT ARM
ITEM NO. 165 STREET LIGHT POLE AND FOUNDATION, C-756 ANGLE STREET LIGHT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to install the streetlight pole, including signal davit arm, pole foundation, and appurtenances at the locations as specified in the Project Plans.

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Materials:

The streetlight pole, foundation and single davit arm will conform to the current edition of the City Details C-751-1, C-751-2, and C-751-3 (Streetlight Detail SL-1) and City Details C-756 (Streetlight Detail SL-17).

Construction Requirements:

The pole will be installed plumb and straight. The base of the pole will be oriented so that the hand hole is located away from the sidewalk and street.

The Contractor will furnish and install the (2) #12 AWG conductors and (1) #8 AWG Ground wire from the luminaire to the junction box. The Contractor will install fuse holders and fuses for all current carrying conductors within the handhole of pole.

The streetlight pole foundation will be installed as directed in the current edition of the City Streetlight Detail C-751-1 and C-756.

Measurement:

Pole Foundation, for SL-1 Pole will be measured as a unit for each foundation installed.

Street Light Pole, C-751 will be measured as a unit for each pole installed.

Street Light Pole and Foundation, C-756 will be measured as a unit for each pole and foundation installed.

Payment:

The accepted quantities of Pole Foundation, C-751 Pole, and C-756 Pole, measured as provided above, will be paid for at the contract unit price per each, which price will be full compensation for the item, complete in place.

No additional payment will be made for conductors to be installed from the junction box to the luminaire or fuses/fuse holders, the cost being considered incidental to this item.

ITEM NO. 166 LED LUMINAIRE (TRAFFIC SIGNAL)

Description:

The work under these items shall consist of furnishing all materials, labor, and equipment necessary for furnishing and installing LED luminaires at locations as specified in the project plans and in accordance with these specifications.

Materials:

LED Luminaires will be in accordance with the City's Approved Product List, City's Engineering and Design Standard Manual and ADOT Standard Specifications, except as modified herein. The luminaire model and house side shields will be the model will be as

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indicated on the plans.

Construction Requirements:

Installation of luminaire will meet City standards and per the City's Approved Product List, and the plans. LED Luminaires will be compatible with and meet mounting requirements per ADOT Standard Drawings and ADOT Standard Specifications Subsection 731, except as modified herein.

House side shields will be installed on the luminaires as indicated on the plans.

Measurement:

LED Luminaires will be measured as a unit for each installed in accordance with the plans.

Payment:

LED Luminaires, measured as provided above, will be paid for at the contract unit price each, which will be full compensation for the work, complete in place, including any associated equipment required in the traffic signal cabinet and for installation.

ITEM NO. 167 LED STREETLIGHT LUMINAIRE, TYPE II

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for furnishing and installing luminaires at locations as specified in the Project Plans.

Materials:

LED Luminaires will be in accordance with Engineering & Design Standards Manual Section 6.3, Luminaires. The luminaire model will be as indicated on the Project Plans. House side shields will be installed on the luminaires where indicated on the Project Plans.

Photocell shall be Philips Control Node and shall be included with each luminaire.

Construction Requirements:

Installation and type of luminaire will meet SRP and City of Chandler standards. LED Streetlight Luminaires will be compatible with and meet mounting requirements per ADOT "Traffic Signals and Lighting" Standard Drawings and Section 731-2.02 of the ADOT Standard Specifications.

The existing LED luminaires, and any associated equipment, will be removed and relocated to a new traffic signal pole light mast arm as specified in the Plans.

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Prior to removing the assembly, the Contractor will disconnect the luminaire power conductors. The contractor will install new cabling as required to provide a fully functional relocated LED luminaire.

(A) Initial Documentation

Prior to removing each LED luminaire assembly, the contractor will document the physical condition of each piece of equipment via photography. This documentation will constitute as the baseline for the physical condition of each LED luminaire assembly.

(B) Installation

Prior to installing the existing LED luminaire on the new traffic signal pole light mast arm, the physical condition of each piece of equipment will be inspected and compared to the photographs taken after the luminaire was initially removed from the existing light pole. The Contractor will repair any damaged physical features per the direction of the Engineer at no additional cost to the City.

Measurement:

LED Streetlight Luminaire will be measured as a unit for each installed in accordance with the contract plans and these Technical Specifications.

Payment:

The LED Streetlight Luminaire, measured as provided above, will be paid for at the contract unit price each, which will be full compensation for the work, complete in place, including storing, transporting, disconnecting, and installing the LED Luminaire on a new or existing light mast arm and any associated equipment required in the traffic signal cabinet.

ITEM NO. 168 ELECTRICAL CONDUCTORS

Description:

The work under this item shall consist of furnishing all materials, labor, and equipment necessary to install traffic signal and signal lighting conductors in conduits at the locations as specified in the project plans and in accordance with these specifications.

Materials:

The material under this item will conform to the City of Chandler Engineering and Design Standards Manual, City's Approved Product List, ADOT Traffic Signals & Lighting Standard Drawings, and ADOT Standard Specification Subsection 732-2, except as

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modified herein.

Construction Requirements:

The work under this item will conform to City of Chandler Engineering and Design Standards Manual, City's Approved Product List, ADOT Traffic Signals & Lighting Standard Drawings, and Subsection 732-3 of the ADOT Standard Specifications, except as modified herein.

Measurement:

Conductors (Signals and Signal Lighting) will be measured as a complete unit of work. This method of measurement shall be used for signal and lighting conductors shown in the signal conductor schedule on the project plans.

No measurements or direct payment will be made for conductors in poles and pull boxes, the cost being considered as included in the contract price for the pole and pull box items.

Payment:

Conductors (Signals and Signal Lighting), measured as provided above, will be paid for at the contract lump sum price, which price will be full compensation for the work, complete in place.

ITEM NO. 169 FIBER OPTIC CABLE (SINGLE MODE 12)
ITEM NO. 170 FIBER OPTIC CABLE (SINGLE MODE 144)
ITEM NO. 171 UNDERGROUND FIBER OPTIC SPLICE CLOSURE

Description:

The Contractor will furnish all labor, material, and equipment necessary to install Single Mode Fiber Optic (SMFO) communication cables in conduit as shown on the Project Plans.

The SMFO Communication subsystem will be completed with the use of two types of SMFO cable installations. These are (1) 144-fiber trunk or branch cables used for the main communication system backbone, and (2) 12-fiber service cable used for connecting the main trunk or branch cables to the field devices, as shown on the Project Plans. The traffic service cables will be factory terminated to a "Gator Patch" patch panel or approved equal (non-factory terminated poly-mod systems are not an approved equal product), unless otherwise directed by the designated City Representative.

The trunkline cable will have all fibers sealed from moisture and dust particles in a new or existing splice enclosure in No. 9 splice vaults, or as directed by the designated City Representative.

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The Contractor will furnish all labor, material, and equipment necessary to install fiber optic splice closures at locations shown in the Project Plans or approved splicing diagrams, and at the cut end of a cable run, or as directed by the designated City Representative. These splice closures will be used to house and protect the splices.

Due to the ever-changing nature of the City fiber network, the approved fiber splicing diagrams will be provided by the City only after the fiber conduit infrastructure installation has passed inspection and prior to the fiber optic cable installation. Should a discrepancy exist between the Project Plans and the approved fiber splicing diagrams in regard to splice locations, the fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative.

Materials:

General Requirements:

(A) Documentation:

The Contractor will provide certification that the cables furnished and installed are in conformance with the appropriate specifications. This certification will be in two parts:

(1) The Contractor will secure a certification from the cable manufacturer that the cable is in conformance with the Rural Electrification Administration (REA) Bulletin 1753F-601 (where applicable) and these Technical Specifications.

(2) The Contractor will certify that the installation of the communication cable subsystem is in accordance with the cable and splice manufacturer's recommendations and these Technical Specifications.

(B) Warranty:

Each item of the communication cable subsystem will be warranted by the Contractor against all defects in material and workmanship in accordance with Subsection 106.13 of the ADOT Standard Specifications for Road and Bridge Construction.

(C) Technical Requirements:

The 144 fiber SMFO will be a continuous cable of sufficient length to permit the associated runs shown on the Project Plans to be made without full cable splices between specified splice locations. Full cable splices will be submitted to City Representatives for approval. The cable will be wound on the reel in such a manner as to provide access to both ends of the cable to enable testing to be performed while the cable is on the reel. Fiber optic cable cuts, splices or cable sheath cuts must only be created as indicated on splicing diagrams, unless otherwise directed by the designated City Representative. If the Contractor violates these cut requirements, the entire length of cable from the previous splice point will be

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removed from the project and a new cable will be pulled at no additional cost to the project. The City will provide the approved fiber cable diagrams for those splice locations along with the approved splicing diagrams for those locations.

Where cable is pulled through an intermediate pull box, the Contractor will ensure that the cable is protected from sharp edges and excessive bends. The Contractor will not cause the cable to violate the minimum bending radius for which the cable was designed. If the Contractor violates the bending radius, the entire length of cable from the previous splice point will be removed from the project and a new cable will be pulled at no additional cost to the project.

Cables will be pulled in the conduit with a split mesh cable grip designed to provide a firm hold on the exterior covering of the cable. Cable will not drag on the ground or pavement during installation. The Contractor will ensure that the tensile load on the cable does not exceed the allowed maximum by using a system that includes a means of alerting the installer when the pulling tension approaches the limit and displays the actual tension on the cable. The Contractor may supplement this procedure with a breakaway tension limiter set below the recommended tensile limit of the cable being pulled.

During pulling, the cable will be lubricated at each pull box. The Contractor will use a pre-lubrication or continuous lubrication method. The lubricant used will be compatible with the cable jacket as recommended by the cable manufacturer. Liquid detergent will not be used. The Contractor will supply documentation identifying either the manufacturer recommendation or a published standard recommending the maximum pulling tension and speeds and these values will not be exceeded. The Contractor will have this documentation on site during each pull. If the Contractor fails to continuously lubricate the cable, the work will be stopped until the terms of this specification are being met to the satisfaction of City Representatives. No compensation for the work stoppage will be given.

Where cables are to be installed in conduit with existing cables or wires that will remain, the Contractor will not damage the existing cables or wires. The Contractor will disconnect, remove, reinstall, and reconnect the existing cables and wires as necessary to facilitate the installation of the new cable, only after prior authorization of the designated City Representative, as critical data is often transmitted over these cables. Prior notification of a minimum of two weeks in advance will be necessary. The Contractor will be responsible for any damage to the existing cables or wires caused by this operation. New and existing conductors will be terminated and labeling reconciled. No additional payment will be made as this work will be considered incidental to the associated items. A police officer will be required if the traffic signal is turned off to pull wire.

Cable will not be installed in any conduit until the associated pull boxes are installed prior to cable installation.

(D) Technical Specifications:

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The SMFO cable furnished and installed by the Contractor will be designed for underground, in-conduit, and building installation applications and will meet the following requirements:

Fibers per cable: 144 for main trunkline or branch cables
48 for building entrance cables
12 for traffic signal service cables
Cladding diameter: 125.0 microns
Core diameter: 8.3 microns nominal
Core eccentricity: < 1.0 micron (0.3 typical)
Temperature range: -34ºC to +74ºC.
Coating thickness: 50 ±15 microns
Cable construction: Loose tube
Outer jacket: Polyethylene
Bending radius: 20 x Dia. minimum
Tensile strength: 600 pounds
Strength member: Dielectric
Mode field diameter: 9.3 ±0.5 microns
Zero dispersion wavelength: 1300 to 1320 nm
Zero dispersion slope: < 0.092 picosec/nm^2-km
Cutoff wavelength: 1260 nm
Point discontinuities at 1300 nm: < 0.1 dB

The 12-fiber service cable will be installed with the “Gator Patch” patch on the floor of the traffic signal controller cabinet. Jumper cables utilizing ST connectors will be installed from the “Gator Patch” to the required equipment. The cost of the jumper cables will be incidental to the service cable. The Contractor is required to seal the unused connectors and fibers from moisture and dust particles. The “Gator Patch” patch will not be pulled through conduit at any time.

Attenuation will be less than 0.35 dB per km at 1300 nm. The Contractor will not exceed the fiber optic cable manufacturer's guidelines for receiving signal input level. The Contractor will be responsible for all damages caused by an excessive input signal level. A violation of the power limit may damage equipment.

Colors:

The color of the outer jacket will be black, and the cable must be outdoor rated. The single mode trunk cable “buffer tube” outer jackets and fiber jackets will be colored in accordance with EIA-598 and designated as shown on the table below.

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Sub cable (Buffer Tube) Jacket Cover Assignments for Trunk Cables:

Fiber Buffer Tube	System Corridor Application
Blue	As directed by designated City Representative
Orange	As directed by designated City Representative
Green	As directed by designated City Representative
Brown	As directed by designated City Representative
Slate	As directed by designated City Representative
White	As directed by designated City Representative
Red	As directed by designated City Representative
Black	As directed by designated City Representative
Yellow	As directed by designated City Representative
Violet	As directed by designated City Representative
Rose	As directed by designated City Representative
Aqua	As directed by designated City Representative

Typical Fiber Color Assignments:

Fiber	Fiber color	System Application	Mode	Fiber
1	Blue	Traffic Signal Data	SM	9/125*u*m
2	Orange	Traffic Signal Data	SM	9/125*u*m
3	Green	Future T.S., CCTV, VMS	SM	9/125*u*m
4	Brown	Future T.S., CCTV, VMS	SM	9/125*u*m
5	Slate	Future T.S., CCTV, VMS	SM	9/125*u*m
6	White	Future T.S., CCTV, VMS	SM	9/125*u*m

Each fiber optic cable will be coiled at a minimum radius of 20 times the outer diameter of the fiber cable in pull boxes. For example, if the cable has a diameter of .5 inches, the minimum radius will be no less than 10 inches. At no time will any fiber optic cable be direct buried throughout the project limits.

(E) Splice Closure:

Fiber optic splice closures will be either shell design or cylindrical, butt-end style corrosion resistant, watertight, and meet the requirements of GR-771-CORE. Underground splice closures will seal, bond, anchor, and provide efficient routing, storage, organization, and protection for fiber optic cable and splices. The splice closure will provide an internal configuration and end cap with a minimum of two express ports for entry and exit of backbone cable and a minimum of three additional ports for additional fiber cables.

Splice closures will be designed to accommodate heat-shrink fusion splice trays in sufficient quantities to perform the required number of splices. At a minimum, the splice closure will accommodate 144 splices. Each splice closure will be supplied

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with at least one spare heat shrink fusion splice tray and the hardware to terminate at least one additional 12-fiber service cable.

Splice closures will have a reliable dual seal design with both the cable jackets and core tubes sealed, without the use of water-blocking material. The splice closures will be capable of being opened and completely resealed without loss of performance. Splice closures will be of a type that allows for existing fiber cables to be removed without having to cut the fibers to allow for future replacement of the splice enclosure without a loss of service.

The splice closure minimum dimensions will be at least 29 inches long by 11 inches wide, unless otherwise directed by the designated City Representative.

Construction Requirements:

(A) Installation Procedure:

Fiber optic cable installation will be allowed to begin only after the fiber conduit infrastructure installation has passed inspection and the approved fiber splicing diagrams have been provided to the Contractor by the designated City Representative.

Each City of Chandler No. 9 pull box will have 100 feet of slack cable and 50 feet of slack cable in a No. 7E pull box loosely looped.

All fiber optic cable will be pulled in innerduct except as specified on the Project Plans. Care will be exercised during cable pulls through conduit bends, poles and cabinets, and looping in junction boxes. In the event the minimum fiber optic radius cannot be maintained during the installation, the Contractor will submit alternative resolutions to City Representatives for review.

To reduce the possibility of damage to the outer jacket of the fiber optic cable, protective measures will be used when the cable is installed. The requirements, herein, will be followed but do not limit the installation to only those identified. The purpose of the installation specifications is to ensure protection of the fiber optic cable when it is installed. Other protective measures, not specified herein, may be taken during installation if it will ensure protection of the cable.

Repair of cable jacket will not be permitted. Jacket damage will require a new cable run.

A cable feeder guide will be used between the cable reel and the face of the duct and conduit to protect the cable and guide it off the reel and into the duct. The cable will be carefully inspected for jacket defects as it is removed from the reel. If defects are noticed, the pulling operation will be stopped immediately and City Representatives notified.

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Precautions will be taken during installation to prevent the cable from being kinked or crushed.

A pulling eye will be attached to the cable end and be used to pull the cable through the duct and conduit system.

As the cable is pulled off the reel and into the cable feeder guide, it will be sufficiently lubricated with a lubricant that will be of the water-based type and approved by the cable manufacturer.

Dynamometers or break away pulling swings will be used to ensure the pulling-line tension does not exceed the installation tension values specified by the cable manufacturer. The mechanical stress placed upon the cable during installation will not be such that the cable is twisted and stretched.

The pulling of the cable will be hand-assisted at each pull box or splice vault. The cable will not be crushed, kinked or forced around sharp corners.

At each pull box and at each cabinet the cable will be visibly marked as follows:

“CAUTION - FIBER OPTIC CABLE”

The markings will be affixed with nylon ties and will be a warning label that will never fade or rub off.

The length of cable being pulled will not exceed the maximum cable tension as specified by the cable manufacturer.

The supplier of the fiber optic cable will provide assistance and/or supervision in the installation process unless the installing company meets the requirements of the supplier.

Where applicable each cable should be labeled and attached to the cable racks with Ty-Raps immediately upon entering the box. Cables should be looped independently of one another. Ty-Raps will contain the cable loops of one cable. Ty-Raps should be tightened so that they prevent cable slippage but do not deform or damage the cable sheath. Ty-Raps will be used as necessary to neatly and independently rack the cables.

Splicing of the SMFO cable will be done only at splice vaults as shown on the Project Plans or approved fiber splicing diagrams by fusion splicing technique. Should a discrepancy exist between the Project Plans and the approved fiber splicing diagrams in regard to splice locations, the approved fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative. The City will provide fiber cable diagrams for those splice locations along with the approved splicing diagrams for those locations. All splices and connectors will be prepared in accordance with the cable manufacturer's, splice manufacturer's, or connector manufacturer’s recommendations. Splices will introduce less than 0.2 dB attenuation and connectors will introduce less than 0.5 dB attenuation.

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Contractor will submit to City Representatives, all full cable splice locations for approval.

Cable Marking:

The completed (trunk, branch and service) cables will have sequential length markers in a contrasting color to the cable jacket, at regular intervals of three (3') feet, (in English units) along the outside of the jacket. Printed on the jacket will be the cable code to identify the number and type of fibers, the manufacturer's name, manufacture's part number, the year of manufacture and the sequential length markings. The marking will be readable and proportionate in height to the cable and must be permanent and weatherproof.

(B) Splicing:

At the locations shown in the Project Plans or in the fiber splicing diagrams, the Contractor will perform all required fusion splicing. Should a discrepancy exist between the Project Plans and the fiber splicing diagrams in regard to splice locations, the approved fiber splicing diagrams take priority, unless otherwise directed by the designated City Representative. The Contractor will install the splice closure in a manner proposed to and approved by the designated City Representative, such that the trunk cable entries are on the same side of the end cap so if additional fiber optic cables are installed at a later date, the two existing seals remain undisturbed.

All splices will be prepared in accordance with the manufacturer's recommendations. Each splice between two new fibers will introduce less than 0.1 dB attenuation. For splices between one new and one existing, or reconnection of two existing fibers, the maximum allowable attenuation will be 0.3 dB.

(C) Test Requirements:

General Requirements:

Installation and testing of all equipment will be accomplished by the Contractor in conformance with these technical specifications.

Test Requirements for Fiber Optic Cable:

The SMFO cable will be tested after installation to verify the integrity of the fiber optic cable plant and its performance. The Contractor will test all terminated fibers of each SMFO cable using an Optical Time Domain Reflectometer (OTDR) in accordance with EIA/TIA-455. Splices testing -0.1 dB or greater or connectors testing -0.5dB or greater will be remade. If any fibers are out of specification, the entire SMFO cable run will be replaced at no additional cost to the project. Records of all fiber installation attenuation measurements will be logged and supplied to the City prior to final acceptance. These records will be used as a future reference.

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Measurement:

The communication cable will be measured by the linear foot for each size cable furnished and installed; it will be measured horizontally along the route between center of pull boxes and center of pull box to center of cabinet.

No payment will be made for cable that is below ground in vertical conduit stub-ups or for slack cable in pull boxes, or field equipment cabinets. No measurement will be made for splicing and terminating cables, testing, tracer wire, pull tape, or for lubricant. All materials required to complete the system will be incidental to the cable.

No measurement or payment will be made for removal or installation of existing cable as required by the Project plans, specification, or direction by City Representatives.

Fiber optic splice closures will be measured as a unit for each splice closure unit furnished, and installed, complete in place, including the fusion splicing of the fibers in new splice closures.

Payment:

The communication cables will be paid as measured per linear foot. Contract unit price will be full compensation for the cable described and specified herein and on the Plans, complete in place and tested. Use of equipment required to remove or install cable, including equipment to limit pull-tension and speed, and racks and hooks for pre-existing pull boxes will be incidental to these items and will not be measured or paid. This installation equipment will remain the property of the Contractor.

The accepted quantities of fiber optic splice closures, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place and as specified herein and on plans.

ITEM NO. 172 FIBER OPTIC PATCH PANEL (12 PORT)

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary for installing and testing Fiber Optic Patch Panel (12-Port), including but not limited to, termination panel, cabling, and miscellaneous materials required to provide a complete and operational fiber connection.

Materials:

Termination panels (a.k.a. patch panels) shall be furnished and installed per the plans and these special provisions. Termination panels for branch fiber provided shall support 12 strands of fiber and SC connections. Termination panels shall be incorporated on a

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mounting plate with other CCTV cabinet equipment (if applicable) and mounted on the side of the cabinet.

Construction Requirements:

All splices and connectors shall be prepared in accordance with the cable manufacturer's, splice manufacturer's, and connector manufacturer's recommendations. Each splice shall introduce less than 0.1 dB attenuation except where new cable is spliced to existing the maximum attenuation is 0.3 dB, and each connector shall introduce less than 0.5 dB attenuation. All splicing shall be done in a splice van or enclosure to protect fibers from excess dust. No open-air splicing is allowed.

All connectors for termination shall be factory assembled. No hot melt or mechanical connectors will be accepted.

Measurement:

The Fiber Optic Patch Panel (12-Port) will be measured as a unit for each item, furnished and installed, complete in place.

Payment:

The accepted quantity of Fiber Optic Patch Panel (12-Port), measured as provided above, will be paid for at the contract unit price each, complete in place and successfully tested.

ITEM NO. 173 CCTV CAMERA SYSTEM

Description:

The work under this item shall consist of furnishing all materials, labor, and equipment necessary for installing and testing the CCTV cameras system including, but not limited to, cameras, camera housings, pan/tilt/zoom assemblies, mounting hardware, power/communications/video cabling and miscellaneous materials required to provide a complete and operational CCTV system at the locations shown on the plans and in accordance to these specifications.

Materials:

The CCTV cameras will be the following:

Manufacturer	Model Number
Axis Communications Camera: Midspan POE:	 P5655-E T8134 60W

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Pole Mount: Cable:	T91L61 Belden 7929A CAT5E

Refer to the plans and City's Approved Product List for specific CCTV requirements. All materials provided will be from new un-depreciated stock. Refurbished materials are not acceptable. All materials provided will be currently supported by the manufacturer and not scheduled for end-of- life.
The contractor will furnish mounting arms and required mounting hardware to install the CCTV assembly on the poles as shown on the plans. The contractor will supply all grommets, connectors, cabling, nipples, and incidental hardware required to install the power and network cabling from the CCTV cabinet to the CCTV Assembly.
The contractor will coordinate with the City TMC to obtain IP addressing, and program IP and other communications parameters into the CCTV camera.

Construction Requirements:

The contractor will mount the CCTV assembly which includes the camera mount, camera housing, camera, zoom lens, tilt/pan drive, and receiver/driver on traffic signal poles per the requirements of the CCTV camera supplier. The contractor will work with the TMC for approval of the CCTV mounting location.
No wire, cables, or conductors will be exposed from the base of the tilt/pan drive to the ground. All conductors will be routed inside the support structure.
The surge suppression rack will be installed in the traffic signal cabinet and all surge suppressors connected per the supplier/manufacturer's instructions. All surge protector leads will be as straight and short as possible. The mounting bolts for the chassis and terminal strips will not protrude from the outside of the enclosure. All cabling, connectors, and hardware required to interconnect the various CCTV field and fiber optic communications equipment will be furnished and installed by the Contractor.

(A) Test Requirements

(1) General:

All CCTV components will be subject to testing and monitoring to determine conformance with all applicable specifications and to ensure proper operation of the equipment and system.

(2) Stand-Alone Tests:

The test will exercise all stand-alone (non-network) functional operations of the CCTV. The tests will verify the following:

- Control of focus, zoom, digital zoom, white balance, iris, tilt/pan, and power on/off
- Response to automatic preset positioning commands

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- Display of Camera ID information and directional indicators
- Video “blacked out” when in a privacy zone
- Presence and quality of video signal during bright sunlight and night conditions
- Retention of non-volatile RAM data (i.e., sector text, preset positions)

Measurement:

The CCTV Camera System will be measured as unit for each system, furnished and installed, complete in place.

Payment:

The accepted quantities for the CCTV Camera System, measured as above, will be paid for at the contract unit price each, complete in place, which shall be in full compensation for the work described and specified herein and, on the plans, including cameras, camera housings, pan/tilt/zoom assemblies, mounting hardware, power/communications/video cabling, testing, and other components necessary to provide a complete functional CCTV Camera system.

ITEM NO. 174 FIELD HARDENED ETHERNET SWITCH

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to install Field Hardened Ethernet Switches, capable of providing 8-port managed Ethernet communications and network-managed Layer 2 functionality.

Materials:

The supplied Ethernet Switches will be EtherWAN, Model No. EX78934E-0VB. The ethernet switch will include the following:

- One (1) Power Supply – Model No. EPOW-54-600 600W
- SFP Transceivers – Model No. EX-1250TSP-MB5L-AS (Four per Traffic Signal Cabinet)
- Four-foot CAT6 Cables (Seven per Traffic Signal Cabinet)

General Requirements:

The Ethernet switch will provide a minimum of four 1000Base-Tx and four gigabit combo ports. The four combo ports are 10/100/1000Mbps configurable for single mode optical fiber by the use of Comnet compatible SFP modules. One SFP module will be provided for each combo port (3 total) and will have a maximum path length of 10km at 1310nm

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Wavelength. Fiber optic jumper cables will be duplex LC (on SFP end) and ST (on termination panel end). The Contractor will provide a complete and operational communication system.

(A) Documentation:

Submittals and documentation will conform to Subsection 103 Submittal Requirements as amended by these Technical Specifications.

(B) Warranties:

All work will be guaranteed for a minimum of one year, after City Representatives and the City of Chandler have issued final system acceptance.

(C) Physical:

The Ethernet switch will conform to standard mounting shelf mounting provisions within the controller cabinet. No printed circuit board (PCB) will be openly exposed in the construction of the Ethernet modem. All connectors, indicators, and replaceable components will be permanently marked and traceable to the supplied documentation, including schematics and parts lists. The Ethernet switch's external markings will include the product name, model number, part number, serial number, manufacturer's name, and manufacturer's address.

(D) Environmental:

The Ethernet switch will be designed to operate in –20 to +70 degrees Celsius with no cooling air flow required.

(E) Maintenance Interface:

The Ethernet switch will include at least the following visual signal indicators:

- Transmit Data for each port or channel
- Receive Data for each port or channel
- Optic signal status
- Power (PWR)

(F) Electrical:

(1) Power:

The power supply will operate from 115 VAC ±15%, 60 Hz ±10%, single phase power. The power supply will include at least a 6' power cable with a male power connector compatible with standard UL requirements.

(2) Grounding Provisions:

Provisions to prevent damage to Ethernet Switch's electronics from lightning via any metallic cable interconnect with the transceiver will be included in the design.

(G) Communications Interface:

(1) Electrical Data Interface:

The Ethernet switch will connect to the Serial Server by a CAT-5e cable via

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RJ-45 ports.

(2) Optical Interface:

The optical interface to the Ethernet switch's will be single mode fiber, via ST connectors. Mode fields of either depressed cladding or matched cladding will be accommodated by the connector. Female connectors will be provided on the Fiber Optic Transceiver's as follows:

- Transmit
- Receive

Construction Requirements:

Installation Requirements:

The Ethernet switch will be free of sharp edges. Power input requirements (i.e., voltage and current) will be marked on the case. All power connections will be protected against inadvertent contact by maintenance personnel.

Testing Requirements:

The Contractor will verify proper operation of the communications between each of the traffic signal controllers and the City's traffic signal control system in the TMC.

Measurement:

Field Hardened Ethernet Switch installation will be measured as a unit for each Ethernet switch, complete in place, to include, but not limited to power supply, CAT6 cabling, jumper cabling, SFP modules, and port connections, in accordance with the Project Plans and these Technical Specifications.

Payment:

The accepted quantity of Field Hardened Ethernet Switch, measured as provided above, will be paid for at the contract unit price per each, which will be compensation for the work, complete in place, as specified in the Project Plans and herein.

ITEM NO. 175 CLASS B CONCRETE, 4 IN THICK**Description:**

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete portions of raised medians as specified in the Project Plans.

Materials:

Class B Concrete will comply with MAG Standard Specifications Section 725 in its entirety.

Construction Requirements:

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The work under this item will comply with MAG Uniform Standard Specifications Section 324 in its entirety.

Measurement and Payment:

Class B Concrete, 4 In Thick will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the item, complete in place.

ITEM NO. 175 CLASS B CONCRETE, 4 IN THICK

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete portions of raised medians as specified in the Project Plans.

Materials:

Class B Concrete will comply with MAG Standard Specifications Section 725 in its entirety.

Construction Requirements:

The work under this item will comply with MAG Uniform Standard Specifications Section 324 in its entirety.

Measurement and Payment:

Class B Concrete, 4 In Thick will be measured per square foot and will be paid for at the contract unit price per square foot, which price will be full compensation for the item, complete in place.

ITEM NO. 176 CONCRETE SCUPPER, CITY DET C-500, W=8 FT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct scuppers, of the widths indicated, at all locations as specified in the Project Plans. Each scupper will include a storm drain inlet marker per the City Detail C-508.

Materials:

All materials will conform to City Detail C-500 and MAG Detail 203 in their entirety.

Construction Requirements:

The work under these items will comply with City Detail C-500 and MAG Detail 203 in

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their entirety.

Measurement:

Concrete Scupper will be measured as a unit for each including storm drain inlet marker and painting of exposed angle iron.

Payment:

The accepted quantities of Concrete Scupper, measured as provided above, will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place, including inlet marker and painting of exposed angle iron.

ITEM NO. 177 CONCRETE SPILLWAY, CITY DET C-500, W=8.5 FT

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary to construct concrete spillways of the widths indicated, at all locations as specified in the Project Plans.

Materials:

All materials for spillway will conform to City Detail C-500 in its entirety.

Construction Requirements:

The work under these items will comply with City Detail C-500 in its entirety.

At locations where a new spillway abuts an existing spillway shown on the Project Plans, the Contractor will provide dowels space no more than 12 inches on center in the center of the existing spillway. Dowels will be 12 inches long of #4 rebar with minimum embed of 4.5 inches. Drill and epoxy dowels with Hilti Hit-Hy 200 adhesive or approved equal. The existing spillway slab will be roughened to +/-1/4 inch amplitude prior to pouring new spillway.

Measurement:

Concrete Spillways will be measured as a unit for each linear foot of spillway constructed.

Payment:

The accepted quantities of spillway, measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the work, complete in place, including drilling, dowels, and epoxy.

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ITEM NO. 178 CATCH BASIN, MAG DET 533-1, TYPE D, ONE 6 FT WING
ITEM NO. 179 CATCH BASIN, MAG DET 533-1, TYPE D, TWO 3 FT WINGS

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing catch basins at locations as specified in the project plans and in conformance to MAG Details 532 and 533-1.

Material:

All materials will conform to MAG Details 532 and 533-1, in their entirety.

Construction Requirements:

The work under these items will conform to MAG Details 532 and 533-1, in their entirety.

Each catch basin will include an inlet marker per City Detail C-508.

Measurement and Payment:

All catch basins will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. No additional payment will be made for trash racks, removal of obstructions, excavation, bedding, backfilling, compacting, inlet markers and joint materials, the cost being considered incidental to this item.

ITEM NO. 180 CATCH BASIN, MODIFIED MAG DET 533-1, TYPE D, ONE 3 FT WING

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing catch basins at locations as specified in the project plans and in conformance to MAG Detail 532 and modified MAG Detail 533-1 on sheet 90 of plans**.**

Material:

All materials will conform to MAG Details 532 and modified 533-1, in their entirety.

Construction Requirements:

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The work under these items will conform to MAG Details 532 in its entirety and modified MAG 533-1, per detail on sheet 90 of plans.
Each catch basin will include an inlet marker per City Detail C-508.

Measurement and Payment:

All catch basins will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. No additional payment will be made for trash racks, removal of obstructions, excavation, bedding, backfilling, compacting, inlet markers and joint materials, the cost being considered incidental to this item.

ITEM NO. 181 CATCH BASIN, MAG DET 542-1, TYPE M-1, 6 FT WING

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing catch basins at locations as specified in the project plans and in conformance to MAG Detail 542-1.

Material:

All materials will conform to MAG Details 542-1, in its entirety.

Construction Requirements:

The work under these items will conform to MAG Details 542-1, in its entirety.
Each catch basin will include an inlet marker per City Detail C-508.

Measurement and Payment:

All catch basins will be measured as a unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. No additional payment will be made for trash racks, removal of obstructions, excavation, bedding, backfilling, compacting, inlet markers and joint materials, the cost being considered incidental to this item.

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ITEM NO. 182 CONCRETE PIPE COLLAR PER MAG DET 505

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to connect new pipes to existing structures at locations as specified in the project plans and in conformance to MAG Detail 505.

Materials and Construction Requirements:

All materials will conform to MAG Detail 505, in its entirety.

Measurement and Payment:

Pipe Collar will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. Compensation shall include furnishing and installing the connection, materials, removal of obstructions, excavation, bedding, backfilling and compacting.

ITEM NO. 183 CONCRETE MASONRY WALL (FULL WALL)
ITEM NO. 184 CONCRETE MASONRY WALL (PARTIAL WALL VIEW FENCE)
ITEM NO. 185 CONCRETE MASONRY WALL (FULL WALL WITH LIGHTED GLASS BLOCK IN COLUMNS) (APN 304-81-994)
ITEM NO. 186 MASONRY WALL (MATCH IN-KIND TO EXISTING) (APN 304-81-011A)

Description:

The work under this item will include furnishing of all materials, personnel, and equipment necessary to construct concrete masonry walls and wrought-iron fences on private property in accordance with the details shown on the Project Plans and at locations designated on the Project Plans.

Materials:

All materials will comply with MAG Uniform Standard Specifications Sections 775 in its entirety. Mortar and grout will conform to MAG Uniform Standard Specifications Section 776. Reinforcing steel will conform to MAG Uniform Standard Specifications Section 727. Portland cement concrete will conform to MAG Uniform Standard Specifications Section 725. Concrete for all wall footings shall be MAG Class A concrete and as specified in the Project Plans. Portions of wrought-iron fence on Concrete Masonry Wall (Partial Wall View Fence) must be coated with a corrosion-resistant coating.

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Masonry Wall (Match In-Kind to Existing) applies to APN 304-81-011A and shall be a full-height masonry wall at the south driveway and a partial wall view fence at the north driveway. Wall color, height, materials, texture, and style must match the existing frontage wall (APN 304-81-011A), or a City Representative-approved equal. The height and dimensions of the new pilasters to be installed at the south and north driveways must match existing (for the south driveway, approximately 32” x 32” x 84”; for the north driveway, approximately 40” x 40” x 96”).

Construction Requirements:

Comply with MAG Uniform Standard Specifications Section 510 in its entirety, including all City of Chandler supplements except as modified herein and as shown on the Project Plans.

Only for private properties that already have wall lighting today, the Contractor will construct a new pull box to connect to the private power feed (terminated near new wall alignment under REMOVE WALL item) and furnish and install new 1” conduit with conductors, pull string, and flush mounted light fixture mounting box in the entrance pilasters as shown on the Project Plans to provide for future entry lighting.

For Concrete Masonry Wall (Full Wall with Lighted Glass Block in Columns), the Contractor will construct a new pull box to connect to the private power feed (terminated near new wall alignment under REMOVE WALL item) and furnish and install new 1” conduit with conductors and pull string in the entrance pilasters as shown on the Project Plans. The Contractor shall construct and provide power to internally illuminated lighted glass blocks in the entrance pilasters, which shall be similar to existing.

The Contractor will submit shop drawings to the City Representative for review and approval of each wall/fence type at least 30 days prior to any wall/fence construction, and before ordering any materials. The Contractor will follow manufacturer requirements for construction.

Measurement:

Concrete Masonry Wall and Masonry Wall will be measured by the linear foot, measured at the center of the wall or fence.

Payment:

The accepted quantities of Concrete Masonry Wall and Masonry Wall measured as provided above, will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place as shown on the Project Plans.

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No additional payment will be made for work to reconnect the existing power feed to the new entry pilasters or new wall pilasters, the cost being considered incidental to these items.

ITEM NO. 187 CONNECT TO EXISTING WATERLINE
ITEM NO. 188 INSTALL 8 IN DIP, CLASS 350 WATERLINE W/ FITTINGS, COC DTL C-308
ITEM NO. 189 INSTALL WATER METER, COC DET C-301-1
ITEM NO. 190 INSTALL FLUSHING PIPE ASSEMBLY WITH BALL VALVE, COC DTL C-300
ITEM NO. 191 INSTALL BACKFLOW PREVENTOR PER COC STD DET C-311
ITEM NO. 192 INSTALL FIRE HYDRANT, COC DTL C-303 AND C-305

Description:

The work under these items shall include the furnishing of all materials, personnel, and equipment necessary to install potable waterlines of the sizes, materials, and locations shown on the Project Plans.

The waterline provides service for several adjacent properties. Waterline outages shall be kept to a minimum which will need to be done during off-peak hours.

Also, work includes providing new potable water stubs for future development.

Work shall include preparation of a maintenance of plant operation (MOPO) to keep waterlines functioning during construction of the new waterlines throughout the project limits. Work also includes all labor, materials, and coordination required to meet the requirements of the of the approved MOPO.

Construction Requirements:

Contractor shall prepare a MOPO that provides sufficient detail on the required sequencing to ensure the continuous operation of the existing waterlines and the numerous services that are fed from the existing waterlines along the project limits. These include individual water services, fire hydrants, pipeline feeds, and fire department connections. The Contractor is hereby advised that the long term shut downs of the existing waterline will not be permitted.

The MOPO shall at the minimum include the following:

- Timing and method for each waterline tie in.

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- Method of keeping existing line functioning prior to connecting water services, fire hydrants, pipeline feeds, and fire department connections to the new waterline. This may include temporary tie-ins, temporary valving, and temporary thrust restraint.
- Detailed schedule for overall installation of the waterline and abandonment of existing waterline, including the preparation of a construction sequencing plan. The schedule for the waterline construction and abandonment work shall align with the sequencing plans or a revised sequencing plan approved by City Representatives.

- Timing and method of removal of temporary improvements necessary for providing continuous water service such as temporary tie-ins, temporary valving, and temporary thrust restraint. Detail shall be provided as to the material used including but not limited to size and material of pipe and valves, size of thrust blocks, and size and manufacturer of adaptor couplings.

Contractor shall submit MOPO to City Representatives for review and approval prior to starting waterline construction.

Work under this item shall also include work necessary to meet the requirements of the approved MOPO including temporary tie-ins, temporary valving, and temporary thrust restraint. Improvements are anticipated to include at a minimum piping, valves, thrust blocks, trenching, excavation, temporary pavement, traffic control, coordination with property owners, and coordination with City staff.

All work and materials shall comply with the appropriate MAG Specification Sections and appropriate City of Chandler Supplement to MAG.
No field cuts of restrained pipe are permitted without prior approval of City Representatives.

Restrained joints for fittings shall be mechanical joint fittings with wedge-type mechanical pipe-grippers or flange. The wedges shall be ductile iron heat treated to a minimum hardness of 370 BHN. The mechanical joint restraint shall have a working pressure of 350 psi.

Resilient wedge gate valves shall be used on all water lines, unless otherwise noted and approved through the plan review process.

All pipe and fittings shall be wrapped in a polyethylene sleeve.

Fire hydrants shall be installed per City of Chandler Detail C-303.

Restrained pipe caps and flushing pipes shall be installed per City of Chandler Detail C-300.

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Valve boxes and covers for potable waterlines shall be installed per City of Chandler Detail C-307.

Valve boxes and covers for reclaimed waterlines shall be installed per City of Chandler Detail C-391 Type C and C-406.

Water pipe bedding shall be per City of Chandler Detail C-308.

All water meters shall be installed per City of Chandler Detail C316.

Measurement:

Potable water and reclaimed water pipelines, of the sizes shown on the Project Plans, polywrap, gate valves, of the sizes shown on the Project Plans, restrained joints, water meters and services, of the sizes shown on the Project Plans, fire hydrants and removals, shall be measured per the respective sections of the MAG specifications. There will be no measurement for fittings, thrust blocks, adaptors, couplings, polywrap, testing, or other materials and labor needed to construct the potable waterlines unless otherwise quantified in the bid schedule, the cost of these items shall be considered included in other bid items for which they are necessary.

Additional valves, fittings, or any other improvements not specifically included in the project plans that may be needed for testing, isolating, or other reason in order to construct the waterlines shall be included in the cost for which such work is necessary and shall be at no additional cost to the City.

Vertical realignments shall be measured by the each and shall include all materials, labor, and testing to provide vertical realignments of existing waterlines at the locations shown on the Project Plans.

No additional measurement or payment will be made for MOPO in order to construct the waterlines as shown on the Project Plans.

Payment:

The accepted quantities of waterline items, measured as provided above, will be paid for at the contract unit price as indicated above, which price shall be full compensation for the item, complete in place. There will be no additional payment for restrained joints, fittings, thrust blocks, adaptors, couplings, horizontal realignment, temporary paving, or other materials and labor needed to relocate the waterlines as shown on the Project Plans, the cost of these items shall be considered included in other bid items for which they are necessary.

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No payment will be made for additional valves, fittings, or any other improvements not specifically included in the Project Plans that may be needed for testing, isolating, or other reason in order to construct the waterlines as shown on the Project Plans.

ITEM NO. 193 CONNECT TO EXISTING SEWER
ITEM NO. 194 INSTALL 4 IN PVC SANITARY SEWER PIPE PER COC DTL C-402
ITEM NO. 195 INSTALL 4 IN SEWER PLUG, MAG DET 427

Description:
The work under these items shall include the furnishing of all materials, personnel, and equipment necessary to install sewer lines, manholes and sewer plugs of the sizes, materials, and locations shown on the Project Plans.

Construction Requirements:
All work and materials shall comply with the appropriate MAG Specification Sections and appropriate City of Chandler Supplement to MAG. Sewer pipe bedding shall be installed per City of Chandler Detail C-402. Manhole cover shall be installed per City of Chandler Detail C-400. Concrete collars for manholes shall be installed per City of Chandler Detail C-401. Manholes shall be sprayed with a pesticide coating.

Measurement:
Items as shown on the Project Plans shall be measured per the respective sections of the MAG specifications.

Payment:
The accepted quantities of sanitary sewer items, measured as provided above, will be paid for at the contract unit price as indicated above, which price shall be full compensation for the item, complete in place. There will be no additional payment for fittings, adaptors, couplings, pesticide, coatings, or other materials and labor needed to install the sanitary sewer improvements shown on the plans, the cost of these items shall be considered included in other bid items for which they are necessary.

ITEM NO. 196 12 IN RGRCP, CLASS IV
ITEM NO. 197 15 IN RGRCP, CLASS V
ITEM NO. 198 18 IN RGRCP, CLASS IV

Description:

The work under these items will consist of furnishing all materials, labor, and equipment necessary for installing RGRCP as specified in the Project Plans.

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Materials:

Rubber Gasketed Reinforced Concrete Pipe (RGRCP) will be in conformance with MAG Uniform Standard Specifications Section 618.2 and 735.

Construction Requirements:

This work also includes the installation of prefabricated tees for the connection to existing systems. All storm drain and reinforced concrete pipe construction will be constructed in compliance with MAG Standard Specifications Section 618 in its entirety.

Comply with MAG Standard Detail 505 in its entirety.

Trench replacement will be “T-Top” per MAG Detail 200-1 and 200-2.

Measurement and Payment:

All RGRCP will be measured per linear foot of pipe and will be paid for at the contract unit price per linear foot, which price will be full compensation for the item, complete in place, including the pipe, connections to existing facilities/pipelines, removal of obstructions, excavation, bedding, backfilling, compacting, testing, temporary pavement and joint materials.

No additional payment will be made for slurry of pipe segments as determined by the City, the cost being considered incidental to this item.

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. Additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions will be considered incidental to this item.

ITEM NO. 199 PIPE PENETRATION FOR CATCH BASIN
ITEM NO. 200 PIPE PENETRATION FOR DRYWELL

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to connect new pipes to existing structures at locations as specified in the Project Plans.

Materials and Construction Requirements:

Pipe Penetration connections shall comply with the details shown on the Project Plans.

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Measurement and Payment:

Pipe Penetration will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place. Compensation shall include furnishing and installing the connection, materials, removal of obstructions, excavation, bedding, backfilling and compacting.

ITEM NO. 201 STORM DRAIN MANHOLE, MAG DTL 520 & 522

Description:

The work under this item will consist of furnishing all materials, labor, and equipment necessary to construct storm drain manholes at locations as specified in the Project Plans.

Materials and Construction Requirements:

Storm Drain Manholes will comply with per MAG Details 520 and 522 in their entirety.

Measurement and Payment:

Storm Drain Manholes will be measured as unit for each and will be paid for at the contract unit price each, which price will be full compensation for the work, complete in place.

ITEM NO. 202 DRYWELL, COC DET C-501

Description:

The work under this item will consist of furnishing all labor, materials and equipment necessary to construct drywells in locations shown on the Project Plans.

Materials:

The drywell will conform City Detail 501 in its entirety.

Construction Requirements:

Infiltration results in proximity to proposed drywell location will be taken by the drywell manufacturer. Infiltration tests will be taken at the location where modification to the existing drywell near station 180+41. Results will be provided to the City Representatives and Contractor as soon as possible. The Contractor will not construct any drywell systems without direction and approval by City Representatives.

The drywells will be constructed per the Project Plans, City Detail 501, and in accordance

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with Engineering & Design Standards Manual, Chapter 3 – Storm Drainage System Design. All drywells must be registered with ADEQ and constructed by an ADEQ licensed contractor. Approved registration materials and map identifying drywell locations(s) must be provided to City Representatives. Modifications to the existing drywell near station 180+41 will be paid for as part of the PIPE PENETRATION FOR DRYWELL item.

For APN 304-81-010B, the proposed drywell must be located at least 100 feet from the existing private water well on the property, per Arizona Department of Environmental Quality requirements. The existing private water well is located approximately 100 feet north of the south property line. The Contractor must confirm the location with the private property owner and verify the 100-foot separation prior to constructing the new drywell.

Measurement and Payment:

Drywells will be measured as unit for each and will be made at the contract unit price each for each accepted drywell installed in place and fully operational with post-construction performance testing accepted by City Representatives.

ITEM NO. 203 BUBBLE-UP STRUCTURE, COC DET C-507

Description:

The work under this item will consist of furnishing all labor, materials and equipment necessary to construct bubble-up structures in places shown on the Project Plans.

Construction Requirements:

The bubble-up structures will be constructed per the detail in the Project Plans and City of Chandler Detail C-507.

Materials:

All concrete for the bubble-up structure construction will conform to MAG Uniform Standard Specifications section 725.

Bubble-up frame and cover will be constructed per City of Chandler Detail C-507.

Measurement:

Bubble-up Structure will be measured as a unit for each structure furnished and installed.

Payment:

Payment will be made at the contract unit price for each accepted Bubble-up Structure installed in place and fully operational with post-construction performance testing

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accepted by City Representatives.

ITEM NO. 204 ALLOWANCE: ROADWAY AND CONCRETE FLATWORK

Description:

The purpose of this allowance is to provide a funding source for any additional roadway and concrete flatwork work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional roadway work and concrete flatwork.

Any costs, fees, or charges necessary to open asphalt batch plant during off hours (i.e. weekend or week night) will be reimbursed from this allowance.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional roadway and concrete flatwork work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Roadway and Concrete Flatwork will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 205 ALLOWANCE: LANDSCAPING

Description:

The purpose of the allowance is to create a funding source for any additional landscaping work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional landscaping work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

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Construction Requirements:

Additional landscaping work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Landscaping will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 206 ALLOWANCE: TRAFFIC SIGNAL AND COMMUNICATIONS FACILITIES

Description:

The purpose of this allowance is to provide a funding source for any additional traffic signal and communication facilities work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional traffic signal and communications facilities work.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional traffic signal and communications facilities work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Traffic Signal and Communications Facilities will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

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ITEM NO. 207 ALLOWANCE: SRP ELECTRICAL

Description:

The purpose of this allowance is to provide a funding source for coordination and paying all necessary fees for permit and hook up to SRP to install a complete functioning electrical service to power the irrigation controllers and streetlighting. This item will include providing all permits, connection fees, foundations, junction boxes, conduit risers, conduit sweeps, coordination, and required protection when working near overhead lines required by SRP to provide the electrical connection from the SRP transformer to the proposed service meter pedestal.

Construction Requirements:

All work will conform to the requirements of SRP. The Contractor will contact the SRP to coordinate power service and construction requirements.

The Contractor will secure the necessary utility company permits, pay the related fee(s) for said permit including utility company connection fees, and coordinate the installation of the required power services.

The meter will be energized and have the account established in the name of the City of Chandler.

Measurement and Payment:

Payment for Allowance: SRP Electrical will be made on an incremental basis in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 208 ALLOWANCE: FURNISH AND INSTALL TEMPORARY FENCING

Description:

The purpose of this allowance is to provide a funding source for furnishing and installing any temporary fencing and gates as approved by City Representatives. The Contractor will be reimbursed for the associated costs of furnishing and installing temporary fencing and gates.

Contract reimbursement from this allowance (in whole or in part) is not ensured. Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

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Construction Requirements:

See items Chain Link Fence, Corral Fence, and various Gate items of these technical specifications and comply with MAG Uniform Standard Specifications Section 420 in its entirety, including all City of Chandler supplements except as modified herein, for construction requirements.

APN 304-81-994, APN 304-81-993, and APN 304-81-996 have pets and livestock that will need to be kept contained within the property by the Temporary Fencing. Contractor to ensure that Temporary Fencing for these properties has a screen and is strong enough and properly anchored into the ground to keep large animals within the yard area, while preventing the animals from getting caught in the fencing.

Measurement and Payment:

Payment for Allowance: Furnish and Install Temporary Fencing will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

No additional payment will be made for the screen required for APNs 304-81-994, 304-81-993, and 304-81-996, the cost being considered incidental to this item.

ITEM NO. 209 ALLOWANCE: WET UTILITIES

Description:

The purpose of the allowance is to create a funding source for any additional wet utility (water, sanitary sewer, reclaimed water) work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional wet utility work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional wet utility work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Wet Utilities will be made on an incremental basis from allowance

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in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 210 ALLOWANCE: DRY UTILITIES

Description:

The purpose of the allowance is to create a funding source for any additional dry utility work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional dry utility work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional dry utility work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Dry Utilities will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 211 ALLOWANCE: STORM DRAIN

Description:

The purpose of the allowance is to create a funding source for any additional storm drain work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional storm drain work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

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Construction Requirements:

Additional storm drain work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Storm Drain will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

ITEM NO. 212 ALLOWANCE: REMOVALS

Description:

The purpose of the allowance is to create a funding source for any additional removal work as approved by City Representatives. The Contractor will be reimbursed for the associated costs of additional roadway work.

Contract reimbursement from this allowance (in whole or in part) is not ensured.

Contractor will not anticipate, nor plan, for the amount from this allowance to be included in the total contract amount as part of this project.

Construction Requirements:

Additional removal work will be completed as approved and directed by City Representatives.

Measurement and Payment:

Payment for Allowance: Removals will be made on an incremental basis from allowance in accordance with the requirements of City of Chandler General Conditions Section 9.

No payment in excess of 100% of the contract lump sum price will be made, unless authorized by City Representatives as a result of extra work authorized in accordance with City of Chandler General Conditions Section 9.

SOILS INFORMATION

The material boring logs shown in the Geotechnical Report are provided in Appendix C. It is not intended to imply that the character of materials shown in the logs is

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representative throughout the project. The soil borings are indicative of the soil characteristics only at the locations and to the depths of each of the borings**.**

Even if not specifically shown on the boring logs, the Contractor may encounter large cobbles, boulders, caliche, conglomerate, hard rock, sand, perched groundwater, historic or prehistoric cultural resources, or other differing site conditions on this project. There will be no additional compensation made for any differing site condition that may be encountered. It is the Contractor's responsibility to include the cost of any additional work items, such as trench boxes, laying back trenches, soil pumping mitigation, etc., associated with unforeseen soil conditions in all contract bid items requiring earthwork and will be considered incidental.

ENVIRONMENTAL MITIGATION MEASURES

Full Environmental Report available upon request.

The Contractor will comply with the following environmental mitigation measures. The cost of complying with the environmental mitigation measures will be considered incidental to other project bid, including, but not limited to burrowing owls and other migratory birds. Note that references to Engineer in the below mitigation measures implies City Representatives.

The project mitigation measures are not subject to change without written approval from ADOT Environmental Planning. The Contractor shall follow all the requirements of the permits specified herein and comply with the project special provisions as well as the MAG Uniform Standard Specifications for Public Works, as well as all applicable local environmental requirements.

City of Chandler Responsibilities:

- If any active bird nests cannot be avoided by vegetation clearing or construction activities, the Engineer will contact the City of Chandler project manager (480.782.3314) to evaluate the situation.

- If active bird nests are identified within the project limits, construction activities will avoid disturbing any active nest. Avoidance areas, if necessary, will be marked in the field with temporary fencing or t-posts with flagging by the approved biologist. The engineer will confer with the approved biologist to determine the appropriate avoidance strategies until the nestlings have fledged from the nest and the nest is no longer active.

- The City of Chandler project manager will contact the Arizona Department of Transportation Environmental Planning Hazardous Materials Coordinator

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(602.920.3882 or 602.712.7767) 30 (thirty) days prior to bid advertisement to determine the need for additional site assessment.

Contractor Responsibilities:

- If clearing, grubbing, or tree/limb removal will occur between March 1 and August 31, the contractor shall employ a qualified biologist to conduct a migratory bird nest search of all vegetation within the 10 (ten) days prior to removal. Vegetation may be removed if it has been surveyed and no active bird nests are present. If active nests cannot be avoided, the contractor shall notify the Engineer to evaluate the situation. During the non-breeding season (September 1 – February 28), vegetation removal is not subject to this restriction.

- Prior to construction, all personnel who will be on-site, including, but not limited to, contractors, contractors' employees, supervisors, inspectors, and subcontractors shall review the attached Arizona Department of Transportation Environmental Planning "Western Burrowing Owl Awareness" flyer.

- If any burrowing owls or active burrows are identified the contractor shall notify the Engineer immediately. No construction activities shall take place within 100 feet of any active burrow.

- If the Engineer in cooperation with the Environmental Planning Biologist determines that burrowing owls cannot be avoided, the contractor shall employ a qualified biologist holding a permit from the US Fish & Wildlife Service to relocate burrowing owls from the project area, as appropriate.

- Prior to the start of ground-disturbing activities and throughout the duration of construction and any landscape establishment period, the contractor shall arrange for and perform the control of noxious and invasive species in the project area.

- To prevent the introduction of invasive species seeds, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil and mud, prior to the equipment entering the construction site.

- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil and mud, prior to leaving the construction site.

- The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal Noxious

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Weed and the State Invasive Species list in accordance with State and Federal Laws and Executive Orders. The plan and associated treatments shall include all areas within the project right of way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the City of Chandler Landscape Architect for review and approval prior to implementation by the contractor.

- If suspected hazardous materials are encountered during construction, work shall cease at that location and the Engineer will be notified. The Engineer will contact the Arizona Department of Transportation Environmental Planning Hazardous Materials Coordinator (602.920.3882 or 602.712.7767) immediately, and make arrangements for assessment, treatment, and disposal of those materials.

- The contractor shall not utilize any abrasive tools or methods for the removal of the Roosevelt Water Conservation District catch basin grate that would disturb the orange/white lead based paint. This includes, but is not limited to, sawing, grinding, sanding, or heating. Woven straps (not linked chains) may be used to lift the drainage grate from the frame.

PERMITS

The Contractor will comply with the requirements of MAG Standard Specifications Sections 107.2 except as modified herein.

The Contractor will obtain all permit(s) required to construct the project, including but not limited to:

City Water Meter Permit

The Contractor will obtain City permit(s) required for fire hydrant water trucks (Contractor submits and pays for this permit, no separate payment will be made for this permit; the cost being considered as included in the price of other contract items) and new landscape water meters (City pays for the permit but Contractor must sign and pick up the permit).

City Encroachment, Civil and Building Permits

The Contractor will obtain City permit(s) required for encroachment, civil and structures. The City pays for the permits but Contractor must sign and pick up the permit.

City Administrative Use Permits

The Contractor will pay and obtain City permit(s) required for construction trailer and temporary facilities. No separate payment will be made for this permit, the cost being considered as included in the price of other contract items.

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Maricopa County Permits

The Contractor will pay and obtain Maricopa County permit(s) required for traffic control within their jurisdiction. No separate payment will be made for this permit, the cost being considered as included in the price of other contract items.

Air Quality Permit

The Contractor will obtain a Maricopa County Air Quality Permit for this project. The Contractor will be required to prepare a comprehensive fugitive dust control plan, in accordance with the guidelines established in Rule 310 of Maricopa County Regulation III, Control of Air Contaminants. The Contractor will complete and submit the control plan with the permit application and obtain approval from the County prior to any activities which may produce dust pollutants.

No separate payment will be made for the preparation, implementation of the fugitive dust control plan, or permit fees, the costs being considered as included in the price of contract items.

Erosion Control Permit

The Contractor will submit the Arizona Pollutant Discharge Elimination System Notice of Intent (NOI) and the Notice of Termination (NOT) to the Arizona Department of Environmental Quality. The Contractor and the City Representatives will jointly review the Stormwater Pollution Prevention Plan (SWPPP) prior to submission of the NOI and prior to the start of work. The SWPPP will be maintained throughout the duration of the project in accordance with the APDES requirements and a current version will be available at all times at the project site.

No separate payment will be made for the preparation, implementation of the SWPPP, or permit fees, the costs being considered as included in the price of contract items.

RWCD Permit

The Contractor will obtain a Notice to Proceed permit to perform work that is within an RWCD right-of-way or easement. The Contractor will submit plans and any other required information to RWCD to obtain approval to proceed with work within their right-of-way or easement. Contractor will be responsible to pay required Crossing Permit Fees, dry-up fees, and provide a cash or bond deposit, if necessary. No separate payment will be made for the preparation, implementation and fees associated with the RWCD permit, the costs being considered as included in the price of contract items.

Salt River Project (SRP) Construction License

This project requires the Contractor to remove existing SRP facilities in some locations

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and install new SRP facilities in other locations. As such, SRP requires the Contractor obtain a Construction License for a nominal fee. No separate payment will be made for the preparation of the construction license or license fees, the costs being considered as included in the price of contract items.

COOPERATION WITH UTILITIES

The Contractor shall comply with the requirements of MAG Standard Specifications Sections 105.6 and ADOT Standard Specifications Section 107.15 except as modified herein.

The locations of existing underground utilities have been shown on the Project Plans to the best of the Design Engineer's knowledge and information provided by each utility company; however, it shall be the Contractor's responsibility to notify Blue Stake at 602-263-1100 (1-800-STAKE-IT), field verify all utility locations and to coordinate in a timely manner with pertinent utility companies so that any obstructing utility installation may be adjusted without delay to the Contractor's project schedule.

For new utilities (water, sanitary sewer, power, signal, fiber optic, electrical, drainage, etc.) that are installed as part of this contract, the Contractor shall act as the interim locator of the new utility until As-Builts are completed by the Contractor and Final Acceptance for the project is granted by the City of Chandler. The Contractor shall be responsible for locating all underground existing facilities by vacuum exploration (potholing) to determine depth, alignment, and clearance in a timely manner; the cost for potholing new or existing utilities shall be included in the cost for other items of work.

Coordination with the pertinent utility companies has been a part of the development of this project. Construction activities shall be coordinated and scheduled to incorporate the following applicable utility construction activities:

- Cox Facility Relocations
- Lumen Facility Relocations
- Southwest Gas Facility Adjustments
- Roosevelt Water Conservation District Adjustments
- Zayo Facility Adjustments
- SRP Power 12kV Facility Relocations

The following telephone numbers should put the Contractor in contact with the proper personnel for coordination:

UTILITY COMPANY	CONTACT	PHONE
Lumen	Eve Jimenez	480-318-5657
MCI/Verizon	Ryan Kann	623-306-0821
Cox	Marcelo Certoma	602-309-7084

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UTILITY COMPANY	CONTACT	PHONE
Roosevelt Water Conservation District	Tabatha Langland	480-988-9586
Southwest Gas	Gene Florez	480-730-3841
Salt River Project – Distribution	William Howard	602-236-0854
Zayo	Ryan Erfert	480-564-3455
Town of Gilbert	Tom Condit	480-503-6815
Gila River Indian Community Utility Authority	Kerry Umsted	520-760-0600
Gila River Telecommunications	Enez Jackson	520-796-8803
City of Chandler – Fiber	Gilbert Bracamonte	480-782-3119
City of Chandler – Traffic Signals	Alisa Doll	480-782-3481
City of Chandler – Municipal Utilities Department	Gina Ishida-Raybourn	480-782-3584

Regardless of the means and methods utilized during the construction of the work, the Contractor shall protect all existing utilities during construction. Any damages to the existing utilities resulting from the scope of work, shall be the repaired and paid for by the Contractor. The Contractor shall follow all Blue stake and state laws regarding the protection of utilities during construction.

It shall be the Contractor's responsibility to determine the exact location of the utilities prior to any construction operations and to notify the above-mentioned utility companies at least two working days prior to commencing any work on the project.

The following utility companies have facilities needing adjustment and/or coordination during construction:

Salt River Project – Power
SRP – Power Distribution has existing facilities that are in conflict with the proposed improvements at multiple locations within the project limits. Conflicts include existing overhead distribution facilities located along the east side of Lindsay Road from approximately STA 155+10 to STA 159+50 and STA 166+00 to 192+50.

SRP job number T3445713
This job will remove the existing overhead power line located along the east side of Lindsay Road. SRP forces will complete the removal of the overhead poles and wires once the proposed underground system has been energized.

SRP job number T3532068
This job will relocate the existing SRP transformer located along the east side of Lindsay Rd at approximately STA 231+40. The Contractor will be responsible for all trenching, conduit, sweeps, grading, etc. as part of this project. SRP will install the wire within the

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conduits and set equipment.

SRP job number T3560195 (see Appendix E)
This job will install a new meter pedestal (see item METER PEDESTAL CABINET) at the intersection of Lindsay Road and Riggs Road to power the new traffic signal. The Contractor will be responsible for all trenching, conduit, sweeps, grading, etc. as part of this project. The Contractor will also be responsible for setting the new meter pedestal as shown on the Project Plans. The Contractor will be required to set up a pre-construction meeting with SRP prior to installing the new meter pedestal and the new trenching, conduit, sweeps, and grading. Once the Contractor has installed the trenching, conduit, sweeps, grading, and set the new meter pedestal, the Contractor will call SRP for inspection. SRP will install the new conductor wire within the conduits, abandon the existing conduit/conductors, and connect the new conductor to the existing transformer. The Contractor must coordinate with SRP and City staff to schedule the signal cutover and ensure the traffic signal is always operational.

The service design for this job number (T3560195) is included in these specifications as Appendix E. The SRP contact for this job number is David Butler. (David.Butler@srpnet.com)

SRP job number T3445714 (Conversion) and T3445771 (Street Lighting)
These jobs will underground the existing overhead power line located along the east side of Lindsay Road from approximately STA 155+10 to STA 159+50 and STA 166+00 to 192+50 and provide power to new street lighting, respectively. The Contractor will be responsible for all trenching, conduit, streetlight pull boxes, ground rods, sweeps, etc. as part of the underground conversion and street lighting project. SRP will install the wire within the conduits and energize the streetlights. SRP will need a minimum of 30 days to pull wire, install equipment, energize, and remove equipment for the street lighting. The Contractor must ensure that new trenching and conduit for SRP facilities is not constructed in conflict with the proposed Lindsay Rd Improvements (storm drain, roadway improvements, etc).

Any damage to existing, new or partially completed SRP facilities, including survey markers and staking, by the Contractor's forces or equipment will be the responsibility of the Contractor. No excavation shall take place without Blue Stake.

The Contractor will be required to stake final grades for new work to be performed by SRP such as: trench line, pad mounted equipment, pole location, etc. Horizontal and vertical controls must be established by the contractor in the immediate vicinity of the work for all grades and survey ties.

Any streetlights that are to be disconnected for removal and/or construction purposes require a disconnect letter from the City, and the Contractor shall give a minimum of 5 working days' notice for disconnect and/or reconnect.

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If the streetlights are to be removed, SRP will only remove its cable from any conduit to the point of delivery and abandon the conduit and any direct buried cable. The Contractor should confirm ownership of the lights before any removal and disposal. The Contractor will be responsible for the cost of each disconnect or reconnect. Streetlights and interconnections are not the property of SRP.

A DISCONNECT IS ONLY THE REMOVAL OF THE METER. If total removal of electrical equipment is required, a written request to remove or abandon equipment is required from the Contractor and the City. Any removal fees for SRP, if not previously paid for by the City, will be paid by the Contractor and reimbursed to the contractor by the City if prompt payment by the Contractor will expedite the removal.

An SRP inspector must inspect any construction performed by the Contractor for and on behalf of SRP. Any conduit installation or other work that is performed by the Contractor for and on behalf of SRP including street light conduits that is covered or closed before being inspected by SRP will be exposed for inspection at the Contractor's expense. A pre-activity meeting with SRP shall take place prior to the start of work. Pre-scheduling of inspection may be available after construction starts. The present phone number for scheduling inspection is (602) 236-0436. This number may change at the discretion of SRP.

The project has a network of underground power lines. All work at or in close proximity to said lines shall be performed in accordance with all Federal, State, and local laws and regulations, including but not limited to:

A. Arizona law regarding "Underground Facilities" (A.R.S. 40-360.21, .22, .24, -.26 and .28).
B. Arizona law regarding "High Voltage Power Lines and Safety Restrictions" I (A.R.S. 40-360.41 -.45).
C. The Occupational Safety and Health Administration.
D. The National Electric Safety Code.

City of Chandler
Municipal Utilities Department

Water:
The City of Chandler Municipal Utilities has existing waterlines along Lindsay Road throughout the project limits and will be protected in place, except for the following improvements:

- Waterline stubs, meters, and air release valves will be added, extended, or removed from the existing system at the locations shown on the Project Plans.
- Adjustments of existing waterline valves will be completed by the Contractor at the locations shown on the Project Plans.

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Sewer:
The City of Chandler Municipal Utilities has existing sewer that is located along Lindsay Road throughout the project limits and will be protected in place, except for the following improvements:

- Sewer stubs will be removed or extended from the existing sewer system as shown on the Project Plans.
- Removal and replacement of cast iron sewer manhole frames and covers and replacement with composite manhole frames and covers will be completed by the Contractor at the locations shown on the Project Plans.

Reclaimed Water:
The City of Chandler Municipal Utilities has an existing reclaimed waterline that is located along Lindsay Road throughout the project limits and will be protected in place, except for the following improvements:

- Reclaimed water stubs will be removed from the existing reclaimed water system as shown on the Project Plans.
- Adjustments and/or removal of existing reclaimed waterline valves will be completed by the Contractor at the locations shown on the Project Plans.

Lumen
Lumen has multiple facilities that are in conflict within the project limits. Lumen has existing facilities that are located along Lindsay Rd, including underground fiber, pull boxes, and pedestals from Hunt Highway to Desert Jewel Boulevard. Lumen also has aerial facilities that are underbuilt on SRP distribution lines, which will be undergrounded. It is anticipated that pedestal relocations will be necessary at approximately STA 185+100, STA 192+25, and STA 231+90 due to roadway improvements. Due to roadway improvements, a Lumen manhole will need to be adjusted to grade at approximately STA 244+50.

It is important to note that a large part of Lumen's proposed facilities cannot be constructed until the Contractor removes the existing private property walls on County island properties. The Contractor will need to coordinate with Lumen during construction. The majority of Lumen's relocation work will be taking place by Lumen forces during City construction.

Cox
Cox has multiple facilities that are in conflict within the project limits. Cox has existing facilities that are located along Lindsay Road, including underground fiber, pull boxes, and pedestals from Hunt Highway to Capricorn Place. Cox also has existing facilities along Lindsay Road from Desert Jewel Boulevard to Ocotillo Road. It is anticipated that pedestal relocations will be necessary at approximately STA 139+50 and STA 156+00, and that a pullbox relocation will be necessary at approximately STA 225+00.

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It is important to note that part of Cox's proposed facilities may not be able to be constructed until the Contractor removes the existing private property walls on County island properties. The Contractor will need to coordinate with Cox during construction.

Southwest Gas
Southwest Gas has utilities throughout the project limits, including underground lines along Lindsay Road from Hunt Highway to Ocotillo Road. Gas valve adjustments to grade are anticipated due to the roadway improvements. The Contractor must follow Southwest Gas's construction requirements for this work.

Roosevelt Water Conservation District (RWCD)
RWCD has five (5) irrigation pipe laterals throughout the project limits. These include a 42" pipe and a 24" pipe at approximately STA 152+00, crossing Lindsay Road at Riggs Road, a 30" pipe at STA 179+00 crossing Lindsay Road at Cloud Road, a 36" pipe at STA 206+60 crossing Lindsay Road at Chandler Heights Road, and a 36" pipe at STA 232+80 crossing Lindsay Road at Brooks Farm Road. Manhole adjustments to grade are anticipated due to the roadway improvements.

Zayo
Zayo has facilities throughout the project limits, primarily near the intersection of Riggs Road and Lindsay Road. The Contractor will be responsible for adjusting the Zayo vault lid at the southeast corner of the Riggs Road-Lindsay Road intersection to grade behind the proposed sidewalk ramp. Conduits must be protected in-place, and the Contractor must follow Zayo construction requirements for the vault adjustment.

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The following utility companies have facilities in the area, but are not anticipated to be in conflict:

MCI/Verizon
MCI/Verizon has existing underground facilities on the west side of Lindsay Rd south of Ocotillo Road. No conflicts are anticipated with MCI/Verizon facilities.

Town of Gilbert
The Town of Gilbert has existing water and sewer facilities within the intersection of Lindsay Rd and Ocotillo Road. No conflicts are anticipated with Town of Gilbert facilities.

Gila River Telecommunications
Gila River Telecommunications has facilities along the south side of Hunt Highway. No conflicts are anticipated with Gila River Telecommunications facilities.

Gila River Indian Community Utility Authority (GRIC UA)
GRIC UA has facilities along the south side of Hunt Highway. No conflicts are anticipated with GRIC UA facilities.

COOPERATION BETWEEN CONTRACTORS AND OTHER AGENCY PROJECTS

Contractor will conform to the requirements of MAG Section 105.7 except as modified herein.

The Contractor is advised that there will be construction activity by others adjacent to the project site. The Contractor will coordinate the work to accommodate the construction activities.

The Contractor will contact the City of Chandler, Town of Gilbert, RWCD, SRP, Chandler Public School District, Gilbert Public School District, ADOT, Maricopa County Department of Transportation (MCDOT), Flood Control District of Maricopa County (FCDMC), Gila River Indian Community (GRIC), and adjacent private development contractors to verify other nearby projects in the vicinity of this project. Projects include but are not limited to:

- Chandler Heights Road Improvements (City Project Number ST1804.201)
- Ocotillo Road Improvements (City Project Number ST1616.401)
- Private Properties
    - APN 304-81-998 – New Gate and Wall By Owner
    - APN 304-81-997 – New Gate and Wall By Owner

The Contractor is advised to schedule and coordinate all work activities and regional transit so as not to adversely conflict with this work. This includes coordinating with schools regarding the relocation of school bus stops during construction. The Contractor will be expected to attend any monthly coordination meetings set up by other agencies

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or other prime contractors working on adjacent projects to discuss coordination.

NOTIFICATION TO PROPERTY OWNERS

The Contractor will provide advance notice (at least 30 days) to residential and local business property owners along Lindsay Road when constructing improvements adjacent to their property that may require action by a property owner to remove, relocate, etc. existing features that impede construction by the Contractor.

No separate payment will be made for providing advance notice, the costs being considered as included in the price of other contract items. Any claims resulting due to delay in providing sufficient notice by the Contractor will not be approved.

Except in the case of an emergency, the Contractor shall perform work on days other than Sundays if the work falls within the Temporary Construction Easement along the frontage of APN 304-81-015, or if the work impedes or impacts driveway access to the church. In the event of an emergency, work will only be performed to the minimum extent necessary to cure or remediate such emergency.

For APN 304-81-996, the contractor will be required to meet with the property owners at least 30 days before improvements on their frontage begin to discuss and address ingress/egress, security, containment, sequencing, garage access, temporary fencing, flood irrigation, landscape irrigation, project duration, and other project-related concerns and issues. Also for APN 304-81-996, the Temporary Construction Easement cannot be used for the storage of equipment or construction materials. The existing onsite private well on APN 304-81-996 located east of the existing shade structure (east of the proposed improvements and TCE) must remain accessible by the owners during construction.

For APN 304-81-010B, the proposed drywell must be located at least 100 feet from the existing private water well on the property, per Arizona Department of Environmental Quality requirements. The existing private water well is located approximately 100 feet north of the south property line. The Contractor must confirm the location of the water well with the private property owner and verify the 100-foot separation prior to constructing the new drywell.

BERMING FOR FLOOD IRRIGATION

For all private properties that receive flood irrigation, when temporary fencing is in use and no wall has been constructed, the Contractor will be responsible for:

- Constructing temporary berming to prevent flood irrigation from flowing into the right-of-way
- Restoring existing flood irrigation connections impacted by construction

For all private properties that receive flood irrigation, the Contractor will be responsible

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for constructing permanent irrigation berming on the private property to prevent flood irrigation from flowing into the right-of-way or ponding up against the proposed (permanent) walls or fences. The Contractor will also be responsible for restoring existing flood irrigation connections impacted by construction.

The cost of Berming for Flood Irrigation shall be considered incidental to the project cost. No additional payment will be made for Berming for Flood Irrigation.

TRAFFIC CONTROL

Access Requirements for Pedestrians:

The Contractor will maintain ADA accessible passable walkway along Lindsay Road at all times during construction.

Traffic-Related Work Restrictions:

No lane restrictions or intersection closures will be allowed during special events or holiday times as determined by the City.

No trenches will be left open overnight in areas that are not fenced in to prohibit access to vehicles and pedestrians. All trenches within the roadway will be plated or backfilled and paved prior to allowing vehicles to travel on the section of roadway.

Traffic Signal Requirements:

The existing traffic signal at the intersection of Lindsay Road and Riggs Road will remain operational until the new traffic signal infrastructure has been constructed and ready for switch over. The traffic signal switch over does not have to be completed at one time and can be completed in phases as the new traffic signal construction is completed.

Portable temporary signal equipment will not be used under any circumstances.

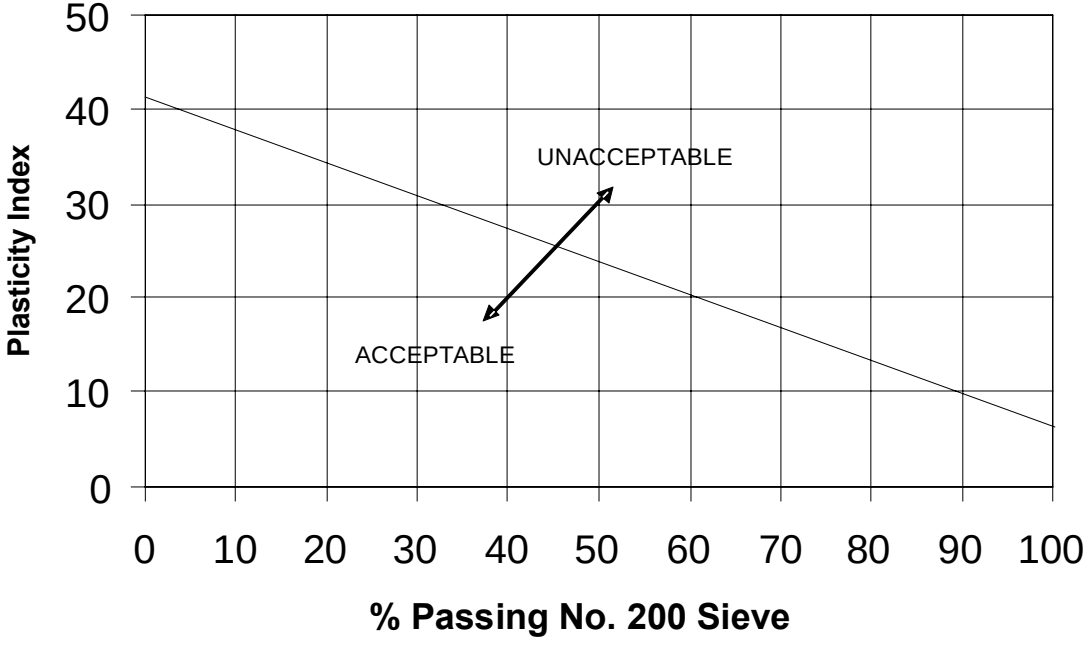
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APPENDIX A

Subgrade Acceptance Chart

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SUBGRADE ACCEPTANCE CHART



Design R-Value = 20

Construction Control R-Value = 20

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APPENDIX B

City of Chandler Request for Public Records

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Chandler • Arizona
Where Values Make The Difference

Request for Public Records

Name	E-mail	Date
Agency/Company Name	Telephone No.	Fax No.
Street Address	City, State	Zip Code

Describe the record(s) you are requesting. Please include all pertinent information such as address, permit number, zoning case number, date, etc

☐ Permit □ View □ Copy	
☐ Certificate of Occupancy □ View □ Copy	
☐ Residential Plot Plan □ View □ Copy	
☐ Building Plans □ View □ Copy	
☐ Other □ View □ Copy	

Please indicate whether you will use the records for a non-commercial or a commercial purpose.

☐ **Non-Commercial**

I declare that I have read and understood the Public Records Request Policy and General Information sheet regarding requests for public records from the Planning and Development Department. The records that I am requesting are ***not*** for a commercial purpose as defined by Arizona Revised Statues §39-121.03(D). These records are for my use; I will not sell them to another person. I understand the City of Chandler does not guarantee the accuracy or completeness of these records and declare the City of Chandler, its officers and employees free from any and all damages, lawsuits, causes of action and liabilities that may result from my reliance upon and use of the above described information.

Print Name: _____ **Signature:** _____ **Date:** _____

☐ **Commercial – please complete the form for commercial use of public records.**

For Records Office Use	
Cost of Reproduction: copies @ $ per copy. Postage charge (if any): $	Total: $
Completed by:	Date:
Comments:	

Mailing Address:
P.O. Box 4008, MS 401
Chandler, Arizona 85244-4008

Transportation and Development Department
Records Management Section
215 E. Buffalo St., Chandler Arizona

Telephone: (480) 782-3000
Fax: (480) 782-3055
www.chandleraz.gov
Form No: UDM-39/Planning
Rev: 7-30-14

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Public Records Request
Policy and General Information

Policy

It is the policy of the Planning and Development Department to comply with all City, State of Arizona, and Federal laws and regulations regarding the release of public records. Public records in the custody of the Planning and Development Department are open to inspection by any person at all times during regualar office hours (8:00 a.m. to 5:00 p.m. Monday-Friday). However, please be aware that the City may deny inspection of certain records if they are made confidential by State or Federal law, or involve the privacy interests of persons, or if disclosure would be detrimental to the best interests of the City

Requests for Public Records for a Non-Commercial Purpose

Please submit requests for inspection or copies of public records in writing, with adequate and detailed information. The City is not responsible for creating new documents or generating reports in response to non-specific requests.

Requests for copies of public records for a non-commercial purpose will be processed within 10 working days, unless the request is for an unusually large number of records. The City will charge a reasonable fee to cover reproduction expenses. Checks should be made payable to the City of Chandler.

Requests for Public Records for a Commercial Purpose

Requests for public records to be used for commercial purpose must be accompanied by a statement of that purpose, with a notary affidavit. These requests will be sent to the appropriate Division Manager's office for verification and authorization; please allow extra time for processing. The Arizona Revised Statues §39-121.03(D) defines a commercial purpose as:

- Sale or resale.
- Producing a document containing all or part of the copy, printout or photograph for sale.
- Obtaining names and addresses from public records for the purpose of solicitation or the sale of names and addresses to another for the purpose of solicitation.
- Any purpose in which the purchaser can reasonably anticipate the receipt of monetary gain from the direct or indirect use of the public record.

It is a violation of the public record law to:

- Obtain a public record for a non-commercial purpose and use it for a commercial purpose.
- Obtain a public record for a commercial purpose and use it for a different commercial purpose.

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APPENDIX C

Geotechnical Report

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Roadway Geotechnical Engineering Report
Lindsay Road Improvements
Hunt Highway to Ocotillo Road
Chandler, Arizona
City Project No. ST2001-201
Federal Project No. CHN-0(246)D
ADOT TRACS No. TO 243 01C
RAMM Project No. G26811



For:
Kimley-Horn & Associates, Inc.
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020

◆◆◆

By:
Ricker • Atkinson • McBee • Morman & Associates, Inc.
2105 South Hardy Drive, Suite 13
Tempe, Arizona 85282

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RICKER • ATKINSON • McBEE • MORMAN & ASSOCIATES, INC.
Geotechnical Engineering • Construction Materials Testing
R·A·M·M

Kimley-Horn & Associates, Inc.
7740 North 16th Street, Suite 300
Phoenix, Arizona 85020

March 28, 2022

Attention: Ryan Marks

Subject: Roadway Geotechnical Engineering Report
Lindsay Road Improvements
Hunt Highway to Ocotillo Road
Chandler, Arizona
City Project No. ST2001-201
Federal Project No. CHN-0(246)D
ADOT TRACS NO. TO 243 01C

RAMM Project No. G26811

Attached to this letter is the Roadway Geotechnical Engineering Report for the proposed Lindsay Road Improvements which will extend from Hunt Highway to Ocotillo Road (STA 100+00 to STA 260+00) in Chandler, Arizona.

Lindsay Road is classified as a major arterial road. The proposed Lindsay Road Improvements project consists of segments of full half-street reconstruction roadway widening and segments of half street improvements to existing roadway pavements between Hunt Highway and Ocotillo Road. Roadway widening will occur within four northbound segments and one southbound segment as follows: northbound from Hunt Highway to Doral Drive (STA 100+00 to STA 127+00); northbound from Riggs Road to just south of Falcon Estates (from STA 155+00 to STA 160+00); northbound from just north of Falcon Estates to just south of Whispering Heights (STA 166+00 to STA 192+50); northbound from just north of Avian Trails to Brooks Farm Road (STA 230+00 to STA 232+00); and southbound from Hunt Highway to just north of the Lindsay Water Production Facility (STA 100+00 to STA 140+00). Half street improvements adjacent to roadway widening areas and half street improvements outside of roadway widening areas comprise the remainder of the proposed roadway improvements along Lindsay Road between Hunt Highway and Ocotillo Road. Storm drain installation was considered for the length of the widening sections.

The attached report was prepared based on project and site data available at this time and was prepared in a manner and to the standards of local geotechnical engineering practice. Our services did not include evaluations for the presence of hazardous materials, area subsidence resulting from groundwater withdrawal or other geologic hazards.

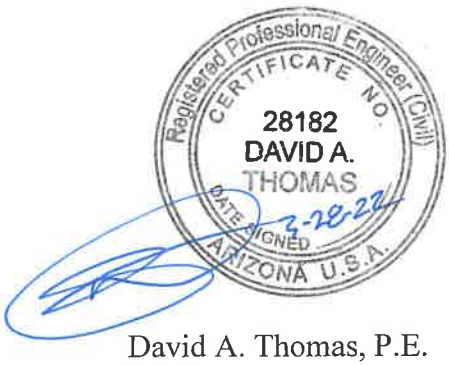
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If you have any questions, please do not hesitate to call.

Respectfully submitted,
RICKER • ATKINSON • McBEE • MORMAN & ASSOCIATES, INC.

By: Demetrius L. Rugley, E.I.T. AND Andrew J. Schirmer

AND



David A. Thomas, P.E.

/dlr

Copies to: Addressee email (ryan.marks, Julia.spinolo@kimley-horn.com)

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

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REPORT

R·A·M·M

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INTRODUCTION

This report presents the results of our geotechnical engineering services for the proposed Lindsay Road Street improvements, Hunt Highway to Ocotillo Road, located in Chandler, Arizona. The scope of our services included performing a field exploration program, laboratory analysis and geotechnical engineering evaluation, analysis, and recommendations. The geotechnical recommendations presented herein include those for rehabilitated and new pavements, roadway improvements, anticipated excavation conditions, earthwork factors, site development, and material use and requirements. We would be pleased to review project specifications and plans for conformance with our recommendations and discuss any additional recommendations you may require.

This firm should be notified for additional evaluation and recommendations if the project design parameters (locations, depths, alignments, etc.) are changed, and/or where site use or conditions encountered during construction differ from those presented herein.

PROPOSED CONSTRUCTION

Lindsay Road is classified as a major arterial road. For the purposes of this discussion, the roadway improvements are referenced as northbound and southbound "half-street" improvements. The proposed Lindsay Road Improvements project consists of segments of full half-street reconstruction roadway widening and segments of half street improvements to existing roadway pavements between Hunt Highway and Ocotillo Road. Roadway widening will occur within four northbound segments and one southbound segment as follows: northbound from Hunt Highway to Doral Drive (STA 100+00 to STA 127+00); northbound from Riggs Road to just south of Falcon Estates (from STA 155+00 to STA 160+00); northbound from just north of Falcon Estates to just south of Whispering Heights (STA 166+00 to STA 192+50); northbound from just north of Avian Trails to Brooks Farm Road (STA 230+00 to STA 232+00); and southbound from Hunt Highway to just north of the Lindsay Water Production Facility (STA 100+00 to STA 140+00). Half street improvements adjacent to roadway widening areas and half street improvements outside of roadway widening areas comprise the remainder of the proposed roadway improvements along Lindsay Road between Hunt Highway and Ocotillo Road. Storm drain installation was also being considered for the length of the project.

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SITE CONDITIONS

The existing pavement in both lanes along Lindsay Road are in fair to good condition and contain some longitudinal and transverse cracks with a few localized areas of light block cracking and alligator cracking. From south to north, Lindsay Road is a two-lane road (one northbound and one southbound from Hunt Highway to Cherry Hills Drive (STA 100+00 to STA 143+00), becoming a two-lane road with a median to Riggs Road (STA 152+00). From north of Riggs Road to Desert Jewel Boulevard (STA 155+00 to STA 193+00), Lindsay Road is a three-lane road with one northbound lane, two southbound lanes, and a middle turn lane with no median. From Desert Jewel Boulevard to Ocotillo Road (STA 193+00 to STA 260+00) Lindsay Road consists of a four-lane road with two northbound lanes, two southbound lanes, and a median. The road has outside vertical curbs/gutters (except in widening areas) and numerous local driveways and side streets intersecting the road on both sides. There are numerous residential developments adjacent to Lindsay Road along the west and east sides of the road.

FIELD EXPLORATIONS

Subsurface conditions were explored by drilling test borings to depths ranging from 2.0 feet to 15.0 feet along Lindsay Road within the existing pavement and un-paved shoulders areas, respectively, at the locations shown on the attached Site Plan in Appendix A. Test Borings 1 to 13 were drilled to a depth of 15 feet within the unpaved shoulders of Lindsay Road with a CME 55 drill rig using 7-inch diameter, hollow-stem augers. Test borings C1 to C14 were cored through the existing asphalt concrete with an 8-inch diameter diamond impregrated core barrel and advanced with hand tools and sampling equipment. The drilling equipment and crew were provided by Wildcat Drilling, Inc. The test boring locations were determined in the field by our project manager / geologist. During the field explorations, representative undisturbed and disturbed samples were obtained, the field explorations logged and soils field-classified by our field engineering technician, who also directed the drill crew. The relatively undisturbed samples (ring samples) in Test Borings 1 through 13 were obtained by driving a 3-inch diameter, ring-lined, open-end sampler driven into the soil with a 140-pound hammer dropping 30 inches. The relatively undisturbed samples in Test Borings C1 though C14 were obtained by driving the ring-lined sampler with a 35-pound hammer thrown down 18 inches on a 2-inch diameter rod. The results of our field explorations are presented in the Test Boring Logs in Appendix A.

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LABORATORY ANALYSIS

Representative samples obtained during the field explorations were subjected to the following tests in our laboratory.

Type of Test	Type of Sample	Number of Samples Tested
Minus No. 200 Sieve & Plasticity Index	Representative	10
Swell	Remolded	6
Standard Proctor (ASTM D698-A)	Representative	3
Moisture Content/Dry Density *	Undisturbed	51
Compression	Undisturbed	4
Soluble Salts & Chlorides**	Representative	6
pH & Minimum Resistivity	Representative	6

* Reported in the test boring logs
** Conducted by Motzz Laboratory

The results of the laboratory analysis are presented in Appendix B.

DISCUSSIONS OF TEST RESULTS

Remolded samples of the surface soils from borings along Lindsay Road northbound of Hunt Highway to the midpoint between Cloud Road and Desert Jewel Boulevard (STA 100+00 to STA 185+00) exhibited low to moderate swell potentials following wetting, when tested in the laboratory. A remolded sample of the surface soils from the boring along Lindsay Road northbound of the midpoint between Cloud Road and Desert Jewel Boulevard to Ocotillo Road (STA 185+00 to STA 260+00) exhibited a high swell potential following wetting, when tested in the laboratory. Undisturbed samples of the site soils from near-surface grades were found to undergo a slight amount of compression during loading to approximate grade loads. Upon wetting at approximate foundation loads, the soils south of Cloud Drive (STA 178+00) underwent a small amount of additional compression. Upon wetting at approximate foundation loads the soils north of Cloud Drive (178+00) underwent a slight amount of heave/swelling

EXISTING PAVEMENT AND SUBGRADE CONDITIONS

A summary of the results of the laboratory testing on representative samples obtained from the test borings advanced in the roadway shoulders and thickness of existing pavement sections exposed adjacent to the test boring locations are tabulated below:

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Location	Roadway Widening Subgrade: Present Retained No. 4 Sieve	Roadway Widening Subgrade: Percent Passing No. 200 Sieve	Roadway Widening Subgrade: Plasticity Index	Exposed Shoulder Thickness (Inches): AC	Exposed Shoulder Thickness (Inches): AB
TB 1 @ Martin/Boatwright	3	58	27	2.0	10.00
TB 2 @ N Valencia II	8	40	34	4.00	10.00
TB 3 @ S Valencia II	8	35	7	4.00	6.00
TB 4 @ N Shadow Ridge	5	32	7	4.00	8.00
TB 5 @ S Shadow Ridge	9	39	14	3.00	8.00
TB 6 @ N Lone Tree	5	43	15	5.00	6.00
TB 7 @ N Springfield Lakes	N/A	N/A	N/A	4.00	11.00
TB 8 @ Sun Groves I	12	33	15	4.00	10.50
TB 9 @ M Springfield Lakes	N/A	N/A	N/A	4.00	4.00
TB 10 @ N Sun Groves II	1	44	12	2.25	1.50
TB 11@ M Springfield Lakes	N/A	N/A	N/A	4.00	5.00
TB 12 @ S Sun Groves II	2	42	14	0.50	1.00
TB 13 @ S Springfield Lakes	2	43	13	3.75	5.25

The following test borings were drilled through cores in the roadway pavement sections and the subgrade soils were overlain by the following pavement sections, with comparison to as-built sections provided by Kimley-Horn & Associates:

Existing Pavement Thicknesses

Location	Existing Pavement: AC Thickness (inches)	Existing Pavement: AB Thickness (inches)	As Built: AC Thickness (inches)	As Built: AB Thickness (inches)
C1 @ Pecan Trace	5.50	10.00	N/A	N/A
C2 @ N Old Stone Ranch II	5.00	12.00	N/A	N/A
C3 @ Avian Trails	4.00	10.75	4.00	10.00
C4 @ N Avian Meadows	5.50	13.00	5.00	10.00
C5 @ Veteran's Oasis	4.25	10.50	4.00	10.00
C6 @ S Avian Meadows	6.00	9.75	5.00	10.00
C7 @ Whispering Heights	4.75	10.75	4.00	10.00
C8 @ Valencia II	5.00	7.50	4.00	15.00
C9 @ Shadow Ridge	4.00	11.50	4.00	10.00
C10 @ Falcon Estates	4.25	9.50	N/A	N/A
C11 @ Lone Tree	5.50	1.50	5.00	12.00
C12 @ Sun Groves I	4.00	11.50	4.00	10.00
C13 @ S Old Stone Ranch II	2.00	9.00	N/A	N/A
C14 @ Pecan Trace	4.00	10.00	N/A	N/A

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SURFACE AND SUBSURFACE CONDITIONS

The results of the test borings are presented in Appendix A in the Test Boring Logs. At the locations of Test Borings 1 through 13, the subsurface profiles were highly variable. At the location of Test Boring 1, stiff to very stiff, high plasticity sandy clay was encountered to a depth of 10 feet. Below this depth, low plasticity silty to clayey sand was encountered extending to a depth of 15 feet (the maximum depth of our exploration). At the location of Test Boring 2, site soils consisted of medium dense clayey sand with high plasticity fines, extending to a depth of 15 feet. At the locations of Test Borings 3 and 4, the surface and near-surface soils consisted of silty to clayey sand extending to a depth of 5 feet. These soils were loose to medium dense, had low plasticity fines, and were underlain by medium plasticity clayey sand extending to a depth of 15 feet. The surface and near-surface soils encountered in Test Borings 5 through 13 consisted of clayey sand with a trace to some gravel extending to depths ranging from 5 to 15 feet. These soils were generally medium dense and had medium plasticity fines. Underlying the clayey sand surface soils in Test Borings 5, 6, 8 and 9 below depths ranging from 5 to 10 feet, site soils consisted of low plasticity silty to clayey sand extending to a depth of 15 feet. Variably light to moderate cementation was encountered below a depth of 10.0 feet in Test Borings 7, 8, 11, and 12. The thickness of the existing pavement edge adjacent to each of these test borings were also highly variable and are shown on the "exposed shoulder thickness" tabulation above.

At the locations of the core samples within the existing pavements (Test Borings C1 through C14) the subgrade soils immediately underlying the existing roadway pavements consisted primarily of medium to high plasticity clayey sand and low to medium plasticity silty to clayey sand. An exception to this generalization was encountered in Test Boring C3, where high plasticity sandy clay was encountered. Each of these test borings were terminated at a depth of 2.0 feet below top of pavement. The thickness of the existing roadway pavements at these test boring locations are provided in the "existing pavement thicknesses" tabulation above.

Soil moisture contents were described as slightly damp to damp in all of the test borings except Test Borings 3 and 4 where the moisture contents were described as damp to moist. No groundwater was observed in the test borings during the field exploration.

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PAVEMENT DESIGN

Standard Design Sections:

The design of the pavement widening and reconstruction was based on the criteria presented in the City of Chandler Standard Details and Specifications for Major Arterial Street, Typical Cross Section Detail Nos. C-203 and C-204 and using percent passing the No. 200 sieve and Plasticity Index of the subgrade soil to determine the base course thickness per Major Arterial Detail No. C-239. Based on these design procedures the minimum asphalt concrete (AC) section specified by the City of Chandler consists of a 3.0-inch thick A19 or A25 East Valley Asphalt Committee (EVAC) Base Course and a 2.0-inch thick A12.5 EVAC Surface Course. Per the City of Chandler Standard Details C-239 requirements and the results of this investigation, 12.0 inches of aggregate base (AB) is required for the new pavement sections along Lindsay Road from Hunt Highway to Cload Road (STA 100+00 to STA 179+00), and 18.0 inches of aggregate base (AB) is required for the new pavement sections from Cloud Road to Ocotillo Road (STA 179+00 to STA 260+00). The total thicknesses of these minimum sections are 17.0 inches and 23.0 inches, respectively. The pavement section thicknesses may be reduced by substituting 1 inch of AC for 3 inches of AB, with the approval of the engineer. However, AC may not be substituted for additional AB.

New Pavement Thicknesses

Station	AC Thickness (Inches)	AB Thickness (Inches)
100+00 to 179+00	5.0	12.0
179+00 to 260+00	5.0	18.0

All new pavement sections should be constructed in accordance with MAG specifications as modified by the City of Chandler. In half street improvement areas outside of roadway widening zones, the existing pavement sections do not meet current city specifications for AC and AB thicknesses. As an alternative to full removal and reconstruction, existing pavement life can be extended by through milling and overlaying, or by a continuation of conventional maintenance efforts including crack sealing and the application of surface seals. Milling and overlaying will provide for longer additional service life, although with continued maintenance the existing pavement should provide several more years of serviceability. Where milling and overlaying is performed adjacent to roadway widening areas, the milling can be conducted prior to placement of the surface course in the new pavement areas, and the final 2-inch surface course can be placed across the entire pavement width.

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Based on the condition of the existing pavement and the moisture contents of the undisturbed samples of the near-surface subgrade soils presented in the test borings, moderate to severe subgrade pumping may occur in some areas during the removal of the existing pavement sections and/or during subgrade preparation in new pavement areas. If moderate to severe pumping is encountered, the subgrade should be removed to a depth of 17 or 23 inches below the top of the new finished pavement elevation (based on location) and a layer of geogrid be placed on the exposed subgrade. The geogrid should conform to Table 796-4, Type 1 of MAG Specification (2021). All joints in the geogrid should be overlapped at least one foot and staked to the subgrade. The aggregate base (AB) should then be placed on the geogrid/fabric by end-dumping onto an exposed edge of the geogrid and spread in an initial lift which will be at least 6 inches thick after compaction. The end-dumped material should be spread with a light-duty front end loader or dozer. At no time shall any equipment be allowed on the geogrid which has less than 6 inches of aggregate base between the equipment wheels or tracks and the geogrid. After placement and compaction of the aggregate base (12 to 18 inches total thickness based on location), the 5.0-thick asphalt concrete section should be placed in two lifts.

The above sections are minimal and should function well with periodic maintenance (seal coats, overlays or patching) and where proper drainage is provided and maintained. Should moisture penetrate the subgrade soils or ponding occur on or adjacent to the pavement section, increased maintenance and a significant reduction in pavement life could occur. Therefore, good surface drainage on and adjacent to the pavement is essential for achieving the desired pavement life.

Storm Drain:

As part of this project, a storm drain system installation has been considered for the length of Lindsay Road (STA 100+00 to STA 260+00). The storm drainpipes will likely be 24-inch diameter rubber gasket reinforced concrete pipe (RGRCP). Excavation depths along the storm drain lines and manholes will possibly range from 8.0 feet to 10.0 feet. Trench widths should be in accordance with MAG STD. Table 601-1. Pipe bedding should in accordance with City of Chandler Standard Details No. C-308. Backfilling should be in accordance with MAG section 601 as supplemented by the City of Chandler.

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SITE DEVELOPMENT RECOMMENDATIONS

Concrete Slab-On-Grade Sidewalk Support:

The near surface soils primarily range from medium to very high in plasticity and when compacted and wetted, exhibit variably low to high swell potentials. Exterior slabs should be founded on a prepared subgrade. The subgrade soils, when scarified and recompacted to a minimum percent compaction of the ASTM D698 maximum dry density as proposed in the "Site Preparation and Grading Procedures" section of this report, will provide adequate support for concrete slabs-on-grade, provided these soils are placed and compacted at moisture contents at optimum to 3 percent above optimum and maintained at these moisture conditions until concrete placement. All unreinforced slabs-on-grade should be jointed as per ACI (American Concrete Institute) or PCA (Portland Cement Association) guidelines.

Surface Drainage:

The site subgrade soils encountered below the existing pavement sections may exhibit moisture contents at or above optimum and the higher moisture content areas may be unstable during compaction. The degree of instability will depend on the type of soil, swell potential, natural soils structure or degree of compaction (if a fill). These volume changes could result in movements in overlying pavements. Therefore, good site and surface drainage on the pavement surface and away from pavement edges is required. In addition, water should not be allowed to pond within 5 feet of the pavement edges.

Excavatability:

The excavatability of site materials is difficult to evaluate based only on the exploration equipment used during this design report. Therefore, we recommend that the contractor evaluate the excavatability of site materials by performing test excavations with the size and type of equipment the contractor plans on using at the site. For design purposes, the following paragraph presents our best analysis as to the excavatability of site soils.

The soils to depths of 15 feet can likely be removed with conventional excavating equipment. Excavations below a depth of 10 feet may be slower due to cementation. OSHA requires all excavations over five feet in depth, in which personnel are to enter, be either braced or sloped in accordance with OSHA regulations.

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Workability:

Wetting site soils such that moisture contents are at or above optimum could result in some to extensive soil pumping under dynamic loadings such as heavy construction equipment driving over the area. In flexible pavement areas where pumping has occurred, the area should be allowed to dry until soils are workable without pumping or the wetted areas removed and replaced with drier site soils.

Earthwork Factors:

Earthwork losses due to ground height losses and shrinkage were estimated based on past experience in the area and the laboratory test data. The materials encountered at the site were variably medium dense to dense and stiff to very stiff. The estimated ground height losses due to subgrade compaction are as follows for previously graded areas:

Ground Height Loss *	
Paved Areas	Unpaved Areas
½" to 1"	1" to 2"

* Based on compaction to 95 percent of estimated and laboratory maximum dry density (ASTM D698), dry densities obtained from ring samples of fill and in-situ soils, and achieving a 10-inch deep compacted zone without stripping natural surface zones.

The estimated shrinkage losses from cut to fill zones are as follows for naturally occurring soils.

Estimated Percent Shrinkage *	
Old Pavement Areas	Unpaved Areas
5% to 10%	10% to 20%

* Based on compaction to 95 percent of estimated and laboratory maximum dry density (ASTM D698), dry densities obtained from ring samples of fill and in-situ soils from the near surface zone and local experience.

These estimates do not include compaction to greater depths than assumed, losses due to wind or wastage, overexcavation, etc.

Corrosion Potential:

As part of this investigation laboratory pH and Minimum Resistivity testing of site soils was conducted. The results of the laboratory testing are included in Appendix B. Based on these results and corrosion potential criteria presented in the Arizona Department of Transportation (ADOT) Preliminary Engineering and Design Manual, Figure 203.04-5 and National Association

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of Corrosion Engineers (NACE) International Corrosion Severity Ratings, there appears to be a high potential for corrosion to buried ferrous metal structures and pipelines. This potential is a function of soil type and moisture content, material type and/or composition, water chemistry and other factors. Accordingly, the results of the laboratory testing should be made available to material suppliers and corrosion experts for review.

Concrete Durability:

As part of this investigation, Soluble Sulfates and Chlorides testing of site soils was conducted. The results of the laboratory testing are included in Appendix B. Based on our laboratory test results and 2015, 2018, and 2021 IBC Concrete Durability Requirements, Section 1904, there appears to be a low potential for deterioration to concrete in contact with site soils. This potential is a function of soil type and moisture content, material type and/or composition, water chemistry and other factors. Accordingly, the results of the laboratory testing should be made available to material suppliers and concrete experts for review.

MATERIALS SUITABILITY AND REQUIREMENTS

Site Materials:

The near surface soils and base material between Hunt Highway and Cloud Road may be used as fill and backfill in new pavement and associated roadway improvement areas, provided these materials are free of organic materials, debris, rubble, and material greater than 6 inches in size. The near surface soils between Cloud Road (STA 179+00) and Ocotillo Road (STA 260+00) may be used as fill and backfill in new pavement areas, and are acceptable for use below sidewalks, curbs, and gutters provided they are compacted to a relative density of 80% to 90% at moisture contents of optimum to optimum plus 3%, per the City of Chandler Supplement to MAG Specifications for in expansive soils (Section 340)

Imported Soils:

Fill required beyond that available from site sources for use as backfills, should be imported soils meeting the following requirements:

Minimum Percent Passing No.4 Sieve ------- 30
Maximum Particle Size ----------6 inches
Maximum Swell Potential ----------1.5%*

* Based on a sample which is remolded to 95% of the ASTM D698 maximum dry density at a moisture content of 2 percent below optimum, placed under a surcharge load of 100 psf and wetted.

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Base Material:

Base material used below pavement should conform to the requirements of Maricopa Association of Governments (MAG) Specifications for aggregate base (Section 702) as modified by the City of Chandler.

Asphalt Concrete Pavement:

Asphalt concrete pavement materials should conform to the requirements of EVAC Specifications and MAG as adopted by the City of Chandler.

Pipe Bedding:

Material used as pipe bedding should be granular soils which meet the requirements of MAG Specifications as modified by the City of Chandler.

SITE PREPARATION AND GRADING PROCEDURES

Pavement Improvement Areas:

Recommendations presented in the previous sections of this report are based upon the following site preparation and grading procedures. Therefore, all earthwork should be accomplished with observation and testing by a qualified technician under the direction of a registered geotechnical/ materials engineer. The following apply in new pavement and in sidewalk and curb/gutter areas.

1. Clear and grub the site by removing and disposing of all vegetation, any trash and debris, and any rubble and remnants of former developments (existing pavements, etc.).
2. Strip the site of all existing fill zones and unstable soils. During stripping observe the surface for evidence of buried debris, vegetation or disturbed materials which will require additional removal. Areas steeper than 5H to IV should be benched and any depressions widened to accommodate compaction equipment.
3. Prepare the ground surface in fill areas and in areas cut to grade by scarifying, moisture conditioning and compacting the exposed surface soils to a depth of 8 inches.
4. Moisture condition and place all fill and backfill materials required to achieve specified grades. Fill materials should be moisture conditioned, placed, and compacted in horizontal lifts of thicknesses compatible with the compaction equipment being used.
5. Compact subgrade, fill, backfill, subbase fill or base material to the following minimum percent compaction of the ASTM D698 maximum dry density in each lift:

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Material	Minimum Percent Compaction
Soil:	
Below pavement sections	95
Below driveways, curbs and gutters (Hunt Highway to Cloud Rd.)	95
Below detached sidewalks (Hunt Highway to Cloud Rd.)	85
Below driveways, sidewalks, curbs and gutters (Cloud Rd. to Ocotillo Rd.)	80-90
Base Material:	
Below pavement sections	100

6. Moisture content of backfill at the time of compaction should be:

Type	Area of Use	Moisture content
On-site or Import	Pavements	Optimum plus or minus 2%
Base Material	Pavements	Optimum plus or minus 2%
On-site*	Sidewalks, curbs, gutters & Driveways	Optimum to optimum plus 3%
Import	Sidewalks, curbs, gutters & Driveways	Optimum plus or minus 2%

*Due to variably expansive soil conditions for entire project length.

7. Place asphalt concrete in accordance with MAG Specification Section 310 and 702, as applicable and as supplemented by the City of Chandler.

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APPENDIX A
FIELD EXPLORATIONS

R·A·M·M

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N

Test Boring Location

Coring Location

Not To Scale

SITE PLAN

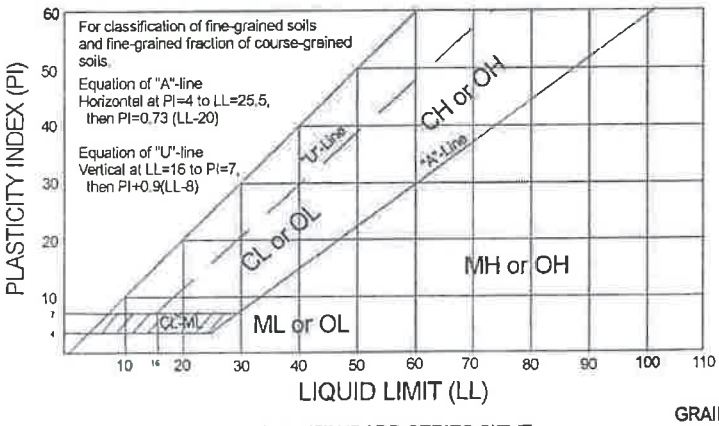
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LEGEND

CLASSIFICATION OF SOILS

ASTM Designation: D2487-11
(Based on Unified Soil Classification System)

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests					Soil Classification: Group Symbol	Soil Classification: Name
COARSE-GRAINED SOILS More than 50% retained on No. 200 Sieve	Gravels More than 50% coarse fraction retained on No. 4 Sieve	Clean Gravels Less than 5% fines	Cu > 4 and 1 < Cc < 3		GW	Well graded gravel
			Cu<4 and/or 1>Cc>3		GP	Poorly graded gravel
		Gravels with Fines More than 12% fines	Fines classify as ML or MH		GM	Silty gravel
			Fines classify as CL or CH		GC	Clayey gravel
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines	Cu >6 and 1 < Cc < 3		SW	Well-graded sand
			Cu<6 and/or 1>Cc>3		SP	Poorly graded sand
		Sands with Fines More than 12% fines	Fines classify as ML or MH		SM	Silty sand
			Fines classify as CL or CH		SC	Clayey sand
FINE-GRAINED SOILS 50% or more passes the No. 200 Sieve	Silts and Clays Liquid limit less than 50	Inorganic	PI>7 and plots on or above "A" line		CL	Lean clay
			PI<4 or plots below "A" line		ML	Silt
		Organic	Liquid Limit - oven dried / Liquid limit - not dried	<0.75	OL	Organic clay / Organic silt
	Silts and Clays Liquid limit 50 or more	Inorganic	PI plots on or above "A" line		CH	Fat clay
			PI plots below "A" line		MH	Elastic silt
		Organic	Liquid limit - oven dried / Liquid limit - not dried	<0.75	OH	Organic clay / Organic silt
HIGHLY ORGANIC SOILS	Primarily organic matter, dark in color, and organic odor				PT	Peat



TEST BORING LOG DEFINITIONS

Blows per foot using 140 pound hammer with 30 inch free-fall.

Depth, feet	Blows/Foot: C	Blows/Foot: N/R	Sample Type	Dry Density pcf	Water Content, %	Unified Classification	Description

C = Continuous Penetration Resistance (2 inch diameter rod)
N = Standard Penetration Resistance (ASTM D1586)
R = Penetration Resistance (3 inch diameter ring line sampler)

GRAIN SIZES

U.S. STANDARD SERIES SIEVE	200	40	10	4	3/4"	3"	12"
	CLEAR SQUARE SIEVE OPENINGS						
SILTS & CLAYS DISTINGUISHED ON BASIS OF PLASTICITY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

MOISTURE CONDITION (INCREASING MOISTURE ⟶)

DRY — SLIGHTLY DAMP — DAMP — MOIST (Plastic Limit) — VERY MOIST — WET (SATURATED) (Liquid Limit)

CONSISTENCY CORRELATION		RELATIVE DENSITY CORRELATION	
CLAYS & SILTS	BLOWS/FOOT*	SANDS & GRAVELS	BLOWS/FOOT*
VERY SOFT	0-2	VERY LOOSE	0-4
SOFT	2-4	LOOSE	4-10
FIRM	4-8	MEDIUM DENSE	10-30
STIFF	8-16	DENSE	30-50
VERY STIFF	16-32	VERY DENSE	OVER 50
HARD	OVER 32		

*Number of blows of 140 lb hammer falling 30" to drive a 2" O.D. (1-3/8" I.D.) split-spoon sampler (ASTM D1586).

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TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 1

Elevation: Not Determined Station: STA 230+00 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		20	R	111	15	CL	Sandy Clay, Trace Gravel; brown, damp, stiff to very stiff, high plasticity.
5		26	R	103	13		
10		9	R	102	11	SC /SM	Silty to Clayey Sand; Trace to Some Gravel; brown, slightly damp to damp, loose to medium dense, low plasticity fines.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 2.0" Asphalt Concrete on 10.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 2

Elevation: Not Determined Station: STA 187+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
						SC	Clayey Sand, Trace to Some Gravel; brown, damp, medium dense, high plasticity fines.
		14	R	103	13		
5		12	R	103	11		Slightly damp to damp and medium plasticity fines below 5.0 feet.
10		13	R	106	11		
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 10.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 3

Elevation: Not Determined Station: STA 180+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		7	R	94	25	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, moist, loose to medium dense, low plasticity fines.
5							
		14	R	108	9	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
10		19	R	100	14		
15							
							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 6.0" Base Course.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 4

Elevation: Not Determined Station: STA 169+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
5		18	R	115	18	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, damp to moist, medium dense, low plasticity fines.
10		13	R	112	13	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
15		11	R	103	17		
20							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 8.0" Base Material.
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 5

Elevation: Not Determined Station: STA 157+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		9	R	106	9	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, loose to 3.0 feet and medium dense below, medium plasticity fines.
5		33	R	109	12		
10		14	R	107	10	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, low plasticity fines.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 3.0" Asphalt Concrete on 8.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 6

Elevation: Not Determined Station: STA 139+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		23	R	108	13	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5							
		26	R	110	10	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, low plasticity fines.
10		48	R	115	10		
15							
							Stopped drilling at 15.0 feet. No groundwater observed.
							Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.75" Asphalt Concrete on 6.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 7

Elevation: Not Determined Station: STA 134+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		16	R	99	10	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5		40	R	113	7		Medium dense to dense below 4.5 feet.
10		32	R	101	12		Variable light to moderate cementation below 10.0 feet.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 11.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 8

Elevation: Not Determined Station: STA 127+50 Date: 9/30/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		30	R	119	11	SC	Clayey Sand, Trace to Some Gravel; brown, damp, medium dense, medium plasticity fines.
5		26	R	118	10		
10		50/11"	R	106	9	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, damp, dense, low plasticity fines, variable light cementation.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 10.5" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 9

Elevation: Not Determined Datum: STA 124+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		24	R	118	7	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense to dense, medium plasticity fines.
5		45	R	113	10		
10		31	R	105	11	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, low plasticity fines.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 4.0" Asphalt Concrete on 4.0" Base Material.
20							
25							This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 10

Elevation: Not Determined Station: STA 119+50 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
						SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
		13	R	101	9		
5		15	R	98	8		
10		50/8"	R	109	10		Variable light to moderate cementation below 10.0 feet.
15							Stopped drilling at 15.0 feet. No groundwater observed.
							Note: Thickness of exposed pavement edge adjacent to test boring found to be 2.25" Asphalt Concrete on 1.5" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 11

Elevation: Not Determined Station: STA 114+50 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
						SC	Clayey Sand, Trace to Some Gravel; brown, damp, medium dense to dense, medium plasticity fines.
		23	R	110	15		
5		33	R	113	15		
10		40	R	112	14		Variable light to moderate cementation below 10.0 feet.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 3.5" Asphalt Concrete on 5.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 12

Elevation: Not Determined Station: STA 108+00 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		19	R	111	12	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5		17	R	104	8		
10		27	R	109	11		Variable light to moderate cementation below 10.0 feet.
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 0.0" Asphalt Concrete on 1.0" Base Material.
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: 13

Elevation: Not Determined Station: STA 101+50 Date: 9/27/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
		49	R	116	8	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense to dense, medium plasticity fines.
5		30	R	104	10		
10		22	R	111	3		
15							Stopped drilling at 15.0 feet. No groundwater observed. Note: Thickness of exposed pavement edge adjacent to test boring found to be 3.25" Asphalt Concrete on 5.25" Base Material.
20							
25							This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C1

Elevation: Not Determined Station: STA 255+50 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							5.5" Asphalt Concrete on 10.0" Base Course.
		38	R	116	9	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C2

Elevation: Not Determined Station: STA 236+00 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							5.0" Asphalt Concrete on 12.0" Base Course.
		50	R	107	9	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements. Chandler. Arizona Test Boring: C3

Elevation: Not Determined Datum: STA 227+50 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.0" Asphalt Concrete on 10.75" Base Course.
		39	R	109	14	CL	Sandy Clay, Trace Gravel; brown, damp to very damp, stiff, high plasticity.
							Stopped drilling at 2.0 feet.
5							No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements. Chandler. Arizona Test Boring: C4

Elevation: Not Determined Station: STA 222+00 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							5.5" Asphalt Concrete on 13.0" Base Course.
		40	R	115	10	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C5

Elevation: Not Determined Station: STA 214+00 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.25" Asphalt Concrete on 10.5" Base Course.
		48	R	109	14	SC	Clayey Sand, Trace to Some Gravel; brown, damp, medium dense, high plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C6

Elevation: Not Determined Station: STA 207+00 Date: 10/1/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							6.0" Asphalt Concrete on 9.75" Base Course.
		28	R	109	17	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium to high plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C7

Elevation: Not Determined Station: STA 201+50 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.75" Asphalt Concrete on 10.75" Base Course.
		52	R	113	11	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium to high plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C8

Elevation: Not Determined Station: STA 195+00 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							5.0" Asphalt Concrete on 7.5" Base Course.
						SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp, medium dense, medium to high plasticity fines.
		49	R	100	6		
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C9

Elevation: Not Determined Station: STA 175+00 Date: 9/29/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.0" Asphalt Concrete on 11.5" Base Course.
		34	R	105	8	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, low to medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C10

Elevation: Not Determined Station: STA 162+00 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.25" Asphalt Concrete on 9.5" Base Course.
		40	R	95	15	SC /SM	Silty to Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, low to medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C11

Elevation: Not Determined Station: STA 150+00 Date: 10/1/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							5.5" Asphalt Concrete on 1.5" Base Course.
							Refusal to hand auger penetration on Portland Cement Concrete at 7.0 inches. No groundwater observed.
5							
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C12

Elevation: Not Determined Station: STA 143+50 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.0" Asphalt Concrete on 11.5" Base Course.
		100/4"	R	NR		SC	Clayey Sand, Trace to Some Gravel, Occasional Cobble; brown, slightly damp to damp, medium dense, medium plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed. NR = No recovery.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements. Chandler. Arizona Test Boring: C13

Elevation: Not Determined Station: STA 249+50 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							2.0" Asphalt Concrete on 9.0" Base Course.
						SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, medium dense, medium to high plasticity fines.
		23	R	116	8		
							Stopped drilling at 2.0 feet.
5							No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

TEST BORING LOG

Project: Lindsay Road Improvements, Chandler, Arizona Test Boring: C14

Elevation: Not Determined Station: STA 244+00 Date: 9/28/21

Depth, feet	Blows/Foot C	Blows/Foot N/R	Sample Type	Dry Density, pcf	Water Content, %	Unified Classification	Description
							4.0" Asphalt Concrete on 10.0" Base Course.
		13	R	115	9	SC	Clayey Sand, Trace to Some Gravel; brown, slightly damp to damp, loose to medium dense, medium to high plasticity fines.
5							Stopped drilling at 2.0 feet. No groundwater observed.
10							
15							
20							
25							

This boring log represents the conditions encountered on the date of drilling at this particular location. No other warranty is expressed or implied to the actual conditions which may exist within the vicinity of this boring location.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

APPENDIX B
LABORATORY ANALYSIS

R·A·M·M

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

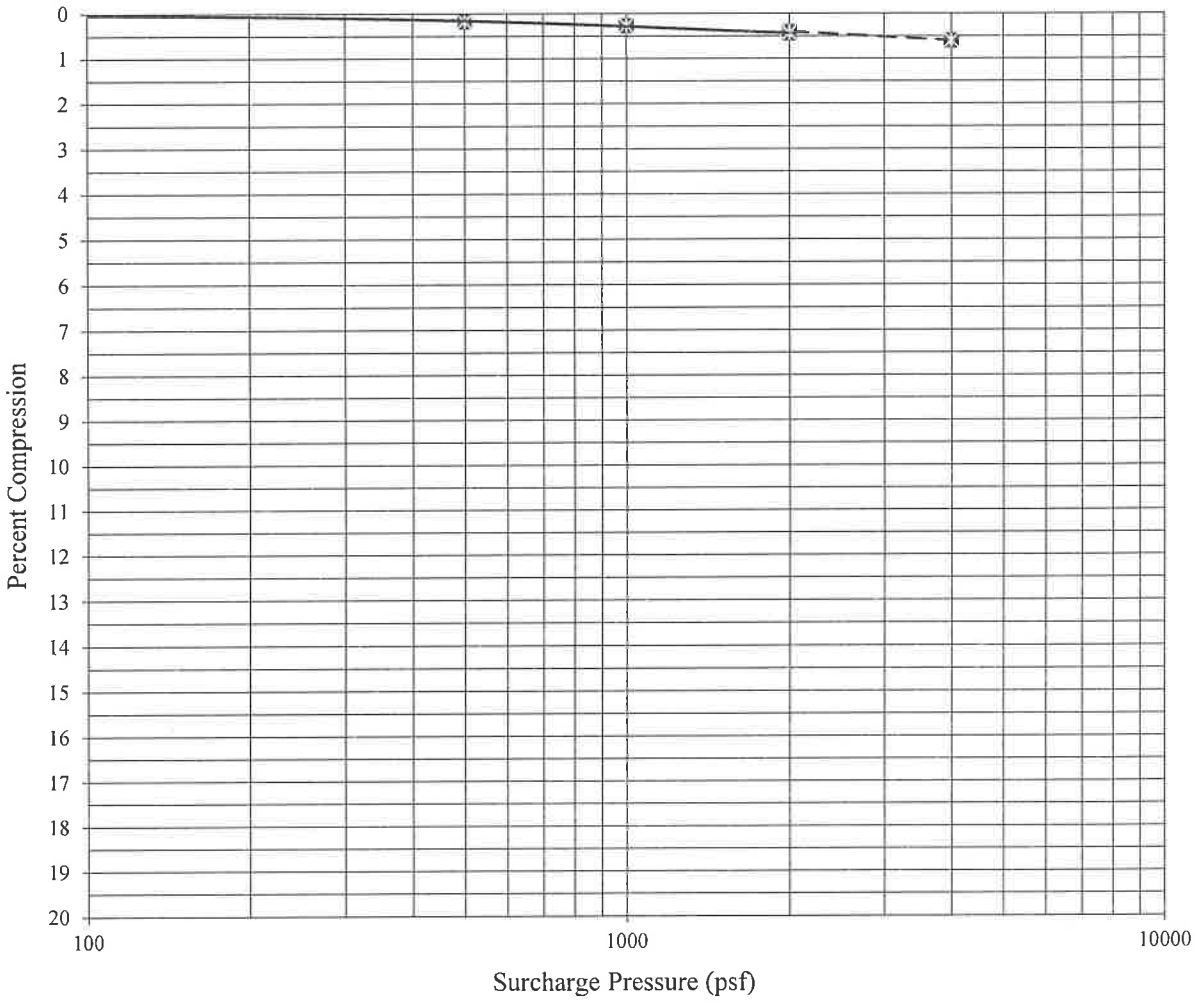
SAMPLE SOURCE: 1 @ 1.5'-2.5'

TESTING PERFORMED: Compression (ASTM D2435) - Driven Ring Sample

SAMPLED BY: RAMM/Boccard

RESULTS:

Dry Density (pcf): 111 Moisture Content (%): 15



REMARKS: Sample submerged at 2000 psf.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

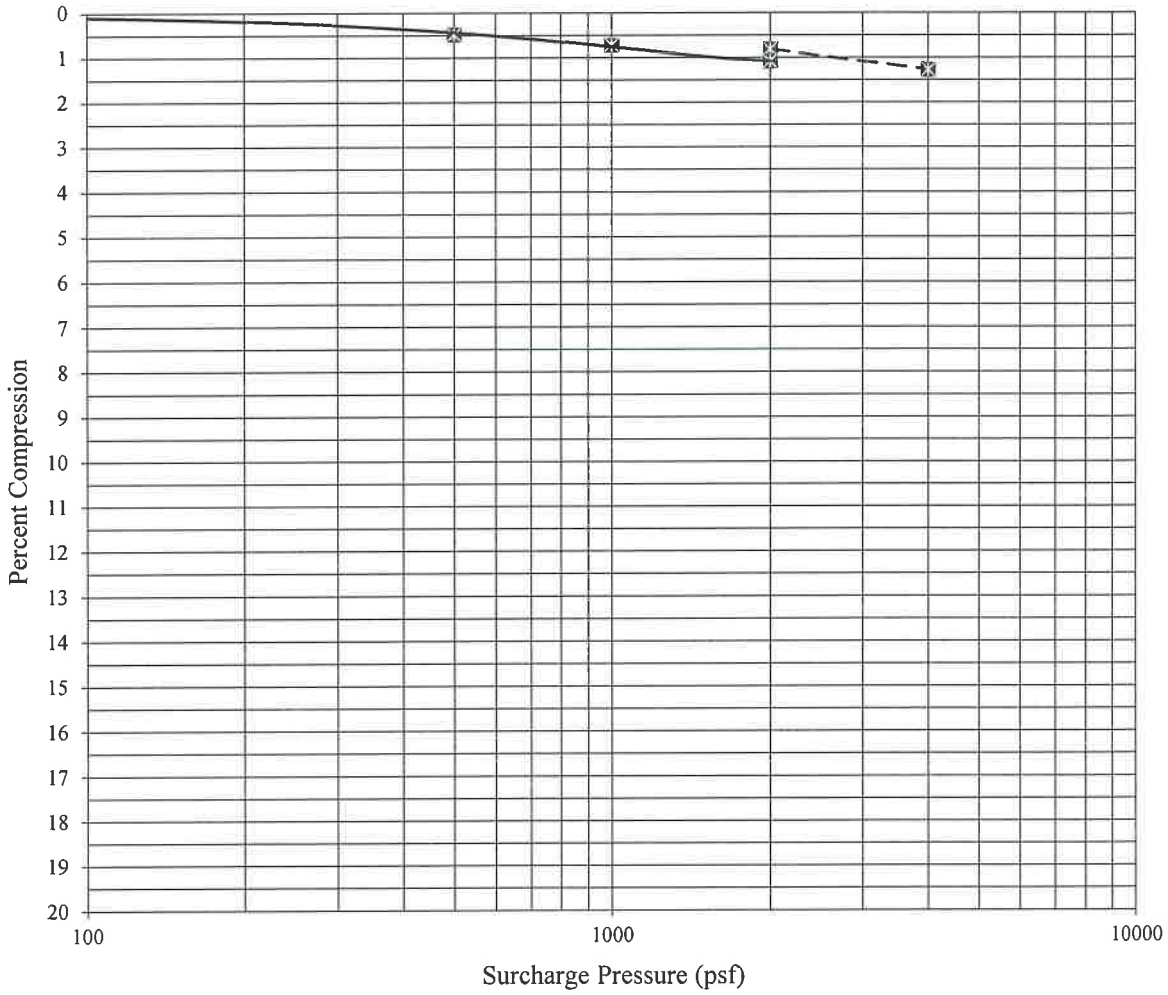
SAMPLE SOURCE: 3 @ 1.5'-2.5'

TESTING PERFORMED: Compression (ASTM D2435) - Driven Ring Sample

SAMPLED BY: RAMM/Boccard

RESULTS:

Dry Density (pcf): 94 Moisture Content (%): 25



REMARKS: Sample submerged at 2000 psf.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

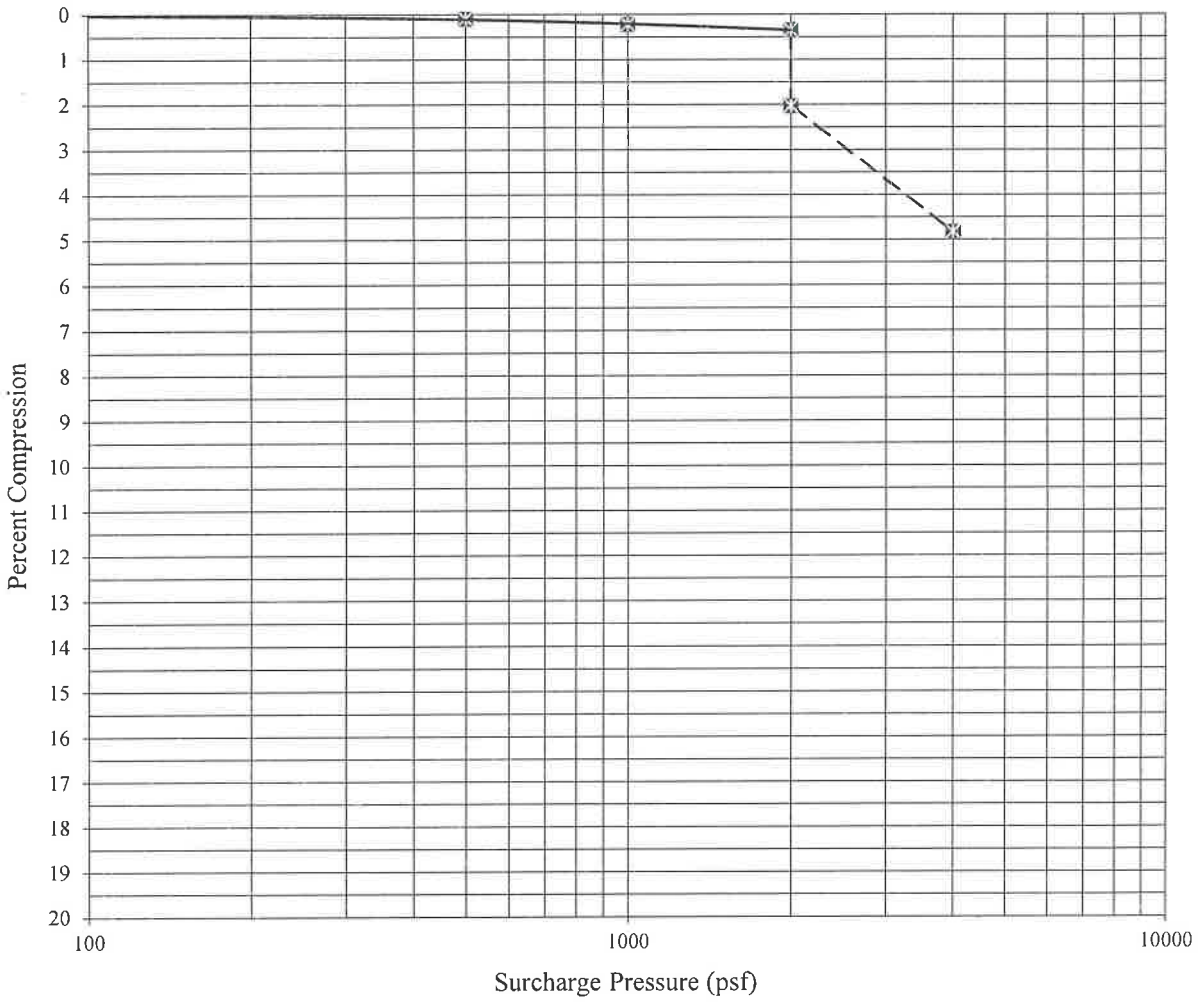
SAMPLE SOURCE: 7 @ 1.5'-2.5'

TESTING PERFORMED: Compression (ASTM D2435) - Driven Ring Sample

SAMPLED BY: RAMM/Boccard

RESULTS:

Dry Density (pcf): 99 Moisture Content (%): 10



REMARKS: Sample submerged at 2000 psf.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

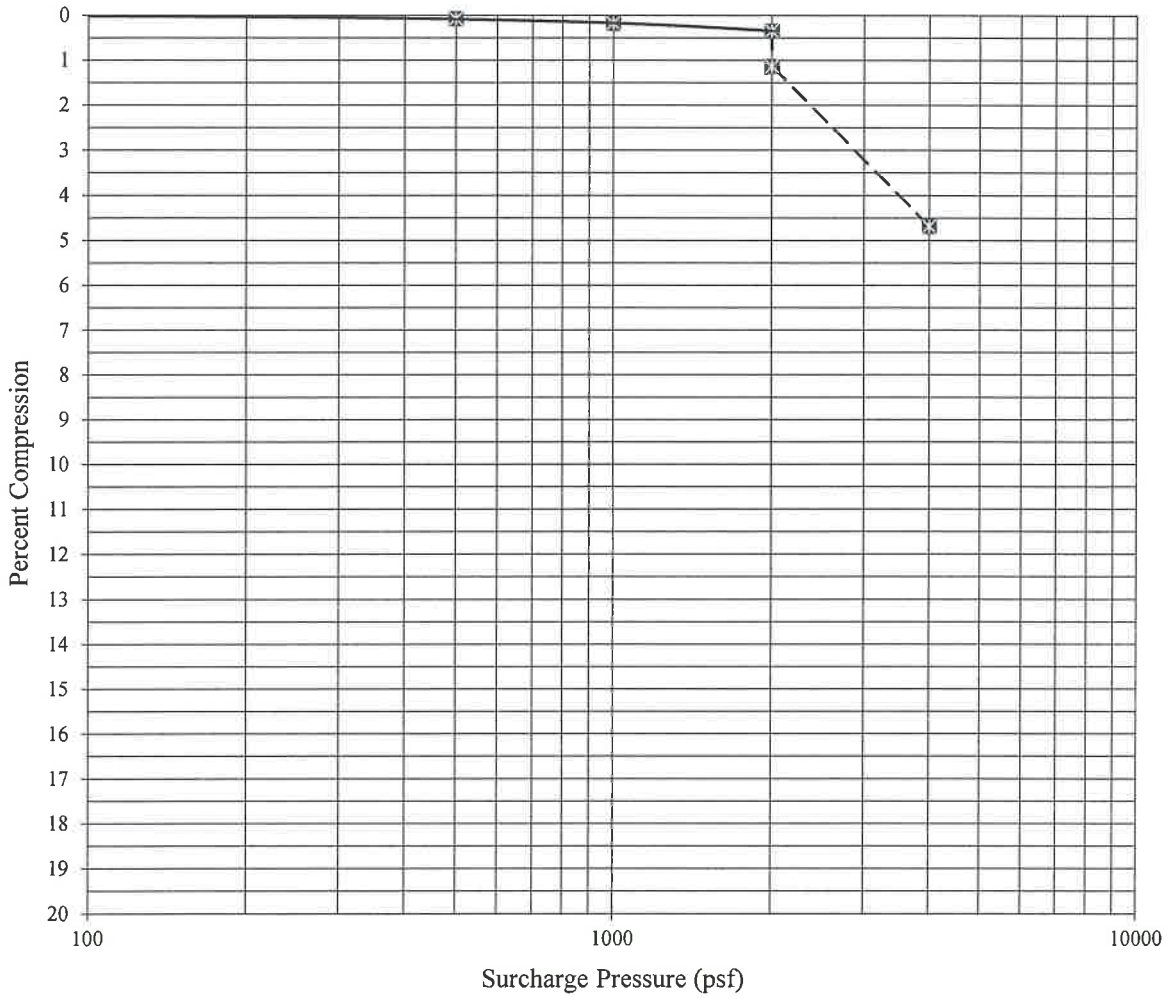
SAMPLE SOURCE: 10 @ 1.5'-2.5'

TESTING PERFORMED: Compression (ASTM D2435) - Driven Ring Sample

SAMPLED BY: RAMM/Boccard

RESULTS:

Dry Density (pcf): 101 Moisture Content (%): 9



REMARKS: Sample submerged at 2000 psf.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

SAMPLE SOURCE: As noted below

TESTING PERFORMED: Percent Passing No. 200 Sieve, Atterberg Limits, Percent Expansion (ASTM D1140, D4318, D4546)

SAMPLED BY: RAMM/Boccard

RESULTS:

Sample Source	Percent Retained No. 4 Sieve	Percent Passing No. 200 Sieve	Liquid Limit	Plasticity Index	Percent Expansion*	Remolded Dry Density (pcf)	Remolded Moisture Content (%)
1 @ 0'-3'	3	58	44	27	4.7	102	14
2 @ 0'-3'	8	40	51	34			
3 @ 0'-3'	8	35	28	7			
4 @ 0'-3'	5	32	23	7	0.4	115	11
5 @ 0'-3'	9	39	28	14	2.9	117	9
6 @ 0'-3'	5	43	33	15			
8 @ 0'-3'	12	33	30	15			
10 @ 0'-3'	1	44	27	12	0.8	113	12
12 @ 0'-3'	2	42	30	14	0.6	107	13
13 @ 0'-3'	2	43	27	13	2.4	118	9

* Based upon sample remolded to 95% of the estimated maximum dry density at 2% below the estimated optimum moisture content, with a surcharge pressure of 100 psf.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

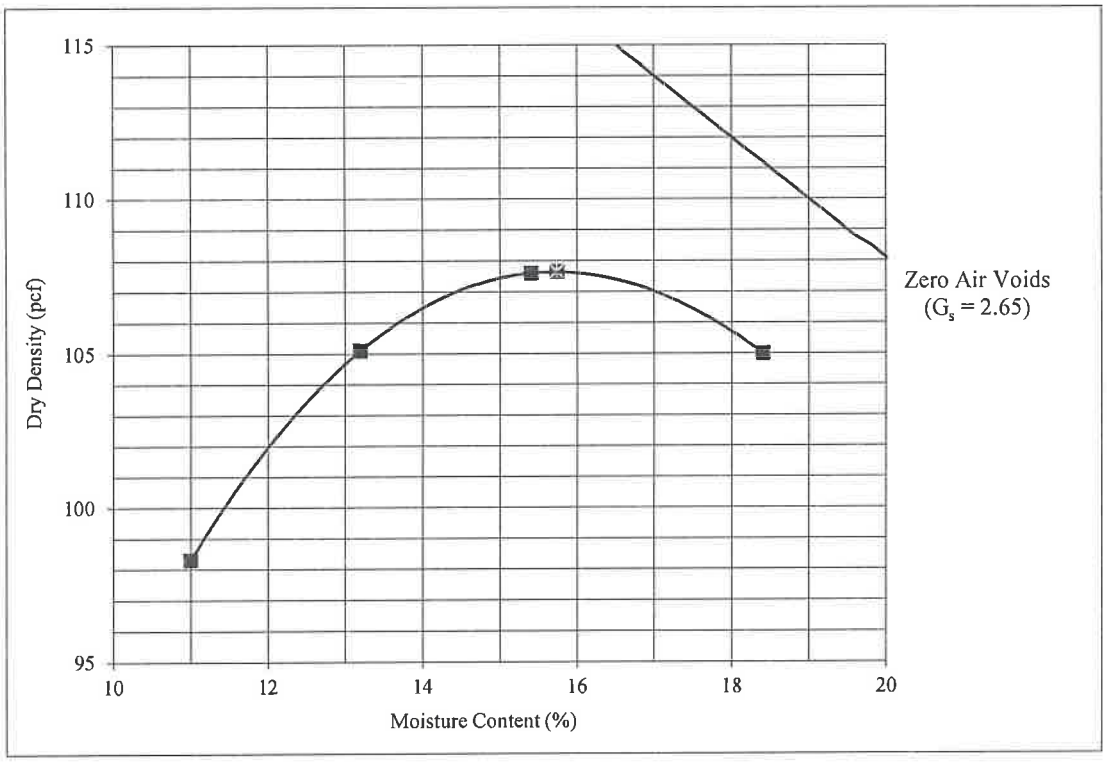
SAMPLE SOURCE: 1 @ 0'-3'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Boccard

RESULTS:

Maximum Density (pcf) = 107.7 Optimum Moisture (%) = 15.7



Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

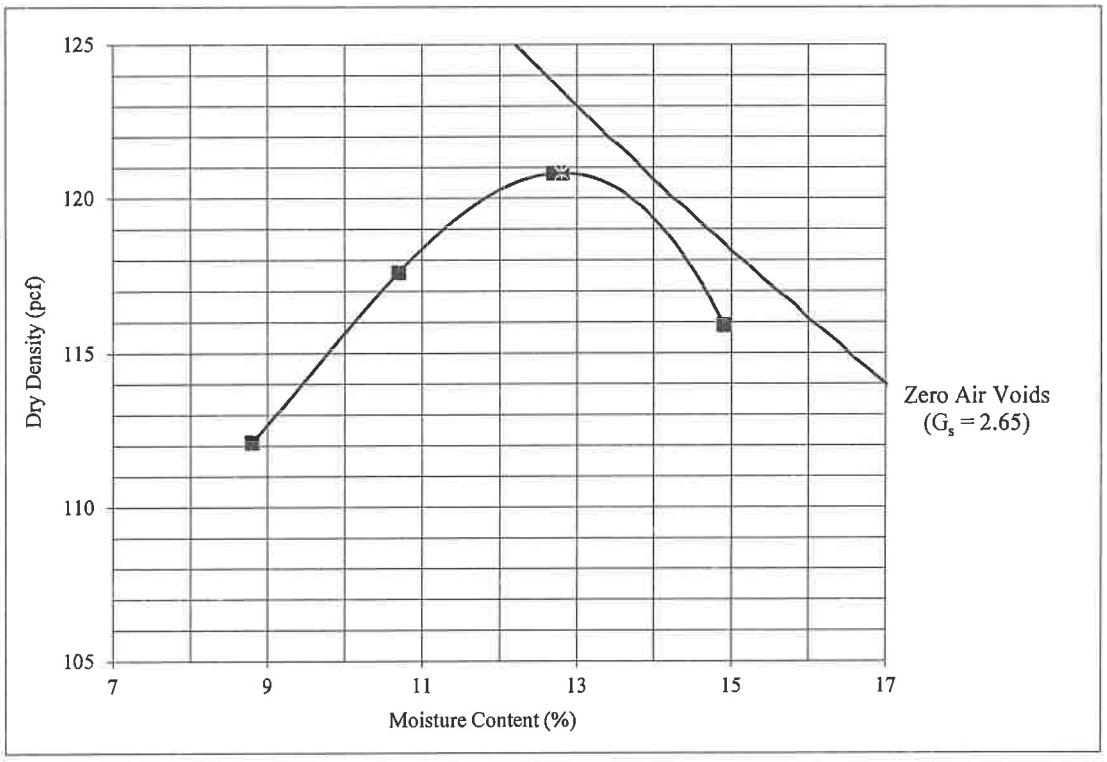
SAMPLE SOURCE: 4 @ 0'-3'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Boccard

RESULTS:

Maximum Density (pcf) = 120.8 Optimum Moisture (%) = 12.8



Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

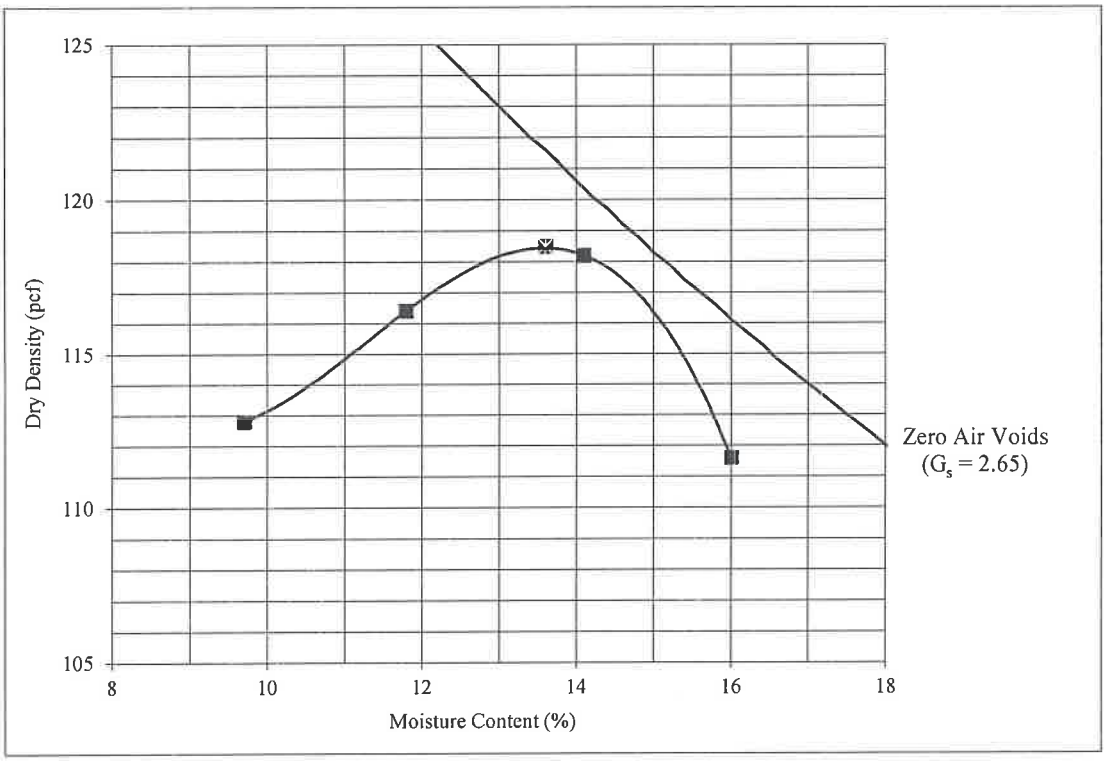
SAMPLE SOURCE: 10 @ 0'-3'

TESTING PERFORMED Maximum Density-Optimum Moisture Determination (ASTM D698 Method A)

SAMPLED BY: RAMM/Boccard

RESULTS:

Maximum Density (pcf) = 118.5 Optimum Moisture (%) = 13.6



Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

LABORATORY TEST RESULTS

Date: 11-Nov-21

SAMPLE SOURCE: As noted below

TESTING PERFORMED: pH, Minimum Resistivity (ADOT 236a)

SAMPLED BY: RAMM/Boccard

RESULTS:

Sample Source	pH	Minimum Resistivity (ohm-cm)
1 @ 5'-10'	8.1	926
3 @5'-10'	8.3	1433
6 @ 5'-10'	8.4	1075
8 @ 5'-10'	8.6	1771
11 @ 5'-10'	8.6	1230
13 @ 5'-10'	8.5	1981

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

MOTZZ LABORATORY, INC.

Laboratory Analysis Report

Ricker-Atkinson-McBee-Morman
Drew Schirmer
2105 South Hardy Dr.
Suite 13
Tempe , AZ 85282-1924

Project: G26811
Date Received: 10/25/2021
Date Reported: 10/28/2021
PO Number: G26811

Lab Number: 939228-1 **1 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	8	ppm	
Chloride	ARIZ 736b	117	ppm	

Sulfate 0.0008%; Chloride 0.012%

Lab Number: 939228-2 **3 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	17	ppm	
Chloride	ARIZ 736b	35	ppm	

Sulfate 0.0017%; Chloride 0.0035%

Lab Number: 939228-3 **6 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	24	ppm	
Chloride	ARIZ 736b	143	ppm	

Sulfate 0.0024%; Chloride 0.014%

Lab Number: 939228-4 **8 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	8	ppm	
Chloride	ARIZ 736b	49	ppm	

Sulfate 0.0008%; Chloride 0.0049%

Lab Number: 939228-5 **11 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	13	ppm	
Chloride	ARIZ 736b	36	ppm	

Sulfate 0.0013%; Chloride 0.0036%

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

MOTZZ LABORATORY, INC.

Laboratory Analysis Report

Ricker-Atkinson-McBee-Morman
Drew Schirmer
2105 South Hardy Dr.
Suite 13
Tempe , AZ 85282-1924

Project: G26811
Date Received: 10/25/2021
Date Reported: 10/28/2021
PO Number: G26811

Lab Number: 939228-6 **13 (5-10')**

Test Parameter	Method	Result	Units	Levels
Sulfate	ARIZ 733b	23	ppm	
Chloride	ARIZ 736b	27	ppm	

Sulfate 0.0023%; Chloride 0.0027%

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

APPENDIX C
DESIGN CHARTS
PARTS OF
CITY OF CHANDLER
STANDARD DETAILS
AND SPECIFICATIONS

R·A·M·M

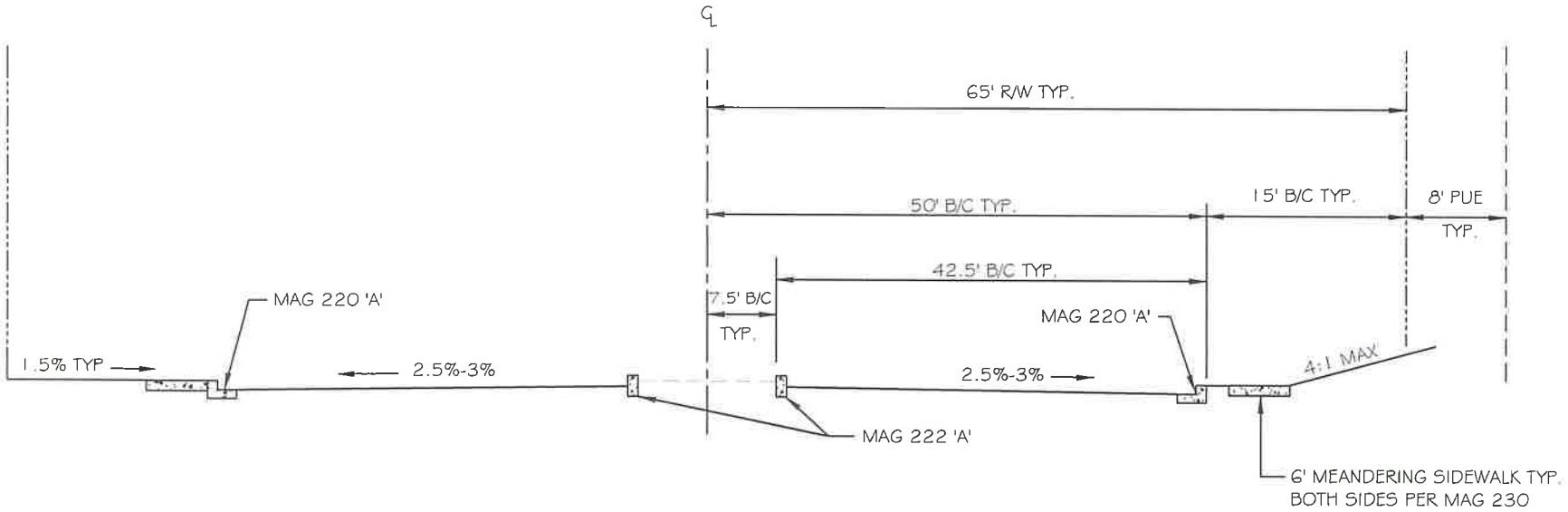
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STANDARD DETAILS AND SPECIFICATIONS



Chandler • Arizona

May 2018

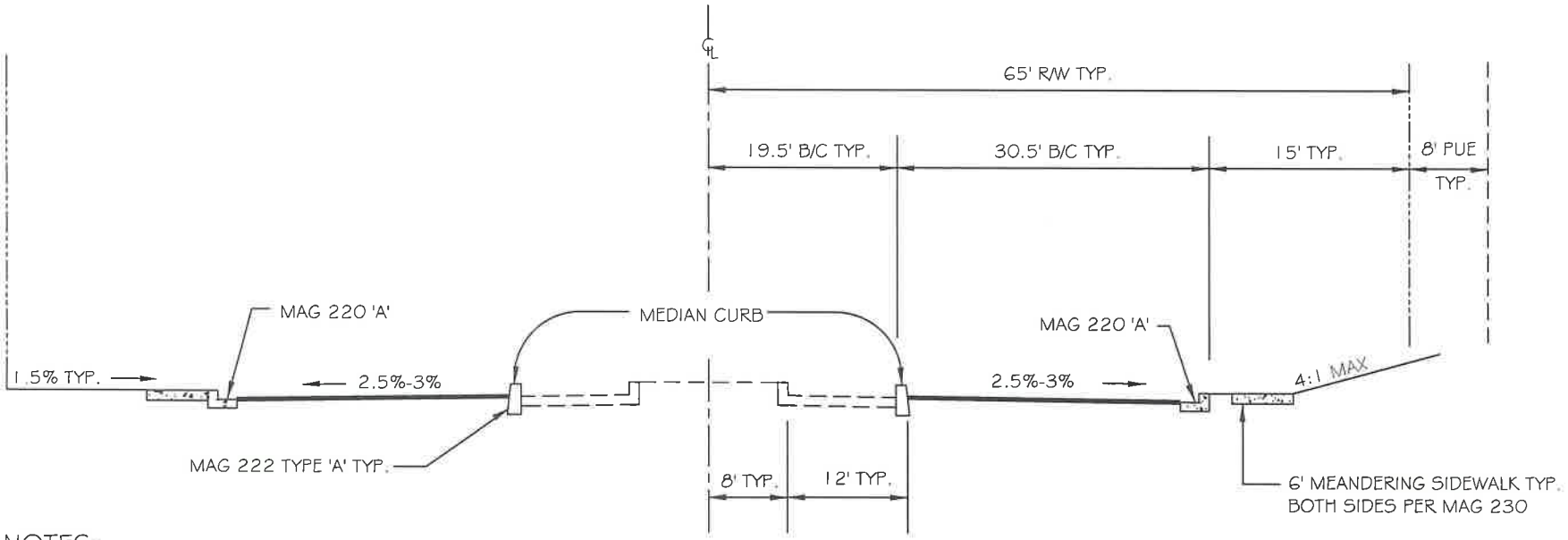


NOTES:

1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
2. BASE COURSE:
   A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
   B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
3. ASPHALTIC CONCRETE PAVEMENT:
   A. 3" THICK A19 OR A25 EVAC BASE COURSE WITH 2" OF A12.5 EVAC SURFACE COURSE.
   B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO EVAC AND MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
5. MEDIAN END SHALL BE RAMP PER COC STANDARD DETAIL C-225.
6. MEDIAN LANDSCAPE AREA SHALL BE PER COC STANDARD DETAIL C-807.

DETAIL NO. C-203 NTS	CITY OF CHANDLER STANDARD DETAIL	**MAJOR ARTERIAL STREET TYPICAL CROSS SECTION**	APPROVED: CITY ENGINEER DATE: 05-10-2018	DETAIL NO. C-203 NTS

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329



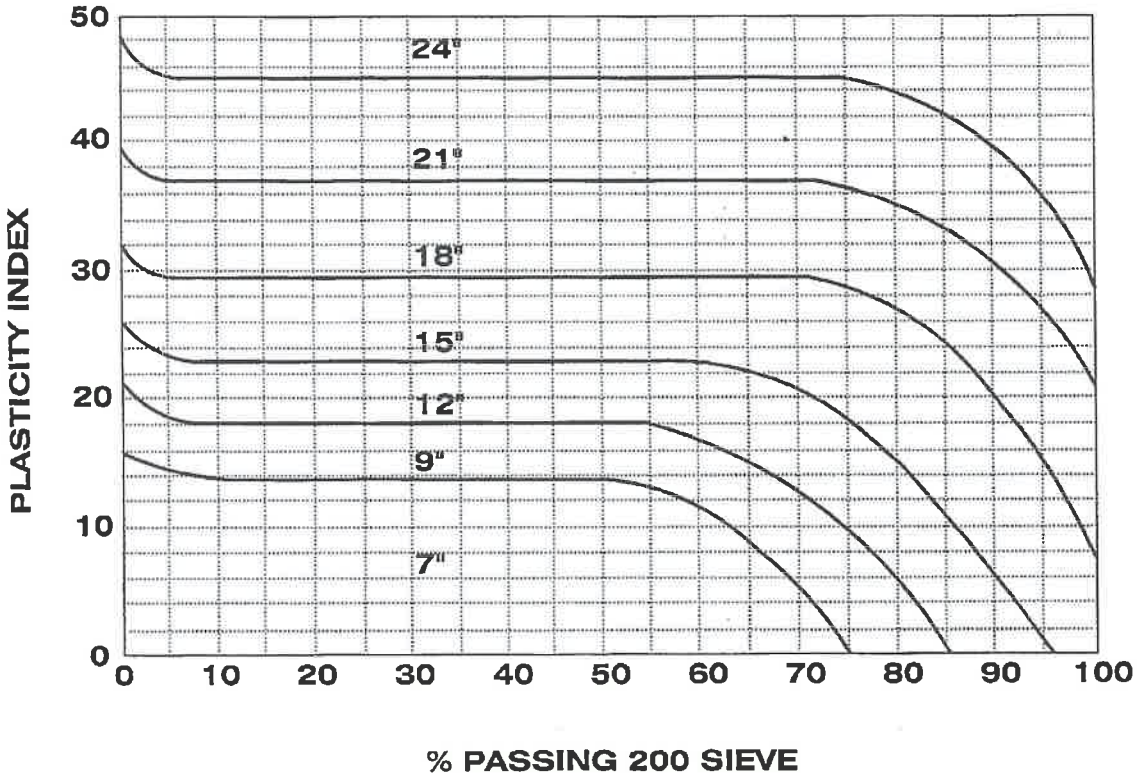
NOTES:

1. THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH MAG STANDARD SPECIFICATIONS, SEC. 301.
2. BASE COURSE:
   A. THE THICKNESS SHALL CONFORM TO COC STANDARD DETAIL C-239.
   B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MAG STANDARD SPECIFICATIONS, SECS. 310 AND 702.
3. ASPHALTIC CONCRETE PAVEMENT:
   A. 3" THICK A19 OR A25 EVAC BASE COURSE WITH 2" OF A12.5 EVAC SURFACE COURSE.
   B. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO EVAC AND MAG STANDARD SPECIFICATIONS, SECS. 321 AND 710.
4. ADDITIONAL RIGHT-OF-WAY SHALL BE PROVIDED WHERE NECESSARY TO ACCOMMODATE DOUBLE LEFT TURN LANES OR RIGHT TURN LANES WARRANTED BY TRAFFIC DEMANDS.
5. MEDIAN LANDSCAPE AREA SHALL BE PER COC STANDARD DETAIL C-807.
6. 0.2% MINIMUM LONGITUDINAL GRADE ALLOWED.

DETAIL NO. C-204 NTS	CITY OF CHANDLER STANDARD DETAIL	**PHASED MAJOR ARTERIAL STREET TYPICAL CROSS SECTION**	APPROVED: CITY ENGINEER DATE: 05-10-2018	DETAIL NO. C-204 NTS

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

BASE THICKNESS CHART



NOTES:

1. TOP 6" OF BASE SHALL BE ABC. BALANCE SHALL BE ABC OR SELECT MATERIAL.
2. MINIMUM DEPTH OF FLEXIBLE BASE COURSE REQUIRED UNDER 5" (MIN.) BIT. SURFACE.

DETAIL NO. C-239 NTS	CITY OF CHANDLER STANDARD DETAIL	DEPTH OF BASE COURSE MAJOR & MINOR ARTERIALS	APPROVED: CITY ENGINEER DATE: 01/08/09	DETAIL NO. C-239 NTS

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

APPENDIX D

Western Burrowing Owl Awareness Flyer

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329



Western Burrowing Owl Awareness

ADOT Environmental Planning Group
1611 W. Jackson St- Mail Drop EM02
Phoenix, AZ 85007

The purpose of this flyer is to provide ADOT employees and contractors, working on roadside projects, with basic knowledge to reduce the risk of incidental take of Western Burrowing Owls.

Legal Status:

Western Burrowing Owls (*Athene cunicularia*) are protected under the Federal Migratory Bird Treaty Act of 1918. All migratory birds and their parts are fully protected. They are also protected under Arizona State Law in Title 17-101, Title 17-235, and Title 17-236.

What to look for:

- Description– small, ground-dwelling owl.
- Length– 19.5-25.0 cm (7.68-9.85 inches)
- Wingspan– 58.42 cm (23.0 inches)
- Mass– about 150 grams
- Males are typically slightly larger than females.
- Round head, lacks ear tufts.
- Distinct oval facial ruff, framed by a broad, puffy white eyebrow.
- Eyes contain a bright yellow iris.

Where are owls found?

- Dry, open, short grass, treeless plains.
- Dependent on fossorial mammals. (ground squirrels, prairie dogs, badgers, etc.) to construct burrows.
- Human dominated landscapes: golf courses, airports, agricultural fields.

Identifying an active burrow:

- Owls use burrows constructed by ground squirrels, badgers, coyotes and tortoises. They can also use pipes, culverts, and ditches.
- Presence of excrement (whitewash) near entrance to burrow.
- Burrowing owls frequently decorate entrance of burrows with cow or horse manure, feathers, vegetation and trash items.

How to avoid them:

- Scan ahead prior to arriving at a sign location.
- If burrowing owls are observed within the project area, stop and move at least 100 feet beyond the owl or occupied burrow before resuming work.

If you think your work may potentially impact a Burrowing Owl or active burrow, please stop.
Move at least 100 feet from the animal or burrow before resuming work.

If you have any questions or think you have a borrowing owl or active burrow on your work site please contact:
Joshua Fife, Biologist, ADOT Environmental Planning Group, jfife@azdot.gov
Office: (602)712-6819, Mobile: (602) 622-9622, EPG General: (602)712-7767

Source: Arizona Game and Fish Department Animal Abstract: Western Burrowing Owl. Heritage Data Management System

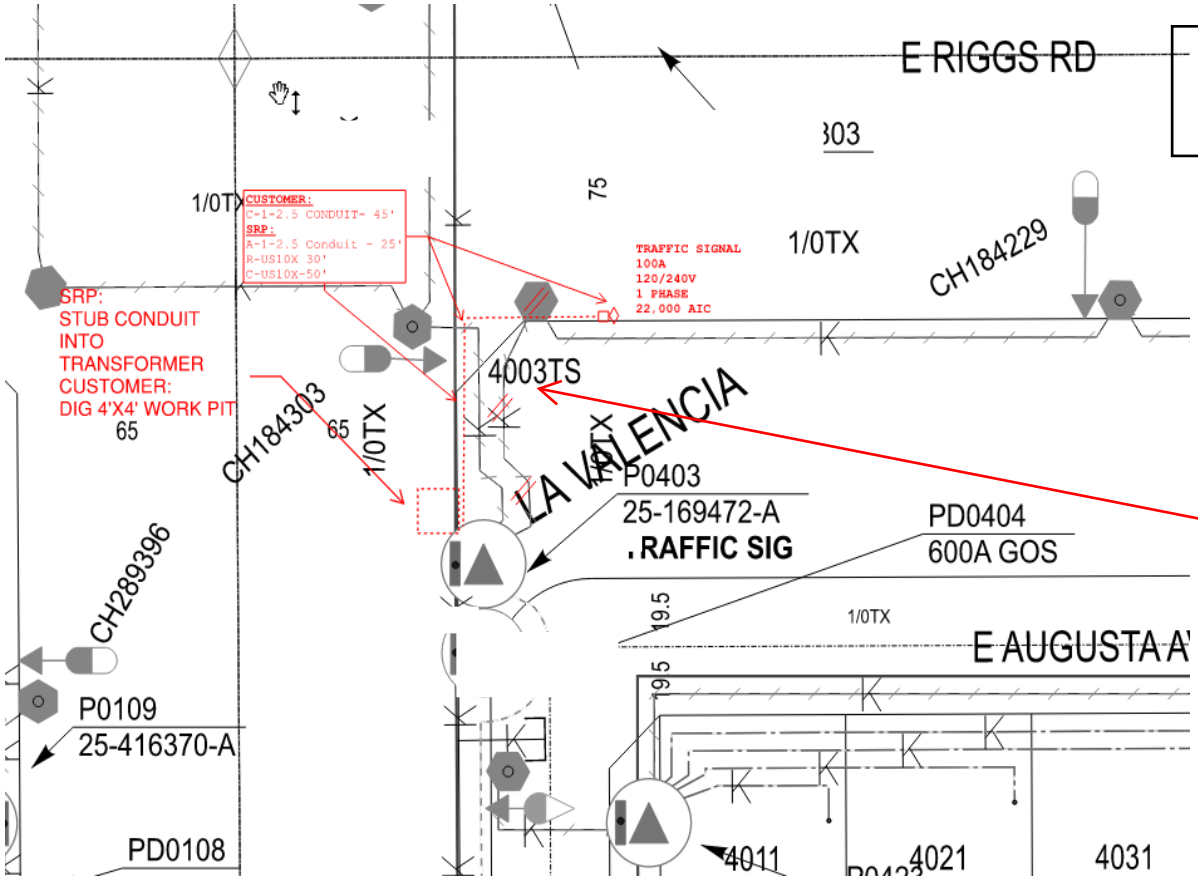
(revised November 25, 2013)

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

APPENDIX E

SRP Job No. T3560195 Service Design

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329



YF320403
31 1/16E - 11 1/16S

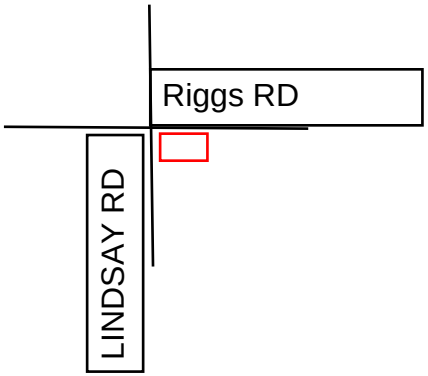
N
NTS

Install 50' of 1/0 Triplex from P0403 to Customers120/240V 1Ø 100A pedestal.

Inspection of pedestal by EVS and SRP meter shop prior to energize.

Remove old Service wire to Traffic pedestal once new SES is energized. Abandon Conduit

Address Tag To Read
4007 E Riggs Rd
Chandler, AZ 85249



SRP
Customer Design

SYMBOLISM

- Removal
- Conduit
- Existing Service Line
- New Service Line
- New Service
- Existing Service
- Pedestal
- New J-Box
- Existing J-Box
- Existing Foreign Pole
- Proposed Foreign Pole
- New Pole
- Existing Pole
- Existing OH Transformer
- Existing UG Transformer

Customer Contacts:
Construction Contact Center..... (602) 236-0777
Servicio En Espanol En La Linea..... (602) 236-1111
East Valley Scheduling:
Disconnect & Reconnect..... (602) 236-6177
Inspections..... (602) 236-6300
West Valley Scheduling:
Disconnect, Inspection & Reconnect..... (602) 236-0676
Central Valley Scheduling
Disconnect, Inspection & Reconnect..... (602)236-0887

SRP Electric Service Specifications
http://www.srpnet.com/electric/business/specs/ess.aspx
Approved Service Sections (Section 9, Pages 16-30)

Service Entrance Section Review
Email: shopdraw@srpnet.com

Arizona Blue Stake: 1-800-782-5348
http://www.azbluestake.com/

SRP WO: T3560195
ADDRESS: 4007 E Riggs Rd Chandler, AZ 85249
PROJECT INFORMATION:

CUSTOMER NAME: Julia Hoath
CUSTOMER PHONE: 901-570-1711
CUSTOMER EMAIL: 4007 E Riggs Rd Chandler, AZ 85249

DESIGNER: Michael Larance 602-856-5506

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

EXHIBIT D

GIS / GPS DATA DELIVERY REQUIREMENTS

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

GIS / GPS Data Delivery Requirements

Contractor shall provide survey grade GPS / GIS data, meeting the following requirements for all facilities to be owned and/or operated by the City of Chandler.

a) ESRI File Geodatabase format:

All GPS point data, along with corresponding GIS Attribute data, must be submitted in ESRI File Geodatabase format. The City of Chandler will provide a copy of the File Geodatabase in ESRI ArcGIS format. Please submit your request through the Project Manager.

b) Data dictionary and Attribute data:

Attribute data should be provided for each of the GPS'd Utility Features listed in Section 'd' below. All Attribute data should conform to the ESRI File Geodatabase format, provided by the City. A copy of the data dictionary is also attached here for reference.

c) Coordinate System:

Horizontal Datum: Arizona State Plane Coordinates, Central Zone NAD83 (HARN)
Vertical Datum: NAVD88

d) Point Data for GPS:

1) Water System Features:
- Water main location (top of pipe), size and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
- Water fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Line Stop, Reducer, Saddle, Other.
- Water valve location (center of valve box cover), size and type.
- Fire hydrant location (top of hydrant), manufacturer and year.
- Water service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
- Water blow-off and air release valve location (center of cover), size, type and manufacturer.
- Water manhole or vault location (center of cover), size and type.

2) Waste Water System Features:
- Sewer manhole and cleanout location (center of cover), size, material, and cover type.
- Sewer gravity main location (invert of pipe), size, material and flow direction (from) at all manholes, cleanouts and structures.
- Sewer service line location, size and material (at connection to main, and termination at cleanout, or stub out at edge of the easement or ROW).
- Sewer force main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

- Sewer force main (and gravity) fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop, Reducer, Saddle, Wye, Other
- Sewer force main valve location (center of valve box cover), size and type.
- Sewer force main air release valve location (center of cover), size, type and manufacturer.
- Sewer force main manhole or vault location (center of cover), size and material.
- Sewer structure (center of structure), type (diversion, junction box).

3) Reclaimed Water System Features:
   - Reclaimed main location (top of pipe), size, and material (one (1) coordinate provided every 100 feet minimum) and at fittings.
   - Reclaimed fitting location (top of feature), size, material and type including: Bend (22.5, 45, or 90), Tee, Tapping Sleeve, Cross, Coupling, End Cap, Linestop, Reducer, Saddle, Other.
   - Reclaimed valve location (center of valve box cover), size and type.
   - Reclaimed service line location (at connection to main, any bends, and termination at meter box or meter vault or at the edge of easement or ROW), size and material.
   - Reclaimed blow-off and air release valve location (center of cover), size, type and manufacturer.
   - Reclaimed manhole or vault location (center of cover), size and type.

4) Storm Water System Features:
   - Storm manhole and cleanout location (center of cover), size, material, and cover type.
   - Storm gravity main location (invert of pipe), size, material, and flow direction (from) at all manholes, cleanouts and structures.
   - Storm structure location (center of structure), type and category including: Drywell, Catch Basin, Scupper, Bubbler Box, and Collection Vault.

5) Streetlight Feature:
   - Streetlights

6) Standard GPS Metadata on all points collected: Date, Time, Horizontal Accuracy, Vertical Accuracy, Latitude, Longitude, Altitude, Surveyor, and Comments.

7) Electronic Data Submittal: Each submittal must consist of
   - ESRI – ArcGIS Geodatabase with cumulative data and attributes
   - Construction plans with collected utilities clearly redlined and changes marked

   The frequency of data submittals will be every two weeks after water, sewer, reclaim or storm assets go into the ground. Please email submittals to: GIS@chandleraz.gov

DATA DICTIONARY: WATER

WATER_BACKFLOW				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	GIS_BACKFLOW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	GIS_BACKFLOW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	GIS_BACKFLOW_SPATIALSOURCE
SIZE	SIZE	Double		
TYPE	TYPE	Text	25	GIS_BACKFLOW_TYPE
MANUFACTURER	MANUFACTURER	Text	25	GIS_BACKFLOW_MANUFACTURER
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

WATER_FITTING				
Field Name	**Alias Name**	**Data Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WS_SPATIALSOURCE_STD
MATERIAL	MATERIAL	Text	20	WS_FITTING_MATERIAL
DIAMETER1	DIAMETER1	Text	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	Text	8	RWS_FITTING_DIAMETER
TYPE	TYPE	Text	30	WS_FITTING_TYPE
BEND	BEND	Text	20	WS_FITTING_BEND
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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WATER_HYDRANT				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	25	WS_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	WS_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	WS_SPATIALSOURCE_STD
BARRELDIAMETER	Barrel Diameter	Double		
LARGENOZZLEDIAMETER	Large Nozzle Diameter	Double		
SMALLNOZZLEDIAMETER	Small Nozzle Diameter	Double		
OUTLETCONFIGURATION	Outlet Configuration	Double		
SEATDIAMETER	Seat Diameter	Double		
MANUFACTURER	Manufacturer	Text	25	WS_HYD_MANUFACTURER
YEARMANUFACTURED	Manufacture Year	Text	25	
HASLOCK	Has Lock ?	Text	25	GIS_BOOLEAN_YES_NO
COLOR	Color	Text	25	WS_HYD_COLOR
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	25	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

WATER_MANHOLE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WS_SPATIALSOURCE_STD
ACCESSDIAMETER	ACCESSDIAMETER	Text	8	
ACCESSTYPE	ACCESSTYPE	Text	20	
GROUNDTYPE	GROUNDTYPE	Text	20	WS_SYSVAL_GROUNDTYPE
COVERMATERIAL	COVERMATERIAL	Text	10	
COVERTYPE	COVERTYPE	Text	8	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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WATER_METER				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	20	GBA_WMSL_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	GBA_WMSL_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	GBA_STATIC_SPATIALSOURCE
DIAMETER	DIAMETER	Double		WS_METER_DIAM
MANUFACTURER	Manufacturer	Text	25	WS_METER_MANUFACTURER
METERTYPE	Meter Type	Text	25	WS_METER_TYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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WATER_SYSTEM_VALVE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATURE OWNER	Text	20	WS_SYSVAL_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLE STATUS	Text	20	WS_SYSVAL_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	Text	20	WS_SYSVAL_SPATIALSOURCE
TYPE	TYPE	Text	25	WS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	Text	10	WS_SYSVAL_VALVETYPE
FUNCTION	FUNCTION	Text	25	WS_SYSVAL_FUNCTION
GROUNDTYPE	GROUNDTYPE	Text	25	WS_SYSVAL_GROUNDTYPE
DIAMETER	Diameter	Text	8	WS_SYSVAL_DIAM
GPS_DATE	GPS DATE	Date		
GPS_TIME	GPS TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS COMMENT	Text	30	

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Water Domains:

Domain name	WS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
FUTURE	FUTURE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_SPATIALSOURCE
APPROVED PLANS	APPROVED PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
GPS	GPS
HYDRMAINT	HYDRMAINT
ORTHOPHOTO	ORTHOPHOTO
TM7	TM7
UNKNOWN	UNKNOWN

Domain name	WS_HYD_MANUFACTURER
AMERICANDARLING	AMERICANDARLING
AVK	AVK
CLOW	CLOW
DRESSER	DRESSER
GREENBERG	GREENBERG
KENNEDY	KENNEDY
MUELLER	MUELLER
PACIFIC	PACIFIC
UNKNOWN	UNKNOWN
WATEROUS	WATEROUS

Domain name	WS_FEATUREOWNER
COC	Chandler
COG	Gilbert
COM	Mesa
COP	Phoenix
COT	Tempe
COUNTY	Maricopa County
GOULD	Gould
GRIC	GRIC
INTEL	Intel
MICROCHIP	Microchip
MOTOROLA	Motorola
PRIVATE	Private
SRP	SRP
SRVWUA	SRVWUA
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_LIFECYCLESTATUS
FUTURE	FUTURE
UNKNOWN	UNKNOWN
INACTIVE	INACTIVE
ACTIVE	ACTIVE
REMOVED	REMOVED
ABANDONED	ABANDONED

Domain name	WS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL

Domain name	WS_SYSVAL_DIAM
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
54	54

Domain name	WS_HYD_COLOR
0	YELLOW
1	BLACK/YELLOW
2	RED
3	UNKNOWN

Domain name	WS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
OTHER	OTHER
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

Domain name	WS_SYSVAL_GROUNDTYPE
CONCRETE	CONCRETE
ASPHALT	ASPHALT
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain name	WS_SPATIALSOURCE_STD
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

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Domain name	WS_METER_DIAM
0.63	.63
0.75	.75
1	1
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10

Domain name	WS_METER_MANUFACTURER
BADGER METERS	BADTER METERS
NEPTUNE METERS	NEPTUNE METERS
PRECISION METERS	PRECISION METERS
BADGER-NEPTUNE	BADGER-NEPTUNE
SENSUS	SENSUS

Domain name	WS_METER_TYPE
BYPASS	BYPASS
COMBO	COMBO
CMPND	CMPND
DISC	DISC
MAG	MAG
FDTEC	FDTEC
MLTJET	MLTJET
TURBIN	TURBIN
Ultrasonic	Ultrasonic

S

Domain name	WS_SYSVAL_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
COM	COM
MOTOROLA	MOTOROLA
INTEL	INTEL
UNKNOWN	UNKNOWN
TOG	TOG

Domain name	WS_FITTING_MATERIAL
DI	DI
PVC	PVC
BRASS	BRASS
STL	STL
COPPER	COPPER
AC	AC
CC	CC
CI	CI

Domain name	WS_SYSVAL_TYPE
STANDARD	STANDARD
BLOWOFF	BLOWOFF
ARV	ARV
AIR VACUUM	AIR VACUUM
PERMASEAL	PERMASEAL

Domain name	GBA_WMSI_LIFECYCLESTATUS
Operational	Operational
Empty	Empty
Out of Service	Out of Service
Abandoned	Abandoned

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Domain name	WS_SYSVAL_FUNCTION
INLINE	INLINE
HYDRANT	HYDRANT
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
SERVICE	SERVICE
BYPASS	BYPASS
WPF	WPF
FDC	FDC
VAULT	VAULT
BACKFLOW	BACKFLOW
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
FIRELINE	FIRELINE
ARV	ARV
ZONE_SPLIT_VALVES	ZONE_SPLIT_VALVES

Domain name	GIS_BACKFLOW_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
CONTRACTOR	CONTRACTOR
INTEL	INTEL
OCA	OCA
OMG	OMG
TOG	TOG
UNKNOWN	UNKNOWN

Domain name	WS_SYSVAL_VALVETYPE
GATE	GATE
BUTTERFLY	BUTTERFLY
BALL	BALL
PLUG	PLUG
PIV	PIV
UNKNOWN	UNKNOWN
INSERTA	INSERTA

Domain name	GIS_BACKFLOW_MANUFACTURER
FEBCO	FEBCO
WATTS	WATTS
WILKINS	WILKINS
AMES	AMES
CONBRACO	SERVICE
HERSEY	HERSEY
RAIN BIRD	RAIN BIRD
APOLLO VALVES	APOLLO VALVES
METRON	METRON
OTHER	OTHER

Domain name	GIS_BACKFLOW_TYPE
Air Gap	Air Gap
Unknown	Unknown
Double Check Detector	Double Check Detector
Pressure Vacuum Breaker	Pressure Vacuum Breaker
Double Check	Double Check
Reduced Pressure Detector	Reduced Pressure Detector
Atmoshpheric Vacuum Breaker	Atmoshpheric Vacuum Breaker

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DATA DICTIONARY: SEWER

SEWER CLEANOUT				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
RIM_ELEV	RIM_ELEV	Double		
INV_ELEV	INV_ELEV	Double		
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

SEWER CONTROL VALVE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
TYPE	TYPE	Text	25	WW_CONTROL_VALVE_TYPE
DIAMETER	DIAMETER	Text	8	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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SEWER_FITTING				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
MATERIAL	MATERIAL	Text	20	WW_FITTING_MATERIAL
TYPE	TYPE	Text	30	WW_FITTING_TYPE
BEND	BEND	Text	20	WW_FITTING_BEND
SIZE	SIZE	Text	20	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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SEWER_MANHOLE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	WW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	WW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	WW_SPATIALSOURCE
TYPE	TYPE	Text	20	WW_MH_TYPE
COVER_MATERIAL	COVER_MATERIAL	Text	25	WW_MH_COVER_MATERIAL
COVER_HOLE	COVER_HOLE	Text	25	WW_MH_COVER_HOLE
COVER_SIZE	COVER_SIZE	Text	20	WW_MH_COVER_SIZE
RIM_ELEV	RIM_ELEV	Double		
INV_ELEV	INV_ELEV	Double		
LINING	LINING	Text	255	WW_MH_LINER
WALL_MATERIAL	WALL_MATERIAL	Text	255	WW_MH_WALL_MATERIAL
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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Sewer Domains:

Domain name	WW_FEATUREOWNER
COC	COC
PRIVATE	PRIVATE
TOG	TOG
UNKNOWN	UNKNOWN

Domain name	WW_SPATIALSOURCE
GPS	GPS
ASBUILT	ASBUILT
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_HOLE
UNKNOWN	UNKNOWN
SEALED	SEALED

Domain name	WW_MH_LINER
CAST-IN-PLACE	CAST-IN-PLACE
CEMENTITIOUS	CEMENTITIOUS
COMPOSITE	COMPOSITE
CURED-IN-PLACE	CURED-IN-PLACE
EPOXY	EPOXY
FR PLASTIC INSERT	FR PLASTIC INSERT
FR POLYMER INSERT	FR POLYMER INSERT
INSERT	INSERT
UNKNOWN	UNKNOWN

Domain name	WW_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
PULLED	PULLED
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_MATERIAL
ALUMINUM	ALUMINUM
CASTIRON	CASTIRON
HDPE COMPOSITE - CAP	HDPE COMPOSITE - CAP
HDPE COMPOSITE - EJ	HDPE COMPOSITE - EJ
HDPE COMPOSITE - HD20	HDPE COMPOSITE - HD20
STEEL	STEEL
UNKNOWN	UNKNOWN

Domain name	WW_MH_COVER_SIZE
0	Unknown
4	4
6	6
8	8
22	22
24	24
26	26
28	28
30	30
32	32
38	38
48	48
60	60

Domain name	WW_MH_WALL_MATERIAL
NONE	NONE
COMPOSITE	COMPOSITE
UNKNOWN	UNKNOWN
CONCRETE	CONCRETE
POURED	POURED
TLOCK	TLOCK
PRECAST	PRECAST
BRICK	BRICK

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Domain name	WW_FITTING_MATERIAL
PVC	PVC
DIP	DIP
HDPE	HDPE
RCP	RCP
ACP	ACP
ABS	ABS
RUBBER	RUBBER
CONCRETE	CONCRETE
CLAY	CLAY
STEEL ENCASED VCP	STEEL ENCASED VCP
TLOCK LINE	TLOCK LINE
LINED RCP	LINED RCP
PVC LINED RCP	PVC LINED RCP
PVC LINED DIP	PVC LINED RCP

Domain name	WW_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL
NONE	NONE

Domain name	WW_MH_TYPE
0	UNKNOWN
1	SANITARY SEWER
2	ARV

Domain name	WW_FITTING_TYPE
TEE	TEE
WYE	WYE
90 BEND	90 BEND
45 BEND	45 BEND
22 BEND	22 BEND
11 BEND	11 BEND
ENCAP	ENCAP
PLUG	PLUG
REDUCER	REDUCER
ARV	ARV
FLOW METER	FLOW METER
NO FLOW POINT	NO FLOW POINT
OWNERSHIP CHANGE	OWNERSHIP CHANGE
OTHER	OTHER
UNKNOWN	UNKNOWN
COUPLING	COUPLING

Domain name	WW_CONTROL_VALVE_TYPE
AIRRELEASE	AIRRELEASE
AIRVACUUMRELEASE	AIRVACUUMRELEASE
PRESSURERELIEF	PRESSURERELIEF
VACUUMRELEASE	VACUUMRELEASE
UNKNOWN	UNKNOWN
N/A	N/A

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DATA DICTIONARY: RECLAIM

RECLAIM_WATER_BACKFLOW				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	GIS_BACKFLOW_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	GIS_BACKFLOW_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	GIS_BACKFLOW_SPATIALSOURCE
SIZE	SIZE	Double		
TYPE	TYPE	Text	25	GIS_BACKFLOW_TYPE
MANUFACTURER	MANUFACTURER	Text	25	GIS_BACKFLOW_MANUFACTURER
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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RECLAIM_WATER_FITTING				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	RWS_SPATIALSOURCE
MATERIAL	MATERIAL	Text	20	RWS_MAIN_OR_SERVICE_MATERIAL
DIAMETER1	DIAMETER1	Text	8	RWS_FITTING_DIAMETER
DIAMETER2	DIAMETER2	Text	8	RWS_FITTING_DIAMETER
TYPE	TYPE	Text	30	RWS_FITTING_TYPE
BEND	BEND	Text	20	RWS_FITTING_BEND
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double	8	
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double	8	
GPS_COMMENT	GPS_COMMENT	Text	30	

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RECLAIM_WATER_MANHOLE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	RWS_SPATIALSOURCE
ACCESSDIAMETER	ACCESSDIAMETER	Text	8	
ACCESSTYPE	ACCESSTYPE	Text	20	
GROUNDTYPE	GROUNDTYPE	Text	20	RWS_GROUNDTYPE
COVERMATERIAL	COVERMATERIAL	Text	10	RWS_COVER_MATERIAL
COVERTYPE	COVERTYPE	Text	8	RWS_COVER_TYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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RECLAIM_WATER_METER				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	Feature Owner	Text	20	GBA_WMSL_FEATUREOWNER
LIFECYCLESTATUS	Lifecycle Status	Text	25	GBA_WMSL_LIFECYCLESTATUS
SPATIALSOURCE	Spatial Source	Text	25	GBA_STATIC_SPATIALSOURCE
DIAMETER	DIAMETER	Double		RWS_METER_DIAM
MANUFACTURER	Manufacturer	Text	25	RWS_METER_MANUFACTURER
METERTYPE	Meter Type	Text	25	RWS_METERTYPE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	15	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	30	

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RECLAIM WATER SYSTEM VALVE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATURE OWNER	Text	20	RWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLE STATUS	Text	20	RWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIAL SOURCE	Text	20	RWS_SPATIALSOURCE
TYPE	TYPE	Text	25	RWS_SYSVAL_TYPE
VALVETYPE	VALVE TYPE	Text	10	RWS_SYSVAL_VALVETYPE
FUNCTION	FUNCTION	Text	25	RWS_SYSVAL_FUNCTION
GROUNDTYPE	GROUNDTYPE	Text	25	RWS_SYSVAL_GROUNDTYPE
DIAMETER	DIAMETER	Double		RWS_SYSVAL_DIAM
GPS_DATE	GPS DATE	Date	8	
GPS_TIME	GPS TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS COMMENT	Text	30	

Reclaim Water Domains:

Domain name	RWS_SYSVAL_VALVETYPE
BALL	BALL
BUTTERFLY	BUTTERFLY
GATE	GATE
INSERTA	INSERTA
PIV	PIV
PLUG	PLUG
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_FUNCTION
ARV	ARV
INLINE	INLINE
PUMPOUT	PUMPOUT
PUMPSTATION	PUMPSTATION
SERVICE	SERVICE
STUBOUT	STUBOUT
UNKNOWN	UNKNOWN
VAULT	VAULT

Domain name	RWS_SYSVAL_TYPE
ARV	ARV
AIR VACUUM	AIR VACUUM
BLOWOFF	BLOWOFF
PERMASEAL	PERMASEAL
STANDARD	STANDARD

Domain name	RWS_FITTING_BEND
HORIZONTAL	HORIZONTAL
VERTICAL	VERTICAL

Domain name	RWS_MAIN_OR_SERVICE_MATERIAL
AC	AC
CC	CC
CI	CI
CU	COPPER
DI	DI
PVC	PVC
UNKNOWN	UNKNOWN
AC	AC
CC	CC

Domain name	RWS_FITTING_TYPE
11B	11B
22B	22B
45B	45B
90B	90B
COUPLING	COUPLING
CROSS	CROSS
ENDCAP	ENDCAP
LINESTOP	LINESTOP
MECHANICAL JOINT	MECHANICAL JOINT
OTHER	OTHER
RECHARGE WELL	RECHARGE WELL
REDUCER	REDUCER
SADDLE	SADDLE
TAPPING SLEEVE	TAPPING SLEEVE
TEE	TEE
UNKNOWN	UNKNOWN
WYE	WYE

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Domain name	RWS_SPATIALSOURCE
ASBUILT	ASBUILT
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

Domain name	RWS_LIFECYCLESTATUS
ABANDONED	ABANDONED
ACTIVE	ACTIVE
INACTIVE	INACTIVE
REMOVED	REMOVED
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_DIAM
1.5	1.5
2	2
3	3
4	4
6	6
8	8
10	10
12	12
16	16
20	20
24	24
30	30
36	36
42	42
48	48
9999	UNKNOWN

Domain name	RWS_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
DIRT	DIRT
UNKNOWN	UNKNOWN

Domain name	RWS_SYSVAL_GROUNDTYPE
ASPHALT	ASPHALT
CONCRETE	CONCRETE
LANDSCAPE	LANDSCAPE
UNKNOWN	UNKNOWN

Domain name	RWS_FITTING_DIAMETER
0.63	0.63
0.75	0.75
1	1
1.25	1.25
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10
12	12
15	15
16	16
18	18
20	20
24	24
30	30

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Domain name	RWS_COVER_MATERIAL
CAST IRON	CAST IRON
ALUMINUM	ALUMINUM
UNKNOWN	UNKNOWN

Domain name	RWS_COVER_TYPE
SEALED	SEALED
VENTED	VENTED
BOLTED	BOLTED
UNKNOWN	UNKNOWN

Domain name	RWS_METER_MANUFACTURER
BADGER METERS	BADGER METERS
NEPTUNE METERS	NEPTUNE METERS
PRECISION METERS	PRECISION METERS
BADGER-NEPTUNE	BADGER-NEPTUNE
SENSUS	SENSUS

Domain name	RWS_METERTYPE
BYPASS	BYPASS
COMBO	COMBO
CMPND	CMPND
DISC	DISC
MAG	MAG
FDTEC	FDTEC
MLTJET	MLTJET
TURBIN	TURBIN

Domain name	RWS_METER_DIAM
0.63	.63
0.75	.75
1	1
1.5	1.5
2	2
2.5	2.5
3	3
4	4
6	6
8	8
10	10

Domain name	RWS_FEATUREOWNER
COC	CHANDLER
COM	MESA
INTEL	INTEL
OCA	OCA
OMG	OMG
PRIVATE	PRIVATE
SRP	SRP
TOG	GILBERT
UNKNOWN	UNKNOWN

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DATA DICTIONARY: STORM

STORM_BUBBLER_BOX				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
GRATE_OPENINGS_NUM	GRATE_OPENINGS_NUM	Short		SWS_GRATE_OPENINGS
GRATE_LENGTH	GRATE_LENGTH	Double	8	SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double	8	SWS_GRATE_WIDTH
DRYWELL_ASSOC	DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_CATCHBASIN				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
STRUCTURE_TYPE	STRUCTURE_TYPE	Short		SWS_STRUCTURE_TYPE
CATCHBASIN_TYPE	CATCHBASIN_TYPE	Text	25	SWS_CB_TYPE
CITY_EMBLEM	CITY_EMBLEM	Text	5	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	Text	25	SWS_CB_ACCESS_OPENING_TYPE
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
LID	LID	Text	5	GIS_BOOLEAN_YES_NO
LID_TYPE	LID_TYPE	Text	25	SWS_CB_LID_TYPE
DRYWELL_CONN	DRYWELL_CONN	Text	5	GIS_BOOLEAN_YES_NO
OUTLET_CONN	OUTLET_CONN	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_CONN	BUBBLERBOX_CONN	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_DRYWELL_ASSOC	BUBBLERBOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_COLLECTION_VAULT				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	20	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	20	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	20	SWS_SPATIALSOURCE
INLET_NUM	INLET_NUM	Short		SWS_CV_NUMB_INLETS
INLET_DIAM	INLET_DIAM	Short		SWS_CV_PIPE_SIZE
INLET_PIPE_TYPE	INLET_PIPE_TYPE	Text	30	SWS_CV_PIPE_TYPE
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
DRYWELL_ASSOC	DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LID_GRATE	LID_GRATE	Text	5	SWS_LID_GRATE
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_DRAIN_MANHOLE				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
STRUCTURE_TYPE	STRUCTURE_TYPE	Short	2	SWS_STRUCTURE_TYPE
CHANDLER_NAME	CHANDLER_NAME_ON_LID	Text	5	GIS_BOOLEAN_YES_NO
DIAMETER	DIAMETER	Short	2	SWS_SDMH_SIZE
VENT_HOLE	VENT_HOLE	Text	30	GIS_BOOLEAN_YES_NO
ACCESS_OPENING_TYPE	ACCESS_OPENING_TYPE	Text	25	SWS_SDMH_ACCESS_OPENING_TYPE
LID_TYPE	LID_TYPE	Text	30	SWS_SDMH_TYPE
LID_TEXT	LID_TEXT	Text	30	SWS_SDMH_LID_TEXT
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_DRYWELL				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
FIELD_LOC	FIELD_LOC	Text	100	SWS_DW_LOCATION
INSTALLER	INSTALLER	Text	30	SWS_DW_INSTALLER
CHAMBER_TYPE	CHAMBER_TYPE	Text	30	SWS_DW_CHAMBER_TYPE
LID_SIZE	LID_SIZE	Short		SWS_DW_LID_SIZE
LID_TYPE	LID_TYPE	Text	25	SWS_DW_LID_TYPE
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
CONCRETE_PAD	CONCRETE_PAD	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_INLET				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
CATCHBASIN_TYPE	CATCHBASIN_TYPE	Text	25	SWS_CB_TYPE
FIELD_LOC	FIELD_LOC	Text	100	SWS_FIELD_LOC
GRATE_ASSOC	GRATE_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	Short		SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	Short		SWS_INLET_NUMBER
TRASHRACK_ASSOC	TRASHRACK_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double		
TRASH_WIDTH	TRASH_WIDTH	Double		
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_OUTLET				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
GRATE_ASSOC	GRATE_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
GRATE_LENGTH	GRATE_LENGTH	Double		SWS_GRATE_LENGTH
GRATE_WIDTH	GRATE_WIDTH	Double		SWS_GRATE_WIDTH
INLET_PIPE_DIAM	INLET_PIPE_DIAM	Short		SWS_INLET_PIPE_DIAM
INLET_NUMBER	NUMBER_OF_INLETS	Short		SWS_INLET_NUMBER
TRASHRACK_ASSOC	TRASHRACK_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
TRASH_LENGTH	TRASH_LENGTH	Double		
TRASH_WIDTH	TRASH_WIDTH	Double		
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
HEADWALLASSOC	HEADWALLASSOC	Text	5	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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STORM_SCUPPER				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	FEATUREOWNER	Text	25	SWS_FEATUREOWNER
LIFECYCLESTATUS	LIFECYCLESTATUS	Text	25	SWS_LIFECYCLESTATUS
SPATIALSOURCE	SPATIALSOURCE	Text	25	SWS_SPATIALSOURCE
CITY_EMBLEM	CITY_EMBLEM	Text	5	GIS_BOOLEAN_YES_NO
NUMBER_OPENINGS	NUMBER_OPENINGS	Short		
WIDTH	WIDTH	Double		
SPILLWAY_ASSOC	SPILLWAY_ASSOC	Text	25	GIS_BOOLEAN_YES_NO
HEADWALL_ASSOC	HEADWALL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
NUISANCE_LINE_ASSOC	NUISANCE_LINE_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLERBOX_ASSOC	BUBBLERBOX_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
BUBBLER_BOX_DRYWELL_ASSOC	BUBBLER_BOX_DRYWELL_ASSOC	Text	5	GIS_BOOLEAN_YES_NO
LAKE_DRAIN	LAKE_DRAIN	Text	5	GIS_BOOLEAN_YES_NO
RIPRAP	RIPRAP	Text	25	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

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Storm Domains:

Domain name	SWS_DW_LOCATION
AIRPORT	AIRPORT
CITYRETENTION	CITY RETENTION
PARK	PARK
PARKING_LOT	PARKING LOT
PRIVATERETENTION	PRIVATE RETENTION
STREET	STREET
WELL_SITE	WELL SITE

Domain name	SWS_GRATE_LENGTH
12	12
24	24
28	28
30	30
36	36
38	38
40	40
50	50
60	60
76	76

Domain name	SWS_CB_LID_TYPE
STEEL	STEEL
CONCRETE	CONCRETE

Domain name	SWS_DW_CHAMBER_TYPE
DOUBLE	DOUBLE
SINGLE	SINGLE
TRIPLE	TRIPLE

Domain name	SWS_LIFECYCLESTATUS
ACTIVE	ACTIVE
REMOVED	REMOVED
ABANDONED	ABANDONED
INACTIVE	INACTIVE
FUTURE	FUTURE

Domain name	SWS_GRATE_OPENINGS
1	1
2	2
3	3
4	4
5	5
6	6

Domain name	SWS_SPATIALSOURCE
APPROVED_PLANS	APPROVED_PLANS
ASBUILT	ASBUILT
DESIGN	DESIGN
FIELD	FIELD
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
UNKNOWN	UNKNOWN

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Domain name	SWS_SDMH_SIZE
22	22
24	24
26	26
28	28
30	30
32	32
38	38

Domain name	SWS_DW_LID_SIZE
22	22
24	24
25	25
26	26
32	32
38	38

Domain name	SWS_STRUCTURE_TYPE
1	CATCH BASIN
2	SCUPPER
3	DRYWELL
4	MANHOLE
5	OUTLET
6	INLET
7	BUBBLERBOX
8	SPILLWAY
9	SEPARATOR

Domain name	SWS_SDMH_LID_TEXT
CHANDLER_SANITATION_SEWER	CHANDLER SANITATION SEWER
CHANDLER_STORM/SEWER	CHANDLER STORM/SEWER
NONE	NONE
OTHER	OTHER
STORM SEWER	STORM SEWER

Domain name	SWS_DW_INSTALLER
McGUCKINDRILLING	McGUCKIN DRILLING
TORRENTRESOURCES	TORRENT RESOURCES
WACODRILLING	WACO DRILLING
OTHER	OTHER

Domain name	SWS_CB_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE

Domain name	SWS_FEATUREOWNER
ADOT	ADOT
CITY_OF_CHANDLER	CITY_OF_CHANDLER
HOA	HOA
OTHER	OTHER

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Domain name	SWS_GRATE_WIDTH
6	6
12	12
16	16
18	18
24	24
28	28
30	30
36	36
38	38
44	44
72	72

Domain name	SWS_SDMH_ACCESS_OPENING_TYPE
NONE	NONE
RECTANGULAR	RECTANGULAR
ROUND	ROUND
SQUARE	SQUARE

Domain name	SWS_FIELD_LOC
PARK	PARK
WELLSI	WELL_SITE
PRKLOT	PARKING_LOT
STREET	STREET
AIRPOR	AIRPORT
CTYRTN	CITYRETENTION
PVRET	PRIVATERETENTION

Domain name	SWS_SDMH_TYPE
PRESSURIZED	PRESSURIZED
NON-PRESSURIZED	NON-PRESSURIZED

Domain name	SWS_DW_LID_TYPE
STEEL	STEEL
GRANITE	GRANITE
CONCRETE_SEALED	CONCRETE_SEALED
GRATE	GRATE

Domain name	SWS_INLET_PIPE_DIAM
12	12
13	13
14	14
15	15
16	16
18	18
24	24
26	26
30	30
36	36
42	42
46	46
60	60
72	72

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Domain name	SWS_INLET_NUMBER
1	1
2	2
3	3
4	4

Domain name	SWS_CB_TYPE
TYPE_A	TYPE_A
TYPE_B	TYPE_B
TYPE_C	TYPE_C
TYPE_D	TYPE_D
TYPE_E	TYPE_E
TYPE_F	TYPE_F
TYPE_G	TYPE_G
TYPE_H	TYPE_H
TYPE_Q	TYPE_Q
NONE	NONE

Domain name	SWS_LID_GRATE
LID	LID
GRATE	GRATE

Domain name	SWS_CV_PIPE_TYPE
CONCRETE	CONCRETE
OTHER	OTHER
METAL	METAL

Domain name	SWS_CV_PIPE_SIZE
12	12
14	14
16	16
18	18
20	20
24	24
30	30
36	36

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DATA DICTIONARY: MISCELLANEOUS POINTS

MISCELLANEOUS POINT				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
SIZE	SIZE	Double		
MATERIAL	MATERIAL	Text	30	
UTILITY_TYPE	UTILITY_TYPE	Text	30	PW_UTILITY_TYPE
NOTES	NOTES	Text	150	
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	50	

Domains:

Domain name	PW_UTILITY_TYPE
WATER	WATER
WASTEWATER	WASTEWATER
RECLAIM	RECLAIM
STORM	STORM
OTHER	OTHER

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DATA DICTIONARY: STREETLIGHTS

STREETLIGHTS				
Field Name	**Alias Name**	**Type**	**Length**	**Domain**
OBJECTID	OBJECTID	OID		
SHAPE	SHAPE	Geometry		
FEATUREOWNER	POLE_OWNER	Text	10	ST_STLITINV_FEATUREOWNER
SPATIALSOURCE	SPATIALSOURCE	Text	25	GBA_STATIC_SPATIALSOURCE
POLENUMBER	POLENUMBER	Text	10	
POLE_HEIGHT	POLE_HEIGHT	Short		
POLE_TYPE	POLE_TYPE	Text	30	TE_STLITINV_POLE_TYPE
POLE_COAT	POLE_COAT	Text	30	TE_STLITINV_POLE_COAT
FOUNDATION	FOUNDATION	Text	30	GIS_BOOLEAN_YES_NO
GPS_DATE	GPS_DATE	Date		
GPS_TIME	GPS_TIME	Text	10	
LATITUDE	LATITUDE	Double		
LONGITUDE	LONGITUDE	Double		
ALTITUDE	ALTITUDE	Double		
HORIZONTAL_ACCURACY	HORIZONTAL_ACCURACY (m)	Double		
VERTICAL_ACCURACY	VERTICAL_ACCURACY (m)	Double		
GPS_COMMENT	GPS_COMMENT	Text	255	

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Streetlights Domains:

Domain name	ST_STLITINV_FEATUREOWNER
COC	CITY OF CHANDLER
PRIVATE	PRIVATE
SRP	SRP
AP	APS

Domain name	GBA_STATIC_SPATIALSOURCE
GPS	GPS
ORTHOPHOTO	ORTHOPHOTO
APPROVED_PLANS	APPROVED_PLANS
GEOCODED	GEOCODED
UNKNOWN	UNKNOWN

Domain name	TE_STLITINV_POLE_TYPE
SL 1	SL 1
SL 6	SL 6
SL 8	SL 8
SL 10	SL 10
SL 16	SL 16
SL 17	SL 17
CURVED	CURVED
CUSTOM	CUSTOM
STERNBERG	STERNBERG
SIGNAL POLE	SIGNAL POLE
POWER POLE	POWER POLE

Domain name	TE_STLITINV_POLE_COAT
GALVANIZED	GALVANIZED
PAINTED	PAINTED
POWDER COATED	POWDER COATED

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EXHIBIT E

FEDERAL PROVISIONS

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FEDERAL PROVISIONS & DOCUMENTS

CONSTRUCTION CONTRACT

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FEDERAL PROVISIONS / DOCUMENTS

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1.0

FEDERAL GUIDE

FOR CONTRACTORS

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Federal Funded Contract Guide for Contractors/Subcontractors

This is an FHWA federal funded project.

1. This an FHWA Federal Funded Contract/Project. There is a ZERO TOLERANCE for compliance of the federal requirements.
2. **NEW**: No Retention can be held on federal funded contracts: Includes City to Prime and Prime to Subcontractors
3. Build America-Buy America Requirements are strict – Recommend clear communication with your Vendors.
4. All Contractors/Subcontractors/Consultants/Subconsultants working on a federal funded contract: No debarments, No outstanding unresolved federal tax liens, and must use E-Verify for company employment process.
5. Prime Contractor Must self-perform **50%** of the contract.
6. Records: Record Retention for federal projects must be maintained for five (5) years following completion.
7. Web Site Registration Requirements:
    a. AZ UTRACS website - (https://utracs.azdot.gov) All Contractors/Subcontractors are required to have a 5-digit AZ UTRACS Number and have an updated non-expired profile in this system.
    b. ADOT Payment Reporting System (DOORS) - (https://adotdoors.dbesystem.com/) Contractors/subcontractors must be registered in the ADOT DOORs System. This is where monthly payments will be reported and verified.
    c. SAM (www.sam.gov) – This site identifies contractors who cannot work on a federal funded project due to specific debarments. See Code of Federal Regulations Title 2 Subtitle A Part 180 Subpart H.
        i. No Contractor/Subcontractor with a debarment can work on a federal funded project.
        ii. No Contractor/Subcontractor with an unresolved federal debt can work on a federal funded project.
    d. LCPTracker (Certified Payroll) – (https://prod-cdn.lcptracker.net)

8. CERTIFIED PAYROLL / FRINGE BENEFITS / EMPLOYEE DEDUCTIONS / CLASSIFICATIONS
    a. Certified Payrolls Reporting is a requirement to work on this project.
    b. IMPORTANT: Hours/dates/employees/classifications worked MUST MATCH what jobsite inspector reports on his/her daily report each day. ENSURE CREWS CHECK IN WITH PRIME AND INSPECTOR.
    c. City of Chandler requires the use of LCPTracker system for transmitting certified payroll reports.
    d. Certified Payroll Reporting Starts: The first day a contractor/subcontractor starts work on site until their contract work is complete and finalized. This includes working and non working weeks.
    e. Late or non-submittal of payroll reports:
        i. US Department of Labor requires that payroll reports be submitted within 7 days of pay date.
        ii. City of Chandler may assess penalty retainer of $2,500 for each discrepancy report AND THE PRIME CONTRACTOR CAN WITHHOLD THAT AMOUNT FROM THE PAYMENT OWED TO THE SUBCONTRACTOR.
        iii. City of Chandler may stop subcontract work until compliance is met.
    f. Foreman, Superintendents, Owners who perform labor on site are considered laborers and MUST BE REPORTED ON CERTIFIED PAYROLL with exception to de minimis time.
    g. Payroll Time Requirements / Legal
        i. All Laborers / Mechanics on Federal Funded Projects Must Be Paid Weekly.
        ii. Contractor Penalty for not paying weekly - $5,000 Fine and/or up to five (5) years in Prison.
        iii. If Contractor lies/falsifies Certified Payroll, penalty can be up to 15 years in jail.
        iv. Under-paying employees – subcontract may be terminated, contractor/subcontractor can be debarred from working on federal funded contracts for up to three (3) years.
    h. Project Specific Davis Bacon Wage Decision is included in your contract. Not all Wage Decisions are the same and are "Project Specific". Employees must be paid at or above the Davis Bacon Wage Decision rates (Base + Fringe).
    i. Site of Work: Includes project site, other areas where significant portion of the building or work is constructed provided that: 1) such site is established specifically for the contract and no other work, and 2) is located adjacent or virtually adjacent to the site of the work (within visual).
    j. Employee Benefits Plans / Fringes:
        i. If Contractor / Subcontractor wants to utilize company paid benefits paid to employee towards the required Davis Bacon Wage requirement in lieu of cash, the following two items must be submitted to and approved by the City Federal Compliance Oversight.
            1. Company-Employee Benefits and Health care plan. This includes company benefits for employees, which may include more than health care plans, such as vacation, sick leave, 401K, paid time off, etc.
            2. Worksheet showing the hourly breakdown of the costs to be used.
    k. Employee Deduction Authorization Form (EDA): All Contractors/Subcontractors submitting certified payroll must submit these forms to the City of Chandler **for every employee that has dollars in the "Other" box** on the payroll reports. This is a one-time submittal unless deductions change for that employee, and does not need to be submitted with every payroll report. Submit to: Janece Ray at Janece.ray@chandleraz.gov. Request a generic form if you do not have one.

l. Classification Requests (also known as Conformance Requests): If no classification matches a task/employee work classification from the wage decision for this contract, YOU WILL NEED TO SUBMIT A Classification Request SF1444 (City of Chandler Form, ADOT Forms are not allowed).
m. Overtime Requirement by Department of Labor: The overtime rate must be 1.5 x the Base Rate on the Wage Decision or 1.5 x a higher wage rate that you already pay, (you cannot pay 1.5 OT rate on the base rate if you are paying a lower base rate due to higher fringe rate).
n. DO NOT USE 'GENERAL LABORER CLEANUP' as a catch all. DOL DOES NOT WANT TO SEE MORE THAN 3 GENERAL LABORERS TO A SKILLED CLASSIFICATION.

9. EMPLOYEE INTERVIEWS
   a. Employee Interviews process is a Department of Labor federal requirement on federal funded projects. This is to ensure employees are being paid correctly for the tasks they are working. Interviews are confidential and employers cannot have access to interview documentation.

10. PAYMENT REPORTING: (aka DBE/PROMPT PAY REPORTING)
    a. ALL CONTRACTORS AND SUBCONTRACTORS**, MUST** be registered with ADOT's DBE Reporting System in order to work on this federal funded project. (NEW: https://adotdoors.dbesystem.com/)
    b. ALL CONTRACTORS/SUBCONTRACTORS are required to report monthly in the above listed system from your first payment to when your contract is complete. This includes months that $-0- payments occur.
    c. Report the date paid; Report the date received. DO NOT GUESS.
       i. DBE's who subcontract down to a lower tier: If Lower Tier is not a DBE, payment amounts to lower tier will not count towards the DBE Goal.
    d. Reporting Schedule: Primes must report payments made to subcontractors no later than the 10th of each month for payments made the previous month. Subcontractors must verify or report payment discrepancies by the 30th of each month for report made by the Prime. Subcontractors must report payments made to lower tiers by the 15th of each month for payments made the previous month (including $0).
    e. DBE Subcontractors: important reminder – payments reported total and the DBE Final Payment Certification Form required at completion of subcontract work must have the same total dollars paid – must match.

11. PROMPT PAY
    a. Subcontractors must be paid within 7 days from payment received from the City for the related work.
    b. Prime is responsible for ensuring subcontractors pay lower tiers.
    c. Subcontractors must pay lower tiers within 7 days of receiving payment from the Prime for work the lower tier performed that was paid to the Prime – to the subcontractor.
    d. Note that just because a subcontractor or a lower tier subcontractor performed work, the Prime may not have been paid for that work. Prompt Pay 7-day payment requirements is for work paid for from the City to the Prime; Prime to the Subcontractor; Subcontractor to the Lower Tier Subcontractor.
    e. Payment reporting: is the reported amount correct, was payment received within 7 days from the date the Prime was paid? DO NOT GUESS.

12. REGISTRAR OF CONTRACTORS LICENSE (ROC)
    a. A current ROC License is required for all Contractors/Subcontractors with exceptions to businesses/services that do not require an ROC License.
    b. Name on the Subcontract, the SRF Request Form, and the ROC License MUST MATCH.

13. BUY AMERICA AND BUILD AMERICA-BUY AMERICA (BABA) REQUIREMENTS FOR MATERIALS
    a. **MATERIALS USED ON THIS PROJECT MUST FOLLOW THE BUY AMERICA AND BABA REQUIREMENTS**.
    b. Suppliers, vendors, and subcontractors must provide material certifications before material can be accepted, installed, and paid for.
    c. NO PAYMENTS FOR MATERIALS WITHOUT APPROVED MATERIAL CERTIFICATIONS.

14. JOBSITE POSTERS
    a. There are jobsite poster requirements and City of Chandler will assist will required posters list.
    b. All employees working on site must have access to view jobsite posters without supervision.
    c. All employees must be able to state they have seen the wage decision for this project.

15. SUBCONTRACTORS
    a. **All subcontractors must notify Prime and Inspector to be on site each day.**
    b. **FHWA requires Inspector to document on daily report each day, what subcontractors and identify their employees, the task classifications, and equipment subcontractor is utilizing on site.**
    c. DBE Subcontracts must be submitted prior to construction start.
    d. Termination of a DBE Subcontractor or decrease in scope must be approved by the City of Chandler.
    e. DBE Subcontractors must perform a minimum of 30% of their contract, cannot lower tier sub out more than 70%.
    f. All subcontractors (includes lower tiers) must have an ROC license (if the business type requires it).
    g. All contractors/subcontractors must have a **5-digit AZ UTRACS number** (https://utracs.azdot.gov)
    h. All contractors/subcontractors (including lower tiers) will be required to report monthly into the ADOT DOORs Reporting System.
    i. **Testing Subcontractors** must be on the ADOT Accredited Materials Testing Laboratories List. (https://azdot.gov/business/engineering-and-construction/materials/materials-quality-assurance/adot-accredited).
    j. **Trucking:** Vendors who have one or more company trucks delivering material to the jobsite are not trucking companies and do not require a subcontractor approval. Trucking companies that the Contractor or Subcontractor has a subcontract with to work on site hauling in or out is a subcontractor and must go through the subcontractor approval process.
    k. No subcontractor including Barricades/Traffic Control can start before the Prime Contractor's NTP Date.

16. TITLE VI
    a. Any complaints related to Title VI while on the jobsite must be forwarded to the City of Chandler Federal Compliance to handle. Please forward complaints to one of the following:
        i. Dan Haskins: 480-782-3335 / dan.haskins@chandleraz.gov
        ii. Janece Ray: 480-782-3331 / janece.ray@chandleraz.go

17. T&M
    a. For T&M work activities, Lump Sum charges/Hourly Rates/Daily Rates ARE NOT ALLOWED on federal funded contracts. Contractors and Subcontractors – required: daily work document signed off by inspector with employees, hours, equipment, description. Invoice documentation must show each date for employees, hours, and certified payroll rates on the applicable APPROVED certified payroll.

18. RETENTION
    a. Due to FHWA Federal requirements, on FHWA Federal Funded Contracts, the City no longer holds retention.
    b. Contractors CANNOT hold retention.
    c. Tip for Primes: Federal Compliance is required for contractors and subcontractors. Pay attention to subcontractor discrepancies that have penalties such as certified payrolls, payment reporting, and Prompt Pay. These penalties will be deducted from the Prime's pay application payment and the Prime can pass on to the subcontractor(s).

19. SANCTIONS / PENALTIES / LIQUIDATED DAMAGES (Certified Payroll, Prompt Pay, DBE Reporting)
    a. Certified Payrolls
        i. Monthly discrepancies will be notified to Prime for the previous month's discrepancies.
        ii. Discrepancy penalties are $2,500 each with a 10-day grace period to correct the discrepancy. Corrections made 11th day to 90th day, the penalty is assessed. Corrections after the 90th day $500 is non-refundable.
    b. Payment Reporting
        i. Not Reporting has required Penalties - Liquidated Damages, non-refundable: Not reporting a payment has a federal required penalty that the City must assess of $ 5,000. non-refundable.
        ii. After 90 consecutive days of non-reporting of those payment(s), the penalty/liquidated damages will increase to $10,000 for each subsequent month until the Contractor reports.
        iii. This Liquidated Damages $1000.00 can only be initiated by the City of Chandler to the Prime, BUT the Prime CAN pass on to the respective Subcontractor who did not report for a payment to a lower tier.
    c. Prompt Pay Provisions - Penalty for Non-Payments
        i. City of Chandler is required to withhold two times (2x) the amount due to subcontractors if not paid within 7 days of receiving payment. If full payment is made within 30 days of the date the City of Chandler pays the Prime, the amount withheld will be released. If payment is made after the 30 days of the City of Chandler's payment date to the Prime Contractor, 75% will be returned and 25% will be withheld as liquidated damages.
        ii. This is also applies to subcontractors' payments to lower tier subcontractors.
        iii. If non-payment lasts for three consecutive months, or any four months over the course of one project:
            1. Withhold monthly progress payments
            2. Terminate the contract for default
            3. Can be disqualified from future bidding, temporarily or permanently, based on severity of violations.

COURTESY WEBSITE REFERENCE LIST

1	https://utracs.azdot.gov	Register for Utracs 5-digit number, profile, list NAICS codes, shows whether or not you are a DBE. There are links on this page to: -On Line Bidders List -DBE Reporting system
2	https://adotdoors.dbesystem.com/	Payment Reporting System – verifies payments, Prompt Pay, DBE requirements.
3	www.sam.gov	Register a profile. This site shows contractors that have outstanding/unresolved federal tax liens or are on a debarment list from working on a federal funded project. You want this site to show your company clear to work on federal funded projects.
4	https://prod-cdn.lcptracker.net/	Certified Payroll Reporting System
5	https://www.dol.gov/whd/resources/posters.htm https://www.dol.gov/ofccp/regs/compliance/posters/ofccpost.htm https://www.dol.gov/vets/programs/userra/poster.htm https://www.osha.gov/Publications/poster.html https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm) https://www.dol.gov/agencies/olms/poster/labor-rights-federal-contractors https://www.azica.gov/posters-employers-must-display https://www.fhwa.dot.gov/programadmin/contracts/fhwa1022.pdf https://www.azica.gov/posters-employers-must-display https://www.des.az.gov/sites/default/files	Where to find jobsite posters
6	https://azdot.gov/business/engineering-and-construction/materials/materials-quality-assurance/adot-accredited	ADOT Accredited Laboratories ADOT Accredited Materials Testing Laboratories - Independent

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2.0

FEDERAL NON-COLLUSION BIDDING CERTIFICATION

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FEDERAL NON-COLLUSION BIDDING CERTIFICATION

(This form must be filled out, signed, notarized, and submitted with bid or proposal)

(State of)

ss.

(County of)

I, Kevin Nunez of the City of Mesa, in the County of Maricopa, and the State of Arizona, of full age, being duly sworn according to the law of my oath depose and say that:

I am Kevin Nunez (Name), a, Sr. Vice President (Title, Position, etc.)

Of the firm of Achen-Gardner Construction LLC, the Bidder making the bid for:

Project Name: Lindsay Road Improvements

City Project No ST2001-401

Federal Project No CHN0246D

ADOT Project No T024301C

And that I executed the said Bid with full authority so to do, that said Bidder has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project, and that all statements contained in said Bid and in this affidavit are true and correct, and made with full knowledge that the City of Chandler relies upon the truth of the statements contained in said Bid and in the statements contained in this affidavit in awarding the Contract for the said Project.

The bidder certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that

1. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress, or an employee of a Member of Congress, in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement, renewal, amendment, or modification of any Federal contract grant, loan, or cooperative agreement.
2. If any funds other than Federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL "Disclosure Form to Report Lobbying," in accordance with its instructions. Copies of Form-LLL, "Disclosure Form to Report Lobbying", are available at ADOT Contracts and Specifications Services, 1651 W Jackson, Room 121F, Phoenix, AZ 85007. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $1,000,000 for each such failure.

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The bidder also agrees, by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all subcontracts, and lower tier subcontracts which exceed $100,000 and that all such subcontractors and lower tier subcontractors shall certify and disclose accordingly.

The City of Chandler will keep the prime contractor's certifications on file as part of their original bid proposals. Each prime contractor shall keep individual certifications from all subcontractors and lower tier subcontractors on file. Certifications shall be retained for three years following completion and acceptance of any given project.

Disclosure forms for the prime contractor shall be submitted to the Engineer at the pre-construction conference. Disclose forms for subcontractors and lower tier subcontractors shall be submitted to the Engineer by the prime contractor along with the submittal of each subcontract or lower tier subcontract as required under 23 CFR 635A and ADOT Specification 108.01 when said subcontracts exceed $100,000.00 During the performance of the contract the prime contractor and any affected subcontractors shall file revised disclosure forms at the end of each calendar year quarter in which events occur that materially affect the accuracy of any previously filed disclosure form. Disclosure forms will be submitted by the engineer to the Federal Highway Administration for further processing.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract. I upon an agreement of understanding for a commission, percentage, brokerage or contingent fee, except bonafide employees or bonafide established commercial or selling agencies maintained by:

Signature of Bidder

Kevin Nunez

Printed or Typed Name of Bidder

(required)
NOTARY

Subscribed and sworn to before me

this 5th day of November (month), 2025 (year)

Notary Public

Seal:

EDITH ROMERO
Notary Public, State of Arizona
Maricopa County
Commission # 657326
My Commission Expires
October 01, 2027

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3.0

VERIFICATION STATEMENT

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eCHANDLER arizona

VERIFICATION STATEMENT
FOR
NO FEDERAL TAX LIENS,
NO DEBARMENTS,
USE OF E-VERIFY FOR EMPLOYMENT HIRING
UTRACS REGISTRATION/STATUS
ROC LICENSE
FEDERAL EMPLOYER IDENTIFICATION NUMBER (EIN)

This form represents certifying compliance for items listed below:

a) This company has no outstanding unresolved federal tax liens.

b) This company has not been suspended or debarred from working on a federal funded contract, does not have a proposed debarment pending, has not been indicted, convicted, or had a civil judgement rendered against the firm by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years as specified by Code of Federal Regulations 49 CFR.

c) This company uses E-Verify for employment verifications.

d) This company has a current UTracs Registration (https://utracs.azdot.gov)

e) ROC License: To work on a federal funded project, all contractors, subcontractors, consultants, subconsultants must have an ROC license (exception if business type does not require ROC license in Arizona). For bidding process, For Construction, Low Bidder will have 60 days from Bid Opening Day to obtain the required State ROC license.

f) EIN: Must have an Employer Identification Number (EIN) if you are the Prime. For Subcontractors and Subconsultants - you are required only If required by Law/ Federal Requirements. If not required by Law to have an EIN number, you may write in "not applicable' below.

**It is recommended that all companies working on a federal funded contract be registered on the SAM website. (www.sam.gov)

If unable to certify to the statements above, company is ineligible to enter into an agreement for federal funded contracts with the City of Chandler.

Company Name:	Achen-Gardner Construction LLC
Company UTracs No:	18750
Company ROC No:	261745 A
EIN:	27-1394157
Name of Person Signing:	Kevin Nunez
Title of Person Signing:	Sr. Vice President
Signature:	
Date of Signature:	10/16/2025

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4.0

FORCED LABOR OF ETHNIC UYGHURS BAN

CERTIFICATION FORM

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A.DOT
lnlmtnK:tUre Oellve,y and Operations

FORCED LABOR OF ETHNIC UVGHURS BAN Certification Form

Forced Labor of Ethnic Uyghurs Ban

Please note that if any of the following apply to the Consultant, then the Offeror shall select the "Exempt Consultant" option below:

- Consultant is a sole proprietorship;
- Consultant has fewer than ten (10) employees; OR
- Consultant is a non-profit organization.

Pursuant to A.R.S. § 35-394, the State of Arizona prohibits a public entity from entering into or renewing a contract with a company unless the contract includes written certification that the company does not use the forced labor, or any goods or services produced by the forced labor, or use any consultants, subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs il the People's Republic of China.

Under A.R.S. §35-394:

l "Company" means a, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company **or** other entity **or** business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company **or** affiliate, that engages il for-profit activity and that has ten or more full-time employees.

(a) Based il part a, the fact that the entity does business il Israel or il territories controlled b/ Israel.
(b) h a manner that discriminates a, the basis of nationality, national origin **or** religion and that is **not** based a, a valid business reason.

2 "Public entity" means this State, a political subdivision of this State or a, agency, board, commission or department of this State **or** a political subdivision of this State.

Il compliance with A.R.S. §§ 35-394 et seq., all offerers must select one of the following:

	The Company submitting this Offer does not use, and agrees not to use during the term of the contract, any of the following: • Forced labor of ethnic Uyghurs il the People's Republic of China; • Any goods or services produced by the forced labor of ethnic Uyghurs il the People's Republic of China; or • Any Consultants, Subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs i, the People's Republic of China.
D	The Company submitting this Offer **does** participate i, use of Forced Uyghurs Labor as described i, A.R.S. § 35-394.
D	**Exempt Consultant.** Indicate which of the following statements applies to this Consultant (may be more than one): **D** Consultant is a sole proprietorship; D Consultant has fewer than ten (10) employees; and/or D Consultant is a non-profit organization.

Achen-Gardner Construction LLC
Company Name

2195 W. Chandler Blvd, Ste 200
Addre

Chandler AZ 85224
City State Zip

Signature of Person Authorized to Sign

Kevin Nunez
Printed Name

Sr. Vice President
Title

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5.0

EEO CLAUSE STATEMENT

AND

EEO CONTRACTOR EEO OFFICER

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EEO CLAUSE / STATEMENT
And
CONTRACTOR EEO OFFICER

CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS APRIL, 1969

The bidder/contractor hereby certifies that: (Mark One)

x	Has participated in a previous contract or subcontract subject to the equal opportunity clause, as reauired by Executive Orders 10925, 11114
OR	
	Has not participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114

And (Mark One)

	Has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filinQ requirements.
OR	
X	Has not filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filina reauirements.

CONTRACTOR NAME	Achen-Gardner Construction LLC
CONTRACTOR EEO OFFICER NAME	Kevin Nunez
CONTRACTOR SIGNATURE	

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7b (1),) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt fro the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of $10,000 or under are exempt}. Currently, Standard Form IO (EEO- I) is the only repon required by the Executive Orders or their implementing regulations. Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor

Information is available from:

Joint Reporting Committee
P.O. Box 19100
Washington, D.C. 20036-9100

•special Note: In 2025 President Trump rescinded Executive Order 11246. This form has been *revised to remove identifying that you have or have not participated in a project related to Executive Order 11246.*

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6.0

PROMPT PAY PROVISIONS

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CONSTRUCTION AND PROFESSIONAL SERVICES/DESIGN CONTRACTS
PROMPT PAY AND PAYMENT REPORTING PROVISIONS

** FOR USE ON LPA FEDERAL AID PROJECTS **

(07/24/2023)

MEASUREMENTS AND PAYMENT:

(A) Partial Payments:

If satisfactory progress is being made, the contractor shall receive a payment based on the amount of work completed. Progress payments may be made by the LPA/Subrecipient Procurement Office to the contractor on the basis of an approved estimate of the work performed during a preceding period of time. The progress payments will be paid on or before 14 days after the estimate of the work is approved. The estimate of the work will be deemed received by the LPA/Subrecipient Procurement Office on submission to the person designated by the LPA/Subrecipient Procurement Office for the submission, review or approval of the estimate of the work. The LPA/Subrecipient Procurement Office by mutual agreement may make progress payments on contracts of less than 90 days and will make monthly progress payments on all other contracts. Payment to the contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under the contract may include payment for material and equipment.

An estimate of the work submitted will be deemed approved and certified for payment after seven days from the date of submission unless before that time the LPA/Subrecipient Procurement Office or Designee prepares and issues a specific written finding setting forth those items in detail in the estimate of the work that are not approved for payment under the contract. The contractor shall work with the LPA/Subrecipient or the LPA/Subrecipient Designee to finalize monthly estimate. The progress payments will be paid on or before 14 days after the estimate of the work is certified and approved in accordance with Arizona Revised Statutes Section 34-221.

The contractor shall pay to the contractor's subcontractors or material suppliers and each subcontractor shall pay to the subcontractor's subcontractor or material supplier, within seven days of receipt of each progress payment the respective amounts allowed the contractor or subcontractor on account of the work performed by the subcontractors, to the extent of each subcontractor's interest.

No contract for construction services may materially alter the rights of any contractor, subcontractor, or material supplier to receive prompt and timely payment.

A subcontractor may notify the LPA/Subrecipient Procurement Office in writing requesting that the subcontractor be notified by the Subrecipient Procurement Office in writing within five days from payment of each progress payment made to the contractor.

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(B) No Retainage on Progress Payments:

(1) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, the LPA/Subrecipient Procurement Office will not withhold retainage from progress payments. Neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.

(2) This provision does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:

(a) Delayed work;
(b) Work that is not satisfactorily performed; or
(c) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.

(C) Subcontractor Payments:

(1) No Retainage:

(a) This is a federally-funded project. Therefore, notwithstanding A.R.S. § 34-221, neither the contractor, nor the subcontractor of any tier, may withhold any retainage on progress payments to subcontractors or suppliers of any tier.

(b) Pursuant to Subsection (B)(2) of this Specification, the contract does not prevent the LPA/Subrecipient Procurement Office from withholding retainage or reducing payments where otherwise provided in the contract. These cases may include, but are not limited to:

(i) Delayed work;
(ii) Work that is not satisfactorily performed; or
(iii) A failure to submit necessary reports, certifications, or documents to the LPA/Subrecipient Procurement Office.

(c) When the LPA/Subrecipient Procurement Office withholds retainage or reduces payments under Subsection (B)(2) of this Specification, the contractor may withhold retainage on progress payments to subcontractors or suppliers of any tier. However, the contractor may only withhold a reasonable amount of retainage.

(d) For the purpose of this section, a “reasonable amount” of retainage is based on the subcontractor’s involvement or the supplier’s involvement in the cause for the LPA/Subrecipient Procurement Office’s reduction of payment. The final amount retained from all subcontractors and suppliers shall not be higher than the amount retained by the LPA/Subrecipient. However, tier subcontracts shall include provisions that comply with this section.

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(2) No Set-offs Arising from Other Contracts:

If a subcontractor is performing work on multiple contracts for the same contractor or subcontractor of any tier, the contractor or subcontractor of any tier shall not withhold or reduce payment from its subcontractors on the contract because of disputes or claims on another contract.

(3) Partial Payment:

The contractor and each subcontractor of any tier shall make prompt partial payments to its subcontractors within seven days of receipt of payment from the LPA/Subrecipient Procurement Office. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(4) Final Payment:

The contractor and each subcontractor of any tier shall make prompt final payment to each of its subcontractors. The contractor and each subcontractor of any tier shall pay all monies, including retention, due to its subcontractor within seven days of receipt of payment. Notwithstanding any provision of Arizona Revised Statutes Section 34-221, the parties may not agree otherwise.

(5) Payment Reporting:

For the purposes of this subsection “Reportable Contracts” means any subcontract, of any tier, DBE or non-DBE, by which work shall be performed on behalf of the contractor and any contract of any tier with a DBE material supplier.

The requirements of this subsection apply to all Reportable Contracts.

Payment Reporting for all Reportable Contracts shall be done through the LPA DBE System which can be accessed at AZ UTRACS on the Arizona Transportation Business Portal at www.azutracs.com. No later than fifteen calendar days after the preconstruction conference, the contractor shall log into the system and enter or verify the name, contact information, and subcontract amounts for Reportable Contracts on the project. As Reportable Contracts are approved over the course of the contract, the contractor shall enter the subcontractor information in the LPA DBE System. Reportable contracts information shall be entered into the system no later than five calendar days after approval by the LPA/Subrecipient Procurement Office.

The contractor shall report on a monthly basis indicating the amounts actually paid and the dates of each payment under any Reportable Contract on the project. The contractor shall provide information for payments made on all Reportable Contracts during the previous month by the last day of the current month. In the event that no payments were made during a given month, the contractor shall identify that by entering a dollar value of zero. If the contractor does not pay the full amount of any invoice from a subcontractor, the contractor shall note that and provide the reasons in the comment section of the Monthly Payment Audit of the LPA DBE System.

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In addition, the contractor shall require that all participants in any Reportable Contract electronically verify receipt of payment on the contract within 15 days of receipt of electronic payment notification and the contractor shall actively monitor the system to ensure that the verifications are input. The contractor shall proactively work to resolve any payment discrepancies in the system between payment amounts it reports and payment confirmation amounts reported by others.

The contractor shall ensure that all Reportable Contract payment activity is in the LPA DBE System. This includes all lower-tier Reportable Contracts.

The contractor shall maintain records for each payment explaining the amount requested by the subcontractor, and the amount actually paid pursuant to the request, which may include but are not limited to, estimates, invoices, pay requests, copies of checks or wire transfers, and lien waivers in support of the monthly payments in the system.

The contractor shall ensure that a copy of this Subsection is included in every Reportable Contract of every tier.

(a) Sanctions for Inadequate Reporting:

For each month that the contractor fails to submit timely and complete payment information the LPA/Subrecipient Procurement Office will retain $5,000 as sanctions from the monies due to the contractor. After 90 consecutive days of non-reporting, the sanctions will increase to $10,000 for each subsequent month which the contractor fails to report until the information is provided. These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(6) Completion of Work:

A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished, documented, and accepted by the LPA/Subrecipient Procurement Office.

(7) Disputes*:*

If there is a discrepancy between what is reported by the contractor in the LPA DBE System and what the subcontractor indicates, an alert email will automatically be sent to the contractor. The email will be sent to the email address provided by the contractor in the LPA DBE System. It is the contractor’s responsibility to ensure that the email address in the system is kept current.

The contractor shall provide a verifiable explanation of the discrepancy in the LPA DBE System as early as practicable but in no case later than seven days after the date of the alert email.

The LPA/Subrecipient will determine whether the contractor has acted in good faith concerning any such explanations. The LPA/Subrecipient and ADOT BECO reserves the right to request and receive documents from the contractor and all subcontractors of any

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tier, in order to determine whether prompt payment requirements are met.

The contractor shall implement and use the dispute resolution process outlined in the subcontract or by following the LPA/Subcrecipient escalation process, to resolve payment disputes.

(8) Non-compliance:

Failure to make prompt partial payment, or prompt final payment including any retention, within the time frames established above, will result in remedies, as the LPA/Subrecipient Procurement Office deems appropriate, which may include but are not limited to:

(a) Sanctions**:** These sanctions will be in addition to all other retention or liquidated damages provided for elsewhere in the contract.

(i) The LPA/Subrecipient Procurement Office will withhold two times the disputed dollar amount not paid to each subcontractor.
(ii) If full payment is made within 30 days of the LPASubrecipient Procurement Office's payment to the contractor, the amount withheld by the LPA/Subrecipient Procurement Office will be released.
(iii) If full payment is made after 30 days of the LPA/Subrecipient Procurement Office's payment to the contractor, the LPA/Subrecipient Procurement Office will release 75 percent of the funds withheld. The LPA/Subrecipient Procurement Office will retain 25 percent of the monies withheld as sanctions.

(b) Additional Remedies. If the contractor fails to make prompt payment for three consecutive months, or any four months over the course of one project, or if the contractor fails to make prompt payment on two or more projects within 24 months, the LPA/Subrecipient Procurement Office may, in addition, invoke the following remedies:

(i) Withhold monthly progress payments until the issue is resolved and full payment has been made to all subcontractors, subject to the sanctions described in paragraph (a) above,
(ii) Terminate the contract for default,
(iii) Disqualify the contractor from future bidding, temporarily or
(iv) permanently, depending on the number and severity of violations, if applicable.

In determining whether sanctions will be assessed, the extent of the sanctions, or additional remedies assessed, the LPA/Subrecipient will consider whether there have been other violations on this or other contracts, whether the failure to make prompt payment was due to circumstances beyond the contractor's control, and other circumstances. The contractor may, within 15 calendar days of receipt of the decision of the LPA/Subrecipient, escalate the decision according to the contract's escalation process.

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7.0

TITLE VI

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City of Chandler
Title VI / Non-Discrimination Assurances
DOT Order No 1950.2A

The **City of Chandler** (herein referred to as the "Recipient"), HEREBY AGREES THAT, as a condition to receiving any Federal financial assistance from the U.S. Department of Transportation (DOT), through *Federal Highway Administration and Arizona Department of Transportation*, is subject to and will comply with the following:

Statutory/Regulatory Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 C.F.R. Part 21 (entitled *Non-discrimination In Federally-Assisted Programs Of The Department Of Transportation--Effectuation Of Title VI Of The Civil Rights Act Of 1964);*
- 28 C.F.R. section 50.3 (U.S. Department of Justice Guidelines for Enforcement of Title VI of the Civil Rights Act of 1964);

The preceding statutory and regulatory cites hereinafter are referred to as the "Acts" and "Regulations," respectively.

General Assurances

In accordance with the Acts, the Regulations, and other pertinent directives, circulars, policy, memoranda and/or guidance, the Recipient hereby gives assurances that it will promptly take any measures necessary to ensure that:

> *"No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity," for which the Recipient receives Federal financial assistance from DOT, including the Federal Highway Administration.*

The Civil Rights Restoration Act of 1987 clarified the original intent of Congress, with respect to Title VI and other Non-discrimination requirements (The Age Discrimination Act of 1975, and Section 504 of the Rehabilitation Act of 1973), by restoring the broad, institutional-wide scope and coverage of these non-discrimination statutes and requirements to include all programs and activities of the Recipient, so long as any portion of the program is Federally assisted.

Specific Assurances

More specifically, and without limiting the above general Assurance, the Recipient agrees with and gives the following Assurances with respect to its *Federal Aid Highway Program.*

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1. The Recipient agrees that each "activity," "facility," or "program," as defined in §§ 21.23 (b) and 21.23 (e) of 49 C.F.R. § 21 will be (with regard to an "an "activity") facilitated, or will be (with regard to a "facility") operated, or will be (with regard to a "program") conducted in compliance with all requirements imposed by, or pursuant to the Acts and the Regulations.

2. The Recipient will insert the following notification in all solicitations for bids, Requests For Proposals for work, or material subject to the Acts and the Regulations made in connection with all *Federal Aid Highway Program* and, in adapted form, in all proposals for negotiated agreements regardless of finding source:

> *"The **City of Chandler**, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252.42 U.S.C. §§ 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."*

3. The Recipient will insert the clauses of Appendix A and E of this Assurance in every contract or agreement subject to the Acts and the Regulations.

4. The Recipient will insert the clauses of Appendix B of this Assurance, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a Recipient.

5. That where the Recipient receives Federal financial assistance to a construct a facility or part of a facility, the Assurance will extend to the entire facility and facilities operated in connection therewith.

6. That where the Recipient receives Federal financial assistance in the form, or for the acquisition of real property or an interest in real property, the Assurance will extend to rights to space on, over, or under such property.

7. That the Recipient will include the clauses set forth in Appendix C and Appendix D of this Assurance, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the Recipient with other parties:

   a. for the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
   b. for the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project or program.

8. That this Assurance obligates the Recipient for the period during which Federal financial assistance is extended to the program, except where the Federal financial assistance is to provide, or is in the form of, personal property, or real property, or interest therein, or structures or improvements thereon, in which case the Assurance obligates the Recipient, or any transference for the longer of the following periods:

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a. the period during which the property is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits; or

b. the period during which the Recipient retains ownership or possession of the property.

9. The Recipient will provide for such methods of administration for the program as are found by the Secretary of Transportation or the official whom he/she delegates specific authority to give reasonable guarantee that it, other recipients, sub-recipients, sub-grantees, contractors, subcontractors, consultants, transferees, successors in interest, and other participants of Federal financial assistance under such program will comply with all requirements imposed or pursuant to the Acts, the Regulations, and this Assurance.

10. The Recipient agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under the Acts, the Regulations, and this Assurance.

By signing this ASSURANCE, *The* ***City of Chandler*** also agrees to comply (and require any sub-recipients, sub-grantees, contractors, successors, transferees, and/or assignees to comply) with all applicable provisions governing *Federal Highway Administration or Arizona Department of Transportation* access to records, accounts, documents, information, facilities, and staff. You also recognize that you must comply with any program or compliance reviews, and/or complaint investigations conducted by the *Federal Highway Administration or Arizona Department of Transportation.* You must keep records, reports, and submit the material for review upon request to *Federal Highway Administration, Arizona Department of Transportation,* or its designee in timely, complete, and accurate way. Additionally, you must comply with all other reporting, data collection, and evaluation requirements, as prescribed by law or detailed in program guidance.

The **City of Chandler** gives this ASSURANCE in consideration of and for obtaining any Federal grants, loans, contracts, agreements, property, and/or discounts, or other Federal-aid and Federal financial assistance extended after the date hereof to the recipients by the U.S. Department of Transportation under the *Federal Highway Administration and Arizona Department of Transportation.* This ASSURANCE is binding on Arizona, other recipients, sub-recipients, sub-grantees, contractors, subcontractors and their subcontractors', transferees, successors in interest, and any other participants in the *Federal Aid Highway Program* the person(s) signing below is authorized to sign this ASSURANCE on behalf of the Recipient.

City of Chandler
(Name of Recipient)

By _____ **DATED** 6/24/25

John Knudson
Public Works & Utilities Director

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APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, *Federal Highway Administration or the Arizona Department of Transportation,* as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performance by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient, the *Federal Highway Administration or Arizona Department of Transportation* to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation,* as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the *Federal Highway Administration or Arizona Department of Transportation*, may determine to be appropriate, including, but not limited to:

   a. withholding payments to the contractor under the contract until the contractor complies; and/or
   b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with request to any subcontract or procurement as the Recipient, the *Federal Highway Administration, or Arizona Department of Transportation* may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

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APPENDIX B

CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4:

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the **City of Chandler** will accept title to the lands and maintain the project constructed thereon in accordance with *Title 23*, United States Code the Regulations for the Administration of *Federal Aid for Highways*, and the policies and procedures prescribed by the *Arizona Department of Transportation ,Federal Highway Administration and* the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252;42 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the **City of Chandler** all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the **City of Chandler** and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the **City of Chandler**, its successors and assigns.

The **City of Chandler**, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [.] [and]* (2) that the **City of Chandler** will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.

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APPENDIX C

CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the **City of Chandler** to the provisions of Assurance 7(a):

A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities,

B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.*

C. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Non-discrimination covenants, The City of Chandler will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the **City of Chandler** and its assigns*.

*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

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APPENDIX D

CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by the **City of Chandler** pursuant to the provisions of Assurance 7(b):

A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended set forth in this Assurance.

B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.*

C. With respect to deeds, in the event of breach of any of the above Non-discrimination covenants, the **City of Chandler** will there upon revert to and vest in and become the absolute property of the **City of Chandler** and its assigns.*

Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.

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APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.,* 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin): and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1687 et seq).

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8.0

DBE EPRISE

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CONSTRUCTION CONTRACTS
DBE PROVISIONS

** FOR USE ON LPA FEDERAL AID PROJECTS WITHOUT GOALS. **

(LPA EPRISE NO GOAL, 09/19/16)

DISADVANTAGED BUSINESS ENTERPRISES:

1.0 Policy:

The Arizona Department of Transportation (hereinafter the Department) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Department has received Federal financial assistance from the U.S. Department of Transportation and as a condition of receiving this assistance, the Department has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Department to ensure that DBEs, as defined in Part 26, have an equal opportunity to receive and participate in USDOT-assisted contracts. It is also the policy of the Department:

1. To ensure nondiscrimination in the award and administration of USDOT-assisted contracts;
2. To create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts;
3. To ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. To ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are counted as DBEs;
5. To help remove barriers to the participation of DBEs in USDOT-assisted contracts;
6. To assist in the development of firms that can compete successfully in the market place outside the DBE program and;
7. To promote the use of DBEs in all types of federally-assisted contracts and procurement activities.

It is also the policy of the Department to facilitate and encourage participation of Small Business Concerns (SBCs), as defined herein in USDOT-assisted contracts. The Department encourages contractors to take reasonable steps to eliminate obstacles to SBCs' participation and to utilize SBCs in performing contracts.

Local Public Agencies (LPA) and or Subrecipients of Federal financial assistance have adopted ADOT's DBE Program Plan, adhere to the Department's DBE policy and will administer and manage the contracts from advertising, consultant selection, negotiation, contract execution, processing payment reports and contract modifications, audits, DBE compliance (e.g., reporting and monitoring) through contract closeout.

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2.0 Assurances of Non-Discrimination:

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the LPA/Subrecipient, with the Department's concurrence, deems appropriate, which may include, but not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

3.0 Definitions:

(A) Commercially Useful Function (CUF): Commercially Useful Function is defined fully in 49 CFR 26.55 which definition is incorporated herein by reference.

(B) Disadvantaged Business Enterprise (DBE): a for-profit small business concern which meets both of the following requirements:

(1) Is at least 51 percent owned by one or more socially and economically disadvantaged individuals or, in the case of any publicly owned business, at least 51 percent of the stock is owned by one or more such individuals; and,

(2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

(C) Joint Check: a two-party check between a subcontractor, DBE and/or non-DBE, a prime contractor and the regular dealer of material supplies.

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

(E) NAICS Code: The North American Industry Classification System (NAICS) is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the US business economy.

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(F) Non-DBE: any firm that is not a DBE.

(G) Small Business Concern: a business that meets all of the following conditions:

(1) Operates as a for-profit business;

(2) Operates a place of business primarily within the U.S., or makes a significant contribution to the U.S. economy through payment of taxes or use of American products, materials, or labor;

(3) Is independently owned and operated;

(4) Is not dominant in its field on a national basis; and

(5) Does not have annual gross receipts that exceed the Small Business Administration size standards average annual income criteria for its primary North American Industry Classification System (NAICS) code.

(H) Socially and Economically Disadvantaged Individuals: any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

(1) Any individual who is found to be a socially and economically disadvantaged individual on a case-by-case basis.

(2) Any individual in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:

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

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

(iii) "Native Americans," which includes persons who are enrolled members of a federally or State recognized Indian tribe, Alaskan Natives or Native Hawaiians;

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

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

(vi) Women;

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

4.0 Working with DBEs:

The Department works with DBEs and assists them in their efforts to participate in the highway construction program. All bidders should contact the Department's Business Engagement and Compliance Office (BECO) by phone, through email, or at the address shown below, for assistance in their efforts to use DBEs in the highway construction program of the Department. BECO contact information is as follows:

Arizona Department of Transportation
Business Engagement and Compliance Office
1801 W. Jefferson Street, Room 101, Mail Drop 154A
Phoenix, AZ 85007
Phone (602) 712-7761
Email: LPAcontractorcompliance@azdot.gov
Website: www.azdot.gov/beco

4.01 Mentor-Protégé Program:

ADOT has established a Mentor-Protégé program as an initiative to encourage and develop disadvantaged businesses in the highway construction industry. The program encourages prime contractors to provide certain types of assistance to certified DBE subcontractors. ADOT encourages contractors and certified DBE subcontractors to engage in a Mentor-Protégé agreement under certain conditions. Such an agreement must be mutually beneficial to both parties and to ADOT in fulfilling the requirements of 49 CFR Part 23. For guidance regarding this program, refer to the Mentor-Protégé Program Guidelines available on the BECO website.

The Mentor-Protégé program is intended to increase legitimate DBE activities. But the program does not diminish the DBE rules or regulations, and participants may not circumvent these rules.

5.0 Applicability:

ADOT has established an overall annual goal for DBE participation on Federal-aid contracts. ADOT intends for the goal to be met with a combination of race conscious and race neutral efforts. Race conscious participation occurs where the contractor uses a percentage of DBEs, as defined herein, to meet the contract-specified goal. Race neutral efforts are those that are,

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or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, describes race neutral participation as when a DBE wins a prime contract through customary competitive procurement procedures or is awarded a subcontract on a prime contract that does not carry a DBE contract goal.

The DBE provisions are applicable to all bidders including DBE bidders.

6.0 Certification and Registration:

6.01 DBE Certification:

Certification as a DBE shall be predicated on:

(1) The completion and execution of an application for certification as a "Disadvantaged Business Enterprise".

(2) The submission of documents pertaining to the firm(s) as stated in the application(s), including but not limited to a statement of social disadvantage and a personal financial statement.

(3) The submission of any additional information which the Department may require to determine the firm's eligibility to participate in the DBE program.

(4) The information obtained during the on-site visits to the offices of the firm and to active job-sites.

Applications for certification may be filed online with the Department or one of its Unified Certification Program (UCP) partner agencies at any time through the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) website at www.azutracs.com.

DBE firms and firms seeking DBE certification shall cooperate fully with requests for information relevant to the certification process. Failure or refusal to provide such information is a ground for denial or removal of certification.

ADOT is a member of the AZ Unified Certification Program (AZUCP). Only DBE firms that are certified by the AZUCP are eligible for credit on ADOT projects. A list of DBE firms certified by AZUCP is available on the internet at www.azutracs.com. The list will indicate contact information and specialty for each DBE firm, and may be sorted in a variety of ways. However, ADOT does not guarantee the accuracy and/or completeness of this information, nor does ADOT represent that any licenses or registrations are appropriate for the work to be done.

The Department’s certification of a DBE is not a representation of qualifications and/or abilities; only that the firm has met the criteria for DBE certification as outlined in 49 CFR Part 26. The contractor bears all risks of ensuring that DBE firms selected by the contractor are able to perform the work.

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6.02 SBC Registration:

To comply with 49 CFR Part 26.39, ADOT's DBE Program incorporates contracting requirements to facilitate participation by Small Business Concerns (SBCs) in federally assisted contracts. SBCs are for-profit businesses authorized to do business in Arizona that meet the Small Business Administration (SBA) size standards for average annual revenue criteria for its primary North American Industry Classification System (NAICS) code.

While the SBC component of the DBE program does not require utilization goals on projects, the Department and the LPA/Subrecipient encourages contractors to utilize small businesses that are registered in AZ UTRACS on their contracts, in addition to DBEs meeting the certification requirement. The contractor may use the AZ UTRACS website to search for certified DBEs and registered SBCs that can be used on the contract. However, SBCs that are not DBEs will not be counted toward the DBE participation.

SBCs can register online at the AZ UTRACS website. The registration of SBCs is not a representation of qualifications and/or abilities. The contractor bears all risks of ensuring that SBC firms selected by the contractor are able to perform the work.

7.0 DBE Financial Institutions:

ADOT thoroughly investigates the full extent of services offered by financial institutions owned and controlled by socially and economically disadvantaged individuals in its service area and makes reasonable efforts to use these institutions. ADOT encourages prime contractors to use such institutions on USDOT assisted contracts. However, use of DBE financial institutions will not be counted toward the DBE participation.

ADOT and the LPA/Subrecipient encourages prime contractors to research the Federal Reserve Board website at www.federalreserve.gov to identify minority-owned banks in Arizona derived from the Consolidated Reports of Condition and Income filed quarterly by banks (FFIEC 031 and 041) and from other information on the Board's National Information Center database.

8.0 Time is of the Essence:

TIME IS OF THE ESSENCE IN RESPECT TO THE DBE PROVISIONS.

9.0 Computation of Time:

In computing any period of time described in this DBE special provision, such as calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or Federal or State holiday. In circumstances where the LPA/Subrecipient Procurement Office is closed for all or part of the last day, the period extends to the next day on which the LPA/Subrecipient Procurement Office is open.

10.0 Contractor and Subcontractor Requirements:

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10.01 General:

The contractor shall establish a DBE program that will ensure nondiscrimination in the award and administration of contracts and subcontracts.

Agreements between the bidder and a DBE in which the DBE promises not to provide subcontracting quotations to other bidders are prohibited.

10.02 DBE Liaison:

The contractor shall designate a DBE Liaison responsible for the administration of the contractor's DBE program. The name of the designated DBE Liaison shall be included in the DBE Intended Participation Affidavit Summary.

11.0 Bidders/Proposers List and AZ UTRACS Registration Requirement:

Under Title 49 CFR of the Code of Federal Regulations, Part 26.11, DOTs are required to collect certain information from all contractors and subcontractors who seek to work on federally-assisted contracts in order to set overall and contract DBE goals. ADOT collects this information through a Bidders/Proposers List when firms register their companies on the Arizona Unified Transportation Registration and Certification System (AZ UTRACS) web portal at www.azutracs.com a centralized database for companies that seek to do business with ADOT and the LPA/Subrecipient. This information will be maintained as confidential to the extent allowed by federal and state law.

Prime contractors and all subcontractors, including DBEs, must be registered in AZ UTRACS. Bidders may verify that their firm and each subcontractors is registered using the AZ UTRACS website.

Bidders may obtain additional information at the AZ UTRACS website or by contacting the LPA/Subrecipient.

Bidders shall create the Bidders/Proposers List in the AZ UTRACS by selecting all subcontractors, service providers, manufacturers and suppliers that expressed interest or submitted bids, proposals or quotes for this contract. The Bidders/Proposers List form must be complete and must include the names for all subcontractors, service providers, manufacturers and suppliers regardless of the bidders' intentions to use those firms on the project.

All bidders must complete the Bidders/Proposers List online at AZ UTRACS whether they are the apparent low bidder or not. A confirmation email will be generated by the system. The bidders shall submit to the LPA/Subrecipient a copy of the email confirmation no later than 4:00 p.m. on the fifth calendar day following the bid opening. Faxed copies are acceptable.

FAILURE TO SUBMIT THE REQUIRED BIDDERS/PROPOSERS LIST TO THE LPA/SUBRECIPIENT PROCUREMENT OFFICE BY THE STATED TIME AND IN THE

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MANNER HEREIN SPECIFIED SHALL BE CAUSE FOR THE BIDDER BEING DEEMED INELIGIBLE FOR AWARD OF THE CONTRACT.

12.0 DBE Goals:

The Department has not established contract goals for DBE participation in this contract. Contractors are still encouraged to employ reasonable means to obtain DBE participation. Contractors must retain records in accordance with these DBE specifications. The contractor is notified that this record keeping is important to the Department so that it can track DBE participation where only race neutral efforts are employed.

13.0 Payment Reporting:

The contractor shall report on a monthly basis indicating the amounts paid to all subcontractors, of all tiers, working on the project. Reporting shall be in accordance with Prompt Pay and Payment Reporting requirements section ____ of the contract specifications.

14.0 Crediting DBE Participation:

14.01 General Requirements:

To count toward DBE participation, the DBE firm must be certified in each NAICS code applicable to the kind of work the firm will perform on the contract. NAICS for each DBE can be found on the AZ UTRACS under the Firm Directory. General descriptions of all NAICS codes can be found at www.naics.com.

The entire amount of a contract that is performed by the DBE's own forces, including the cost of supplies and materials purchased by the DBE for the work on the contract and equipment leased by the DBE will be credited toward DBE participation. Supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate will not be credited toward DBE participation.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work.

The Department's certification is not a representation of a DBE's qualifications and/or abilities. The contractor bears all risks that the DBE may not be able to perform its work for any reason.

A DBE may participate as a prime contractor, subcontractor, joint venture partner with either a prime contractor or a subcontractor, or as a vendor of materials or supplies. A DBE joint venture partner shall be responsible for a clearly defined portion of the work to be performed, in addition to meeting the requirements for ownership and control.

The dollar amount of work to be accomplished by DBEs, including partial amount of a lump sum or other similar item, shall be on the basis of subcontract, purchase order, hourly rate, rate per ton, etc., as agreed to between parties.

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With the exception of bond premiums, all work must be attributed to specific bid items. Where work applies to several items, the DBE contracting arrangement must specify unit price and amount attributable to each bid item. DBE credit for any individual item of work performed by the DBE shall be the lesser of the amount to be paid to the DBE or the prime contractor's bid price. If the amount bid by the DBE on any item exceeds the prime contractor's bid amount, the prime contractor may not obtain credit by attributing the excess to other items.

Where more than one DBE is engaged to perform parts of an item (for example, supply and installation), the total amount payable to the DBEs will not be considered in excess of the prime contractor's bid amount for that item.

Bond premiums may be stated separately, so long as the arrangement between the prime contractor and the DBE provides for separate payment not to exceed the price charged by the bonding company.

DBE credit may be obtained only for specific work done for the project, supply of equipment specifically for physical work on the project, or supply of materials to be incorporated in the work. DBE credit will not be allowed for costs such as overhead items, capital expenditures (for example, purchase of equipment), and office items.

If a DBE performs part of an item (for example, installation of materials purchased by a Non-DBE), the DBE credit shall not exceed the lesser of (1) the DBE's contract or (2) the prime contractor's bid for the item, less a reasonable deduction for the portion performed by the Non-DBE.

When a DBE performs as a partner in a joint venture, only that portion of the total dollar value of the contract which is clearly and distinctly performed by the DBE's own forces can be credited.

The contractor may credit second-tier subcontracts issued to DBEs by non-DBE subcontractors. Any second-tier subcontract to a DBE must meet the requirements of a first-tier DBE subcontract.

A prime contractor may credit the entire amount of that portion of a construction contract that is performed by the DBE's own forces. The cost of supplies and materials obtained by the DBE for the work of the contract can be included so long as that cost is reasonable. Leased equipment may also be included. No credit is permitted for supplies purchased or equipment leased from the prime contractor or its affiliate(s).

When a DBE subcontracts a part of the work of its contract to another firm, the value of the subcontract may be credited towards DBE participation only if the DBE's subcontractor is itself a DBE and performs the work with its own forces. Work that a DBE subcontracts to a non-DBE firm does not count towards DBE participation.

A prime contractor may credit the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial

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services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services.

14.02 Effect of Loss of DBE Eligibility:

If a DBE is deemed ineligible (decertified) or suspended by the Department in accordance with 49 CFR 26.87 and 26.88, the DBE may not be considered to count toward DBE participation on a new contract, but may be considered to count toward DBE participation under a subcontract that was executed before the DBE suspension or decertification is effective.

When a DBE firm or a DBE prime contractor loses its DBE eligibility and a subcontract or contract has not been executed before a decertification notice is issued to the DBE firm by its certifying agency, the ineligible firm does not count toward DBE participation. When a subcontract is executed with the DBE firm before the Department notified the firm of its ineligibility, the contractor may continue to receive DBE participation credit for the firm's work on the contract.

14.03 Notifying the Contractor of DBE Certification Status:

Each DBE contract of any tier shall require any DBE subcontractor or supplier that is either decertified or certified during the term of the contract to immediately notify the contractor and all parties to the DBE contract in writing, with the date of decertification or certification. The contractor shall require that this provision be incorporated in any contract of any tier in which a DBE is a participant.

14.04 Police Officers:

DBE credit will not be permitted for procuring DPS officers. For projects on which officers from other agencies are supplied, DBE credit will be given only for the broker fees charged, and will not include amounts paid to the officers. The broker fees must be reasonable.

14.05 Commercially Useful Function:

A prime contractor can credit expenditures to a DBE subcontractor only if the DBE performs a Commercially Useful Function (CUF).

A DBE performs a CUF when it is responsible for execution of the work of a contract and carries out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself that it uses on the project. To determine whether a DBE is performing a commercially useful function, the LPA/Subrecipient will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with

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the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

A DBE will not be considered to perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, the LPA/Subrecipient will examine similar transactions, particularly those in which DBEs do not participate.

If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the LPA/Subrecipient will presume that the DBE is not performing a commercially useful function.

When a DBE is presumed not to be performing a commercially useful function as provided above, the DBE may present evidence to rebut this presumption. The LPA/Subrecipient will determine if the firm is performing a CUF given the type of work involved and normal industry practices.

The LPA/Subrecipient will notify the contractor, in writing, if it determines that the contractor's DBE subcontractor is not performing a CUF. The contractor will be notified within seven calendar days of the LPA/Subrecipient's decision.

Decisions on CUF may be appealed to the ADOT BECO. The appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the ADOT BECO. The appeal must be received by the ADOT BECO no later than seven calendar days after the decision of LPA/Subrecipient. LPA/Subrecipient decision remains in effect unless and until ADOT BECO reverses or modifies LPA/Subrecipient decision. ADOT BECO will promptly consider any appeals under this subsection and notify the contractor of the ADOT BECO findings and decisions. Decisions on CUF matters are not administratively appealable to USDOT.

The LPA/Subrecipient will conduct project site visits on the contract to confirm that DBEs are performing a CUF. The contractor shall cooperate during the site visits and the LPA/Subrecipient staff will make every effort not to disrupt work on the project.

14.06 Trucking:

LPA/Subrecipient will use the following factors in determining whether a DBE trucking company is performing a commercially useful function. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract.

The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the contract on every day that credit is to be given for trucking.

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The contractor will receive credit for the total value of transportation services provided by the DBE using trucks it owns, insures and operates, and using drivers it employs.

The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services.

The DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks with drivers from a non-DBE is entitled to credit for the total value of the transportation services provided by non-DBE leased trucks with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks with drivers receives credit only for the fee or commission paid to the DBE as a result of the lease agreement.

Example: DBE Firm X uses two of its own trucks on a contract. It leases two trucks from DBE Firm Y and six trucks from non-DBE firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four of the six trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight trucks. DBE credit could be awarded only for the fees or commissions pertaining to the remaining trucks Firm X receives as a result of the lease with Firm Z.

The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.

Example: DBE Firm X uses two of its own trucks on a contract. It leases three additional trucks from non-DBE Firm Z. Firm X uses is own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all five trucks.

For purposes of this section, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE. Credit will be allowed only for those lease costs related to the time each truck is devoted to the project.

DBE credit for supplying paving grade asphalt and other asphalt products will only be permitted for standard industry hauling costs, and only if the DBE is owner or lessee of the equipment and trucks. Leases for trucks must be long term (extending for a fixed time period and not related to time for contract performance) and must include all attendant responsibilities such as insurance, titling, hazardous waste requirements, and payment of drivers.

14.07 Materials and Supplies:

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LPA/Subrecipient will credit expenditures with DBEs for material and supplies as follows. If the materials or supplies are obtained from a DBE manufacturer, 100 percent of the cost of the materials or supplies is credited. A manufacturer is defined as a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract, and of the general character described by the specifications.

If the materials or supplies are purchased from a DBE regular dealer, 60 percent of the cost of the materials or supplies is credited. A DBE regular dealer is defined as a firm that owns, operates, or maintains a store or warehouse or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A firm may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, stone or asphalt without owning, operating, or maintaining a place of business, as provided above, if the person both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment shall be by a long-term lease agreement, and not on an ad-hoc or contract-by-contract basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph and the paragraph above.

With respect to materials or supplies purchased from a DBE which is neither a manufacturer nor a regular dealer, the LPA/Subrecipient will credit the entire amount of the fees or commissions charged by the DBE for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE participation, provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves may not be counted toward the DBE participation.

The LPA/Subrecipient will credit expenditures with DBEs for material and supplies (e.g. whether a firm is acting as a regular dealer or a transaction expediter) towards the DBE participation on a contract-by-contract basis. The fact that a DBE firm qualifies under a classification (manufacturer, regular dealer or supplier) for one contract does not mean it will qualify for the same classification on another contract. The bidder shall be responsible for verifying whether a DBE qualifies as a DBE manufacturer, regular dealer or supplier. The bidder may contact the LPA/Subrecipient for assistance in this determination.

15.0 Joint Checks:

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15.01 Requirements:

A DBE subcontractor and a material supplier (or equipment supplier) may request permission for the use of joint checks for payments from the prime contractor to the DBE subcontractor and the supplier. Joint checks may be issued only if all the conditions in this subsection are met.

1. The DBE subcontractor must be independent from the prime contractor and the supplier, and must perform a commercially useful function. The DBE subcontractor must be responsible for negotiating the price of the material, determining quality and quantity, ordering the materials, installing (where applicable), and paying for the material. The DBE subcontractor may not be utilized as an extra participant in a transaction, contract, or project in order to obtain the appearance of DBE participation.

2. The use of joint checks will be allowed only if the prime contractor, DBE subcontractor, and material supplier establish that the use of joint checks in similar transactions is a commonly recognized business practice in the industry, particularly with respect to similar transactions in which DBE's do not participate.

3. A material or supply contract may not bear an excessive ratio relative to the DBE subcontractor's normal capacity.

4. There may not be any exclusive arrangement between one prime and one DBE in the use of joint checks that may bring into question whether the DBE is independent of the prime contractor.

5. Any arrangement for joint checks must be in writing, and for a specific term (for example, one year, or a specified number of months) that does not exceed a reasonable time to establish a suitable credit line with the supplier.

6. The prime contractor may act solely as the payer of the joint check, and may not have responsibility for establishing the terms of the agreement between the DBE subcontractor and the supplier.

7. The DBE must be responsible for receiving the check from the prime contractor and delivering the check to the supplier.

8. The prime contractor cannot require the DBE subcontractor to use a specific supplier, and the prime contractor may not participate in the negotiation of unit prices between the DBE subcontractor and the supplier.

15.02 Procedure and Compliance:

1. BECO must approve the agreement for the use of joint checks in writing before any joint checks are issued. The prime contractor shall submit a DBE joint check request form,

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available from the BECO website, along with the joint check agreement, to LPA/Subrecipient and BECO through email within seven calendar days from the time the subcontract is executed.

2. After obtaining authorization from BECO for the use of joint checks, the prime contractor, the DBE, and the supplier must retain documentation to allow for efficient monitoring of the agreement by the LPA/Subrecipient.

3. Copies of canceled checks must be submitted, with the payment information for the period in which the joint check was issued, electronically through email to LPA/Subrecipient Procurement Office and made available for review at the time of the onsite CUF review. The prime contractor, DBE, and supplier each have an independent duty to report to the LPA/Subrecipient in the case of any change from the approved joint check arrangement.

4. Any failure to comply will be considered by the LPA/Subrecipient, with ADOT concurrence to be a material breach of this contract and will subject the prime contractor, DBE, and supplier to contract remedies and, in the case of serious violations, a potential for termination of the contract, or other remedies which may prevent future participation by the offending party.

16.0 Certification of Final DBE Payments:

DBE participation on the contract is measured by actual payments made to the DBEs. The contractor shall submit the “Certification of Final DBE Payments” form for each DBE firm working on the contract. This form shall be signed by the contractor and the relevant DBE, and submitted to the LPA/Subrecipient no later than 30 days after the DBE completes its work.

The contractor will not be released from the obligations of the contract until the “Certification of Final DBE Payments” forms are received and deemed acceptable by the LPA/Subrecipient.

17.0 False, Fraudulent, or Dishonest Conduct:

In addition to any other remedies or actions, the Department will bring to the attention of the US Department of Transportation any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take steps such as referral to the Department of Justice for criminal prosecution, referral to the USDOT Inspector General for possible initiation of suspension and debarment proceedings against the offending parties or application of “Program Fraud and Civil Penalties” rules provided in 49 CFR Part 31.

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9.0

FHWA 1273

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REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

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within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

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(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

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2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

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(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

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mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

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(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

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IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

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2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

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excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

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ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

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10.0

BUY AMERICA

BUILD AMERICA / BUY AMERICA

MATERIAL CERTIFICATIONS

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CHANDLER arizona

BUY AMERICA
THE FINAL RULE, THE WAIVER, THE 55%, THE DATE DEADLINES

Project Name:	Lindsay Road Improvements	Federal Funds Obligation Date:	06-18-2025
Project Numbers:	ST2001-401 CHN0246D T024301C	Item No Below To Follow:	1
Agency Rep:	Janece Ray		

03/17/2025: FHWA FINAL RULE SIGNED - This has deadline phases for the Buy America Requirements.
The Final Rule amends FHWA's Buy America regulation to terminate FHWA's general waiver for manufactured products and establish Buy America requirements for manufactured products with respect to Federal-aid highway projects. The standards for applying Buy America to manufactured products are generally consistent with the Office of Management and Budget's (OMB) guidance implementing the Build America, Buy America Act (BABA) provisions of the infrastructure investment and Jobs Act (also known as the Bipartisan Infrastructure Law (BIL)).

Item Number below to be marked by Agency with applicable requirement (X=Applicable, na=Not Applicable)				
X jray	1	10/01/2025 Before this date	Federal funds officially obligated to Agency before this date.	**Waiver** is in effect
	2	10/01/2025 On and after this date (and before 10/01/2026	Federal funds officially obligated to the Agency.	**Final Assembly** requirements
	3	10/01/2026 On and after this date	Federal funds officially obligated to Agency from this date forward.	All manufactured products permanently incorporated into the project must meet both the F**inal Assembly** requirement and the **55% requirement**.

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DEFINITIONS / DETAILS

IRON/STEEL REQUIREMENTS;

FHWA is required, by statute, to ensure that all projects funded under Title 23 of the United States Code, use only steel, iron, and manufactured products that are produced in the United States. 23 U.S.C. 313, FHWA refers to these requirements as “Buy America” requirements. FHWA’s Buy America requirement for manufactured products mandates that all such products used on Federal aid projects must be ‘produced in the United States.”. 23 U.S.C. 313 The Buy America requirements for manufactured products has existed in some form since the enactment of the Surface Transportation Assistance Act of 1978.

THE WAIVER

In 1983 following the passage of the 1982 STAA, FHWA determined that it would be in the public interest to waive the Buy America requirements for manufactured products, with that waiver knows as the “Manufactured Products General Waiver”. Under the Manufactured Products General Waiver, manufactured products that were permanently incorporated into Federal-aid projects did not need to be produced domestically (in the US) apart from predominantly iron or steel components of manufactured products. The ’waiver’ does not apply to Iron and Steel.

:

FINAL ASSEMBLY – effective 10/01/2025:

Defined as an article, material, or supply that has been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. **IF, however, an article, materials, or supply meets this definitation BUT Could also be classified as an iron ro steel product, excluded material, or other product category as specified by law or in 2 CFR part 184, that article, materials, or supply is not a manufactured product.

FINAL RULE AND THE 55 PERCENT REQUIREMENT – effective 10/01/2026

Through this rule, FHWA is establishing specific dates on which the Manufactured Products General Waiver will be terminated and is amending its Buy America regulation at 23 CFR 635.410 to establish standards regarding Buy America requirements that will apply to manufactured products on Federal aid projects. These standards are substantially similar to those stablished by OMG that apply to manufactured products subject to “BABA”. This means that to be considered “Produced in the United States”, and therefore Buy America-compliant, manufactured products must be manufactured in the United States (“final assembly requirement” and have greater than 55% of the manufactured products components by cost, be mined, produced, or manufactured in the United States.

ON OR AFTER 10-01-2025 (AND BEFORE 10/01/2026)

FHWA requirement that the final assembly requirement will become effective for Federal aid projects obligated on or after 10-01-2025.

ON OR AFTER 10/01/2026

All manufactured products permanently incorporated into the project must both be manufactured in the United States and have the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States be greater than 55percent of the total cost of all components of the manufactured product.

Reference:
Federal Highway Administration
Federal Register / Buy America Requirements
Title 23 U.S.C.
OMB (Office of Management and Budgets)
Surface Transportation Assistance Act of 1978 (1978 STAA) and Act of 1982 (1982 STAA)
Public Law 95-599 (1978)
Public Law 97-424 (1983)
48 FR 1946 (Jan 17,1983)
48 FR 63099 (Nov 25,1983)
2 CFR Part 184
NPRM (Notice of Proposed Rulemaking – a formal announcement by a U.S. Federal Agency)

https://www.fhwa.dot.gov/construction/cqit/buyam.cfm
https://www.federalregister.gov/documents/2025/01/14/2024-31350/buy-america-requirements-for-manufactured-products

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BUY AMERICA / BUILD AMERICA BUY AMERICA / MATERIAL CERTIFICATION REQUIREMENTS
For City of Chandler Federal Funded Projects Per FHWA

The City of Chandler will follow Buy America requirements and the Build America Buy America requirements.

A. REGULATIONS

1. FHWA - BUY AMERICA AND THE NEW BUILD AMERICA, BUY AMERICA REGULATION EFFECTIVE NOVEMBER 1, 2022.

https://www.transportation.gov/sites/dot.gov/files/docs/buy_america_provisions_side_by_side.pdf)
Federal Highway Administration (FHWA) - 23 U.S.C. § 313 – Buy America; 23 C.F.R. § 635.410

The Secretary of Transportation shall not obligate any funds unless steel, iron, and manufactured products used In such project are produced in the United States.

2. MAG SPECIFICATION SECTION 106.2.1

3. ADOT SPECIFICATION 106, 106.05 AND 106.15

B. PROCEDURE FOR MATERIAL CERTIFICATION REQUIREMENTS – CITY OF CHANDLER

1. All material for a federal funded project must have a material certification.
2. All material delivered to jobsite must be accompanied by a material certification.
3. Material Certifications must be submitted to the City of Chandler representative for review and approval and is not deemed accepted until City of Chandler representative approval.
4. Buy America Material – All Iron and Steel products. (See Item A above)
5. Buy America Material Installation: All Buy America Iron and Steel Products **MUST NOT be installed without Material Certification received and approval from City of Chandler.**
6. All non-Buy America Material Installation: All non-Buy America material, if installed without material certification receipt and approval is at the Prime Contractor's risk and WILL NOT BE PAID until approval of material certification for that material.

C. MATERIAL CERTIFICATIONS – Every Material Certification must have the following– Items 1-11

1. Project Name
2. City Project Number
3. Federal Project Number
4. ADOT Number (previously known as Tracs Number) (if FHWA funded project)
5. Supplier Information: Name, Address, Telephone Number
6. Description of the material supplied
7. Quantity of material represented by the certificate
8. Means of material identification, such as label, lot number, or marking
9. A Statement that the material complies in all respects with the requirements of the cited specifications. Certificates shall state compliance with the cited specification, such as AASHTO M 320, ASTM C 494; or specific table or subsection of the Arizona Department of Transportation Standard Specifications or Special Provisions. Certificates may cite both, if applicable.
10. Authorization Signature Statement: A statement that the individual signing has the legal authority to bind the manufacturer or the supplier of the material.
11. The name, title, signature, and date of signature of the signing-responsible individual.
12. Statement that that Federal Requirements for Buy America / BABA have been followed.

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ADOT SPECIFICATION – BUILD AMERICA BUY AMERICA (106CMATLS, 10-20-22)

SECTION 106 CONTROL OF MATERIALS: of the Standard Specification is modified to add:

106.17 Construction Materials

A construction material, when used on a federal-aid construction project shall comply with the requirements of Build America Buy America (BABA) Act specific in Title IX, Subtitle A, Part 1, Sections 70901 and 70911-70918 of the Infrastructure Investment and Job Act (ILJA).

A 'construction material' that is permanently incorporated on the project shall include an article, material, or supply that is or consists primarily of the following:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall

Items manufactured through a combination of either two or more materials listed above, or at least one of the materials list above and a material not listed shall be considered as a manufactured product, rather than as a construction material.

Build America Buy America provisions specified for manufactured products in Section 70912(6)(B) of the ILJA, do not apply to federal-aid construction projects per FHQWA's existing statutory requirement applicable to manufactured products. A "manufactured product' is considered to be an item that undergoes one or more manufacturing processes before the item can be used on a federal-aid construction project.

Construction materials shall not include cement and cementitious materials; bituminous materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

All construction materials shall be produced in the United States. This means, all manufacturing processes to produce the construction materials shall occur in the United States. All manufacturing processes for construction materials shall mean the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

The contractor shall furnish the Engineer with Certificate of Compliance, conforming to the requirements of Subsection 106.05 of the ADOT specifications, which shall state that the construction materials incorporated in the project meet the requirements specified herein.

Certificates of Compliance shall also certify that all manufacturing processes to produce construction materials occurred in the United States.

Convict-produced materials are prohibited in accordance with the requirements of 23 CFR 635.417.

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Bipartisan Infrastructure Law – Build America, Buy America Act

Questions and Answers

Updated 2/1/2023

Except for any statutes and regulations cited, the contents of this document do not have the force and effect of law and are not meant to bind States or the public in any way. This document is intended only to provide clarity regarding existing requirements under the law or agency policies.

1. What does the Build America, Buy America Act (BABA or the Act) require?

The BABA, part of the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act, Pub. L. 117-58 (Nov. 15, 2021), establishes several procedural and substantive requirements with respect to Buy America.

The procedural requirements under BABA, generally focused on Buy America implementation, include requirements for agencies to review existing Buy America preference requirements, submit reports to the Office of Management and Budget (OMB) and to Congress, review waivers of general applicability, and coordinate with the Made in America Office (MIAO) within OMB in the processing of waivers. See BABA Sections 70913(a) and (b); 70914(d); and 70923(b).

The substantive requirements under BABA include a Buy America preference that all Federal agencies must apply to any Federal financial assistance program for infrastructure that is not already subject to existing Buy America requirements for the relevant categories. See BABA Sections 70914(a) and 70917(a).

2. Do FHWA's existing requirements for steel/iron items and manufactured products continue to apply?

Yes. BABA Section 70917(a) provides that the Buy America requirements under Section 70914 apply only to the extent that Federal agencies do not already apply a Buy America preference as described in Section 70914 to steel, iron, manufactured products, and construction materials. This provision clarifies that Section 70914 of the Act does not supplant FHWA's existing Buy America policies and provisions that meet or exceed the standards required by the Act, such as its requirements for iron and steel under 23 U.S.C. 313. BABA Section 70914(d) also provides a process for reviewing existing waivers of general applicability, such as FHWA's general waiver for manufactured products.

3. Does BABA require the application of Buy America to any new categories of products for Federal-aid highway projects?

Yes. BABA Section 70914(a) requires FHWA to extend coverage of Buy America to "construction materials." Since 23 U.S.C. 313 does not specifically apply to construction materials, the BABA requirements for construction materials apply to Federal-aid highway projects.

Contact

- **Edwin Okonkwo**
  Office of Preconstruction, Construction and Pavements
  202-366-1558
  E-mail Edwin

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4. What guidance is available concerning the application of Buy America to construction materials?

On April 18, 2022, OMB issued Memorandum M-22-11 titled "Initial Implementation Guidance on Application of Buy America Preference in Federal Financial Assistance Programs for Infrastructure." The Memorandum provides initial guidance on the implementation of BABA, including preliminary guidance addressing the requirement at BABA Section 70915(b) for OMB to define the term "all manufacturing processes" for construction materials. This Memorandum can be found at: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf.

5. When did the BABA requirement for construction materials become effective on Federal-aid highway projects?

BABA Section 70914(a) provided that the new domestic preference requirements (including the requirement for construction materials) would become effective on May 14, 2022, which is 180 days after the date of enactment of the Act. However, DOT also issued a temporary transitional waiver of the BABA construction materials requirement to allow a reasonable adjustment period for recipients of DOT financial assistance — including States, local communities, Tribal nations, and industrial vendors — to develop and transition to new compliance and certification processes for construction materials. See https://www.transportation.gov/regulations/temporary-waiver-buy-america-requirements-construction-materials. The Temporary Construction Materials Waiver is applicable to awards that were obligated on or after May 14, 2022, and before November 10, 2022.

6. What is a construction material?

According to preliminary guidance in OMB Memorandum M-22-11, "construction materials" includes an article, material, or supply — other than an item of primarily iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives — that is or consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
- glass (including optic glass);
- lumber; or
- drywall.

7. What are the Buy America standards that apply to the manufacturing process for construction materials?

According to OMB Memorandum M-22-11, pending issuance of final standards, agencies should consider "all manufacturing processes" for construction materials to include at least the final manufacturing process and the immediately preceding manufacturing stage for the construction material.

OMB Memorandum M-22-11 is preliminary guidance. OMB has sought additional stakeholder input and will be issuing further guidance identifying which products should be considered construction materials and the manufacturing processes that should be considered as part of "all manufacturing processes" for those products. FHWA plans to issue updated guidance once OMB has finalized its guidance.

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11.0

EEO FEDERAL NOTIFICATIONS

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NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

(EXECUTIVE ORDER 11246)

JULY 1, 1979 (Revised November 3, 1980)

(Revised April 15, 1981)

1. The bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered areas, are as follows:

	Minority	Female
Tucson & Balance of Pima County	24.1	6.9
Cochise, Graham, Greenlee &Santa Cruz Counties	27.0	6.9
Phoenix and Balance of Maricopa County	15.8	6.9
Apache, Coconino, Gila, Mohave, Navajo, Pinal, Yavapai, and Yuma Counties	19.6	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in all areas where the contractor has Federal or federally assisted work.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

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EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE REPORTS

(Project, Training and Annual)

Federal-Aid Projects

February 1, 1977; Revised July 1, 1978; Revised November 3, 1980
Revised April 15, 1981; Revised September 7, 1983
Revised October 15, 1998; Revised August, 1, 2005;
Revised March 1, 2015, Revised August 24, 2016

ANNUAL REPORT:

For each contract in the amount of $10,000 or more, and for each subcontract, regardless of tier not including material suppliers, in the amount of $10,000 or more, the contractor and each subcontractor regardless of tier shall submit an annual Equal Employment Opportunity (EEO) Report containing all the information required on Form FHWA-1391.

The staffing figures to be reported should represent the project workforce on board in all or any part of the last payroll period preceding the end of July.

The report shall be submitted no later than August 15 to the City of Chandler federal compliance officer.

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Executive Order 2009-09

PROHIBITION OF DISCRIMINATION IN STATE CONTRACTS NONDISCRIMINATION IN EMPLOYMENT BY GOVERNMENT CONTRACTORS AND SUBCONTRACTORS
Superseding Executive Order 99-4 and Amending Executive Order 75-5

WHEREAS, Executive Order 99-4 was effectuated to assure that persons or entities contracting with the State of Arizona or its political subdivisions comply with the provisions of Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e, et. seq.) and with Arizona's Civil Rights Act (Title 41, Chapter 9, Article 4);

WHEREAS, Executive Order 99-4 correctly states that various religious organizations are exempted from Arizona's Civil Rights Act;

WHEREAS, Executive Order 99-4 does not expressly state the federal and state exemptions for Indian tribes under both the federal and State Civil Rights Acts;

WHEREAS, 42 U.S.C. § 200e(b)(1) exempts tribes from the definition of employer;

WHEREAS, A.R.S. § 41-1461 4 (b)(i) also exempts Indian tribes from the definition of employers to whom the Arizona Civil Rights Act applies;

WHEREAS, Indian tribes across the State have recently begun to experience difficulty contracting with the State, often for money or services to which they are lawfully entitled, as a result of their exclusion from specified exemptions within Executive Order 99-4;

WHEREAS, the Attorney General's Office has in some cases interpreted the existing provisions as requiring tribes to waive rights guaranteed by both federal and State law;

WHEREAS, a modification is necessary to expressly provide that the exemptions found in federal and State law continue in full force and effect;

NOW, THEREFORE, I, Janice K. Brewer, Governor of the State of Arizona, by virtue of the authority vested in me by the Constitution and laws of this State, hereby order and direct as follows:

1. Executive Order 75-5 is hereby amended as follows:

PART I - Non-discrimination in employment by government contractors and subcontractors.

Unless otherwise exempted by federal or state civil rights laws, all government contracting agencies shall include in every government contract hereinafter entered into the following provisions:

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

A. The Contractor will not discriminate against any employee or applicant for employment because of race, age, color, religion, sex, or national origin. The contractor will take affirmative action to insure that applicants are employed and that employees are treated during employment without regard to their race, age, color, religion, sex or national origin. Such action shall include, but is not limited to the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or

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termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided by the contracting officer setting forth the provisions of this non-discrimination clause.

A continued Executive Order No. 75-5 is hereby amended to permit government contractors and subcontractors that are exempted from compliance under Title 41, chapter 9, article 4, Arizona Revised Statutes or 42 U.S.C. § 200e(b)(1), to provide employment preferences consistently with federal and state statutes;

Therefore, Executive Order 75-5 does not apply to Indian tribes. It likewise does not apply to religious organizations with respect to the employment of individuals of a particular religion to perform work connected with the activities of the employer. It also provides that religious organizations may provide employment preferences based upon religion when dealing with a bona fide occupational qualification reasonably necessary to the operation of the religious organization. This is consistent with the provisions of the Civil Rights Act of 1964 (42 U.S.C. 2000e, et seq.). In addition, in the Personal Responsibility and Work Opportunity Reconciliation Act, P.L. 104-193, Congress provided that religious organizations are eligible for the receipt of federal funds on the same basis as other private organizations.

Executive Order No. 75-5 prohibits all other government contractors and subcontractors from discriminating against any employee or applicant for employment because of race, age, color, religion, sex or national origin. Executive Order No. 75-5 further requires all government contractors and subcontractors to take action to insure that applicants are employed and employees are treated during employment without regard to their race, age, color, religion, sex or national origin.

B. The contractor will in all solicitations or advertisement for employees placed by or on behalf of the contractor state that all qualified applicants will receive consideration for employment without regard of race, age, color, religion, sex or national origin.

C. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under the Executive Order and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

D. The contractor will furnish all information and reports required by the contracting agency and will permit access to his books, records. and accounts by the contracting agency and the Civil Rights Division for purposes of investigation to ascertain compliance with such rules, regulations and orders.

E. In the event of the contractor's noncompliance with the nondiscrimination clauses of the contract or with any such rules, regulations or orders of the Arizona Civil Rights Division said noncompliance will be considered a material breach of the contract and this contract may be cancelled, terminated or suspended, in whole or in part, and the contractor may be declared ineligible for future government contracts until said contractor has been found to be in compliance with the provisions of this order and the rules and regulations of the Arizona Civil Rights Division, and such sanctions may be

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imposed and remedies invoked as provided in Part II of this order, and the rules and regulations of the Arizona Civil Rights Division.

F. The contractor will include the provisions of paragraphs A through E in every subcontractor purchase order so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to the subcontract or purchase orders the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance, provided, however, that in the event the contractor becomes involved in or is threatened with litigation with a subcontractor or vender as a result of such direction by the contracting agency, the contractor may request the State of Arizona to enter into such litigation to protect the interest of the Sate of Arizona.

G. Each contractor having a contract containing the provisions prescribed in this section shall file and shall cause each of his subcontractors to file compliance reports with the contracting agency or the Civil Rights Division, as may be directed. Compliance reports shall be filed within such times and shall contain such information as the practices, policies, programs and employment policies, programs and employment statistics of the contractor and each subcontract and shall be in form as the Arizona Civil Rights Division may prescribe.

H. Bidders or prospective contractors of subcontractors shall be required to state whether they have participated in any previous contract subject to the provisions of this order or any preceding similar Executive Order and in such event to submit on behalf of themselves and the proposed subcontractors compliance reports prior to, or as an initial part of negotiation of a contract.

I. Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers of providing or supervising apprenticeship or training for such workers, the compliance report shall include such information from such labor unions or agency practices an policies affecting compliance as the contracting agency or Civil Rights Division may prescribe: provided that, to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.

J. The contracting agency or the Civil Rights Division shall require that the bidder or prospector contractor or subcontractor shall submit as part of his compliance report a statement in writing signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training with which the bidder or prospective contractor deals with supporting information to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions

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of employment under the proposed contract shall be in accordance with the purpose and provisions of this order. In the event that the union or the agency shall refuse to execute such a statement, the compliance shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Civil Rights Division may require.

PART II - Enforcement

A. Each contracting agency shall be primarily responsible for obtaining compliance with this Executive Order with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Civil Rights Division in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and the rules and regulations and orders of the Civil Rights Division issued pursuant to this order. They are directed to cooperate with the Civil Rights Division and to furnish the Division such information and assistance as it may require in the performance of the Division's functions under this order. They are further directed to appoint or designate from among the agency personnel compliance officers. It shall be the duty of such officers to first seek compliance with the objective of this order by conference, conciliation, mediation or persuasion.

B. The Civil Rights Division may investigate the employment practices of any government contractor if subcontractor of initiate such investigation by the appropriate contracting agency or determine whether or not the contractual provisions specified in this order have been violated. Such investigations shall be conducted in accordance with the procedures established by the Civil Rights Division and the investigating agencies shall report to the Civil Rights Division any action taken or recommended. The Civil Rights Division may receive and investigate or cause to be investigated complaints by employees or prospective employees of a government contractor or subcontractor which alleges discrimination contrary to the contractual provisions specified in Part I of this order. If the investigation is conducted for the Civil Rights Division by a contracting agency, that agency shall report to the Civil Rights Division what action has been taken or it's recommendation with regard to such complaint.

C. The Civil Rights Division shall use its best efforts directly and through contracting agencies, other interested state and local agencies, contractors and all other available instrumentalities to cause any labor union engaged in work under government contracts or any agency referring workers or providing or supervising apprenticeship or training for it in the course of such work or cooperate in the implementation of the purposes of this order.

D. The Civil Rights Division or any agency, officer or employee in the executive branch of the government designated by rule, regulation or order of the Civil Rights Division may hold such hearings, public or private, as the Division may deem advisable for compliance, enforcement of educational purposes. The Civil Rights Division may hold or cause to be held hearings in accordance with rules and regulations issued by the Civil Rights Division prior to imposing, ordering or recommending the imposition of penalties and sanctions under this order.

E. No order for debarment of any contractor from further government contracts under this order shall be made without affording the contractor an opportunity for a hearing.

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F. Sanctions and Penalties. In accordance with such rules, regulations or orders as the Civil Rights Division may issue or adopt, the Civil Rights Division or the appropriate contracting agency may publish or cause to be published the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order and with the rules, regulations and orders of the Civil Rights Division.

1. Contracts may be cancelled, in whole or in part, terminated, or suspended absolutely, or continuation of contracts may be conditioned upon a program for future compliance approved by the contracting agency or the Civil Rights Division: provided that any contracting agency shall refrain from entering into further contracts, extensions or other modifications of existing contracts with any noncomplying contractor until such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.

2. Under rules and regulations prescribed by the Civil Rights Division, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation and persuasion before proceedings shall be instituted under this order of before a contract shall be cancelled or terminated in whole or in part under this order for failure of a contractor or subcontractor to comply with the contract provisions of this order.

G. This Executive Order shall become effective immediately of its issuance.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona.

Janice K. Brewer

GOVERNOR

DONE at the Capital in Phoenix, Arizona this 20th day of October In the Year Two Thousand and Nine and of the Independence of the United States of America the Two Hundred and Thirty-Third.

ATTEST:

Ken Bennett

SECRETARY OF STATE

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12.0

FEDERAL IMMIGRATION AND NATIONALITY ACT

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Federal Immigration and Nationality Act
(Reference to Arizona Executive Order 2005-30)

The contractor, including all subcontractors, shall comply with all federal, state and local immigration laws and regulations, as set forth in Arizona Executive Order 2005-30, relating to the immigration status of their employees who perform services on the contract during the duration of the contract. The Agency (City of Chandler) shall retain the right to perform random audits of contractor and subcontractor records or to inspect papers of any employee thereof to ensure compliance.

By submission of a bid, the contractor warrants that the contractor and all prosed subcontractors are and shall remain in compliance with all federal, state, and local immigration laws and regulations relating to the immigration status of their employees who perform services on the contract. The Agency may, at its sole discretion, require evidence of compliance from the contractor or subcontractor. Should the Agency request evidence of compliance, the contractor or subcontractor shall have ten (10) working days from receipt of the request to supply adequate information. The Department and Agency (City of Chandler) will accept, as evidence of compliance, a showing by the contractor or subcontractor, that it has followed the employment verification provisions of the Federal Immigration and Nationality Act as set forth in Sections 274A and 274B of that Act, including implementation of regulations and agreements between the Department of Homeland Security and the Social Security Administration's verification service. The contractor shall include the requirements of this provision in all subcontracts for this project.

Failure to comply with the immigration laws or to submit proof of compliance constitutes a material breach of contract. The Agency will recue the contractor's compensation by $10,000 for the initial instance of non-compliance by the contractor or a subcontractor. Should the same contractor or subcontractor commit subsequent violations within a two (2) year time period from the initial violation, the contractor's compensation will be reduced by $50,000 for each violation. The third instance by the same contractor or subcontractor within a two (2) year period may result, in addition to the $50,000 reduction in compensation, in removal of the offending contractor of subcontractor, suspension of work in whole or in part or, in the case of a third violation by the contractor, termination of the contract for default in addition, the Department may debar a contractor or subcontractor who has committed three (3) violations within a two (2) year period for up to one (1) year. For purposes of this paragraph, a violation by a subcontractor does not count as a violation by the contractor.

Any delay resulting from a sanction under this subsection is a non-excusable delay. The contractor is not entitled to any compensation or extension of time for any delays or additional costs resulting from a sanction under this subsection.

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13.0

RECORDS RETENTION

CONTRACTOR/SUBCONTRACTOR RECORDS

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RECORDS RETENTION

Contractor and Subcontractor Project Records

(Reference to A.R.S.35-214)

The contractor, subcontractors and all suppliers shall keep and maintain all books, papers, records, files, accounts, reports, bid documents with backup data, including electronic data, and all other material relating to the contract and project for five (5) years following completion and acceptance of the work.

All of the above material shall be made available for auditing, inspection, and copying and shall be produced upon request to the Agency.

The City of Chandler – Capital Projects
215 E Buffalo Street, Mail Stop 407
Chandler, Arizona 85225.

The contractor shall insert the above requirement in each subcontract purchase order and lease agreement and shall also include in all subcontracts, a clause requiring subcontractors to include the above requirement in any lower-tier subcontract, purchase order, or lease agreement.

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14.0

ENERGY EFFICIENCY PROVISION

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ENERGY EFFICIENCY – FEDERAL PROVISION

Federal Code of Regulations – 42 U.S.C. 3701-3708

(H) Mandatory standards and policies relating to energy efficiency which are contained in the State Energy Conservation Plan issued in compliance with the Energy Policy and Conservation Act 42 U.S.C. 6201.

FHWA Requirements: If the State has an Energy Efficiency Plan, the project must adhere to the State's Energy Efficiency Plan and requirements.

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15.0

WARRANTY

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WARRANTY – FEDERAL PROVISION

THERE WILL BE NO WARRANTY PERIOD ON THIS CONTRACT/PROJECT BEYOND THE DATE OF THE FINAL ACCEPTANCE BY THE CITY TO THE PRIME CONTRACTOR.

Reference:
Federal Code of Regulations – 635.413

(a) Warranty provisions shall be for a specific construction product or feature. Items of maintenance not eligible for Federal participation shall not be covered.

(b) All warranty requirements and subsequent revisions shall be submitted to the Division Administrator for advance approval.

(c) No warranty requirement shall be approved which, in the judgement of the Division Administrator, may place an undue obligation on the contractor for items over which the contractor has no control.

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16.0

JOBSITE POSTERS REQUIREMENTS

(Reference Guide Only)

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CONSTRUCTION JOB SITE POSTERS BOARD REQUIREMENTS –FHWA
CITY WILL WORK WITH CONTRACTOR DURING STARTUP

Date		Project Name	
Checked by		Project Numbers	

	Must have a Project Jobsite Poster Board
	Location – must be located away from Management View
	Must be updated if weather damaged

Item	English-1	Spanish-2	Poster Title
1			Employee Rights Under Davis Bacon for Laborers & Mechanics Act – (WH1321) 10-2017
2			Minimum Wage Jobsite Poster – Arizona 01-2025
2B			Minimum Wage FEDERAL – 04-2023 ****MAY NOT BE REQUIRED – CITY WILL COMMUNICATE**
3			Employee Rights Under the Employee Polygraph Protection Act – (WH1462) 02-2022
4			Employee Rights Under the Family Medical Leave Act – (WHD1420) 04-2023
5			Employee Rights Under the National Labor Relations Act (Exec Order 13496) ******MUST BE 11X17 or 2-page version as 8.5x11*** 2022-05-02***
6			EEO Know Your Rights Discrimination 2023-06-27 - (**replaces EEO Law and Law Supplement posters)*
7			EEO – Contractor EEO Policy Statement (comes with bid / contract) *******COC combines 8a and 8b into 1*** ***By putting a statement at the bottom of the EEO Policy Statement to put EEO Officer name***. 2024-01-09
8			Pay Transparency Nondiscrimination Provision (Exec Order 11246) 12-2016
9			USERRA - Your Rights Under USERRA – Uniformed Services Employment 05-2022
10			OSHA Job Safety - Safe Work-Place – 2019 ***OSHA ***states must be at least 8.5x14 (can be 11x17)***
11			FHWA 1022 Fraud - 05-2015 "Notice"
12			Arizona Workers' Compensation Law (English/Spanish all on one) NO Date
13			Unemployment Insurance AZ 02-2025 (POU-003)
14			Fair Wages Earned Paid Sick Time 07-01-2017 AZICA has no date on the poster
15			Title VI – (English/Spanish/Chinese)
16			FHWA 1273 – Contract Provisions for Federal Aid Construction Contracts (Pink Sheets) 10-23-2023
17			Davis Bacon Wage Decision
18			DURING CONSTRUCTION: Added Classifications List (if applicable)

No 1 Poster copy to have the following information in the blank boxes at the bottom.

CITY OF CHANDLER	CIUDAD DE CHANDLER
TEL: 480-782-3335	Tel: 480-782-3335
215 E. Buffalo St, PO Box 4008, MS407	215 E Buffalo St, PO Box 4008, MS407
Chandler, AZ 85244	Chandler, AZ 85244

No 5 Employee Rights Under the National Labor Relations Act:
Size requirement options are that you must post as 11x17 or you may use two-page format of 8.5x11's .

No 07 This EEO Clause/Statement was in bid/submitted with bid. Contractor and/or City can provide.

No 11 FHWA 1022 Fraud – Information to add:

Under "State Highway Department"	Under "Federal Highway Administration":
Arizona Department of Transportation	4000 N Central Ave, #1500
Deputy State Engineer	Phoenix, AZ 85012
206 S 17th Ave, Phoenix, AZ 85007	

No 13 Under Arizona DES site - type in POU-003 and jobsite poster will come up

No 15 This is a "City of Chandler specific" federal required poster. City of Chandler will provide this poster.

No 17 Davis Bacon Wage Decision is project specific. ONLY post the contract specific wage decision

No 18 Davis Bacon Wage Decision has a last page that is blank – use this page to attach when Wage Classifications Have been added/approved.

Courtesy - Web Site Links for Posters

https://www.fhwa.dot.gov/programadmin/contracts/poster.cfm (posters at this site are: 1,3,4,6,8, 9,10,11)
https://www.fhwa.dot.gov/construction/cqit/ (16)
https://www.sam.gov (17)
https://www.dol.gov/agencies/olms/poster/labor-rights-federal-contractors (5)
https://www.dol.gov/agencies/whd/posters (4,2C, 1)
https://www.dol.gov/sites/dolgov/files/VETS/files/USERRA-Poster.pdf (9)
https://www.azica.gov/claims-workers-compensation-compliance-poster (12, 14)
https://des.az.gov/sites/default/files/legacy/dl/POU-003.pdf (13)
https://www.laborposters.org/arizona/16-arizona-minimum-wage-spanish-poster.htm (2A.2)
https://www.dol.gov/agencies/whd/government-contracts/eo14026 (2b)

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17.0

DAVIS BACON WAGE DECISION

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"General Decision Number: AZ20250045 09/12/2025

Superseded General Decision Number: AZ20240045

State: Arizona

Construction Type: Highway

County: Maricopa County in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	• Executive Order 14026 generally applies to the contract. • The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	• Executive Order 13658 generally applies to the contract. • The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	06/06/2025
2	08/29/2025

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CARP1912-003 07/01/2024

	Rates	Fringes
Carpenter, Excludes Formwork Concrete	$ 35.89	14.98

ENGI0012-046 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Bulldozer	$ 35.56	18.12

ENGI0012-053 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Tractor	$ 35.56	18.12

ENGI0012-063 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Oiler	$ 32.29	18.12

ENGI0012-065 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Field Equipment Serviceperson	$ 35.56	18.12

ENGI0012-066 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Backhoe/Backhoe & Loader Combo/Track Backhoe	$ 35.56	18.12

ENGI0012-069 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Loader/Front End Loader	$ 35.56	18.12

ENGI0012-070 12/01/2024

	Rates	Fringes
TRUCK DRIVER		
Off Road Truck	$ 35.56	18.12

ENGI0012-071 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		

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Crane/Derrick	$ 36.64	18.12

ENGI0012-072 12/01/2024

	Rates	Fringes
Power Equipment Operator: Excavator/Trackhoe		
1/2 cubic yard or smaller	$ 35.56	18.12
Greater than 1/2 cubic yard	$ 36.64	18.12

ENGI0012-073 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Grade Checker	$ 36.64	18.12

ENGI0012-074 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Motor Grader/Blade	$ 36.64	18.12

ENGI0012-075 12/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR:		
Mechanic	$ 37.67	18.12

IRON0075-014 08/01/2025

	Rates	Fringes
Ironworker	$ 33.00	19.91

LABO1184-016 06/01/2025

	Rates	Fringes
Power Equipment Operator: Horizontal Directional Drill	$ 31.98	9.26

LABO1184-017 06/01/2025

	Rates	Fringes
Laborer: Fence Erector	$ 27.41	9.26

LABO1184-021 06/01/2025

	Rates	Fringes
Traffic Control	$ 27.41	9.26

LABO1184-025 06/01/2025

	Rates	Fringes
Laborer: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 29.91	9.26

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LABO1184-027 06/01/2025

	Rates	Fringes
Laborer: Grade Setter	$ 29.91	9.26

LABO1184-029 06/01/2025

	Rates	Fringes
LABORER: Guardrail Installer	$ 29.91	9.26

LABO1184-033 06/01/2025

	Rates	Fringes
Power Equipment Operator: Trencher	$ 30.88	9.26

LABO1184-044 06/01/2025

	Rates	Fringes
Power Equipment Operator: Forklift	$ 30.88	9.26

LABO1184-047 06/01/2025

	Rates	Fringes
Truck Driver: Concrete	$ 30.88	9.26

LABO1184-049 06/01/2025

	Rates	Fringes
Truck Driver: Water	$ 30.88	9.26

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* LABO1184-051 06/01/2025

	Rates	Fringes
General Laborers	$ 27.41	9.26

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* SUAZ2023-022 11/19/2024

	Rates	Fringes
Carpenter: Formwork Concrete	$ 29.86	8.89
Cement Mason/Concrete finisher	$ 30.41	0.00
Electrician	$ 29.00	7.58
Laborer: Concrete Saw (Hand Held/Walk Behind)	$ 25.22	5.08
Laborer: Landscape Laborer	$ 19.00	6.34
Laborer: Mason Tender	$ 25.92	7.09
Laborer: Pipelayer	$ 25.97	7.09

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Painter: Pavement Marking	$ 23.35	6.34
Painter: Sign and Display Erector	$ 18.03	0.00
Power Equipment Operator: Bobcat/Skid Steer/Skid Loader	$ 29.91	9.11
Power Equipment Operator: Boom/Crane Truck	$ 43.11	10.87
Power Equipment Operator: Broom/Sweeper	$ 25.95	6.62
Power Equipment Operator: Compactor/Roller	$ 30.24	0.00
Power Equipment Operator: Concrete Pump Truck	$ 43.11	10.87
Power Equipment Operator: Concrete Screed	$ 26.41	7.64
Power Equipment Operator: Drill Rig/Auger	$ 36.80	13.07
Power Equipment Operator: Milling Machine	$ 31.16	0.00
Power Equipment Operator: Paver/Spreader/Finish equipment (asphalt, aggregate, & concrete)	$ 32.67	0.00
Power Equipment Operator: Scraper	$ 29.69	0.00
Truck Driver: Dump	$ 26.71	7.09
Truck Driver: Oil Distributor	$ 29.41	7.63
Truck Driver: Sweeper	$ 20.24	5.48

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

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information

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on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may

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include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

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2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

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18.0

DBE FORMS

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

ARIZONA DEPARTMENT OF TRANSPORTATION

City of Chandler

Clear Form

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
CERTIFICATION OF FINAL DBE PAYMENTS
CONSTRUCTION

(Submit form for each DBE working on the contract)

The undersigned Contractor on **Agency Project No.**: ST2001-401 CHN0246D **ADOT TRACS No.**: T024301C hereby, certifies that full payment was made, to the firm indicated for material and/or work performed under this project's contract as follows:

DBE Firm AZ UTRACS Registration No.: _____

Name of DBE Firm _____ was paid the amount of _____

This certificate is made under Federal and State Laws concerning false statement. Supporting documentation for this payment is subject to audit and should be retained for a minimum of three years from project acceptance date. In the event the DBE was not paid in accordance with affidavits submitted by the contractor, all documentation supporting the contractor's position should be submitted.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Contractor Company Name: _____

Check One: ☐ Contractor ☐ Subcontractor

Name: _____ **Title:** _____

Signature: _____ **Date:** _____

The undersigned contractor/subcontractor/supplier/manufacturer for the above named project hereby certified that payments were received and/or justification by the contractor is correct.

I DECLARE UNDER PENALTY OF PERJURY IN THE SECOND DEGREE, AND ANY OTHER APPLICABLE STATE OR FEDERAL LAWS, THAT THE STATEMENTS MADE ON THIS DOCUMENT ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DBE Firm Name: _____

Check One: ☐ Contractor ☐ Subcontractor/Supplier/Manufacture
☐ Lower-tier: Subcontractor/Supplier/Manufacture

Name: _____ Title: _____

Signature: _____ Date: _____

Docusign Envelope ID: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329

From: ADOT Business Engagement and Compliance Office
To: David Maximoff
Cc: contractorcompliance@azdot.gov
Subject: Bidders List for Achen Gardner Construction, LLC
Date: Friday, November 7, 2025 12:51:14 PM

CAUTION: This email originated from outside of your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Achen Gardner Construction, LLC, AZUTRACS Number: 18750 has submitted a Bidder/Proposer list for **T024301C** on 11/07/2025 at 12:50 PM MST (UTC - 07:00).

Bidders/Proposers for this firm include:

Firm Name	Address	Age of Firm	Annual Gross Receipts	DBE Status	NAICS Codes
A Barricade Company	3600 S 7th Ave Phoenix, AZ 85041	4-7 years	$2 million to $5 million	Non-DBE	53249
Abbco Sign Group	8557 W Potter Dr Peoria, AZ 85382	10+ years	$2 million to $5 million	Non-DBE	237310
Accurate Concrete and Fence LLC	2209 W 1st street Tempe, AZ 85281	4-7 years	$2 million to $5 million	Non-DBE	238140
ACS Services LLC	2235 West Broadway Rd Mesa, AZ 85202	1-3 years	Unknown	DBE	238910
Alpha Geotechnical & Materials, Inc.	2504 W. Southern Ave. Tempe, AZ 85282	10+ years	$5 million to $10 million	Non-DBE	541330
Atwell LLC	4700 E SOUTHERN AVE MESA, AZ 85206-273	10+ years	More than $100 million	Non-DBE	541370
AWP, Inc.	2533 W Holy Street Phoenix, AZ 85009	10+ years	More than $100 million	Non-DBE	561612
AZ Police Traffic Services LLC	PO Box 5847 Peoria, AZ 85385	10+ years	Unknown	DBE	561612

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BOB'S BARRICADES, INC.	2201 S. 19th Avenue PHOENIX, AZ 85009	10+ years	$10 million to $50 million	Non-DBE	561612
Buesing Corp	3045 South 7th Street Phoenix, AZ 85040	10+ years	$10 million to $50 million	Non-DBE	423320
C & L Asphalt Patching, LLC	3632 East Turnberry Court Gilbert, AZ 85298	10+ years	$2 million to $5 million	DBE	237310
Cactus Transport II, LLC	8211 W. Sherman St Tolleson, AZ 85353	10+ years	$50 million to $100 million	Non-DBE	237310
Canyon State Barricade Service LLC	3745 W Lupine Ave Phoenix, AZ 85029	4-7 years	$500,000 to $1 million	DBE	561990
CD Development, LLC	4632 S. 36th Street Phoenix, AZ 85040	10+ years	$5 million to $10 million	DBE	561730
Chacon Transportation llc	5122 N 37th ave phoenix, AZ 85019	4-7 years	$500,000 to $1 million	Non-DBE	484110
CJS Enterprises LLC	7605 W. Carol Avenue Peoria, AZ 85345	10+ years	$10 million to $50 million	Non-DBE	238140
Contractors West, Inc.	1830 West Broadway Mesa, AZ 85202	10+ years	$2 million to $5 million	Non-DBE	238210
CSA CONTRACTING LLC	2942N 24TH ST SUITE 114 Phoenix, AZ 85016	1-3 years	Unknown	DBE	238110
Epsilon Geotechnical & Material, LLC	13765 West Auto Drive Goodyear, AZ 85338	4-7 years	$500,000 to $1 million	Non-DBE	541380
Falcon Contracting Inc.	11030 N. 21st Avenue Phoenix, AZ 85029	10+ years	$5 million to $10 million	DBE	237310
	2832 S. 45th Street	10+	$2 million	Non-	

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Franklin Striping, Inc.	Phoenix, AZ 85040	years	to $5 million	DBE	237310
Freebird Landscaping	4040 E. Downing Street Mesa, AZ 85205	10+ years	$1 million to $2 million	Non-DBE	237310
Hulxe Construction Services LLC	6012 E. Halifax Street Mesa, AZ 85205	4-7 years	Less than $500,000	DBE	237310
Keeley Construction Group Inc	4511 E. Kerby Avenue Phoenix, AZ 85040	4-7 years	$5 million to $10 million	Non-DBE	324121
Kimbrell Electric, Inc	7593 N 73rd Drive Glendale, AZ 85303	10+ years	$10 million to $50 million	Non-DBE	238210
L+L Asphalt, LLC	1452 E. Alameda Phoenix, AZ 85024	10+ years	$2 million to $5 million	DBE	237310
Law Enforcement Specialists, Inc.	9299 W Olive Ave Peoria, AZ 85345	10+ years	$2 million to $5 million	DBE	561990
LJ Landscapes, LLC	3868 N. Cottonwood Pl Buckeye, AZ 85389	10+ years	Less than $500,000	Non-DBE	561730
Olson Precast of Arizona, INC.	3045 S 35th Ave Phoenix, AZ 85009	10+ years	$10 million to $50 million	Non-DBE	423510
Paveco Inc.	2801 South 49th Avenue Phoenix, AZ 85043	10+ years	$10 million to $50 million	Non-DBE	237310
Quality Testing, LLC	175 S. Hamilton Place, Bldg. 6, Suite 114 Gilbert, AZ 85233	10+ years	$5 million to $10 million	Non-DBE	541380
Raincon Inc.	XX XX, XX 99999	10+ years	Unknown	DBE	238110
Roadway Electric LLC	8660 E. Hartford Drive	10+ years	$10 million to $50	Non-DBE	238210

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	Scottsdale, AZ 85255		million		
Southwest Barricades, LLC	2115 W. Melinda Lane Phoenix, AZ 85027	10+ years	$10 million to $50 million	Non-DBE	561612
Sunnyside Masonry LLC	24654 North Lake Pleasant Parkway 103-573 Peoria, AZ 85383	10+ years	Less than $500,000	DBE	238140
Torrent Resources, Inc.	1509 E Elwood St Phoenix, AZ 85040	10+ years	$10 million to $50 million	Non-DBE	237110
Utility Construction Company, Inc.	8435 E Baseline Road, Ste 106 Mesa, AZ 85209	10+ years	$10 million to $50 million	DBE	221310
Vulcan Fence LLC	9712 S 46th LN Laveen, AZ 85339	1-3 years	$500,000 to $1 million	Non-DBE	238190
Western Technologies, Inc.	1805 W. Drake Drive Tempe, AZ 85283	10+ years	$10 million to $50 million	Non-DBE	541380
William Charles Construction	7901 East Pierce Street Scottsdale, AZ 85257	10+ years	$10 million to $50 million	Non-DBE	238210
WSP, Inc.	7777 North 70th Avenue Glendale, AZ 85303	10+ years	$10 million to $50 million	DBE	237310
Young, Swenson & Cross Paving	1329 East Gibson Lane Phoenix, AZ 85034	10+ years	$10 million to $50 million	Non-DBE	238990
Zachary Development	1300 S. Litchfield Rd. Suite 220-Q Goodyear, AZ 85338	1-3 years	$5 million to $10 million	Non-DBE	238210

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END OF

FEDERAL DOCUMENTS

Certificate Of Completion

Envelope Id: EC5F340B-D1D7-4EAF-B80F-0BA5CDC27329 Status: Sent

Subject: *COUNCIL 1/22/2026* ST2001.401 (FED-ADOT) LINDSAY RD IMPROVEMENTS - ACHEN GARDNER

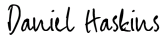
EDMS Application: PWU_CAPITAL_PROJECTS_CONTRACT_MANAGEMENT

Source Envelope:

Document Pages: 696	Signatures: 2	Envelope Originator:
Certificate Pages: 8	Initials: 0	Chandler CIP
AutoNav: Enabled		PO Box 4008
EnvelopeId Stamping: Enabled		Chandler, 85244
Time Zone: (UTC-07:00) Arizona		chandlercip@chandleraz.gov
		IP Address: 198.241.2.1

Record Tracking

Status: Original 12/10/2025 | 02:41 PM	Holder: Chandler CIP chandlercip@chandleraz.gov	Location: DocuSign
Security Appliance Status: Connected	Pool: StateLocal	
Storage Appliance Status: Connected	Pool: City of Chandler	Location: Docusign

Signer Events	Signature	Timestamp
Bryan Mueller bmueller@achen.com Vice President Achen Gardner Security Level: Email, Account Authentication (None)	 Signature Adoption: Pre-selected Style Using IP Address: 4.20.12.98	Sent: 12/10/2025 | 03:24 PM Resent: 12/11/2025 | 10:27 PM Resent: 12/15/2025 | 04:26 PM Viewed: 12/16/2025 | 10:57 AM Signed: 12/16/2025 | 10:58 AM
Electronic Record and Signature Disclosure: Accepted: 5/19/2025 | 03:04 PM ID: 0c1b895c-f3bb-438d-908f-418203831418		
Daniel Haskins daniel.haskins@chandleraz.gov CIP City Engineer Security Level: Email, Account Authentication (None)	 Signature Adoption: Pre-selected Style Using IP Address: 198.241.2.1	Sent: 12/16/2025 | 10:58 AM Viewed: 12/16/2025 | 11:07 AM Signed: 12/16/2025 | 11:07 AM
Electronic Record and Signature Disclosure: Accepted: 12/16/2025 | 11:07 AM ID: 44403add-dcd2-4fad-8d98-f9729e3d49d3		
Daniel L Brown Daniel.Brown@chandleraz.gov Security Level: Email, Account Authentication (None)		
Electronic Record and Signature Disclosure: Accepted: 7/1/2021 | 08:17 AM ID: 563d172a-e614-4b9b-b2a1-61a0afc8280a		
Kevin Hartke kevin.hartke@chandleraz.gov Security Level: Email, Account Authentication (None)		
Electronic Record and Signature Disclosure: Accepted: 6/28/2021 | 11:17 AM ID: 2531f230-027c-41f7-9166-1189df6a8c8f		

Signer Events	Signature	Timestamp
Dana DeLong Dana.DeLong@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 6/28/2021 | 01:03 PM ID: e796186e-c533-4a41-978c-34d69e29778a		

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp
Michelle Reeder michelle.reeder@chandleraz.gov Procurement Senior Specialist City of Chandler Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509		Sent: 12/16/2025 | 11:07 AM
Records Division Signing Group: Records Division Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign		

Agent Delivery Events	Status	Timestamp

Intermediary Delivery Events	Status	Timestamp

Certified Delivery Events	Status	Timestamp

Carbon Copy Events	Status	Timestamp
Michelle Reeder michelle.reeder@chandleraz.gov Procurement Senior Specialist City of Chandler Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509	COPIED	Sent: 12/10/2025 | 03:24 PM
Ivan Magana Ivan.Magana@chandleraz.gov Owner Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 8/15/2025 | 02:39 PM ID: 49375a20-0386-475c-8371-5719dce348c8	COPIED	Sent: 12/10/2025 | 03:24 PM

Carbon Copy Events	Status	Timestamp
Bryan Mueller bmueller@achen.com Vice President Achen Gardner Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 5/19/2025 | 03:04 PM ID: 0c1b895c-f3bb-438d-908f-418203831418	COPIED	Sent: 12/16/2025 | 10:58 AM Viewed: 12/16/2025 | 10:59 AM
Michelle Reeder michelle.reeder@chandleraz.gov Procurement Senior Specialist City of Chandler Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509	COPIED	Sent: 12/16/2025 | 10:58 AM
Ivan Magana Ivan.Magana@chandleraz.gov Owner Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 8/15/2025 | 02:39 PM ID: 49375a20-0386-475c-8371-5719dce348c8	COPIED	Sent: 12/16/2025 | 11:07 AM Viewed: 12/16/2025 | 03:27 PM
Michelle Reeder michelle.reeder@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509		
Michelle Reeder michelle.reeder@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509		
Bridgette Rhodehouse Bridgette.Rhodehouse@chandleraz.gov Jennifer Ekblad jennifer.ekblad@chandleraz.gov Dorothy Hernandez dorothy.hernandez@chandleraz.gov Vianka Enriquez Vianka.Enriquez@chandleraz.gov Signing Group: Records Division Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign		

Carbon Copy Events	Status	Timestamp
Michelle Reeder michelle.reeder@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/18/2025 | 10:55 AM ID: 1ac24ab2-9990-4da1-8fdc-64ed51bd8509		
Donna Rygiel donna.rygiel@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/28/2025 | 11:23 AM ID: 40e41fec-eb0c-46d0-b3fc-d151223d8411		
Ivan Magana Ivan.Magana@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 8/15/2025 | 02:39 PM ID: 49375a20-0386-475c-8371-5719dce348c8		
Melanie Sikes Melanie.Sikes@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 8/1/2025 | 02:13 PM ID: 5d4b3f3a-63fb-4d78-bb91-862fc465e5d4		
Jason Garcia Jason.Garcia@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 12/9/2024 | 12:44 PM ID: 4b6e0811-8125-497b-9689-bec49d36fce3		
Allan Zimmerman Allan.Zimmerman@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/10/2022 | 07:58 AM ID: fa1c98a5-4381-4529-8f21-4c6629aed7b1		
Janece Ray Janece.Ray@chandleraz.gov Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign		
Bryan Mueller bmueller@achen.com Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 5/19/2025 | 03:04 PM ID: 0c1b895c-f3bb-438d-908f-418203831418		

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	12/10/2025 | 03:24 PM

Payment Events	Status	Timestamps

Electronic Record and Signature Disclosure

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, City of Chandler (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

Getting paper copies

At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.15 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

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You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: esignature@chandleraz.gov

To advise City of Chandler of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at esignature@chandleraz.gov and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

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To request paper copies from City of Chandler

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to esignature@chandleraz.gov and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with City of Chandler

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to esignature@chandleraz.gov and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

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- You can access and read this Electronic Record and Signature Disclosure; and
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- Until or unless you notify City of Chandler as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by City of Chandler during the course of your relationship with City of Chandler.