



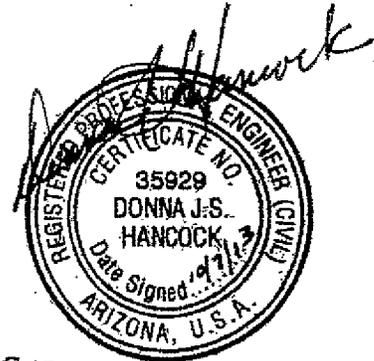
CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

CONTRACT DOCUMENTS

FOR

HARDY DRIVE STREET IMPROVEMENTS -  
BROADWAY ROAD TO UNIVERSITY DRIVE

PROJECT NO. 6004371  
FEDERAL AID PROJECT NO. CM-TMP-0-(229)D  
ADOT TRACS NO. 0000 MA TMP SZ055 01C



EXPIRES 3/31/2016

APPROVED BY:

Andrew H. Y. Goh, P.E.  
Deputy Public Works Director/City Engineer

CITY COUNCIL MEMBERS

Mayor – Mark W. Mitchell

Onnie Shekerjian	Joel Navarro
Corey Woods	Robin Arredondo-Savage
Shana Ellis	Kolby Granville

CITY MANAGER  
Andrew B. Ching

**CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
DIVISION OF ENGINEERING**

November 20, 2013

**HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD TO UNIVERSITY DRIVE  
PROJECT NO. 6004371  
FEDERAL AID PROJECT NO. CM-TMP-0-(229)D  
ADOT TRACS NO. 0000 MA TMP SZ055 01C**

**ADDENDUM NO. 4:**

The original contract documents are modified or interpreted as stated herein. Receipt of this Addendum No. 4 shall be acknowledged by inserting its number and date in the space provided on Page 7 of Exhibit 8.2 (Competitive Sealed Bid Forms) in the Invitation for Bids. Failure to acknowledge may subject bidder to disqualification.

This Addendum No. 4 consists of eight (8) pages.

**INSTRUCTION TO BIDDERS**

**The bid date is being changed.** Revise the first sentence of Section 4.1 (Sealed Bids) as follows:

Sealed bids will be received and the time of delivery recorded by the City of Tempe, Arizona, Public Works Department, Engineering Office, City Hall West Garden Level, 31 East Fifth Street, Tempe, Arizona 85281, until **10:00 a.m.** (Arizona time) on **November 26, 2013.**

**COMPETITIVE SEALED BID FORMS**

Replace pages 2 through 6 of the bid forms, with the attached, revised bid form pages reflecting these revisions:

**Item No. 2:**

*Replace:*

“\$50,000”

*With:*

“\$110,000”

**Item No.14:**

*Replace:*

“14 Sidewalk Ramp Modified, Detail Sheet 8”

*With:*

“14 Sidewalk Ramp Modified, Detail (D5) Sheet 10”

**Add Item No. 105:**

Sidewalk Ramp per MAG STD. DTL. 235-5 (Modified), Detail (D6) Sheet 10 - 5 EA

## **TECHNICAL SPECIFICATIONS**

Revisions to the following items:

### **Item No. 2 – Page TS-6 – Traffic Control Allowance:**

***Replace:***

“The allowance for traffic control will not exceed \$50,000 for traffic control requirements, with no mark up, as stated in the contract.”

***With:***

“The allowance for traffic control is \$110,000. Direct traffic control costs shall be paid with no mark up, as stated in the contract.”

### **Item 14 - Page TS-20:**

***Replace:***

**Item No. 14 - Sidewalk Ramp Modified, Detail Sheet 8**

Sidewalk ramp per detail on plan Sheet 8 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the sidewalk ramp per detail on plan sheet 8. If field conditions exist that prevent the construction of the ramp per detail on plan sheet 8, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This Item shall include the ramp, sidewalk, detectable warning, curb and gutter complete in place bound by the limits of the applicable MAG, City of Tempe, or consultant detail.”

***With:***

**Item No. 14 - Sidewalk Ramp Modified, Detail (D5) Sheet 10**

Sidewalk ramp per plan detail on Sheet 10 (D5) shall conform to MAG Specification Sections 301, 340, 725 and 729, and the City of Tempe Supplement, and shall be modified as shown in the Special Detail provided in the plans. The contractor shall provide all materials, equipment and labor to install the sidewalk ramp per the detail on Sheet 10 (D5). If field conditions exist that prevent the construction of the ramp per detail on plan sheet 10, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This Item shall include the ramp, sidewalk, detectable warning, curb and gutter complete in place bound by the limits of the applicable MAG, City of Tempe, or consultant detail.”

### **Add Item No. 105 - Page TS-45:**

**Item # 105 – Sidewalk Ramp per MAG STD. DTL. 235-5 (Modified), Detail (D6) Sheet 10**

Sidewalk ramp per MAG STD DTL 235-5 (Modified), Detail D6 on Sheet 10 shall conform to MAG Specification Sections 301, 340, 725 and 729, and shall be modified as shown in the Special Detail provided in the plans. The contractor shall provide all materials, equipment and labor to install the sidewalk ramp per MAG STD DTL 235-5 (Modified). If field conditions exist that prevent the construction of MAG STD DTL 235-5 (Modified), field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This Item shall include the ramp, sidewalk, detectable warning, curb and gutter complete in place bound by the limits of the applicable MAG, City of Tempe, or consultant detail.”

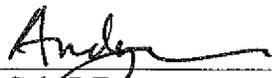
MISCELLANEOUS QUESTIONS ANSWERED:

The sidewalk item description on page TS-18 calls for a reactive stain to be applied to the sandblasted portion of the sidewalk, yet does not tell us what color or application rate, etc. The spec also requires ALL concrete to be cured with paper and this is very expensive when the only place the engineer is concerned about is the sandblasted portion. The spec needs to clarify that so we don't have to use paper throughout the project – only where the sandblasting is to occur.

**“Concrete to be cured with paper” only applies to sandblasted areas. The only colored concrete is at the bus stops. The color is noted on the bus stop drawings.**



EXPIRES 3-31-16

  
Andy Goh, P.E.  
Deputy PW Director/City Engineer

# City of Tempe

Project No. 6004371

Hardy Drive Street Improvements - Broadway Road to University Drive



## Base Bid

Item No.	Item Name	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/ Demobilization	1	LS		
2	Traffic Control Allowance	1	LS	\$110,000.00	\$110,000.00
3	Survey	1	LS		
4	Not Used	0	EA	\$0.00	\$0.00
5	Stormwater Pollution Prevention Plan Allowance	1	LS	\$10,000.00	\$10,000.00
6	Permits Allowance	1	LS	\$3,000.00	\$3,000.00
7	2" AC (A-12.5 EVAC) over 4" (A-19 EVAC)	1611	SY		
8	Microseal Type III	22044	SY		
9	Concrete Sidewalk COT Std. Det. T-345	70248	SF		
10	Sidewalk Ramp COT Std. Det. T-324	26	EA		
11	Sidewalk Ramp COT Std. Det. T-326	15	EA		
12	Sidewalk Ramp COT Std. Det. T-329	1	EA		
13	Sidewalk Ramp COT Std. Det. T-348 Type B	3	EA		
14	Sidewalk Ramp Modified, Detail (D5) Sheet 10	8	EA		
15	Single Curb MAG Std. Det. 222, Type A	1034	LF		
16	Curb & Gutter & Transitions MAG Std. Det. 220-1 Type A	5904	LF		
17	Residential Driveway COT Std. Det. T-320	6106	SF		
18	Commercial Driveway COT Std. Det. T-320	1018	SF		
19	Alley Entrance MAG Std. Det. 260	7514	SF		
20	Concrete Driveway Connections	5553	SF		

21	Valley Gutter MAG Std. Det. 240	1548	SF		
22	Remove and Reconstruct Valley Gutter Apron MAG Std. Det 240	2538	SF		
23	8" PCCP	1272	SY		
24	Catch Basin MAG Std. Det. 530 - Type A 3'-6" Opening	8	EA		
25	Catch Basin MAG Std. Det. 532 - Type C 8'-0" Opening	2	EA		
26	18" RCP Class III Storm Drain	302	LF		
27	24" RCP Class III Storm Drain	477	LF		
28	27" RCP Class III Storm Drain	990	LF		
29	Concrete Pipe Collar MAG Std. Det. 505	6	EA		
30	Storm Dain Manhole (5' no steps) MAG Std. Det. 521 & 522	9	EA		
31	Adjust & Clean Existing Manhole COT Std. Det. T-446	6	EA		
32	Adjust & Clean Valve Box & Cover COT Std. Det. T-445	17	EA		
33	Relocate Existing Water Meter COT Std. Det. T-212	42	EA		
34	Sawcut & Remove Concrete Sidewalk	35244	SF		
35	Sawcut & Remove Curb or Curb & Gutter	4170	LF		
36	Sawcut & Remove Pavement	5358	SY		
37	Sawcut & Remove Driveway	8491	SF		
38	Remove & Salvage Bus Shelter	9	EA		
39	Remove Wall, Replace in Kind	512	LF		
40	Remove Fence, Replace in Kind	105	LF		
41	Remove Concrete Pipe	80	LF		
42	Remove Existing Slotted Drain and Catch Basin	1	EA		
43	Safety Rail MAG Std. Det. 145	110	LF		
44	Bollard Type 2 Removable MAG Std. Det. 140	24	EA		
45	4" Solid Yellow, 4" Broken Yellow	6799	LF		
46	8" Solid White	9794	LF		

47	8" Dashed White	313	LF		
48	12" Solid White	975	LF		
49	8" Bike Lane Dashed White	489	LF		
50	24" Stop Bar	864	LF		
51	12" Solid Yellow	222	LF		
52	4" Double Yellow	1158	LF		
53	4'x20' Preformed Thermoplastic Green Bike Symbol	33	EA		
54	Dual Component Pavement Symbol	4	EA		
55	Shared Lane Marking	4	EA		
56	Paint Median Nose Solid Yellow	24	EA		
57	Pedestrian Pavement Symbol	11	EA		
58	Speed Table Markings	16	EA		
59	24" Solid Circle (school roll-out signs)	2	EA		
60	Raised Pavement Markers Type D	530	EA		
61	Sign Removal	1	LS		
62	Sign Panel	120	SF		
63	Sign Post & Base	690	LF		
64	Reconstruct Existing Traffic Loops COT Std. Det. T-575	6	EA		
65	Remove Existing Pedestrian Push Button	1	EA		
66	Remove & Reset Existing Pedestrian Button	2	EA		
67	Remove and Reset Existing Bicycle Push Button & Pole	2	EA		
68	Pedestrian Push Button & Pole	5	EA		
69	Adjust Survey Marker Type A to Grade MAG Std. Det. 120-1	6	EA		
70	Install Survey Marker Type A to Grade MAG Std. Det. 120-1	8	EA		
71	Plant Removal	18	EA		
72	Existing Plant Pruning Allowance	1	LS	\$2,500.00	\$2,500.00

73 Existing Plant Relocation Allowance	1 LS	\$5,000.00	\$5,000.00
74 Miscellaneous Landform Grading Allowance	1 LS	\$2,500.00	\$2,500.00
75 Existing Tree Protection	55 EA		
76 Trees 36" Box	2 EA		
77 Trees 24" Box	68 EA		
78 Root Barrier	1550 LF		
79 Medium Shrubs (5 Gallon)	285 EA		
80 Low Shrubs (1 Gallon)	671 EA		
81 Vines (1 Gallon)	42 EA		
82 Lawn Restoration	5000 SF		
83 Decomposed Granite Mulch	3410 SY		
84 Decorative River Rock 1-2"	500 SY		
85 Irrigation Emitters & Dist. Tube (Bowsmith 6-Outlet or Approved Equal)	384 EA		
86 Irrigation Valves (Rain Bird 3/4" Control Zone or Approved Equal)	56 EA		
87 Irrigation Piping 2" Mainline Schedule 40 PVC	6750 LF		
88 Irrigation Piping 3/4" Lateral, Class 200 PVC	4900 LF		
89 Irrigation Sleeving, 4" Ductile Iron at Streets	1350 LF		
90 Irrigation Sleeving, 2" Schedule 40 PVC at Alleys/Dr.	6150 LF		
91 Irrigation Controller (Solar Panel/Type)	2 EA		
92 Irrigation Backflow (2")	2 EA		
93 Irrigation Water Meter (2")	2 EA		
94 Irrigation Restoration (Private Property) Allowance	1 LS	\$25,000.00	\$25,000.00
95 Ball Valves	13 EA		
96 Quick Couplers	7 EA		
97 Flush Valves	72 EA		
98 Type 1 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting, Special Curb and Gutter & Concrete Pad)	2 EA		

99	Type 2 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting, <b>Special Curb and Gutter &amp; Concrete Pad</b> )	4	EA		
100	Type 3 Bus Stop (Incl. Benches, Trash Receptacles, Special Curb & Gutter & Concrete Pad)	3	EA		
101	Type 4 Bus Stop (Incl. Benches and Trash Receptacle, no roof & Concrete Pad)	1	EA		
102	Foundation for Art Sculpture	1	EA		
103	Sewer Pipe Encasements	2	EA		
104	Fire Hydrant Relocation	1	EA		
105	Sidewalk Ramp per MAG Std. Dtl 235-5 (Modified), Detail (d6) Sheet 10	5	EA		

**Total Base Bid:** \_\_\_\_\_

**CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
DIVISION OF ENGINEERING**

November 8, 2013

**HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD TO UNIVERSITY DRIVE  
PROJECT NO. 6004371  
FEDERAL AID PROJECT NO. CM-TMP-0-(229)D  
ADOT TRACS NO. 0000 MA TMP SZ055 01C**

**ADDENDUM NO. 3:**

The original contract documents are modified or interpreted as stated herein. Receipt of this Addendum No. 3 shall be acknowledged by inserting its number and date in the space provided on Page 7 of Exhibit 8.2 (Competitive Sealed Bid Forms) in the Invitation for Bids. Failure to acknowledge may subject bidder to disqualification.

This Addendum No. 3 consists of **sixteen (16)** pages.

**COMPETITIVE SEALED BID FORMS**

Replace pages 2 through 6 of the bid forms, with the attached, revised bid form pages.

**WAGE DETERMINATION**

Replace Exhibit 8.19, Wage Determination, with the revised and current applicable rates, which consist of eight (8) pages. Contractors are to use the current rates in the attached pages.

**TECHNICAL SPECIFICATIONS**

Revisions to the following items:

Page TS-23, Item No. 28 - 27" RCP Class III Storm Drain, *replace with the following:*  
Item No. 28 - 30" RCP Class III Storm Drain (Plan reference pages 15, 16, and 17)

Page TS-36, number 18, Measurement and Payment, *replace paragraph with the following:*  
"Bus shelter, benches, trash receptacles, bike racks, photovoltaic panel, lighting, special curb and gutter, and concrete pad shall be constructed in accordance with Section 515 and 530 of the MAG Specifications with the following: exceptions and modifications:"

Page TS-36, Section 515 Steel Structures, Section 1.0 General, a., *replace this sentence:* "Bus shelter equipment shall include; bike rack, benches, trash receptacles, and concrete pad in the locations shown on the plans." *with* "Bus shelter equipment shall include; bike rack, benches, trash receptacles, concrete pad, and special curb and gutter in the locations shown on the plans."

Page TS-38, Section 2.2 Furnishings, part a., *replace* model number "55903 as manufactured by Daytech," *with* "model number BE-2526B as manufactured by Daytech,"

Page TS-40, Section 2.4 Concrete, *add the following:* f. Alternate 2" deep contraction joint and ½" deep score joint every 6'. Contraction joints and score joints shall be scored or saw cut with a ¼" maximum radius. Expansion joints shall be every 50' maximum. The joints shall be on an approximate grid of 2' as shown on bus stop plans. A final layout plan will be provided.

Page TS-45, *add the following*:

**Item No. 103 – Sewer Pipe Encasements**

Sewer pipe encasements shall be per MAG Standard Detail 404-3.

Measurement and payment shall be paid per each at the contract unit price complete and in place.

**Item No. 104 – Fire Hydrant Relocation**

Fire hydrant relocation shall be per MAG Standard Details 360, 362, and 391-1 Type C. Remove existing valve and install a blind flange at the “T”. Install thrust blocks per MAG Standard Detail 380 on the new connection. The distance from the abandoned connection and the new connection on the water main shall be no less than 5’.

Measurement and payment for the relocation of the existing fire hydrant shall include complete retirement of the existing connection as stated above, complete installation of the new hydrant, and shall be paid per each at the contract unit price complete and in place.

**PLAN SHEET NOTE REVISIONS:**

Plan Sheet No. 22, Note 13, *replace* “Construct Bus Stop per Detail Sheets 80 – 82, Type” *with* “Construct Bus Stop per Detail Sheets 80 – 82, Type 3”

Plan Sheet No. 80, “100% Landscape Bus Stop Details”: On bus stop details 1, 2, and 3 *replace* “Refer to COT Detail T-654, Sheet 9 of 12 foreseeable C&G adjacent to bus stops” *with* “Refer to COT Detail T-654, Sheet 9 of 12 special curb and gutter adjacent to bus stops.”

**MISCELLANEOUS QUESTIONS ANSWERED:**

1. Trash Receptacles are 10 Gal in the specs but 32 Gal per Det. T-654. Which one is correct?  
**Bus shelter trash receptacles shall be 10 Gallon, as stated in the Specifications.**
2. Will the flower art for the concrete and steel work at the bus shelters be supplied and installed by the artist? **Yes, the flowers on the bus shelters will be provided and installed by the artist.**
3. Is the Removal & Replacement of the asphalt for the storm drain installation to be included in the pipe price or will there be a separate pay item created? **Storm drain installation price should be per the measurement and payment instructions in the specification, complete and in place. This includes pavement.**
4. Will there be a pay item created for the Removal & Replacement of the asphalt to install the irrigation sleeves? **The irrigation sleeve installation price should be per the measurement and payment instructions in the specification, complete and in place. This includes pavement.**
5. Will there be detail sheets provided for the installation of the landscape and irrigation?  
**Use the latest version of Tempe's supplemental sections to the MAG standard specs and details for the planting and irrigation that may be found at:**

**<http://www.tempe.gov/modules/showdocument.aspx?documentid=5354>**

6. Will there be a plant legend provided with the sizes and location of the plants?

**The plant legends, including sizes, are shown on each planting plan sheet, sheets 52 thru 65.**

7. On the existing water services that need to be relocated will we be able to add on and extend or will we have to install a new one from the main? **Regarding the relocation of water meters, the existing water services shall be extended per COT Standard Detail T-212, as stated in the specifications. (see Item No. 33)**

8. On Detail Sheet #3, Sections 1 & 2 are we required to remove and replace the ABC and process the existing subgrade, or are we just processing the existing the ABC and re-compacting to 95%? **As noted on the detail "Scarify & Recompact Exst. Aggregate Base (95%)" Clarification: additional ABC may be needed to obtain grade in some areas. This shall be included in the pavement pay item.**

9. The irrigation sleeves under the roadway are calling out for both Ductile Iron Pipe and PVC, which one is correct? **The detail calls for DIP only under roadway crossings. The distribution of ductile iron pipe and PVC irrigation sleeves are as stated on the plans and the competitive sealed bid form.**

10. Speed Tables as shown on sheets 6 & 8: Currently there are no bid items for the following items shown in the Speed Table details-Ribbon Curb, Detectable Warning Tiles, Bike Ramps. **Item No. 16 – measurement and payment includes Type A Curb and Gutter, Transitions, and Type B Ribbon Curb. Item No. 23 – measurement and payment includes speed tables and bike ramps. Per MAG Specification Section 340.5, detectable warnings shall not be measured for payment. Detectable warnings are considered integral to the walking surface that they form a part of and the cost is included in the related pay item.**

11. Limits of Valley Gutter removal and replacement as shown are not in alignment with the other work that is shown for R&R within same location(s). **Item No. 21 is new valley gutter at locations noted and Item No. 22 is existing valley gutter apron that needs to be removed and reconstructed.**

12. Several of the concrete items within the Specifications state "all soft or unsuitable material shall be remove to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative". How will this work be paid and how much should the contractor anticipate for removal? **Subgrade preparation shall be per MAG Specification Section 301. As stated in 301.7, the area under the concrete curb and gutter, sidewalk, concrete driveway entrances, and concrete alley entrances will not be included in this pay item.**

13. The quantity in bid item 7 - 2" AC (A-12.5 EVAC) over 4" (A-19 EVAC) does not include the quantity necessary to pave the pipe trenches. How is the trench patching paid? **This is included in payment for individual pipe item.**

14. Will there be a pay item for tree removal over 12"? **Any and all landscape removal shall be included and paid for as a part of Item No. 71 - Plant Removal.**



EXPIRES 3/31/16

Andy Goh, P.E.  
Deputy PW Director/City Engineer

# City of Tempe

Project No. 6004371

Hardy Drive Street Improvements - Broadway Road to University Drive



## Base Bid

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32	Adjust & Clean Valve Box & Cover COT Std. Det. T-445	17	EA		
33	Relocate Existing Water Meter COT Std. Det. T-212	42	EA		
34	Sawcut & Remove Concrete Sidewalk	35244	SF		
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54	Dual Component Pavement Symbol	4	EA		
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65	Remove Existing Pedestrian Push Button	1	EA		
66	Remove & Reset Existing Pedestrian Button	2	EA		
67	Remove and Reset Existing Bicycle Push Button & Pole	2	EA		
68	Pedestrian Push Button & Pole	5	EA		
69	Adjust Survey Marker Type A to Grade MAG Std. Det. 120-1	6	EA		
70	Install Survey Marker Type A to Grade MAG Std. Det. 120-1	8	EA		
71	Plant Removal	18	EA		
72	Existing Plant Pruning Allowance	1	LS		

73 Existing Plant Relocation Allowance	1	LS		
74 Miscellaneous Landform Grading Allowance	1	LS		
75 Existing Tree Protection	55	EA		
76 Trees 36" Box	2	EA		
77 Trees 24" Box	68	EA		
78 Root Barrier	1550	LF		
79 Medium Shrubs (5 Gallon)	285	EA		
80 Low Shrubs (1 Gallon)	671	EA		
81 Vines (1 Gallon)	42	EA		
82 Lawn Restoration	5000	SF		
83 Decomposed Granite Mulch	3410	SY		
84 Decorative River Rock 1-2"	500	SY		
85 Irrigation Emitters & Dist. Tube (Bowsmith 6-Outlet or Approved Equal)	384	EA		
86 Irrigation Valves (Rain Bird 3/4" Control Zone or Approved Equal)	56	EA		
87 Irrigation Piping 2" Mainline Schedule 40 PVC	6750	LF		
88 Irrigation Piping 3/4" Lateral, Class 200 PVC	4900	LF		
89 Irrigation Sleeving, 4" Ductile Iron at Streets	1350	LF		
90 Irrigation Sleeving, 2" Schedule 40 PVC at Alleys/Dr.	6150	LF		
91 Irrigation Controller (Solar Panel/Type)	2	EA		
92 Irrigation Backflow (2")	2	EA		
93 Irrigation Water Meter (2")	2	EA		
94 Irrigation Restoration (Private Property) Allowance	1	LS		
95 Ball Valves	13	EA		
96 Quick Couplers	7	EA		
97 Flush Valves	72	EA		
98 Type 1 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting, <b>Special Curb and Gutter &amp; Concrete Pad</b> )	2	EA		

99	Type 2 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting, <b>Special Curb and Gutter &amp; Concrete Pad</b> )	4	EA		
100	Type 3 Bus Stop (Incl. Benches, Trash Receptacles, Special Curb & Gutter & Concrete Pad)	3	EA		
101	Type 4 Bus Stop (Incl. Benches and Trash Receptacle, no roof & Concrete Pad)	1	EA		
102	Foundation for Art Sculpture	1	EA		
103	Sewer Pipe Encasements	2	EA		
104	Fire Hydrant Relocation	1	EA		
				<b>Total Base Bid:</b>	

General Decision Number: AZ130008 11/01/2013 AZ8

Superseded General Decision Number: AZ20120013

State: Arizona

Construction Type: Highway

Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/04/2013
1	01/11/2013
2	02/22/2013
3	03/22/2013
4	06/14/2013
5	08/23/2013
6	11/01/2013

CARP0408-005 10/01/2012

	Rates	Fringes
CARPENTER (Including Cement Form Work).....	\$ 23.58	9.49

ENGI0428-001 07/29/2013

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1.....	\$ 20.99	9.05
Group 2.....	\$ 24.26	9.05
Group 3.....	\$ 25.34	9.05
Group 4.....	\$ 26.37	9.05

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine, pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2:  
 ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt plant Mixer, Bee Gee, Boring Machine, Concrete Pump,

Concrete Mechanical Tamping-Spreading Finishing Machine, Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Engineer Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screed, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3:

ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver Engineer (portable, stationary or skid), Power Driven Ditch Lining or Ditch Trimming Machine, Remote Control Earth Moving Machine, Slip Form Paving Machine (including Gunnert, Zimmerman & similar types), Tower Crane or similar type.

MARICOPA COUNTY ONLY: Backhoe<10 cu yd, Clamshell < 10 cu yd, Concrete Pump (truck mounted with boom only), Dragline <10 cu yd, Grade Checker, Motor Grader (finish-any type power blade), Shovel < 10 cu yd.

GROUP 4: Backhoe 10 cu yd and over, Clamshell 10 cu yd and over, Crane (pneumatic or crawler 100 tons & over), Dragline 10 cu yd and over, Shovel 10 cu yd and over.

All Operators, Oilers, and Motor Crane Drivers on equipment with Booms, except concrete pumping truck booms, including Jibs, shall receive \$0.01 per hour per foot over 80 ft in addition to regular rate of pay

Premium pay for performing hazardous waste removal \$0.50 per hour over base rate.

-----  
IRON0075-004 01/01/2013

COCONINO, MARICOPA, MOHAVE, YAVAPAI & YUMA COUNTIES

	Rates	Fringes
Ironworker, Rebar.....	\$ 26.52	20.65
Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson		
Zone 2: 050 to 100 miles - Add \$4.00		

Zone 3: 100 to 150 miles - Add \$5.00  
 Zone 4: 150 miles & over - Add \$6.50

-----  
 \* LABO0383-002 11/01/2013

	Rates	Fringes
Laborers:		
Group 1.....	\$ 17.61	4.35
Group 2.....	\$ 18.63	4.35
Group 3.....	\$ 19.42	4.35
Group 4.....	\$ 20.51	4.35
Group 5.....	\$ 21.49	4.35

LABORERS CLASSIFICATIONS:

GROUP 1: All Counties: Chipper, Rip Rap Stoneman. Pinal County Only: General/Cleanup Laborer. Maricopa County Only: Flagger.

GROUP 2: Asphalt Laborer (Shoveling-excluding Asphalt Raker or Ironer), Bander, Cement Mason Tender, Concrete Mucker, Cutting Torch Operator, Fine Grader, Guinea Chaser, Power Type Concrete Buggy

GROUP 3: Chain Saw, Concrete Small Tools, Concrete Vibrating Machine, Cribber & Shorer (except tunnel), Hydraulic Jacks and similar tools, Operator and Tender of Pneumatic and Electric Tools (not herein separately classified), Pipe Caulker and Back-Up Man-Pipeline, Pipe Wrapper, Pneumatic Gopher, Pre-Cast Manhole Erector, Rigger and Signal Man-Pipeline

GROUP 4: Air and Water Washout Nozzleman; Bio-Filter, Pressman, Installer, Operator; Scaffold Laborer; Chuck Tender; Concrete Cutting Torch; Gunite; Hand-Guided Trencher; Jackhammer and/or Pavement Breaker; Scaler (using boson's chair or safety belt); Tamper (mechanical all types).

GROUP 5: AC Dumpman, Asbestos Abatement, Asphalt Raker II, Drill Doctor/Air Tool Repairman, Hazardous Waste Removal, Lead Abatement, Lead Pipeman, Process Piping Installer, Scaler (Driller), Pest Technician/Weed Control, Scissor Lift, Hydro Mobile Scaffold Builder.

-----  
 PAIN0086-001 04/01/2013

	Rates	Fringes
PAINTER		
PAINTER (Yavapai County only), SAND BLASTER/WATER BLASTER (all Counties).....	\$ 19.35	4.75

ZONE PAY: More than 100 miles from Old Phoenix Courthouse \$3.50 additional per hour.

SUAZ2009-001 04/20/2009

	Rates	Fringes
CEMENT MASON.....	\$ 19.28	3.99
ELECTRICIAN.....	\$ 22.84	6.48
IRONWORKER (Rebar)		
Pima County.....	\$ 23.17	14.83
Pinal County.....	\$ 20.27	8.35
LABORER		
Asphalt Raker.....	\$ 15.49	3.49
Compaction Tool Operator....	\$ 14.59	2.91
Concrete Worker.....	\$ 13.55	3.20
Concrete/Asphalt Saw.....	\$ 13.95	2.58
Driller-Core, diamond, wagon, air track.....	\$ 16.94	3.12
Dumpman Spotter.....	\$ 14.99	3.16
Fence Builder.....	\$ 13.28	2.99
Flagger		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 12.35	1.59
Formsetter.....	\$ 16.09	3.97
General/Cleanup Laborer		
Coconino, Maricopa, Mohave, Pima, Yavapai & Yuma.....	\$ 14.54	3.49
Grade Setter (Pipeline).....	\$ 17.83	5.45
Guard Rail Installer.....	\$ 13.28	2.99
Landscape Laborer.....	\$ 11.39	
Landscape Sprinkler Installer.....	\$ 15.27	
Pipelayer.....	\$ 14.81	2.96
Powderman, Hydrasonic.....	\$ 16.39	2.58
OPERATOR: Power Equipment		
Asphalt Laydown Machine.....	\$ 21.19	6.05
Backhoe < 1 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.37	3.85
Backhoe < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Clamshell < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Concrete Pump (Truck Mounted with boom only)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 19.92	7.10
Crane (under 15 tons).....	\$ 21.35	7.36
Dragline (up to 10 cu yd)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Drilling Machine (including Water Wells).....	\$ 20.58	5.65
Grade Checker		

Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	16.04	3.68
Hydrographic Seeder.....\$	15.88	7.67
Mass Excavator.....\$	20.97	4.28
Milling Machine/Rotomill....\$	21.42	7.45
Motor Grader (Finish-any type power blade) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	21.92	4.66
Motor Grader (Rough) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	20.07	4.13
Oiler.....\$	18.15	8.24
Power Sweeper.....\$	16.76	4.44
Roller (all types Asphalt) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	18.27	3.99
Roller (excluding asphalt)..\$	15.65	3.32
Scraper (pneumatic tired) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	17.69	3.45
Screed Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	17.54	3.72
Shovel < 10 cu yd Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	18.72	3.59
Skip Loader (all types <3 cu yd).....\$	18.28	5.30
Skip Loader (all types 3 < 6 cu yd) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	18.64	4.86
Skip Loader (all types 6 < 10 cu yd).....\$	20.15	4.52
Tractor (dozer, pusher - all) Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$	17.26	2.65

## PAINTER

Coconino, Maricopa, Mohave, Pima, Pinal & Yuma..\$	15.57	3.92
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## TRUCK DRIVER

2 or 3 Axle Dump or Flatrack.....\$	16.27	3.30
5 Axle Dump or Flatrack.....\$	13.97	2.89
6 Axle Dump or Flatrack (< 16 cu yd).....\$	17.79	6.42
Belly Dump.....\$	14.67	
Oil Tanker Bootman.....\$	22.03	
Self-Propelled Street Sweeper.....\$	13.11	5.48
Water Truck 2500 < 3900 gallons.....\$	18.14	4.55
Water Truck 3900 gallons and over.....\$	15.92	3.33
Water Truck under 2500 gallons.....\$	15.94	4.16

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

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

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates

the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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WAGE DETERMINATION APPEALS PROCESS

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

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
DIVISION OF ENGINEERING

November 4, 2013

HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD  
TO UNIVERSITY DRIVE

PROJECT NO. 6004371

ADDENDUM NO. 2:

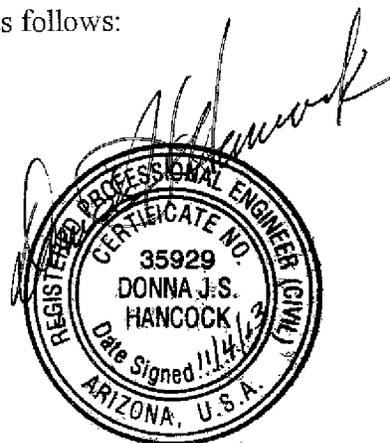
The original contract documents are modified or interpreted as stated herein. Receipt of this Addendum No. 2 shall be acknowledged by inserting its number and date in the space provided on page 7 of Exhibit 8.2 (Competitive Sealed Bid Forms) in the Invitation for Bids. Failure to acknowledge may subject bidder to disqualification.

This Addendum No. 2 consists of 1 page.

INSTRUCTION TO BIDDERS

In Section 4.1, Sealed Bids, revise the bid opening date and time as follows:

10:30 a.m. (Arizona time) November 21, 2013



EXPIRES 3/31/16

  
(FOR) Andy Goh, P.E.  
Deputy PW Director/City Engineer

CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
DIVISION OF ENGINEERING

October 21, 2013

HARDY DRIVE STREET IMPROVEMENTS -  
BROADWAY ROAD TO UNIVERSITY DRIVE  
PROJECT NO. 6004371

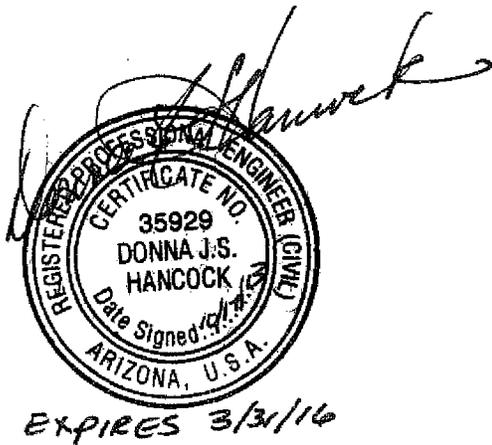
ADDENDUM NO. 1:

The original contract documents are modified or interpreted as stated herein. Receipt of this Addendum No. 1 shall be acknowledged by inserting its number and date in the space provided on page 7 of Exhibit 8.2 (Competitive Sealed Bid Forms) in the Invitation for Bids. Failure to acknowledge may subject bidder to disqualification.

This Addendum No. 1 consists of six (6) pages.

PLAN SHEET REVISIONS:

Replace plan sheets 31, 32, 34, 43 and 44 with the revised plan sheets attached.



  
Andy Goh, P.E.  
Deputy PW Director/City Engineer

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**CITY OF TEMPE, ARIZONA  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION**

**NOTICE TO CONTRACTORS**

**HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD  
TO UNIVERSITY DRIVE  
PROJECT NO. 6004371  
FEDERAL AID PROJECT NO. CM-TMP-0-(229)D  
ADOT TRACS NO. 0000 MA TMP SZ055 01C**

**1. INTRODUCTION**

THIS INVITATION FOR BIDS is hereby offered by the City of Tempe, an Arizona municipal corporation (“City”), for Hardy Drive Street Improvements – Broadway Road to University Drive, as set forth herein, and shall be identified as Project No. 6004371.

This Project is funded by the U.S. Department of Transportation, Federal Highway Administration (FHWA), through the Arizona Department of Transportation (ADOT).

The Federal Provisions section of this Invitation for Bids and Contract applies to all bidders and all contractors for the Project.

**1.1. OVERVIEW OF PROJECT**

The Project location is along Hardy Drive in Tempe, Arizona, between University Drive and Broadway Road. The Project scope includes restriping bicycle lanes, widening sidewalks, upgrading sidewalk ramps and driveways for ADA compliance, installing raised medians, installing speed tables with crosswalks for traffic calming, installing chokers for traffic calming, relocating bus stops, and installing landscaping.

**1.2. EXAMINATION OF PREMISES, SPECIFICATIONS, AND CONTRACT**

Bidder shall visit the site of the Project and shall fully acquaint itself with all conditions as they exist, so that it may fully understand the site, difficulties, and restrictions attending the execution of the work.

Bidder shall also thoroughly examine and be familiar with the specifications, plans, and the Contract documents. Failure of Bidder to obtain, receive, or examine any addenda to the proposed Contract, or to visit the site and acquaint itself with the conditions there existing, shall not relieve it from any obligation with respect to the submitted bid.

By submitting a bid, Bidder agrees that it has examined the site, specifications, plans, and Contract, and accepts all site conditions, the proposed Contract, and all exhibits and addenda thereto.

**1.3. START OF WORK / TERM OF CONTRACT**

Work shall start as soon as practicable, but not later than seven (7) calendar days after the Notice to Proceed date and shall be completed within two hundred forty (240) calendar days following the Notice to Proceed date.

**2. SCOPE OF WORK**

The proposed work will consist of **RESTRIPING BICYCLE LANES; WIDENING SIDEWALKS; UPGRADING SIDEWALK RAMPS AND DRIVEWAYS FOR ADA COMPLIANCE; INSTALLING RAISED MEDIANS, SPEED TABLES, AND CHOKERS; INSTALLING LANDSCAPING; AND RELOCATING BUS STOPS,** together with associated work.

**2.1. CONTRACTOR'S CONSTRUCTION SCHEDULE**

Prior to the start of work, a construction progress schedule shall be required and shall comply with the requirements of MAG Specifications 108.4. In addition, a schedule update comparing actual progress with scheduled progress will be required with the submission of each monthly pay request.

**2.2. UNIFORM STANDARD SPECIFICATIONS**

All work done under this Contract shall be accomplished in accordance with the Maricopa Association of Governments Uniform Standard Specifications and Details for Public Works Construction – 2013 Revision to the 2012 Edition (“MAG Specifications”) and the City of Tempe Supplement to the MAG Uniform Standard Details and Specifications for Public Works Construction – 2010 (“City of Tempe Supplement”), except as modified in the Contract.

In the case of a discrepancy or conflict, the order in which documents and Contract sections govern is as follows, from highest to lowest: federal provisions, special terms and conditions, technical specifications, plans, general terms and conditions, City of Tempe Supplement, and MAG Specifications.

All bids shall be made in accordance with the General Conditions of the MAG Specifications.

**2.3. CONTRACTOR'S REPRESENTATIVE**

Contractor shall at all times be present at the worksite or represented by a superintendent or other properly designated agent. Instructions and information given by City construction project manager to Contractor's superintendent or agent on the work shall be considered as having been given to Contractor.

**2.4. SUPERVISION BY CONTRACTOR**

Contractor will supervise and direct the work. It will be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

Contractor will employ and maintain on the work a qualified superintendent who shall be designated in writing by Contractor and approved by City as Contractor's representative at the site. The superintendent shall have full authority to act on behalf of Contractor and all communications given to the superintendent shall be as binding as if given to Contractor. The superintendent shall be present on the site at all times in order to perform adequate supervision and coordination of the work. No substitution of the superintendent will be permitted without prior written request by the Contractor and written consent of City.

**2.5. AUTHORITY OF CITY ENGINEER'S APPOINTED REPRESENTATIVE**

City construction project manager shall act as City Engineer's designated representative during the construction period. He or she shall advise on questions concerning coordination with City, public safety, and quality and acceptability of materials and work performed. City Engineer, City construction project manager, or their assigned inspector shall interpret the intent of the Contract plans, specifications, and technical provisions in an unbiased manner.

City Engineer, City construction project manager, or their assigned inspector shall be present on the site at times during construction to monitor the work and to maintain records for Contract management. City construction project manager shall promptly make decisions relative to the interpretation of the Contract so as to minimize delays in construction. City construction project manager will not be responsible for directing construction, control, techniques, sequence, or procedures, or for directing job safety.

**2.6. BENEFICIAL OCCUPANCY**

Beneficial occupancy is use of a facility or project, in whole or in part, by City for its intended purpose. This may occur even though some work of the Contract remains undone. Prior to such use or occupancy, City will provide notice to Contractor and accomplish a partial acceptance inspection. Beneficial occupancy will apply to general right-of-way projects only.

**2.7. SUBSTANTIAL COMPLETION**

Substantial completion is work that is ready for occupancy and use for its intended purpose as certified by City and a certificate of occupancy. This term will be applied to building construction projects only.

**2.8. PROJECT COMPLETION**

Project completion is full completion of all construction associated with the Contract, including, but not limited to, punch list items, close-out documentation, operations and maintenance manuals, warranties, and record plans as certified by the architect/engineer of record. Contractor may be found in default of this Contract in accordance with MAG Specifications 108.10 should project completion fall behind substantial completion by more than forty-five (45) days.

**2.9. CONTRACT COMPLETION DATE**

The Contract completion date established by reference to the Notice to Proceed date is for completion of all or specified portions of the work. This includes items of work to be completed under an owner allowance or as part of a contingency item. The stated Contract completion date will take into account anticipated or actual weather conditions that are not unusually severe for the area and time of year. This date may be expressed as a calendar date or as a number of calendar days after the Notice to Proceed date.

If time extensions are issued by City, the revised Contract completion date will be referred to as the adjusted Contract completion date.

**2.10. FINAL INSPECTION**

Contractor is responsible for complying with the specifications and is hereby forewarned that final approval of any work will not be given until the entire project is completed and accepted by City. Prior to final inspection on any City facilities requiring a building permit, Contractor must call for final inspection from the Community Development Department and Public Works Department of City. The final inspection must be completed prior to final acceptance and payment.

**2.11. FINAL ACCEPTANCE & GUARANTEE**

Final acceptance shall mean a written final acceptance of the work. City Engineer shall make the final acceptance promptly after the work has been inspected and found to be completed in accordance with the Contract. The work performed under this Contract shall be guaranteed for a period of one (1) year from the date of final acceptance.

**2.12. AS-BUILT DRAWINGS**

Contractor shall provide and maintain accurate field data on a redlined set of Contract drawings, which are to be kept current and submitted as complete at the conclusion of the construction. These record drawings will be used as documentation for progress payments, and upon project completion, for the preparation of record drawings by the architect/engineer. Final payment will not be issued until all record drawings are submitted by Contractor, and are certified to be complete by the architect/engineer of record.

**2.13. SHOP DRAWINGS, SCHEDULES & SAMPLES**

In time for each to serve its proper purpose and function, Contractor shall submit to City construction project manager such schedules, reports, drawings, lists, literature samples, instructions, directions, and guarantees as are specified or reasonably required for construction, operation, and maintenance of the facilities to be built and/or furnished under this Contract.

Shop drawings and data shall be submitted to City construction project manager as one (1) hard copy and one (1) legible electronic PDF document of each submittal.

The submittal shall clearly indicate the specific area of the Contract for which the submittal is made. The additional copies received will be returned to Contractor's representative at the job site. City construction project manager's notations of the action taken will be noted on one (1) of these returned copies.

The above drawings, lists, prints, samples, and other data shall become a part of the Contract and a copy of the same shall be kept with the job site Contract, and the fabrications furnished shall be in conformance with the same.

City construction project manager's review of the above drawings, lists, prints, specifications, samples, or other data shall in no way release Contractor from its responsibility for the proper fulfillment of the requirements of this Contract, nor for fulfilling the purpose of the installation, nor from its liability to replace the same should it prove defective or fail to meet the specified requirements.

#### **2.14. QUALITY CONTROL**

All material shall be new and of the specified quality and equal to the accepted samples, if samples have been submitted. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from the Contract, and it shall be the duty of Contractor to call City construction project manager's attention to apparent errors or omissions and request instruction before proceeding with the work.

City Engineer may, through appropriate instruction, correct errors and supply omissions. Instructions provided by City Engineer shall be as binding upon Contractor as though contained in the original Contract.

At the option of City construction project manager, material to be supplied under this Contract will be tested and/or inspected either at its place of origin or at the site of the work. Contractor shall give City construction project manager written notification well in advance of actual readiness of material to be tested and/or inspected at point of origin. Satisfactory tests and inspections at the point of origin shall not be construed as a final acceptance of the material, nor shall it preclude retesting or reinspection at the site of the work.

#### **2.15. EXCESS MATERIALS**

Excess or unsuitable material, broken asphaltic concrete, and broken Portland cement concrete shall be disposed of by Contractor. Contractor shall, prior to commencement of the work, submit a letter to City Engineer stating the location of disposal site(s) for all excess or unsuitable material and certifying that it has obtained the property owner's permission for the disposal of all surplus material.

**2.16. MISCELLANEOUS REMOVAL AND RELOCATIONS**

Miscellaneous removals and relocations shall be performed by the Contractor, and is construed to mean the removal of all unsuitable materials, whether designated or implied by the plans and specifications, and shall include but not be limited to removal of items of every nature and description such as pipes, concrete, asphalt, block, brick, rock, and metal, including temporary removal and reinstallation, unless such items are specifically designated in a separate bid item. In addition, certain items requiring temporary removal and reinstallation such as mail box stands, sign posts, survey monument frames and covers, shall be included in this category.

**2.17. PROTECTION OF FINISHED OR PARTIALLY FINISHED WORK**

Contractor shall properly guard and protect all finished or partially finished work, and shall be responsible for the same until that phase is completed and accepted by City.

Estimate or partial payment of completed work shall not release Contractor from such responsibility prior to City's acceptance, but Contractor shall turn over the entire work in full accordance with these specifications before final payment can be made.

**2.18. SURVEY CONTROL POINTS**

Existing survey monuments shall be protected by Contractor or removed and replaced under the direct supervision of City of Tempe Engineering Division Land Services Section.

One week prior to construction, Contractor shall notify City of Tempe Engineering Division Land Services Section of any survey monuments that need to be relocated. Any monuments damaged or lost due to the Contractor's negligence and/or lack of notification to City of Tempe Engineering Division Land Services Section shall be replaced at Contractor's expense. In the event a lot corner will be disturbed, Contractor shall notify affected property owner(s) and obtain consent prior to any construction. Any lot corners disturbed or lost due to Contractor's negligence shall be replaced at Contractor's sole expense.

**2.19. HINDRANCES AND DELAYS**

Except as provided herein, no charge shall be made by Contractor for hindrances or delays from any cause during the progress of any portion of the work set forth in this Contract; however, delays due to no fault or neglect of Contractor may entitle Contractor to a time extension sufficient to compensate for the delays. The amount of the time extension, if any, shall be determined by City Engineer provided Contractor gives City Engineer immediate notice in writing of the cause of such delay.

The parties agree to negotiate in good faith for the recovery of damages related to expenses incurred by Contractor for a delay for which City is solely responsible that is unreasonable under the circumstances, and that was not within the contemplation of the parties to the Contract at the time the Contract was entered into.

**2.19.1.** Unless specifically provided for herein, the maximum compensation for an unreasonable or unforeseen delay shall not exceed the daily amount specified for liquidated damages in MAG Specification 108.9, as based on the original Contract amount.

**2.19.2.** This section shall not be construed to void any provisions of this Contract, which require notice of delays, or which provide for alternative dispute resolution, other procedures for settlement, or which provide for liquidated damages.

However, if the parties cannot reach agreement for the recovery of damages as set forth herein, the determination of City shall be final.

**2.20. SUBSIDIARY WORK**

All work called for in the plans and specifications shall be performed by Contractor; and unless a specific bid item is provided for the work, then such portion of the work will be considered subsidiary to other work for which payment is provided.

**2.21. MISCELLANEOUS WORK AND ALLOWANCES**

The following items will be included in the work with no direct payment allowed. Payment shall be included in the payment for other items for which direct payment is made.

**2.21.1.** Contractor's expenses for, but not limited to, mobilization, job site office, storage facilities, traffic control and public safety devices, sanitary facilities, utilities, and telephone.

**2.21.2.** Cleanup, including day-to-day cleanup.

**2.21.3.** Notification to residents adjacent to this project prior to the start of work on construction that may affect them.

**2.21.4.** Water required for compaction or dust control.

**2.21.5.** Miscellaneous removals and relocations not otherwise specified in the Technical Specifications.

**2.21.6.** Power pole bracing.

**2.21.7.** Removal of trees twelve inches (12") or less in diameter.

2.21.8. Removal, relocation, and/or modification of existing walls and fences.

2.21.9. Trimming of trees and bushes.

2.21.10. Replacement of plant material and repair of irrigation equipment to meet or exceed conditions existing prior to Contractor beginning work.

**2.22. CHANGE ORDERS**

In the event that significant changes in the scope of the work and/or changes in the quantities due to contingencies of construction become necessary, such changes shall be made in accordance with Section 104.2 of the General Conditions in the MAG Specifications.

The costs associated with any extra work as authorized by City must be approved prior to the start of work. The final costs for additional work shall also include all charges associated with extended general conditions or Contract acceleration. Pay requests for extra work performed shall be submitted with the next billing cycle and shall not exceed thirty (30) days from the date extra work was performed.

**2.23. ADDITIONAL SERVICES**

Additional services that are outside the scope of basic services contained in this Contract shall not be performed by Contractor without prior written authorization from City. Additional services, when authorized by an executed Contract or an amendment to this Contract, shall be compensated for by a fee mutually agreed upon between City and Contractor.

**3. SPECIAL TERMS AND CONDITIONS**

**3.1. PAYMENT BOND; PERFORMANCE BOND**

A payment bond and a performance bond, each in an amount equal to the full contract amount, will be required of the Contractor immediately after notice of Contract award, and before final Contract execution. Each bond shall be in accordance with Arizona Revised Statutes (A.R.S.) § 34-201, *et seq.*, as amended from time to time.

Arizona law provides that the bonds shall be executed solely by a bonding company, liability insurance carrier, or excess insurance carrier that holds a certificate of authority to transact surety business in Arizona, issued by the director of the department of insurance pursuant to A.R.S. title 20, chapter 2, article 1, as amended from time to time. Additionally, the City requires that the bonding company, liability insurance carrier, or excess insurance carrier have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company. An individual surety or

sureties shall not execute either bond, even if the requirements of A.R.S. § 7-101 are satisfied.

### 3.2. INSURANCE

Certificates of Insurance verifying insurance coverage that meets the following minimum requirements will be required of the Contractor immediately after notice of Contract award, and before final Contract execution.

Arizona law provides that the insurer must hold a certificate of authority to transact insurance in Arizona, issued by the director of the department of insurance pursuant to Arizona Revised Statutes, title 20, chapter 2, article 1, as amended from time to time. Additionally, the City requires that the insurance company have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company. This requirement does not apply to the Workers' Compensation / Employer's Liability portion of the Certificate of Insurance.

#### 3.2.1. Contractor shall maintain limits no less than:

- a. **Commercial General Liability:** \$5,000,000 combined single limit per occurrence for bodily injury and property damage, including coverage for contractual liability (including defense expense coverage for additional insureds), premises/operations, underground explosion and collapse hazard, personal injury, broad form property damage, products and completed operations, independent contractors and product liability. The general aggregate limit shall apply separately to this project/location or the general aggregate shall be twice the required occurrence limit.
- b. **Automobile Liability:** \$1,000,000 combined single limit per accident for bodily injury and property damage, including coverage for owned, hired, and non-owned vehicles as applicable.
- c. **Excess Liability (umbrella form):** As required.
- d. **Workers' Compensation and Employer's Liability:** Workers' Compensation and Employer's Liability statutory limits as required by the State of Arizona.

City shall have no responsibility or liability for such insurance coverage.

#### 3.2.2. Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be declared and approved by City. At the option of City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects City, its officials, employees, and volunteers, or Contractor shall procure a bond

guaranteeing payment of losses and related investigations, claims administration, and defense expenses.

**3.2.3. Other Insurance Provisions**

The policies or self-insurance certifications are to contain, or be endorsed to contain, the following provisions:

**a. Commercial General Liability and Automobile Liability Coverage:**

City, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds with respect to: liability arising out of activities performed by or on behalf of Contractor including the insured's general supervision of Contractor; products and completed operations of Contractor; premises owned, occupied, or used by Contractor; or automobiles owned, leased, hired, or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to City, its officers, officials, employees, agents, or volunteers, for work related to Contractors', employees', agents', subcontractors', or sub-subcontractors' activities.

Contractor's insurance coverage shall be primary with respect to City, its officers, officials, employees, agents, and volunteers. Any insurance or self-insurance maintained by City, its officials, employees, or volunteers shall be in excess of Contractor's insurance and shall not contribute to it.

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to City, its officers, officials, employees, agents, or volunteers.

Coverage shall state that Contractor's insurance shall 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.

**b. Workers' Compensation and Employer's Liability Coverage**

The insurer shall agree to waive all rights of subrogation against City, its officers, officials, employees, agents, and volunteers for losses arising from work performed by Contractor for City.

**c. All Coverages**

Each insurance policy required by this Contract shall be endorsed to state that the coverage shall not be suspended, voided, and/or canceled by either party, reduced in coverage or in limits, except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to City.

### **3.2.4. Other Insurance Requirements**

Contractor shall:

- a. Immediately after notice of Contract award, and before final Contract execution, furnish City with certificates of insurance, in form and with insurers acceptable to City, which shall clearly evidence all insurance required in this Contract and provide that such insurance shall not be canceled, allowed to expire, or be materially reduced in coverage except on thirty (30) days' prior written notice by certified mail to City, and in accord with stated insurance requirements of this bid solicitation. MAG Specification 103.6 is fully incorporated into this Contract, except to the extent it conflicts with the limits set forth in this Contract. The insurance policies required by MAG Specification 103.6 shall additionally provide full coverage of indemnity to City, including an increase in the minimum limits to \$5,000,000 combined single limit coverage for General Liability. Prior to execution of the Contract, Contractor shall furnish City with a Certificate of Insurance as evidence that policies providing the required coverages, conditions, and limits are in full force and effect. Such certificates shall identify the project and shall provide for not less than thirty (30) days' advance written notice to City, by certified mail, of cancellation or termination. Any cancellation clause shall not include the phrases "endeavor to" or "but failure to do so shall impose no obligation or liability of any kind upon the insurer, its agents or representatives." City shall not be obligated, however, to review same or to advise Contractor of any deficiencies in such policies and endorsements, and such receipt shall not relieve Contractor from, or be deemed waiver of City's right to insist on, strict fulfillment of Contractor's obligations under this Contract.
- b. Provide certified copies of endorsements and policies if requested by City in addition to certificates of insurance.
- c. Replace certificates, policies, and endorsements for any such insurance expiring prior to completion of services.
- d. Maintain such insurance from the time services commence until services are completed. Should any required insurance lapse during the Contract term, requests for payments originating after such lapse shall not be processed until City receives satisfactory evidence of reinstated coverage as required by this Contract, effective as of the lapse date. If insurance is not reinstated, City may at its sole option, terminate this Contract effective on the date of such lapse of insurance.

### **3.2.5. Subcontractors and Sub-Subcontractors**

Contractor shall include all subcontractors and sub-subcontractors as insureds under its policies. All coverage for subcontractors and sub-

subcontractors shall be subject to all of the requirements stated herein for Contractor.

### **3.3. INDEMNIFICATION**

To the fullest extent permitted by law, Contractor shall defend, indemnify, and hold City harmless, including City's agents, officers, assigns, officials, and employees, from and against all claims, damages, losses, liability, and/or expenses, relating to, arising out of, or resulting from, any negligent acts, errors, mistakes, or omissions in the work or services performed by Contractor and its agents, employees, subcontractors, or assigns, for whom Contractor may be deemed responsible, relating to any goods, services, or materials arising from, or relating to, any term or covenant of this bid. The amount and type of insurance coverage required of Contractor as set forth herein will in no way be construed as limiting the scope of Contractor's duties to indemnify City. This provision shall survive the Contract term.

### **3.4. PAYMENT**

**3.4.1. Method of Payment.** Payment shall be made as directed in MAG Specifications 109.

**3.4.2. Measurement of Payment.**

- a. Quantities of materials for this work shall be paid under the appropriate schedule at the applicable Contract price per unit of measurement with no allowances for waste. Payment will be made after completion upon acceptance by City, and upon City's receipt of approved invoices.
- b. Payment for various items in the bid shall be compensation in full for furnishing all materials, labor, tools, equipment, and appurtenances necessary to complete the work in a satisfactory manner as specified. No additional payment will be made for work related to any item unless specifically called for in the bid.
- c. Materials placed without approval of the inspector, or materials rejected due to improper placing, improper proportions of materials, or materials found to be defective, will not be paid for.

### **3.5. PRE-CONSTRUCTION MEETING**

Contractor shall meet with the City Engineer for a preconstruction conference prior to commencing work. At the preconstruction conference, Contractor shall submit a progress schedule showing the order in which Contractor proposes to carry out the work; the dates on which Contractor and its subcontractors will start the salient features of the work, including procurement of materials, equipment, etc.; the ordering of articles of special manufacture; the furnishing of drawings, plans, and other data for the review and approval of the City Engineer; the

inspection of structural steel fabrication; and the contemplated dates for the completion of the said salient features. The schedule may be in a bar chart format or a critical path method format. No schedule activity shall be shorter than one day or longer than 15 working days. The schedule must show interrelationships among the activities, and the controlling items of work throughout the project shall be identified. If requested by the City Engineer, Contractor shall furnish information needed to justify activity time durations. Such information shall include estimated manpower, equipment, unit quantities, and production rates. The schedule shall illustrate the completion of the work not later than the contract completion date.

Contractor shall furnish authorized signature forms and a list of Contractor's proposed subcontractors and major material suppliers.

Progress schedules shall have considered the time requirement for ordering articles of special manufacture to meet specific requirements of the work when structural steel fabrication inspection is required.

Contractor shall submit a traffic control plan in accordance with the subsection of Special Terms and Conditions titled Traffic Control.

Contractor shall also submit a safety plan and designate an employee as Safety Supervisor, in accordance with ADOT Standard Specifications Subsection 107.08. If approved by the City Engineer, Contractor may designate one employee to be responsible for both the traffic control and safety plans.

If the project requires that Contractor or City personnel to work from falsework, within shoring, or in any other hazardous area, Contractor shall submit as part of Contractor's safety plan specific measures it will use to ensure worker safety.

Contractor shall also submit a program for erosion control and pollution prevention, as set forth in ADOT Standard Specifications Subsection 104.09, on all projects involving clearing and grubbing, earthwork, structural work, or other construction, when such work is likely to create erosion or pollution problems.

If the project has an On-the-Job Training (OJT) requirement (see the subsection of Federal Provisions titled On-the-Job Training), the Contractor shall submit its written OJT schedule and training plan.

If Contractor fails to provide the required submissions, the City Engineer may order the preconstruction conference suspended until such time as they are furnished. Work shall not begin until the preconstruction conference has been concluded and the safety plan has been approved, unless authorized by the City Engineer. Contractor shall not be entitled to additional compensation or an extension of contract time resulting from any delays due to such a suspension.

When the specifications require specific quality control measures for certain materials, Contractor shall designate a qualified employee as Quality Control Manager. The Quality Control Manager shall be responsible for the implementing

and monitoring of the quality control requirements described in ADOT Standard Specifications Subsection 106.04(C).

**3.6. SUBLETTING OF CONTRACT**

In accordance with Form FHWA-1273, VII, Contractor shall perform, with Contractor's own organization, construction work that amounts to not less than thirty percent (30%) of the total Contract price.

**3.7. LICENSES**

The low bidder and all subcontractors must carry the appropriate State of Arizona contractor's license(s) for the proposed work prior to award of the Contract. Should the lowest responsive bidder not be able to obtain the required license(s), the project may be awarded to the next lowest responsive bidder who has the required license(s).

Prior to execution of the Contract, the low bidder must possess a valid City Transaction Privilege License and shall provide the permit number of such for validation.

**3.8. HAUL PERMIT**

In any operation where more than one-tenth of an acre of surface area is disturbed and/or when unpaved onsite haul roads are used, Contractor will obtain a Maricopa County Air Quality Department permit as required under Rule 200 of the Maricopa County Air Pollution Control Rules and Regulations. This permit will require that a control plan to mitigate dust and tracking problems be submitted to the County for approval prior to issuance of the Earth Moving Permit. The control plan should be submitted to City for review prior to County submittal to ensure that all elements of the planned operation are covered. Please contact the Maricopa County Air Quality Department at 602-506-6010 for additional details.

In addition, all Contractors hauling fill or excavation materials where the haul exceeds five thousand (5,000) cubic yards, or when the duration of the haul is more than ten (10) working days, are required to obtain a City haul permit before the hauling operation begins.

Prior to receiving a hauling permit, Contractor must submit the required certificate of insurance, a plan showing the proposed haul routes, and a complete schedule of the hauling operation to the City Transportation Division. Prior to submittal, Contractor should contact Engineering Services for complete details for issuance of a City haul permit.

**3.9. LANDSCAPING AND IRRIGATION REQUIREMENTS**

As applicable, Contractor shall be required to construct the landscape and irrigation improvements in accordance with the requirements of MAG Specifications Sections

430, 440, and 795, and the City of Tempe Public Works Department Standard Landscape and Irrigation Details and Specifications, latest edition (available at the City of Tempe Engineering Division, 31 East Fifth Street for five dollars (\$5.00) or online at <http://www.tempe.gov/engineering>). In addition, the landscape plant establishment and maintenance period will be ninety (90) days.

### **3.10. SPECIFIC PRODUCTS OR BRANDS**

In accordance with MAG Specification 106.4, specific brands and/or models of equipment, materials, or patented processes listed in the plans, specifications, standard details, and standard specifications are for demonstrative purposes only. They should not be construed as a sole source request for a specific product or brand. Contractor shall provide City with the required product data including, but not limited to, manufacturers' standard catalog cuts, brochures, diagrams, schedules, performance charts, illustrations, calculations, schematic drawings, printed installation, erection, application, and placing instructions, and other descriptive data related to the product in order for City to determine if the product is equivalent to the product listed for approval.

### **3.11. ENVIRONMENTAL REQUIREMENTS**

3.11.1. Contractor covenants and agrees that it shall, at all times during the term of the Contract, and at its sole cost and expense, comply with and assume sole responsibility and liability under all environmental laws applicable to use of or operations at the project site by Contractor, its agents, assigns, and/or employees. Contractor agrees that should it or any of its agents, assigns, or employees know of (a) any violation of environmental laws relating to the project site, or (b) the escape, release, or threatened release of any hazardous materials in, on, under, or about the project site, Contractor shall promptly notify City in writing of such, and that it will provide all warnings of exposure to hazardous materials in, on, under, or about the project site, in strict compliance with all applicable environmental laws. Further, Contractor covenants and agrees that it shall at no time use, analyze, generate, manufacture, produce, transport, store, treat, release, dispose of, or permit the escape of, or otherwise deposit in, on, under, or about the project site, any hazardous materials, or permit or allow any of its agents, assigns, or employees to do so. Prior to use of the project site, Contractor shall provide City an inventory of all equipment and materials stored and/or to be stored at the project site.

3.11.2. For purposes of this Contract, hazardous materials shall include but is not limited to, any and all substances, chemicals, wastes, sewage, or other materials that are now or hereafter regulated, controlled, or prohibited by any environmental laws, including, without limitation, any (a) substance defined as a "hazardous substance", "extremely hazardous substance", "hazardous material", "hazardous chemical", "hazardous waste", "toxic substance", or "air pollutant" by federal laws, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et seq.*; the Resource Conservation and Recovery

Act, 42 U.S.C. § 6901 *et seq.*; the Hazardous Materials Transportation Act, 49 U.S.C. § 1801, *et seq.*, the Toxic Substances Control Act, 15 U.S.C. § 2601, *et seq.*, and all amendments thereto or other similar governmental restrictions; and (b) any chemical, compound, material, substance, or other matter that: (i) is a flammable explosive, asbestos, radioactive material, nuclear material, drug, vaccine, bacteria, virus, hazardous waste, toxic substance, injurious by itself or in combination with other materials; (ii) is controlled, designated in, or governed by any hazardous materials laws; (iii) gives rise to any reporting, notice, or publication requirements under any hazardous materials laws; or (iv) gives rise to any liability, responsibility, or duty on the part of City or Contractor with respect to any third person under any hazardous materials laws.

**3.11.3.** In addition, Contractor must comply with the following requirements:

- a. Non-pick-up sweepers will not be allowed except as required to make joints during chip sealing operations.
- b. Water flooding of trenches with potable water will not be permitted.
- c. All paints applied by sprayers shall be of a water-based type.
- d. Provisions shall be made to prevent the discharge of construction silt, mud, and debris into City storm drains or streets.
- e. Spills of oil, gas, chemical, or any other hazardous materials must be reported and removed by approved procedures. Mitigation measures shall be taken to prevent contamination of construction storage sites.
- f. Concrete waste must be disposed of in an approved location and at least twenty-five (25) feet from established landscaping.
- g. City refuse roll-off containers shall be used on City projects unless otherwise directed by the City of Tempe Solid Waste Supervisor. If you should have any questions concerning any of the requirements or charges, please contact the Solid Waste Supervisor, at 480-350-8268.
- h. Hazardous wastes shall not be discharged into City's sanitary sewers or storm drainage system. All waste products shall be disposed of in accordance with applicable regulations.
- i. When archaeological features are encountered or unearthed, Contractor shall promptly report to the Director of the Arizona State Museum and to City. Excavation shall not resume in the identified area until approved by City Engineer.
- j. Contractor shall take whatever steps, procedures, or means to prevent abnormal, material spillage, or tracking conditions due to their

construction operations in connection with the Contract. The dust control measures shall be maintained at all times during construction of the project, to the satisfaction of City Engineer, in accordance with Rule 200 of the Maricopa County Health Department Air Pollution Control Regulations, which require that an Earth Moving Permit be issued and a Control Plan be approved prior to commencement of work. Contact Maricopa County at 602-506-6700 for details.

- k. Contractor shall comply with all applicable federal regulations concerning National Pollutant Discharge Elimination System (NPDES) permits for storm discharges from construction sites.
- l. All materials supplied by Contractor shall be one hundred percent (100%) asbestos free unless otherwise approved by City.

No additional payment will be made for compliance with the above items.

In addition to the above, the use of new products made with reclaimed material and that meet project specifications is encouraged.

### **3.12. SAFETY REQUIREMENTS**

Contractor shall comply with all applicable federal, state, and local health and safety regulations, ordinances, and requirements including, but not limited to, the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*), and all rules, regulations, and orders adopted pursuant thereto.

### **3.13. TRAFFIC CONTROL**

- 3.13.1. All traffic shall be regulated in accordance with the MAG Specifications; the City of Tempe Traffic Barricade Manual, latest edition; the Manual on Uniform Traffic Control Devices (MUTCD); and any special provisions included herein.

At the time of the pre-construction conference, Contractor shall designate an American Traffic Safety Services Association (ATSSA) certified individual, who is well qualified and experienced in construction traffic control and safety, to be responsible for implementing, monitoring, and altering traffic control measures, as necessary, to ensure that traffic is carried through the work area in an effective manner and that motorists, pedestrians, bicyclists, and workers are protected from hazard including, but not limited to, motor vehicle accidents. City shall designate a representative who will oversee and monitor Contractor's agent and enforce City's requirements set forth herein. Contractor covenants to give City any assignment and/or assurances which may be necessary to effect such right of direct enforcement.

Contractor is solely responsible for, and assumes full liability for, the traffic control relating to this project. Contractor shall submit a final traffic control plan to City for its review and approval no less than one (1) week

prior to commencing work under this Contract. Traffic, as referenced herein, shall include any and all motor vehicles, bicyclists, and pedestrian traffic on roadways, sidewalks, bicycle paths, alleys, and/or rights of way at, attendant to, and/or adjacent to the Project.

In the event alteration of traffic control is required for work or services provided herein, alterations shall be made in accordance with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices, "Traffic Control for Streets and Highway Construction and Maintenance Operations," or the City of Tempe Traffic Barricade Manual, latest edition. The most restrictive provision shall apply. Unless identified otherwise in the Technical Specifications, City will undertake no responsibility or expenses relating to measurement, payment, or alteration of traffic control. All costs or expenses related to traffic control shall be considered incidental to other pay items. Any and all revisions relating to traffic and/or traffic control shall be submitted to City for review and approval in City's sole discretion.

Contractor is solely responsible for any and all loss, damage, replacement, or repair necessitated to any traffic signal equipment, traffic signal conduit, and/or circuits, arising from or relating to Contractor's work or services performed hereunder. Contractor shall have all repairs performed immediately at its sole expense by a licensed electrical contractor with experience in traffic signal repair, subject to pre-approval by City. Any and all repairs and/or replacement costs expended by City in this regard shall be reimbursed by Contractor at twice City's actual cost.

Contractor shall notify all adjacent or affected residents or businesses at least forty-eight (48) hours in advance of any street, alley, sidewalk, and/or driveway closures or modifications, and make suitable arrangements to have all vehicles moved to a satisfactory location outside the closed area. Pedestrian access shall be maintained along the length of the project at all times per the requirements of the Americans with Disabilities Act and as approved by City. Contractor shall abide by applicable speed limits. Additional information may be obtained by contacting the City Transportation Division at 480-350-8219.

### **3.13.2. Temporary Barricades**

Temporary barricades shall be regulated in accordance with the City of Tempe Traffic Barricade Manual, latest edition.

No additional payment by City will be made to Contractor or its subcontractor for temporary barricades, unless otherwise specified in the bid.

**3.14. CLEAN-UP**

Contractor agrees and covenants to adequately protect the work site, adjacent property, and the public in all phases of the work and/or services provided herein. Contractor shall be solely responsible for all damages or injuries due to action or neglect pursuant to this section. Contractor shall maintain access to all phases of the project pending inspection by City. Contractor hereby agrees to the following as to the job site: continually keep the job site free from debris, waste, and accumulation of materials; immediately clean up any oil, fuel, or chemical spills and take any and all remediation necessary; keep machinery clean and free of weeds and debris; remove all construction stains, smears, and debris from finished surfaces; perform site preparation to limit the spread of weeds, debris, and other nuisances prior to submission of final invoice to City; and remove all equipment, materials, tools, and Contractor's personal property prior to submission of final invoice to City.

In accordance with MAG Specifications Section 105, Contractor shall respond within twenty-four (24) hours after notice by City of any defects and/or maintenance requests to immediately remedy the condition of the job site. Should Contractor fail to respond promptly as set forth herein, City shall correct the job site at the expense of Contractor, and recover all attendant costs.

**3.15. APPROXIMATE QUANTITIES**

It is expressly understood and agreed by the parties hereto that the quantities of the various classes of work to be done and material to be furnished under this Contract, which have been estimated, as stated in the Invitation for Bids, are only approximate and are to be used solely for the purpose of comparing, on a consistent basis, the bids offered for the work under this Contract. Contractor further agrees that City will not be held responsible for any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done.

If any error, omission, or misstatement is found to occur in the estimated quantities, the same shall not invalidate this Contract or release Contractor from the execution and completion of the whole or any part of the work in accordance with the plans and specifications herein mentioned, and for the prices herein agreed upon and fixed therefore, or excuse Contractor from any of the obligations or liabilities hereunder, or entitle Contractor to any damages or compensation, except as may be provided for in this Contract.

**3.16. BLUE STAKE & CALL BEFORE YOU DIG**

Contractor is required to use Arizona Blue Stake, Inc., at 602-263-1100, to comply with the statutory requirements in A.R.S. title 40, chapter 2, article 6.3 (Underground Facilities); A.R.S. § 40-360.21, *et seq.*, as amended from time to time.

Where railroad property may be impacted, Contractor must also notify and secure a current Call Before You Dig (CBUD) Ticket at 1-800-336-9193 from Union Pacific Railroad's Response Management Communications Center (RMCC), wait for the site to be marked, respect all markings, and dig with care.

**3.16. PROTECTION OF EXISTING FACILITIES**

Contractor shall protect all existing facilities during construction or work. Utility poles that may be affected by construction activities shall be protected and/or braced by the Contractor. Contractor shall notify the appropriate utility company or agency of any construction or work that may affect their facilities and state the course of action which will be taken to protect such facilities.

**3.17. UNDERGROUND UTILITIES**

Underground utilities indicated on the plans are in accordance with maps furnished by City and by each utility company. The locations are approximate and require verification prior to construction, as mandated by the City of Tempe Utility Permit and Construction Manual, latest edition, available at <http://www.tempe.gov/engineering>.

**3.18. RELOCATION OF UTILITIES**

All utilities in conflict with the new work will be relocated by the utility company, except as otherwise provided in the plans and specifications.

**3.19. NOTIFICATION OF PROPERTY OWNERS**

Contractor shall notify all property owners who may be affected by the proposed construction activities of the scope and duration of the construction activities at least forty-eight (48) hours in advance of the start of any work or construction.

**3.20. ACCESS**

Contractor shall maintain public access to businesses adjacent to the job site at all times during construction. Where property has more than one access point, no more than one access point shall be restricted or closed at any one time. If only one driveway exists, access shall be maintained to at least one-half of the driveway at all times. Access to adjacent private driveways shall be maintained by Contractor during all non-working hours.

**3.21. UTILITY AND PUBLIC AGENCY CONSTRUCTION CLEARANCE AGREEMENT**

Utilities and other public agencies may require all contractors, if working on their facilities, to sign a standard form "Construction Clearance Agreement," or other form of agreement, prior to issuance of a license. Contractor shall execute the Construction Clearance Agreement with the utility or public agency, if required, and furnish a copy to City prior to proceeding with any construction on utility or

public agency facilities. This agreement sets forth the requirements to complete the proposed work in an allotted time frame or to pay full costs for others to complete. It also obligates Contractor to comply with all applicable federal, state, and local laws, rules, regulations, and ordinances including, but not limited to, the OSHA Permit Required Confined Space rules, as amended.

**3.22. GOVERNMENT APPROVALS AND PERMITS**

- 3.22.1. Unless otherwise provided, Contractor shall obtain all necessary permits, approvals, and licenses required for the commencement of the work from any government or quasi-government entity having jurisdiction over the project at its sole expense. Contractor expressly covenants and agrees that it will obtain any and all necessary environmental permits and/or file the necessary environmental notices at its cost prior to undertaking work or performing services hereunder.
- 3.22.2. Copies of all permits and notices shall be provided to City prior to starting any work or performing services pursuant to the permitted activity. This provision does not constitute an assumption by City of an obligation of any kind for violation of said permit or notice requirements.
- 3.22.3. City agrees to be responsible for City's own review and permit(s) fees for building and demolition permits only. In addition, City shall bear its own review fees for grading and drainage, water, sewer, and landscaping. City may agree to pay utility design fees for permanent services in its sole discretion. Contractor shall be solely responsible for any and all other permit(s) and review fees not specifically designated herein.
- 3.22.4. Contractor is responsible for all costs of water meter(s), water and sewer taps, fire lines and taps, and all water bills on the project meters until completion of the project. Arrangements for water at the site or for construction purposes are the Contractor's sole responsibility.

**3.23. KEY CONTACTS**

City of Tempe Engineering	Donna Hancock	480-350-8630
City of Tempe	Robert Yabes	480-350-2734
Blue Stake Center		602-263-1100
Call Before You Dig (UPRR)		800-336-9193

**3.24. DUST PREVENTION**

Contractor shall take all necessary steps to ensure dust-free conditions on property within the City to the satisfaction of the City Engineer, and fully comply with A.R.S. § 49-474.06 and Maricopa County Air Pollution Control Rules and Regulations Rule 200 § 305-306, concerning dust-generating operations as defined by Maricopa County Rule 310. In any operation where more than one-

tenth of an acre of surface area is disturbed and/or when unpaved onsite haul roads are used, Contractor shall obtain a Maricopa County dust control permit. Contractor shall provide assurance that subcontractors used on the dust-generating portion of the Project are registered with the Maricopa County Air Quality Department and that only certified PM-10 efficient street sweepers shall be used to sweep City streets, as required by Tempe City Code Sec. 26A-25. Contractor shall provide its subcontractor(s)' registration number and dust control plan, if applicable, to the City Engineer prior to engaging in any dust-generating activities. Project related hauling activities to and/or from storage located on property owned by City shall be listed on the approved dust control permit and shall be subject to control measures in the approved dust control plan. When hauling fill or excavation materials exceeding five thousand (5,000) cubic yards or when the duration of the haul is more than ten (10) working days, Contractor shall obtain a City haul permit before the hauling operation begins. Prior to receiving a haul permit, Contractor must submit the required certificate of insurance, a plan showing the proposed haul routes, and a complete schedule of the hauling operation to the City Engineer.

All costs associated with the submittal, approval, and implementation of the permit and dust control plan as approved by Maricopa County Air Quality Department shall be borne solely by the Contractor. Failure to fully comply with this provision shall be considered a material breach of the Contract, and shall subject the Contract to termination by the City, in addition to other legal remedies.

### **3.25. COMPLAINTS FROM THE GENERAL PUBLIC**

Contractor shall respond to any and all claims or complaints from the general public in a reasonable and prompt manner. Information on any complaint shall be reported to the Project Manager promptly, but in no event more than forty-eight (48) hours of receipt of complaint.

## **4. INSTRUCTION TO BIDDERS**

### **4.1. SEALED BIDS**

Sealed bids will be received and the time of delivery recorded by the City of Tempe, Arizona, Public Works Department, Engineering Office, City Hall West Garden Level, 31 East Fifth Street, Tempe, Arizona 85281, until / a.m. (Arizona time)/, 2013. At that time and place, bids will be opened and the amount of each bid and the name of each bidder publicly read in the Public Works Conference Room. Bids received after the time specified will be returned unopened. All bids shall be submitted in a sealed envelope. The outside lower right-hand corner shall be marked:

**BID OF \_\_\_\_\_, CONTRACTOR**

**FOR: HARDY DRIVE STREET IMPROVEMENTS --  
BROADWAY ROAD TO UNIVERSITY DRIVE  
PROJECT NO. 6004371  
FEDERAL AID PROJECT NO. CM-TMP-0-(229)D  
ADOT TRACS NO. 0000 MA TMP SZ055 01C**

If a bid is mailed or delivered via overnight mail service, the outside envelope should be marked with the **date and time of the bid opening, as well as the words "PUBLIC WORKS ENGINEERING BID OPENING."** Please allow sufficient time for delivery.

Please see the BIDDER'S CHECK SHEET in the Exhibits section of this Invitation for Bid.

Each bid shall be accompanied by a bid guarantee for ten percent (10%) of the amount of the bid. See the subsection of Instructions to Bidders titled Bid Security.

Each bid also shall be accompanied, in a separate envelope, by the bidder's current loss history information from all of the bidder's insurance carriers. The information specific to workers' compensation insurance carriers must include a three-year (3-year) history of the bidder's Experience Modification Factor (EMOD) and its loss ratio.

**Plans and specifications are available for download from the City of Tempe Engineering Division at [www.tempe.gov/engprojectsbidding](http://www.tempe.gov/engprojectsbidding). When the documents are downloaded, Contractors MUST register on-line as a plan holder to be notified of project addenda. If addenda are issued for this project the City of Tempe will attempt to notify plan holders at the email address provided. It is the Contractor's sole responsibility to confirm that they have received all addenda prior to submitting a bid. The City is not responsible for providing notification or addenda to Contractors.**

When it is in the best interests of the City of Tempe, the City may cancel this solicitation, or may reject any and all bids in whole or in part, or may waive any informalities in the bids received.

Award will be made or bids rejected within sixty (60) days after bid opening.

Please direct any questions to City of Tempe Engineering Division at 480-350-8200. City Project Construction Manager for this project is Donna Hancock.

**Anyone wishing to receive future notices through automatic notification by email can register their company name and email address at [www.tempe.gov/enews](http://www.tempe.gov/enews) (select the following e-notify list: Engineering Bid/RFQ Notification).**

**4.2. ADDENDA**

Addenda issued prior to the deadline for bidding shall be attached to and made a part of the Contract. Contractor shall acknowledge receipt of all addenda on the Competitive Sealed Bid form.

**4.3. BID SECURITY**

Each bid shall be accompanied by a bid guarantee for ten percent (10%) of the amount of the bid, executed in accordance with the requirements of A.R.S. § 34-201, *et seq.*, as amended from time to time. The bid guarantee shall be in the form of a certified check, cashier's check, or surety bond. If a surety bond is used, the bond shall be executed solely by a surety company or companies holding a certificate of authority to transact surety business in Arizona, issued by the director of the department of insurance pursuant to Arizona Revised Statutes, title 20, chapter 2, article 1, as amended from time to time. The surety bond shall not be executed by an individual surety or sureties, even if the requirements of A.R.S. § 7-101 are satisfied. Additionally, the City requires that a bonding company, liability insurance carrier, or excess insurance carrier issuing a surety bond have a Financial Strength Rating of A- or better and a Financial Size Category of VII or higher, as listed in the most recent "Best's Key Rating Guide – Property/Casualty," published by A.M. Best Company.

Bid guarantees shall be returned to bidders whose bids are not accepted, and to the successful Contractor upon its execution of the Contract and delivery of a satisfactory performance bond, payment bond, and certificate of insurance.

**4.4. BIDS**

Bids shall be properly executed upon the Competitive Sealed Bid Forms attached and made a part of this Contract. Electronic signatures will not be accepted. The completed forms shall be without interlineations, alterations, or erasures. Unit prices should be rounded to the nearest whole cent (two spaces behind the decimal point). In case of an error in the extension of unit prices and the totals, the unit price shall govern.

Bids shall not contain any recapitulations of the work to be done. Alternative bids will not be considered except as called for. No oral or electronic bids or modifications will be considered.

**4.5. IRREGULAR BIDS**

Bids may be considered irregular and may be rejected if any of the unit prices quoted in the bidding schedule are unbalanced, either above or below the amount of a reasonable bid price, to the potential detriment of City.

**4.6. BIDDING PHASE REQUIREMENTS**

4.6.1. Pursuant to A.R.S. § 1-502, any individual/sole proprietor who responds to this Invitation for Bids by signing the Competitive Sealed Bid Forms shall also sign a sworn Affidavit Demonstrating Lawful Presence in the United States (see Exhibits) and present one of the documents listed on the affidavit to verify lawful presence in the United States. Failure to sign said affidavit and present one of the listed documents **shall result in rejection of the bid.**

4.6.2. Each bid shall be accompanied, in a separate envelope, by the bidder's current loss history information from all of the bidder's insurance carriers. The information specific to workers' compensation insurance carriers must include a three-year (3-year) history of the bidder's Experience Modification Factor (EMOD) and its loss ratio. This information must be provided with the bidder's proposal.

**4.7. PRE-CONTRACT AWARD REQUIREMENTS**

4.7.1. Contractor shall provide a copy of its written health and safety program and any required employee training records or certificates.

4.7.2. **Taxes.** All applicable taxes due and owing by Contractor and all subcontractors shall be considered by City in determining award. At all times, the determination of applicable taxes and rates, and remitting taxes owed, shall be the sole responsibility of Contractor. Should any taxes owed to City by Contractor or any subcontractors, including privilege (sales) and use tax, not be remitted in full prior to Contract award, the bid shall be considered non-responsive and rejected by City.

**4.8. BID QUANTITIES**

The quantities listed in the specifications are for bid purposes. The actual quantities provided to Contractor may be adjusted to accommodate field requirements.

**4.9. PROTEST PROCEDURE**

A bidder or contractor who believes they are aggrieved in connection with the City's solicitation or award of a contract may file a protest with the Engineering Division procurement office, as set forth in Section 26A-21 of the Tempe City Code.

**4.10. NO LOCAL PREFERENCE**

In accordance with 49 CFR 18.36(c)(2), Tempe will conduct procurements in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in the evaluation of bids, except in those cases

where applicable Federal statutes expressly mandate or encourage geographic preference.

## **5. EVALUATION AND AWARD**

### **5.1. AWARD AND EXECUTION OF CONTRACT**

Except as provided herein to the contrary, the respective rights and remedies of the parties to this Contract shall be cumulative and in addition to any rights and remedies not specified in this Contract. It is understood that there are no oral or written agreements or representations between the parties hereto affecting this Contract, and that this Contract supersedes any and all prior negotiations, arrangements, representations, and understandings between the parties. No provision of this Contract may be amended except by an agreement in writing signed by City. This Contract, including exhibits and attachments attached hereto, signed by City and Contractor, constitutes the entire agreement between the parties.

This Contract shall be in full force and effect only after it has been awarded by the City Council of Tempe, Arizona.

Contractor shall execute the Contract and all exhibits and attachments thereto, counterparts permitted, within ten (10) calendar days after being given formal notice of City Council's award of the Contract.

Contractor's failure to execute this Contract and to file satisfactory contract bonds and insurance certificates as provided herein within ten (10) calendar days after being given formal notice of Contract award shall result in immediate cancellation of the award.

### **5.2. PLANS TO THE SUCCESSFUL BIDDER**

The successful bidder may obtain (7) sets of plans and specifications for this project from the office of City Engineer, at no cost.

### **5.3. ISSUANCE OF THE NOTICE TO PROCEED**

Notwithstanding unforeseeable circumstances, the Notice to Proceed shall be issued by City within thirty (30) days of contract award.

## **6. GENERAL TERMS AND CONDITIONS**

### **6.1. LIQUIDATED DAMAGES**

Unless otherwise specified, liquidated damages will be applied in accordance with the MAG Specifications 108.9. Completion of the work as stated in this Contract is the same as completion of the work as stated in MAG Specifications 108.9. Damages will be applied at the amounts specified in MAG Specifications Table 108-1.

**6.2. ESCROW AND HOLDBACK**

In the event of a dispute arising under this Contract that is not summarily resolved by the parties concerning any withholding or nonpayment of funds by the City, the parties agree that said disputed funds may be held back and placed into a neutral escrow account, in the form of an interest bearing savings account, until the dispute is resolved. By signing this Contract, Contractor acknowledges and agrees to the deposit of any and all disputed funds into an escrow account into the financial institution of the City's election.

Except as to those amounts withheld, at City's direction, the balance of the funds shall be paid to Contractor or subcontractor(s), as set forth by Arizona law. Any funds remitted to City in excess of the amount allowed by statute will be reimbursed to Contractor. In no event shall City be liable to Contractor for damages resulting from a claimed loss due to payment of the excess funds or due to a delay in reimbursing the excess payment.

Once per calendar month, the financial institution shall furnish the City and Contractor with a statement reflecting the funds held as of the last day of the preceding calendar month, and showing the transactions for that prior month. At the request of Contractor or City, the financial institution shall furnish both parties with an interim statement showing funds held as of the 25th day of the most recent month or, if a non-business day, the following business day of that month.

Contractor acknowledges and agrees that all fees, costs, and charges imposed by any financial institution in connection with the maintenance and administration of the disputed funds shall be charged to, and paid by, Contractor. The funds shall be free of any claim for such fees, costs, or charges. However, the financial institution may obtain payment for any such accrued fees, costs, and charges owed by Contractor related to said funds out of available interest earned on the funds, or deduct the same from any funds to be paid to Contractor, according to written disbursement instructions from City.

The parties acknowledge and agree that in the event of no resolution between the parties concerning distribution of the disputed funds, the funds may be interplead in a court of competent jurisdiction in Maricopa County, Arizona.

It is understood that financial institution shall not be deemed liable, nor responsible, for the collectability of any funds assigned or held in connection with this provision.

**6.3. TERMINATION**

In addition to MAG Specifications 108.11, City, at its sole discretion, may terminate this Contract for convenience or abandon any portion of the project for which services have not been performed by Contractor, upon fourteen (14) days' written notice delivered to Contractor personally or by certified mail.

Immediately after receiving such notice, Contractor shall discontinue advancing the services under this Contract and proceed to close said operations under this Contract. Contractor shall appraise the services it has completed and submit an appraisal to City for evaluation. City shall have the right to inspect and approve Contractor's work to appraise the services completed.

Contractor shall deliver to City all drawings, special provisions, field survey notes, reports, estimates, and any and all other documents or work product generated by Contractor under the Contract, entirely or partially completed, together with all unused materials supplied by City.

In the event of such termination or abandonment, Contractor shall be paid for services approved and accepted by City that Contractor performed prior to receipt of said notice of termination, including reimbursable expenses previously incurred.

If the remuneration scheduled hereunder is based upon a fixed fee or definitely ascertainable sum, the portion of such sum payable shall be proportionate to the percentage of work completed, as reviewed and approved by City, based upon the scope of work. However, in no event shall the fee exceed the full cost of the Contract.

If City terminates or abandons the Contract, City shall make final payment within sixty (60) days after Contractor has delivered the last of the completed items and City has approved and determined the final fee.

In the event this Contract is terminated or abandoned prior to completion, City may complete the work, or enter into a Contract with another party for the remaining work.

In no event shall the City be obligated, liable, or responsible for performance of the obligations set forth herein, any provision of this Contract, or any expenses incurred by Contractor in securing this Contract (including, but not limited to, purchasing insurance coverage, performance bonds, or other security), at any time, including prior to or following City Council's approval of this Contract, should funds not be appropriated by the City through its Council or staff, in order to complete the Project. In the event that funds are not appropriated to meet or complete this Contract, then City shall immediately provide notice to Contractor of such non-allocation and terminate the Contract. City shall incur no resulting liabilities or penalties for termination under this Section.

This Contract may be terminated pursuant to A.R.S. § 38-511.

#### **6.4. DEFAULT PROVISIONS**

Contractor shall be deemed in default under this Contract upon the occurrence of any of the following events:

- 6.4.1. Contractor provides material that does not meet the specifications of the Contract and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.2. Contractor fails to adequately perform the services set forth in the plans and specifications of and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.3. Contractor fails to complete the work required or furnish the materials required within the time stipulated in the Contract and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.4. Contractor fails to make progress in the performance of the Contract and/or gives City reason to believe that Contractor will not or cannot perform the requirements of the Contract and fails to cure such non-performance within ten (10) days after written notice from City;
- 6.4.5. Contractor fails to perform any other term or condition of this Contract and fails to cure such non-performance within ten (10) days after written notice from City.

In the case of default, City may terminate the Contract, in whole or in part, and/or may resort to any other remedy as provided by law. City may also perform any test or analysis on materials for compliance with the specifications of the Contract. Contractor shall pay the actual expense of testing if the results of any test or analysis indicate a material to be non-compliant with the specifications.

**6.5. WARRANTY**

Contractor warrants to City that the construction, including all materials and equipment furnished as part of the construction, shall be new, unless otherwise specified in the Specifications and Contract; of good quality; in conformance with the Specifications; 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 shall limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the work. Contractor's warranty shall be for one (1) year and will commence for all portions of the work upon final acceptance of the entire work as determined by City under the Contract. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

**6.6. OWNERSHIP OF DOCUMENTS / INFRINGEMENT OF PATENT OR COPYRIGHT**

All work products (electronically or manually generated) including, but not limited to, plans, specifications, cost estimates, tracings, studies, design analyses, original mylar drawings, computer aided drafting and design (CADD) file diskettes which reflect all final drawings, and other related products which are prepared in the performance of this Contract, are the property of City and are to be delivered to City before the final payment is made to Contractor. City shall retain ownership of these original drawings, however, if approved in writing by City, Contractor may retain the original drawings and supply City with reproducible mylar copies. Contractor shall endorse by their professional seal all plans and special provisions furnished by them.

In the event these documents are used for another project without further consultation with Contractor, City agrees to indemnify and hold Contractor harmless from any claim arising from the reuse of the documents. City shall remove Contractor's seal and title block from such documents.

Contractor agrees to save, keep, hold harmless, and fully indemnify City, and any of its officers, officials, employees, and agents, from any and all damages, costs, or expenses, in law or equity, that may at any time arise out of any infringement of the patent right, copyright, or trademark of any person, persons, or entity in consequence of use by City, or by any of its officers, officials, employees, or agents, of materials supplied by Contractor, and of which Contractor is not a patentee or signee or lawfully entitled to sell the same.

Contractor agrees to indemnify and hold harmless City and its officers, officials, employees, and agents from any and all license, royalty, and proprietary fees or costs, including legal costs, which may arise out of City's purchase and use of goods supplied by Contractor.

It is expressly agreed by Contractor that these covenants are irrevocable and perpetual.

**6.7. COMPLIANCE WITH STATE AND FEDERAL LAWS**

**6.7.1. Specially Designated Nationals and Blocked Persons List.** Contractor represents and warrants to City that neither Contractor nor any affiliate or representative of Contractor (i) is listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury (OFAC) pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 ("Order"); (ii) is listed on any other list of terrorists or terrorist organizations maintained pursuant to the Order, the rules and regulations of OFAC or any other applicable requirements contained in any enabling legislation or other related Order(s); (iii) is engaged in activities prohibited in the Order; or (iv) has been convicted, pleaded *nolo contendere*, indicted, arraigned, or custodially detained on charges involving money laundering or predicate crimes to money

laundering. In addition, Contractor certifies that it does not have a scrutinized business operation in either Iran or Sudan.

- 6.7.2. **Employment Laws.** Contractor agrees and covenants that it will comply with any and all applicable governmental restrictions, regulations, and rules of duly constituted authorities having jurisdiction insofar as the performance of the work and services pursuant to the Contract, and all applicable safety and employment laws, rules, and regulations, including, but not limited to, the Fair Labor Standards Act, the Walsh-Healey Act, and the Legal Arizona Workers Act (LAWA), and all amendments thereto, along with all attendant laws, rules, and regulations. Contractor acknowledges that a breach of this warranty is a material breach of this Contract and that Contractor is subject to penalties for violation(s) of this provision, including termination of this Contract. City retains the right to inspect the documents of any and all contractors, subcontractors, and sub-subcontractors performing work and/or services relating to the Contract to ensure compliance with this warranty. Any and all costs associated with City inspection are the sole responsibility of Contractor. Contractor hereby agrees to indemnify, defend, and hold City harmless for, from, and against all losses and liabilities arising from any and all violations thereof.
- 6.7.3. **Equal Opportunity.** City is an equal opportunity, affirmative action employer. Contractor hereby covenants that it shall not discriminate unlawfully against any employee or applicant for employment, nor shall it deny the benefits of this Contract, to any person on the basis of race, color, creed, religion, ancestry, national origin, physical or mental disability, age, sex, gender, sexual orientation, gender identity, marital status, or veteran status, with regard to discharging obligations under this Contract. Contractor covenants and agrees that it will comply in all respects with the applicable provisions of Executive Order 11246, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, the Age Discrimination in Employment Act, the Vietnam Era Veterans' Readjustment Assistance Act, the Rehabilitation Act, and any other applicable state and federal statutes governing equal opportunity. Contractor agrees to post hereinafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting for the provisions of this clause.
- 6.7.4. **Federal Employer Sanctions Law.** Contractor understands and acknowledges the applicability of the Federal Employment Eligibility Verification Requirements ("Requirements"), including, but not limited to, Executive Order 12989, Federal Acquisition Regulation E-Verify clause (73 F.R. 67704), and 8 U.S.C. § 1324, *et seq.*, as amended from time to time. Contractor warrants current compliance with these and all Federal immigration laws and regulations that relate to their employees, on behalf of the Contractor and all of its subcontractors, including the use of E-Verify to confirm the employment eligibility of all persons hired during a Contract term and current employees performing under the Contract within the United States. Should the Requirements conflict with any

applicable state laws or regulations as referenced in 6.7.2., the Requirements shall prevail.

Contractor further agrees to include the provisions of this section in any and all subcontracts hereunder. Any violation of such provisions shall constitute a material breach of this Contract.

**6.8. JURISDICTION**

This Contract 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. An action to enforce any provision of this Contract or to obtain any remedy with respect hereto will be brought in the Superior Court of Arizona in and for Maricopa County, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

**6.9. DISPUTE RESOLUTION**

The parties may mutually agree to submit any dispute arising under this Contract to binding arbitration, conducted by a sole arbitrator mutually agreed upon by the parties, to hear and render a decision to resolve said dispute. The arbitration shall be held in Tempe, Arizona, subject to the laws of the State of Arizona. Each party shall bear its own costs and attorney's fees. A decision shall be made by the arbitrator within seven (7) calendar days of the arbitration hearing.

**6.10. SUCCESSORS AND ASSIGNS**

This Contract shall not be assignable except at the written consent of City, and it shall extend to and be binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

**6.11. NON-WAIVER**

The failure of either party to enforce any of the provisions of this Contract, or to require performance by the other party of any of the provisions of this Contract, will not be construed as a waiver of such provisions, nor will it affect the validity of this Contract or any part thereof or the right of either party to thereafter enforce each provision.

**6.12. SURVIVAL**

All warranties, representations, and indemnifications by Contractor will survive the completion or termination of this Contract.

**6.13. SEVERABILITY**

If any provision of this Contract or the application thereof to any person or circumstance is held invalid, illegal or unenforceable to any extent, the remainder

of this Contract and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

**6.14. INTEGRATION**

This Contract contains the full agreement of the parties hereto. Any prior or contemporaneous written or oral agreement between the parties regarding the subject matter hereof is merged and superseded hereby.

**6.15. TIME IS OF THE ESSENCE**

Time of each of the terms, covenants, and conditions of this Contract is hereby expressly made of the essence.

**6.16. THIRD PARTY BENEFICIARY**

This Contract will not be construed to give any rights or benefits in the Contract to anyone other than City and Contractor. All duties and responsibilities undertaken pursuant to this Contract will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party.

**6.17. CONFLICT OF INTEREST**

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 this Contract. 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 Contract.

Contractor's gains of financial or economic interest in the project during the course of this Contract may be grounds for terminating this Contract. Any decision to terminate the Contract shall be at the sole discretion of City.

Contractor shall not engage the services, on this Contract, of any present or former City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Contract modifications for this Contract.

**6.18. COOPERATION AND FURTHER DOCUMENTATION**

Contractor agrees to provide City such duly executed documents as may be reasonably requested by City to implement the intent of this Contract.

This Contract shall be in full force and effect only when it has been approved by the City Council of the City of Tempe, Arizona, and when executed by the duly authorized City officials and the duly authorized agent of Contractor.

Each proposed subcontractor for this project must be approved by City before that subcontractor may work on the project. For the approval process, Contractor shall

obtain from each subcontractor, and submit to City, a completed Labor Standards Certification form (see the Exhibits section).

Contractor also shall provide City with a complete copy of each executed subcontract and purchase order for this project.

**6.19. UNAUTHORIZED FIREARMS & EXPLOSIVES**

No person conducting business on City property shall carry a firearm or explosive of any type. This requirement shall also apply to persons who maintain a concealed weapons permit.

**6.20. NOTICES TO CITY ENGINEER**

All notices to the City relating to this Contract should be sent to the following individual, who is also the administrator of this Contract.

Hardy Drive Street Improvements – Broadway Road to University Drive  
Andy Goh, P.E., City Engineer  
City of Tempe Engineering Division  
31 E. Fifth Street, Garden Level  
Tempe, Arizona 85281  
480-350-8200

**6.21. NOTICES TO CONTRACTOR**

*(To be completed by successful bidder)*

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

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

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

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

**6.22. GIS DATA DISCLAIMER**

THE CITY OF TEMPE DOES NOT WARRANT THE ACCURACY, COMPLETENESS, CONDITION, SUITABILITY, PERFORMANCE, OR CURRENCY OF THE GIS DATA PROVIDED UNDER THIS CONTRACT. AREAS DEPICTED BY GIS DATA ARE APPROXIMATE, AND NOT GUARANTEED TO BE ACCURATE TO STANDARDS FOR MAPPING, SURVEYING, OR ENGINEERING. THIS DATA IS FOR ILLUSTRATIVE PURPOSES ONLY AND SHOULD NOT BE RELIED UPON FOR SITE-SPECIFIC PURPOSES. THE DATA HEREIN IS SUBJECT TO CONSTANT

CHANGE AND MAY NOT BE COMPLETE, ACCURATE, OR UP-TO-DATE. THE CITY OF TEMPE IN NO WAY ASSUMES LIABILITY OR RESPONSIBILITY FOR ANY INCORRECT DATA OR ANY INFORMATION PROVIDED HEREIN. THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT THE CITY OF TEMPE ASSUMES NO LIABILITY FOR DAMAGES INCURRED DIRECTLY OR INDIRECTLY RESULTING FROM INCOMPLETE, INCORRECT, OR MISSING INFORMATION; INCLUDING ANY DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED OR UNDER ANY THEORY OF LIABILITY, WHETHER IN TORT, CONTRACT, STRICT LIABILITY, OR OTHERWISE. **BY WAY OF THE SIGNATURE ON THIS CONTRACT, THE CONTRACTOR ASSUMES ALL LIABILITY FOR ANY AND ALL DEPENDENCE AND/OR RELIANCE UPON THIS INFORMATION AND ASSUMES ALL RESPONSIBILITY RELATING THERETO. ANY AND ALL EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PURPOSE ARE SPECIFICALLY AND EXPRESSLY DISCLAIMED.** CONTRACTOR SHOULD NOT RELY UPON THE GIS DATA WITHOUT PROPER FIELD VERIFICATION FOR ANY PURPOSE.

**6.23. AMENDMENT OF CONTRACT**

No supplement, modification or amendment of any term of this Contract will be deemed binding or effective unless in writing and signed by the parties hereto and in conformation with provisions of this Contract except as expressly provided herein to the contrary.

**6.24. LABOR**

Contractor agrees and covenants to use only licensed contractors and subcontractor(s) in the making and/or installation of any and all repairs, alterations, improvements, or other work of Contractor on the Project. Contractor shall be liable to City for any losses and liabilities associated with any violation of this provision, and the Contract shall immediately be terminated upon any violation by Contractor.

**6.25. NON-APPROPRIATION OF FUNDS OR NON-FUNDING**

City's performance under this Contract depends upon the appropriation of grant funds by the Federal Highway Administration. If the funds necessary for City's performance under this Contract are not appropriated or are otherwise made unavailable to the City, City may provide written notice to Contractor and cancel this Contract without further obligation of City. The parties understand and agree that funding and appropriations are beyond the control of the City.

**6.26. PUBLIC RECORDS**

The City is a public entity subject to the provisions of the Arizona Public Records Law, A.R.S. § 39-121, *et seq.* ("Law"). Some or all of the information contained within the Contract and related documents constitutes a public record that the City may be required to disclose to other persons or entities. In the event of receipt of a public records request by the City, Contractor must provide verification that its document falls under the exception to the Law in order to contest disclosure of said document. In the event of Contractor contesting disclosure, said document shall be submitted to a court of competent jurisdiction for an *in camera* review and determination, at Contractor's sole expense.

**6.27. COUNTERPARTS**

This Contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument, and it shall not be necessary that any single counterpart bear the signature of all parties.

**6.28. RECORD RETENTION**

Contractor agrees to retain all records relating to the Contract pursuant to A.R.S. § 35-214, as amended from time to time. Contractor agrees to make those records available at all reasonable times for inspection and audit by City during the term of the Contract and for a period of five (5) years after the completion of the Contract. The records shall be provided at City Public Works Department, Engineering Division, Tempe, Arizona, or another location designated by City upon reasonable notice to Contractor.

**6.29. DRUG-FREE WORKPLACE**

The Contractor is hereby advised that the City has adopted a policy establishing a drug-free workplace for itself and as a requirement for sellers/Contractors doing business with the City to ensure the safety and health of employees working on City license agreements, contracts, and/or projects. The Contractor agrees to require a drug-free workplace for all employees working under this Contract. Specifically, all employees of the Contractor who are performing work under this Contract shall be notified, in writing, by the Contractor that they are prohibited from the manufacture, distribution, dispensation, possession, or unlawful use of a controlled substance in the work place or work site. Any violation of this section constitutes a material breach of this Contract.

## 7. FEDERAL PROVISIONS

The FEDERAL PROVISIONS section in this Invitation for Bids / Contract has two components:

- **FORM FHWA-1273 (REV. MAY 1, 2012)** – “Required Contract Provisions: Federal-Aid Construction Contracts.” Form FHWA-1273 consists of Parts I–XI, below.
- **ADDITIONAL FEDERAL PROVISIONS (NOT PART OF FORM FHWA-1273)**. The Additional Federal Provisions consist of Parts XII–XVIII, below.

### **Federal Provisions That Must Be Inserted (in Full) in Subcontracts at Every Tier –**

- (1) Form FHWA-1273 (Rev. May 1, 2012), which is Parts I–XI of these FEDERAL PROVISIONS. **Note:** The subcontractor must *initial and date* each page of Form FHWA-1273 in the subcontract.
- (2) The provisions in “Part XV. Disadvantaged Business Enterprises” of these FEDERAL PROVISIONS.
- (3) The Exhibit titled “Prompt Payment and Return of Retention Requirements.”
- (4) The Wage Determination in the EXHIBITS to this Invitation for Bids/ Contract, as modified by Addenda.

### **Federal Provisions That Must Be Inserted in Purchase Orders / Rental Agreements / Equipment Leases at Every Tier –**

- (1) A statement that expressly incorporates Form FHWA-1273 (Rev. May 1, 2012) into the purchase order / rental agreement / equipment lease, by reference. For example: “The provisions in Form FHWA-1273 (Rev. May 1, 2012) apply to this purchase order / rental agreement / equipment lease.”
- (2) The provisions in “Part XV. Disadvantaged Business Enterprises” of these FEDERAL PROVISIONS.
- (3) The Exhibit titled “Prompt Payment and Return of Retention Requirements.”

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## **FORM FHWA-1273 (REV. MAY 1, 2012)**

### **REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. **General**
- II. **Nondiscrimination**
- III. **Nonsegregated Facilities**
- IV. **Davis-Bacon and Related Act Provisions**
- V. **Contract Work Hours and Safety Standards Act Provisions**
- VI. **Subletting or Assigning the Contract**
- VII. **Safety: Accident Prevention**
- VIII. **False Statements Concerning Highway Projects**
- IX. **Implementation of Clean Air Act and Federal Water Pollution Control Act**

**X. Compliance with Governmentwide Suspension and Debarment Requirements**  
**XI. Certification Regarding Use of Contract Funds for Lobbying**

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**I. GENERAL**

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

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

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

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

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

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

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

**I. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The

provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

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

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

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

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

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

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

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

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

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

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

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

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

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

**10. Assurance Required by 49 CFR 26.13(b):**

- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
- b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

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

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

- (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
- (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
- (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

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

**II. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants

and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### **III. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

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

#### **1. Minimum wages**

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer

shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

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

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

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

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

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

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

## **2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## **3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation

of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

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

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and trainees**

##### **a. Apprentices (programs of the USDOL).**

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State

Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination

which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. **Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

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

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

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

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

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

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

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

## 10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

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

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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

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

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## **VI. SUBLETTING OR ASSIGNING THE CONTRACT**

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

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

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

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

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

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

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

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

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

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

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

#### **VII. SAFETY: ACCIDENT PREVENTION**

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

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

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

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

#### **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

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

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

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

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

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

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

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

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

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

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

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

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

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

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

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

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

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

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier

covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

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

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

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

\* \* \* \* \*

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

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

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

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

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

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

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

## **2. Instructions for Certification - Lower Tier Participants:**

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

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

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

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

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

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and

Voluntary Exclusion-Lower Tier Covered Transaction,” without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

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

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

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

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

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

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR  
LOBBYING**

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

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

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

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

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

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

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**ADDITIONAL FEDERAL PROVISIONS (NOT PART OF FORM FHWA-1273)**

**XII. Energy Conservation**

**XIII. Buy America**

**XIV. Statement of No Collusion in Bidding**

**XV. Disadvantaged Business Enterprises**

**XVI. On-the-Job Training**

**XVII. Changed Conditions**

**XVIII. Access to Records; Records Retention**

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**XII. ENERGY CONSERVATION**

In accordance with 49 CFR 18.36(i)(13), Contractor and every Subcontractor on this Project shall comply with the mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

**XIII. BUY AMERICA**

This Project is subject to FHWA's "Buy America" regulations in 23 CFR § 635.410.

If steel or iron materials are to be permanently incorporated in this Project, all manufacturing processes for these materials, including application of a coating, must occur in the United States.

Manufacturing is any process that modifies the chemical content, physical shape or size, or final finish of a product. Manufacturing begins with the initial melting and mixing, and continues through the bending and coating stages. If a domestic product is taken out of the U.S. for any process, it becomes a foreign-source material. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

The requirements of this section do not prevent a minimal use of foreign steel and iron materials in this Project, if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract cost or \$2,500, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the steel and iron products as they are delivered to the Project.

A contractor or subcontractor asserting permissible minimal use of foreign steel and iron materials must retain documentation of the quantities and costs of those materials.

#### **XIV. STATEMENT OF NO COLLUSION IN BIDDING**

**Every bidder must submit the form titled "AFFIDAVIT OF NO COLLUSION IN BIDDING" with its bid.** The affidavit form is in the Exhibits section.

In accordance with 23 CFR § 635.112(f), a bidder for this Project must submit, with its bid, a sworn statement that no one associated with the bidder has, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the Project.

#### **XV. DISADVANTAGED BUSINESS ENTERPRISES**

##### **1.0 Policy**

The Arizona Department of Transportation (hereinafter the Department or ADOT) 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. The Department has awarded the City of Tempe a portion of the Federal financial assistance it has received from USDOT, and as part of the award, the City of Tempe is required to comply with the Department's DBE program and 49 CFR Part 26. In this Part XV. DISADVANTAGED BUSINESS ENTERPRISES, "LPA / Sub-recipient Procurement Office" means the City of Tempe Public Works Department, Engineering Division.

It is the policy of the Department to ensure that DBEs, as defined in 49 CFR 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; and
- (6) To assist in the development of firms that can compete successfully in the market place outside the DBE program.

Local Public Agencies (LPA) and or Sub-recipients of Federal financial assistance 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.

## **2.0 Assurances of Non-Discrimination**

The contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, sex or national origin in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of 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 state deems appropriate. The contractor, subrecipient, or subcontractor shall ensure that all subcontract agreements contain this non-discrimination assurance.

## **3.0 Definitions**

**(A) 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.

**(B) 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, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
- (iii) "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, 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 Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia, or Hong Kong;
- (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.

**(C) 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.

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

**(E) RACE-CONSCIOUS:** a measure or program is one that is focused specifically on assisting only DBEs, including women-owned DBEs.

**(F) RACE-NEUTRAL:** a measure or program is one that is, or can be, used to assist all small businesses. For the purposes of this part, race-neutral includes gender-neutrality.

#### 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 at the address shown below for assistance in their efforts to use DBEs in the construction program of the Department:

Arizona Department of Transportation  
Business Engagement and Compliance Office  
1135 N. 22nd Avenue (second floor), Mail Drop 154A  
Phoenix, AZ 85009  
Phone (602) 712-7761  
FAX (602) 712-8429

## **5.0 Applicability**

The Department has established an overall annual goal for DBE participation on Federal-aid contracts. The Department intends for the goal to be met with a combination of race conscious efforts 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, or can be, used to assist all small businesses or increase opportunities for all small businesses. The regulation, 49 CFR 26, defines race neutral as when a DBE wins a prime contract, is awarded a subcontract on a project without DBE goals, and is awarded a subcontract from a prime contractor that did not consider the firm's DBE status.

The contractor shall meet the goal specified herein with DBEs, or establish that it was unable to meet the goal despite making good faith efforts to do so. Prime contractors are encouraged to obtain DBE participation above and beyond any goals that may be set for this project. The provisions are applicable to all bidders including DBE bidders.

## **6.0 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 with the Department at any time. Both hardcopy submission and online submission is available.

For hardcopy submissions, applications for certification are available at the Department's Business Engagement and Compliance Office, 1135 N. 22nd Avenue (second floor), mail drop 154A, Phoenix, Arizona 85009, phone (602) 712-7761. Hardcopy applications may also be obtained through the internet at [www.azdbe.org](http://www.azdbe.org). Hardcopy applications must be filed through the Department's Business Engagement and Compliance Office at the above address.

For online submissions, the online application process may be accessed through the internet at [www.azdbe.org](http://www.azdbe.org).

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.

Arizona 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.azdbe.org](http://www.azdbe.org). 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 is not a representation of qualifications and/or abilities. The contractor bears all risks that the firm may not be able to perform its work for any reason.

### **7.0 General**

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

Each contractor shall also designate a full time employee who shall be responsible for the administration of the contractor's DBE program.

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

### **8.0 DBE Subcontractor Payment Reporting**

The Department is required to collect data on DBE and non-DBE participation to report to Department of Transportation (DOT) on Federal-aid projects. LPA / Sub-recipient Procurement Office will notify the contractor that such record keeping is required by the Department for tracking DBE participation.

The contractor shall submit a report on a monthly basis indicating the amounts earned by and paid to all DBEs and non-DBEs working on the project. In addition, the contractor shall require that all DBE and non-DBE subcontractors verify receipt of payment.

The contractor shall provide all such required information for the current month by the 5th of the following month. The required information shall be submitted electronically through the Department's web-based payment tracking system (<https://arizonalpa.dbesystem.com>).

### **9.0 Goals**

The minimum goal for participation by DBEs on this project is as follows: 6.67%.

The percentage of DBE participation shall be based on the total bid.

## **10.0 Crediting DBE Participation Toward Meeting Goals**

### **10.01 General Requirements**

Only the value of the work actually performed by the DBE can be credited toward DBE participation. Credit towards the contractor's DBE goal is given only after the DBE has been paid for the work performed.

The contractor bears the responsibility to determine whether the DBE possesses the proper contractor's license(s) to perform the work. If a DBE cannot complete its work due to failure to obtain or maintain its licensing, the contractor bears the responsibility to immediately request approval to replace the DBE with another DBE and notify the Engineer (City of Tempe Project Manager) and the Department's Business Engagement and Compliance Office.

The Department's certification is not a representation of 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.

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 toward the DBE goal.

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

All DBE and non-DBE subcontracting activity must be reported by the contractor and counted toward participation. This includes lower-tier subcontracting regardless of whether or not the DBE is under contract with another DBE.

DBE prime contractors must meet the DBE participation goal or demonstrate good faith efforts. This is determined by counting the work the DBE has committed to performing with its own forces, as well as the work that it has committed to be performed by DBE subcontractors and DBE suppliers.

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 the DBE goal 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 toward a DBE goal.

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 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.

#### **10.02 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.

#### **10.03 Commercially Useful Function**

As a prime contractor, a DBE shall perform a significant portion of the contract work with its own work force in accordance with normal industry practices and *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008)*, Subsection 108.01 - Subletting of Contract.

A prime contractor can credit expenditures to a DBE subcontractor toward DBE goals only if the DBE performs a commercially useful function on the contract. A DBE performs a commercially useful function when it is responsible for execution of the work of a contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

A DBE 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 Department 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 Department 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. Decisions on commercially useful function matters are subject to review by DOT, but are not administratively appealable to U.S. DOT.

#### **10.04 Trucking**

The Department 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, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.

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.

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 from a non-DBE is entitled to credit for the total value of the transportation

services provided by non-DBE lessees not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE lessees results in 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 contract. It leases two trucks from DBE Firm Y and six trucks from non-DBE firm Z. DBE credit would only 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. With respect to the other two trucks provided by Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks Firm X receives as a result of the lease with Firm Z.

### **10.05 Materials and Supplies**

The Department will credit expenditures with DBEs for material and supplies towards the DBE goal 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. Packers, 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 Department 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 goals, 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 goal.

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.

## **11.0 Joint Checks**

### **11.01 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.

### **11.02 Procedure and Compliance**

1. LPA / Sub-recipient Procurement Office must approve the agreement for the use of joint checks in writing.

2. After obtaining authorization 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.
3. Copies of canceled checks must be submitted with the payment information for the period in which the joint check was issued. Certificates of payment must indicate whether or not joint checks were used.
4. The prime contractor, DBE, and supplier each have an independent duty to report to the LPA / Sub-recipient Procurement Office in the case of any change from the approved joint check arrangement.
5. Any failure to comply will be considered by the LPA / Sub-recipient Procurement Office 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, reduction or loss of prequalification, debarment, or other remedies which may prevent future participation by the offending party.

## **12.0 Submission with Bids**

All bidders are required to certify in their bid proposal on the "Disadvantaged Business Enterprise Assurances" certificate (i.e., on ADOT form "BECO 302S"; see the Exhibits section of this Invitation for Bids) either:

- (1) The established goal for DBE participation has been met and arrangements have been made at the time of bid with certified DBEs or
- (2) The bidder has been unable to meet the goal prior to the submission of the bid and has made good faith efforts to do so.

**BIDS SUBMITTED WITH ALTERED, INCOMPLETE, OR UNSIGNED CERTIFICATES WILL BE CONSIDERED NON-RESPONSIVE.**

Certifications on forms other than those furnished by the LPA / Sub-recipient Procurement Office will be considered non-responsive.

## **13.0 Bidder Meeting DBE Goal**

### **13.01 General**

If the bidder indicates in the bid that it has met or exceeded the DBE goal, the DBE Intended Participation Affidavit, its attachments, and a written confirmation from each DBE that it is participating in the contract as provided on the affidavit shall be submitted as follows:

- (1) The DBE Intended Participation Affidavit, its attachments, and the confirmations (i.e., ADOT forms "BECO 304S" and "BECO 305S") must be received by the LPA / Sub-recipient Procurement Office no later than 4:00 P.M. on the fifth working day following the bid opening. Copies of this affidavit and the attachments can be found in the Exhibits section of this Invitation for Bids, or on the Internet at [http://www.azdot.gov/inside\\_adot/CRO/LPA\\_SubRec.asp](http://www.azdot.gov/inside_adot/CRO/LPA_SubRec.asp). This

affidavit and its attachments shall indicate that the bidder has met or exceeded the DBE goal if this was indicated on the submittal with the bid.

(2) The affidavit and attachments must be accurate and complete in every detail and must be signed by an officer of the contractor(s).

(3) The DBE Intended Participation affidavit (ADOT form "BECO 305S") must be submitted listing the DBEs used and the creditable amounts.

(4) A separate DBE Intended Participation affidavit attachment (ADOT form "BECO 304S") must be submitted for each DBE used to meet the goal of the project. The bidder shall indicate each DBE's name, the bid items the DBE will perform, and proposed subcontract amount. All partial items must be explained. If not, the DBE will be considered to be responsible for the entire item.

(5) A written confirmation from each DBE used to meet the goal indicating that it is participating in the contract, as provided on the affidavit, must also be submitted at this time (this confirmation is part of ADOT form "BECO 304S").

(6) A bidder must determine DBE credit in accordance with Section 10 above, entitled "Crediting DBE Participation Toward Meeting Goals." The affidavit will be reviewed by the LPA / Sub-recipient Procurement Office.

(7) Only those DBE firms certified by the Arizona Unified Certification Program (AZUCP) at the time of the bid opening will be considered it shall be the bidder's responsibility to ascertain the certification status of designated DBEs.

(8) The bidder bears the risk of late delivery by the postal service or a delivery service. Late-filed affidavits will not be accepted.

### **13.02 Failure to Comply**

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected. The proposal guarantee (bid bond) shall be forfeited if no submission is made or if the State Transportation Board finds the submission was made in bad faith.

## **14.0 Documented Good Faith Effort**

### **14.01 General**

If the apparent low bidder has stated in its bid proposal that it has been unable to meet the DBE goal, that bidder must demonstrate, through detailed and comprehensive documentation, that good faith efforts have been made to solicit, assist, and use DBE firms to meet the DBE goal prior to the bid. The bidder cannot change its bid proposal after submission.

Failure to demonstrate good faith efforts to the satisfaction of ADOT will result in the rejection of the bid.

The apparent low bidder who cannot meet the DBE goal at the time bids are opened must submit its documentation of good faith effort to the Department's Business Engagement and Compliance Office. The bidder's documentation must be received by the LPA / Sub-recipient Procurement Office by 4:00 P.M. on the fifth working day after the bids are opened. Bidders are encouraged to review Appendix A of 49 CFR Part 26.

In order to be awarded a contract on the basis of good faith efforts, a bidder must show that it took all necessary and reasonable steps to achieve the DBE goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful. The LPA / Sub-recipient Procurement Office will consider the quality, quantity, and intensity of the different kinds of efforts the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to make if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE goal. Mere pro forma efforts are not sufficient good faith efforts to meet the DBE contract requirements.

The contractor shall, as a minimum, seek DBEs in the same geographic area in which it generally seeks subcontractors for a given project. If the contractor cannot meet the goals using DBEs from this geographic area, the contractor, as part of its effort to meet the goals, shall expand its search to a reasonably wider geographic area.

The following is a list of types of efforts a bidder must address when submitting good faith effort documentation.

- (1) Soliciting through all reasonable and available means (e.g., attendance at pre-bid meeting, advertising, written notices, and other means) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow-up initial solicitations.
- (2) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to the DBE subcontractors and suppliers, and to select those portions of work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided from the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform work. A bidder using good business judgment would consider a number of factors in negotiating with

subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. However, prime contractors are not required to accept higher quotes from DBEs if the price difference is excessive or unreasonable. Documentation, such as copies of all other bids or quotes, must be submitted.

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

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

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

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

In determining whether a bidder has made good faith efforts, the LPA / Sub-recipient Procurement Office will take into account the ability of other bidders to meet the DBE goal. The bidder will not be considered to have made good faith efforts if the bidder failed to contact the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office prior to the letting, either in writing, by e-mail, or by telephone, to inform the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office of the firm's difficulty in meeting the DBE goals on a given project, and to request assistance. If the bidder contacts the LPA / Sub-recipient Procurement Office and the Department's Business Engagement and Compliance Office by telephone, the contact must be documented in a telephone log indicating the date and time of call, and name of the person to which he spoke. The telephone number for the ADOT Office is (602) 712-7761. The contact must be made in sufficient time to allow the Department's Business Engagement and Compliance Office to provide assistance.

The LPA / Sub-recipient Procurement Office will analyze the submittal to determine if in fact good faith efforts have been demonstrated consistent with ADOT procedures and the Federal regulations, 49 CFR 26, Appendix A and will forward their recommendation to the Department's Business Engagement and Compliance Office for determination.

The bidder may appeal the determination of the Department's Business Engagement and Compliance Office to the State Engineer. That appeal must be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. The protest must be received by the State Engineer no later than seven calendar days after the decision of the

Department's Business Engagement and Compliance Office. Copies of the protest shall be sent by the protestant to every bidder, at the same time the protest is submitted to the State Engineer. Any other interested party may submit a response to the appeal no later than seven calendar days after the appeal is requested. Responses from other interested parties must also be in writing and personally delivered or sent by certified mail, return receipt requested, to the State Engineer. Any interested party submitting such response shall also provide a copy of its response to every bidder, at the same time the protest is submitted to the State Engineer. The State Engineer shall promptly consider any appeals under this subsection and notify all bidders of the State Engineer's findings and decision.

Any interested party may protest the State Engineer's decision to the Transportation Board, pursuant to the requirements of *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction* (2008), Subsection 103.10.

#### **14.02 Failure to Comply**

If the apparent low bidder fails to submit the required information by the stated time and in the manner herein specified, or if the submitted information reveals a failure to meet the requirements of the specifications, the apparent low bidder shall be ineligible to receive award of the contract and the bid will be rejected. The proposal guarantee (bid bond) shall be forfeited if no submission is made or if the State Transportation Board finds the submission was made in bad faith.

#### **15.0 Rejection of Low Bid**

If, for any reason, the bid of the apparent low bidder is rejected, there will be a new apparent low bidder. The Department will notify the new apparent low bidder, and this bidder shall submit its subsequent detailed submission as set forth in paragraph 12 or 13 above.

#### **16.0 Time Is of the Essence**

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

#### **17.0 Contract Performance**

Contract items of work designated by the contractor to be awarded to DBEs shall be performed by the designated DBE or a Department-approved DBE substitute. DBE contract work items shall not be performed by the contractor, or a non-DBE subcontractor without prior approval by the Department's Business Engagement and Compliance Office. The DBE must perform a commercially useful function; that is, the DBE must manage, perform, and supervise a distinct element of work.

The Department reserves the right to inspect all records of the contractor and all records of the DBEs concerning this contract.

The contractor shall provide to the Engineer (City of Tempe Project Manager), at the pre-construction conference, copies of completed and signed subcontracts purchase orders, invoices, etc., with the appropriate DBEs.

Within five working days of the preconstruction conference, the contractor shall also provide electronic copies of signed subcontract agreements to the LPA / Sub-recipient Procurement Office through the Department's web-based payment tracking system (<https://arizonalpa.dbesystem.com>). As part of this submittal, contractors shall be required to log into the system and enter the name, contact information, and subcontract amounts for all subcontractors and vendors performing on the project as verification that scopes of services and commitments made through the DBE Intended Participation Affidavits are being met.

Subcontract agreements shall include all required assurances, including Form FHWA-1273, and the prompt payment and return of retention requirements specified in *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2008)*, Subsection 109.06(B). Each page of each required attachment must be dated and initialed by the DBE in order for the subcontract to be considered valid. Contractors executing agreements with subcontractors, DBE or non-DBE, that materially modify federal regulation and state statutes, or prompt payment and retention requirements, through subcontract terms and conditions will be found in breach of contract which may result in termination of the contract, or any other such remedy as the Engineer (City of Tempe Project Manager) deems appropriate. Use of a DBE named on the DBE Intended Participation Affidavit is a condition of award. Substitution will not be allowed without written evidence from the prime contractor and DBE that the DBE is unable or unwilling to perform. Contractors may not terminate a DBE subcontract for convenience, in whole or in part, except to the extent that the Department has eliminated items of work subcontracted to the DBE. All terminations, substitutions, and reductions in scope must be approved by the Department's Business Engagement and Compliance Office.

### **18.0 Non-Performance by DBEs**

In the event a DBE is unable or unwilling to fulfill its agreement with the contractor, the contractor will immediately notify the Engineer (City of Tempe Project Manager) and provide all facts surrounding the matter. Such failure on the part of a DBE will not relieve the contractor of responsibility for meeting the DBE goal on the contract. The contractor shall immediately make reasonable good faith efforts to obtain another certified DBE to perform an equal or greater dollar value of work to the extent needed to meet the DBE goal. The substitute DBE's name, description of work, and dollar value of work shall be submitted to the Engineer (City of Tempe Project Manager) and the Department's Business Engagement and Compliance Office. Approval of the Department's Business Engagement and Compliance Office must be obtained prior to the substitute DBE beginning work. In the event a prime contractor is unable, after a substantial good faith effort, to obtain another certified DBE, the Department's Business Engagement and Compliance Office may lower the DBE goal on the project. However, the Department's Business Engagement and Compliance Office must approve this in writing prior to a Non-DBE starting the work which had been subcontracted to the DBE.

### **19.0 Compliance**

The contractor's achievement of the goal is measured by actual payments made to the DBEs. The contractor shall submit at the completion of the project the "Certification of Payments to DBE Firms" affidavit (ADOT form "BECO 306S") for each DBE firm working on the project. This affidavit shall be signed by the prime contract and the relevant DBE, and submitted to the Department's Business Engagement and Compliance Office. At that time, a copy of each completed affidavit shall also be submitted to the Engineer (City of Tempe Project Manager).

Acceptance and final payment to the contractor, in accordance with *Arizona Department of Transportation Standard Specifications for Road and Bridge Construction* (2008), Subsections 105.20 and 109.09, will not be made until all "Certification of Payments to DBE Firms" affidavits are received and deemed acceptable by the Engineer (City of Tempe Project Manager) and the LPA / Sub-recipient Procurement Office.

## **20.0 Sanctions**

If the Department determines that the contractor has failed to make sufficient reasonable efforts to meet contract DBE goals, or to otherwise carry out these DBE special provisions, such failure shall constitute a breach of contract and may result in termination of the contract, or any other such remedy as the Engineer (City of Tempe Project Manager) deems appropriate.

If the Engineer (City of Tempe Project Manager) determines that such failure is not cause to terminate the contract, an amount equal to the value of the DBE goal that was not obtained will be deducted from the payment due the contractor. However, if the failure is the first by the contractor, and the Engineer (City of Tempe Project Manager) determines the failure was an unintentional error or oversight, the amount to be deducted may be reduced up to one-half (1/2) of the value of the unobtained DBE goal as determined by the Department's Business Engagement and Compliance Office. In addition to any other sanctions, willful failure of the contractor or a DBE to comply with this contract or with the Federal DBE regulations may result in disqualification from further contracting, subcontracting, or other participation in ADOT projects.

## **XVI. ON THE JOB TRAINING**

The contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

**There is no on-the-job training requirement for this project;** however, the contractor shall make every possible effort to provide additional trainees with training and shall see that all trainees are afforded every opportunity to participate in as much training as is practically possible to provide. Due to turnover and attrition of trainees in any one trainee slot, it is expected that continuous trainee replacements may be necessary during the contract work period.

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Highways Division for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each

trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor shall satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records shall document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Highways Division and the Federal Highway Administration. The Highways Division and the Federal Highway Administration will approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, Apprenticeship programs registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Bureau of Apprenticeship and Training will also be considered acceptable provided they are being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Specifically, union apprenticeship programs and Associated Builders and Contractor's apprenticeship programs may be used. Additionally, in-house training programs may be approved on a case-by-case basis. Approval or acceptance of a training program shall be obtained from the Highways Division prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training may be permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Acceptance of training in such lower level management positions shall be on a case-by-case basis, and approval shall be obtained from the Highways Division prior to commencing work. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Federal Highway Administration. Some off site training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives

additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for off site training indicated above may only be made to the contractor where he contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the off site training period.

No payment will be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. However, when such training opportunities are suspended or interrupted under the contract which the trainee was designated, the contractor may continue training under other ADOT contracts regardless of their funding, except that no reimbursement for such training shall be made on non-federal aid contracts, under this training special provision. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent of the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program will apply to all trainees being trained for the same classification who are covered by this Training Special Provision. The contractor shall furnish the trainee a copy of the program he will follow in providing the training.

The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor shall provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

The contractor shall submit a weekly training report to the Engineer. The report shall be prepared on forms obtained from the Civil Rights Office, 1135 N. 22nd Avenue (second floor), mail drop 154A, Phoenix, Arizona 85009, phone (602) 712-7761.

At the preconstruction conference, the contractor shall submit a schedule which will indicate each trainee's name, sex, race/ethnicity, the program in which the trainee is enrolled, the approximate number of hours each trainee will be trained in each phase of the work, the crafts to which the trainees belong and the estimated period of time that they will be employed as trainees. A supplemental schedule shall be submitted to the Engineer when a revision in the original schedule is necessary. At the time each trainee is scheduled to begin work, the contractor shall submit to the Engineer each trainee's name, sex, and race/ethnicity. The contractor must also submit proof that the trainee is enrolled in an approved training program.

At the conclusion of the project or at the end of each calendar year for multi-year projects, the contractor must submit to the Affirmative Action Office and to the project office, the same information described hereinbefore for each trainee that worked on the project. Additionally, the contractor must indicate if the trainee graduated from the program, was terminated due to cause, or was transferred to another project to continue his/her training.

If, at the preconstruction conference, the contractor does not provide a schedule containing the specified information, the Engineer will notify the contractor of the infraction. Failure to provide the schedule within 15 calendar days from the date of notification shall be considered as willful non-compliance. The Engineer will cause to be withheld from the contractor's monthly payments additional retainage in the amounts specified below. The amount withheld from the monthly payment shall be held until an acceptable schedule or supplemental schedule has been submitted.

The Engineer will monitor the use of trainees based on the contractor's schedule, supplemental schedules, and weekly training report. If the use of trainees is not in conformance with the schedule or supplemental information, the Engineer will cause to be withheld from the contractor's monthly payments additional retainage in the amounts specified below. Conformance with the schedule will be considered acceptable when the cumulative number of trainee hours earned to date under the Item 9230001 - PROVIDE ON-THE-JOB TRAINING is at least 90 percent of that shown on the schedule, for the work performed to date.

Additional Retainage

First and Second monthly payments following infraction	\$1,000.00 each month
Third monthly payment and thereafter	\$5,000.00 each month

The amount withheld from the monthly payment shall be held until an acceptable schedule or supplemental schedule has been submitted and until conformance with the schedule has been determined.

If, at the completion of the contract, the Department is holding additional retainage in accordance with this specification, the retainage will become the property of the Department, not as penalty but as liquidated damages.

## **XVII. CHANGED CONDITIONS**

In accordance with 23 CFR § 635.109(a), the following provisions apply to this Project.

### **(1) Differing Site Conditions**

(i) During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.

(ii) Upon written notification, the Tempe construction project manager will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase

or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The Tempe construction project manager will notify the contractor of the determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.

(iv) No contract adjustment will be allowed under this clause for any effects caused on unchanged work.

## **(2) Suspensions of Work Ordered by the Tempe Project Manager**

(i) If the performance of all or any portion of the work is suspended or delayed by the Tempe construction project manager in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the Tempe construction project manager in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

(ii) Upon receipt, the Tempe construction project manager will evaluate the contractor's request. If the Tempe construction project manager agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Tempe construction project manager will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the Tempe Project Manager's determination whether or not an adjustment of the contract is warranted.

(iii) No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.

(iv) No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

## **(3) Significant Changes in the Character of Work**

(i) The Tempe construction project manager reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project.

Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.

(ii) If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become

significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the Tempe construction project manager may determine to be fair and equitable.

(iii) If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.

(iv) The term "significant change" shall be construed to apply only to the following circumstances:

(A) When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or

(B) When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

#### **XVIII. ACCESS TO RECORDS; RECORDS RETENTION**

In accordance with 49 CFR 18.36(i)(10), Contractor and every Subcontractor on this Project shall provide access to the City of Tempe, the Arizona Department of Transportation, the Federal Highway Administration, the Comptroller General of the United States, or any of their duly authorized representatives, to any of Contractor's or Subcontractor's books, documents, papers, and records that are directly pertinent to the Contract for this Project, for the purposes of making audit, examination, excerpts, and transcriptions.

In accordance with 49 CFR 18.36(i)(11), Contractor and every Subcontractor on this Project shall maintain all required records for a minimum of three years, after the grant has been formally closed; i.e., after the City of Tempe makes final payments and all other pending matters on this Project are closed.

## **8. EXHIBITS**

The parties agree that all references to this Contract include all exhibits designated in and attached to this Contract, such exhibits being incorporated into and made an integral part of this Contract for all purposes.

- 8.1. BIDDER'S CHECK SHEET**
- 8.2. COMPETITIVE SEALED BID FORMS**
- 8.3. BIDDER'S PROJECT REFERENCES**
- 8.4. BIDDER'S LIST OF PROPOSED SUBCONTRACTORS**
- 8.5. COMPETITIVE SEALED BID CERTIFICATION FORM**
- 8.6. CERTIFICATION BY THE CONTRACTOR AUTHORIZING  
EMPLOYEES TO SIGN BINDING AGREEMENTS**
- 8.7. PERFORMANCE BOND FORM**
- 8.8. PAYMENT BOND FORM**
- 8.9. UNCONDITIONAL WAIVER AND RELEASE FOR CONTRACTOR'S  
PAYMENT AND SETTLEMENT OF CLAIMS**
- 8.10. PROMPT PAYMENT AND RETURN OF RETENTION REQUIREMENTS**
- 8.11. AFFIDAVIT DEMONSTRATING LAWFUL PRESENCE IN THE UNITED  
STATES**
- 8.12. AFFIDAVIT OF NO COLLUSION IN BIDDING**
- 8.13. AFFIDAVIT – DISADVANTAGED BUSINESS ENTERPRISE  
ASSURANCES**
- 8.14. AGENCY BIDDERS LIST**
- 8.15. DBE INTENDED PARTICIPATION AFFIDAVIT SUMMARY SHEET**
- 8.16. DBE INTENDED PARTICIPATION CERTIFICATION AND  
CONFIRMATION OF PARTICIPATION – ATTACHMENT**
- 8.17. CERTIFICATION OF PAYMENTS**
- 8.18. LABOR STANDARDS CERTIFICATION FORM**
- 8.19. WAGE DETERMINATION**

[CONTRACT SIGNATURE PAGE FOLLOWS THIS LIST OF EXHIBITS]

**CONTRACT SIGNATURE PAGE**

**IN WITNESS WHEREOF**, this Contract has been duly executed by the parties below and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

CITY OF TEMPE, an Arizona municipal corporation

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

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

ATTEST:

\_\_\_\_\_  
City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

Recommended By:

\_\_\_\_\_  
Deputy Public Works Director/City Engineer

**Contractor warrants that the person who is signing this Contract on behalf of Contractor is authorized to do so and to execute all other documents necessary to carry out the terms of this Contract.**

CONTRACTOR:

TALIS CONSTRUCTION CORPORATION  
Company Name

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

\_\_\_\_\_  
Printed Name

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

City Transaction Privilege  
License (Sales Tax) Permit No.

\_\_\_\_\_  
(Corporate Seal)

\_\_\_\_\_  
Witness [IF CONTRACTOR IS INDIVIDUAL]

8.1.

**BIDDER'S CHECK SHEET**

This check sheet lists the items a bidder must include with its sealed bid.

	Included
Competitive Sealed Bid Forms (Confirm receipt of Addenda).....	Exhibit 8.2 <input type="checkbox"/>
10% Bid Guarantee (see Invitation for Bids section 4.3) .....	<input type="checkbox"/>
EMOD and Loss Ratio Information (see Invitation for Bids section 4.6.2) .....	<input type="checkbox"/> Separate Envelope
Bidder's Project References.....	Exhibit 8.3 <input type="checkbox"/>
Bidder's List of Proposed Subcontractors .....	Exhibit 8.4 <input type="checkbox"/> Separate Envelope
Competitive Sealed Bid Certification Form .....	Exhibit 8.5 <input type="checkbox"/>
Affidavit Demonstrating Lawful Presence in the United States (see Invitation for Bids Section 4.6.1).....	Exhibit 8.11 <input type="checkbox"/>
Affidavit of No Collusion in Bidding .....	Exhibit 8.12 <input type="checkbox"/>
Affidavit – Disadvantaged Business Enterprise Assurances .....	Exhibit 8.13 <input type="checkbox"/>

8.2.

**COMPETITIVE SEALED BID FORMS**

Place: Tempe, Arizona

Date: November 26, 2013

Mayor and City Council  
City of Tempe  
Tempe, Arizona 85281

In compliance with your Invitation for Bids and all conditions of the Contract, TALIS Construction Corporation, a corporation or limited liability corporation organized under the laws of the State of Arizona; a partnership consisting of \_\_\_\_\_; or an individual trading as \_\_\_\_\_, of the City of Tempe, and the County of Maricopa, hereby proposes and agrees to furnish any and all plans, materials, labor, construction equipment, service, and transportation (all applicable taxes included) of the **HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD TO UNIVERSITY DRIVE, PROJECT NO. 6004371, FEDERAL AID PROJECT NO. CM-TMP-0-(229)D, ADOT TRACS NO. 0000 MA TMP SZ055 01C**, and to install the material therein for City in a good and workmanlike and substantial manner and to the satisfaction of City or its properly authorized agents and strictly pursuant to and in conformity with the Contract and other documents that may be made by City or their properly authorized agents, as provided herein, at the following prices:

# City of Tempe



Project No. 6004371

Hardy Drive Street Improvements - Broadway Road to University Drive

TALIS CONSTRUCTION CORPORATION

## Base Bid

Item No.	Item Name	Quantity	Unit	Unit Cost	Total Cost
1	Mobilization/ Demobilization	1	LS	\$14,000.00	\$14,000.00
2	Traffic Control Allowance	1	LS	\$110,000.00	\$110,000.00
3	Survey	1	LS	\$20,000.00	\$20,000.00
4	Not Used	0	EA	\$0.00	\$0.00
5	Stormwater Pollution Prevention Plan Allowance	1	LS	\$10,000.00	\$10,000.00
6	Permits Allowance	1	LS	\$3,000.00	\$3,000.00
7	2" AC (A-12.5 EVAC) over 4" (A-19 EVAC)	1611	SY	\$52.00	\$83,772.00
8	Microseal Type III	22044	SY	\$3.35	\$73,847.40
9	Concrete Sidewalk COT Std. Det. T-345	70248	SF	\$2.80	\$196,694.40
10	Sidewalk Ramp COT Std. Det. T-324	26	EA	\$9.24	\$240.24
11	Sidewalk Ramp COT Std. Det. T-326	15	EA	\$9.75	\$146.25
12	Sidewalk Ramp COT Std. Det. T-329	1	EA	\$1,240.00	\$1,240.00
13	Sidewalk Ramp COT Std. Det. T-348 Type B	3	EA	\$980.00	\$2,940.00
14	Sidewalk Ramp Modified, Detail (D5) Sheet 10	8	EA	\$1,025.00	\$8,200.00
15	Single Curb MAG Std. Det. 222, Type A	1034	LF	\$13.00	\$13,442.00
16	Curb & Gutter & Transitions MAG Std. Det. 220-1 Type A	5904	LF	\$12.00	\$70,848.00
17	Residential Driveway COT Std. Det. T-320	6106	SF	\$4.00	\$24,424.00
18	Commercial Driveway COT Std. Det. T-320	1018	SF	\$5.00	\$5,090.00
19	Alley Entrance MAG Std. Det. 260	7514	SF	\$5.00	\$37,570.00

20	Concrete Driveway Connections	5553	SF	\$5.00	\$27,765.00
21	Valley Gutter MAG Std. Det. 240	1548	SF	\$5.25	\$8,127.00
22	Remove and Reconstruct Valley Gutter Apron MAG Std. Det 240	2538	SF	\$8.80	\$22,334.40
23	8" PCCP	1272	SY	\$53.00	\$67,416.00
24	Catch Basin MAG Std. Det. 530 - Type A 3'-6" Opening	8	EA	\$1,100.00	\$8,800.00
25	Catch Basin MAG Std. Det. 532 - Type C 8'-0" Opening	2	EA	\$1,500.00	\$3,000.00
26	18" RCP Class III Storm Drain	302	LF	\$84.00	\$25,368.00
27	24" RCP Class III Storm Drain	477	LF	\$103.00	\$49,131.00
28	27" RCP Class III Storm Drain	990	LF	\$110.00	\$108,900.00
29	Concrete Pipe Collar MAG Std. Det. 505	6	EA	\$550.00	\$3,300.00
30	Storm Dain Manhole (5' no steps) MAG Std. Det. 521 & 522	9	EA	\$4,000.00	\$36,000.00
31	Adjust & Clean Existing Manhole COT Std. Det. T-446	6	EA	\$440.00	\$2,640.00
32	Adjust & Clean Valve Box & Cover COT Std. Det. T-445	17	EA	\$440.00	\$7,480.00
33	Relocate Existing Water Meter COT Std. Det. T-212	42	EA	\$700.00	\$29,400.00
34	Sawcut & Remove Concrete Sidewalk	35244	SF	\$1.80	\$63,439.20
35	Sawcut & Remove Curb or Curb & Gutter	4170	LF	\$2.25	\$9,382.50
36	Sawcut & Remove Pavement	5358	SY	\$6.70	\$35,898.60
37	Sawcut & Remove Driveway	8491	SF	\$1.80	\$15,283.80
38	Remove & Salvage Bus Shelter	9	EA	\$550.00	\$4,950.00
39	Remove Wall, Replace in Kind	512	LF	\$64.00	\$32,768.00
40	Remove Fence, Replace in Kind	105	LF	\$64.00	\$6,720.00
41	Remove Concrete Pipe	80	LF	\$64.00	\$5,120.00
42	Remove Existing Slotted Drain and Catch Basin	1	EA	\$900.00	\$900.00
43	Safety Rail MAG Std. Det. 145	110	LF	\$39.00	\$4,290.00
44	Bollard Type 2 Removable MAG Std. Det. 140	24	EA	\$500.00	\$12,000.00
45	4" Solid Yellow, 4" Broken Yellow	6799	LF	\$1.10	\$7,478.90

46	8" Solid White	9794	LF	\$1.10	\$10,773.40
47	8" Dashed White	313	LF	\$0.60	\$187.80
48	12" Solid White	975	LF	\$2.50	\$2,437.50
49	8" Bike Lane Dashed White	489	LF	\$0.50	\$244.50
50	24" Stop Bar	864	LF	\$5.20	\$4,492.80
51	12" Solid Yellow	222	LF	\$2.60	\$577.20
52	4" Double Yellow	1158	LF	\$1.80	\$2,084.40
53	4'x20' Preformed Thermoplastic Green Bike Symbol	33	EA	\$650.00	\$21,450.00
54	Dual Component Pavement Symbol	4	EA	\$200.00	\$800.00
55	Shared Lane Marking	4	EA	\$250.00	\$1,000.00
56	Paint Median Nose Solid Yellow	24	EA	\$120.00	\$2,880.00
57	Pedestrian Pavement Symbol	11	EA	\$200.00	\$2,200.00
58	Speed Table Markings	16	EA	\$105.00	\$1,680.00
59	24" Solid Circle (school roll-out signs)	2	EA	\$90.00	\$180.00
60	Raised Pavement Markers Type D	530	EA	\$5.00	\$2,650.00
61	Sign Removal	1	LS	\$900.00	\$900.00
62	Sign Panel	120	SF	\$27.00	\$3,240.00
63	Sign Post & Base	690	LF	\$24.00	\$16,560.00
64	Reconstruct Existing Traffic Loops COT Std. Det. T-575	6	EA	\$1,350.00	\$8,100.00
65	Remove Existing Pedestrian Push Button	1	EA	\$100.00	\$100.00
66	Remove & Reset Existing Pedestrian Button	2	EA	\$450.00	\$900.00
67	Remove and Reset Existing Bicycle Push Button & Pole	2	EA	\$900.00	\$1,800.00
68	Pedestrian Push Button & Pole	5	EA	\$2,500.00	\$12,500.00
69	Adjust Survey Marker Type A to Grade MAG Std. Det. 120-1	6	EA	\$300.00	\$1,800.00
70	Install Survey Marker Type A to Grade MAG Std. Det. 120-1	8	EA	\$350.00	\$2,800.00
71	Plant Removal	18	EA	\$240.00	\$4,320.00

72	Existing Plant Pruning Allowance	1	LS	\$2,500.00	\$2,500.00
73	Existing Plant Relocation Allowance	1	LS	\$5,000.00	\$5,000.00
74	Miscellaneous Landform Grading Allowance	1	LS	\$2,500.00	\$2,500.00
75	Existing Tree Protection	55	EA	\$75.00	\$4,125.00
76	Trees 36" Box	2	EA	\$600.00	\$1,200.00
77	Trees 24" Box	68	EA	\$225.00	\$15,300.00
78	Root Barrier	1550	LF	\$2.75	\$4,262.50
79	Medium Shrubs (5 Gallon)	285	EA	\$15.00	\$4,275.00
80	Low Shrubs (1 Gallon)	671	EA	\$7.00	\$4,697.00
81	Vines (1 Gallon)	42	EA	\$10.00	\$420.00
82	Lawn Restoration	5000	SF	\$0.50	\$2,500.00
83	Decomposed Granite Mulch	3410	SY	\$4.25	\$14,492.50
84	Decorative River Rock 1-2"	500	SY	\$30.00	\$15,000.00
85	Irrigation Emitters & Dist. Tube (Bowsmith 6-Outlet or Approved Equal)	384	EA	\$26.00	\$9,984.00
86	Irrigation Valves (Rain Bird 3/4" Control Zone or Approved Equal)	56	EA	\$205.00	\$11,480.00
87	Irrigation Piping 2" Mainline Schedule 40 PVC	6750	LF	\$2.60	\$17,550.00
88	Irrigation Piping 3/4" Lateral, Class 200 PVC	4900	LF	\$1.50	\$7,350.00
89	Irrigation Sleeving, 4" Ductile Iron at Streets	1350	LF	\$35.00	\$47,250.00
90	Irrigation Sleeving, 2" Schedule 40 PVC at Alleys/Dr.	6150	LF	\$5.40	\$33,210.00
91	Irrigation Controller (Solar Panel/Type)	2	EA	\$7,500.00	\$15,000.00
92	Irrigation Backflow (2")	2	EA	\$2,300.00	\$4,600.00
93	Irrigation Water Meter (2")	2	EA	\$1,700.00	\$3,400.00
94	Irrigation Restoration (Private Property) Allowance	1	LS	\$25,000.00	\$25,000.00
95	Ball Valves	13	EA	\$200.00	\$2,600.00
96	Quick Couplers	7	EA	\$200.00	\$1,400.00
97	Flush Valves	72	EA	\$42.00	\$3,024.00

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98	Type 1 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting,	2 EA	\$20,000.00	\$40,000.00
99	Type 2 Bus Shelter (Incl. Benches, Trash, Bike Racks, Photovoltaic Panel, Lighting & Concrete Pad	4 EA	\$20,000.00	\$80,000.00
100	Type 3 Bus Stop (Incl. Benches, Trash Receptacles, Special Curb & Gutter & Concrete Pad)	3 EA	\$15,000.00	\$45,000.00
101	Type 4 Bus Stop (Incl. Benches and Trash Receptacle, no roof & Concrete Pad)	1 EA	\$17,000.00	\$17,000.00
102	Foundation for Art Sculpture	1 EA	\$5,200.00	\$5,200.00
103	Sewer Pipe Encasements	2 EA	\$3,100.00	\$6,200.00
104	Fire Hydrant Relocation	1 EA	\$2,300.00	\$2,300.00
105	Sidewalk Ramp per MAG Std. Dtl 235-5 (Modified), Detail (d6) Sheet 10	5 EA	\$1,300.00	\$6,500.00

**Total Base Bid: \$1,840,324.29**

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The undersigned hereby declares that Contractor has visited the site and has carefully examined the Contract related to the work covered by the above bid.

The undersigned understands that, when it is in the best interests of the City of Tempe, the City may cancel this solicitation, or may reject any and all bids in whole or in part, or may waive any informalities in the bids received.

Contractor's performance shall not start until after receiving the Notice to Proceed, and the work will be completed within two hundred forty (240) consecutive calendar days after the Notice to Proceed date.

The undersigned hereby acknowledges receipt of the following Addenda: Addendum No. 1 issued 10/21/13, Addendum No. 2 issued 11/4/13, Addendum No. 3 issued 11/8/13, Addendum No. 4 issued 11/20/13  
and Contractor's bid has been adjusted to reflect any changes.

Respectfully submitted,

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

\_\_\_\_\_  
Printed Name

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

\_\_\_\_\_  
86-0786364  
Federal I.D. No./Social Security No.

[Corporate Seal])

For: TALIS Construction Corporation  
Company Name

Address: 2342 S. McClintock Drive  
Tempe, AZ 85282

Phone: 480-557-6100

Fax: 480-557-6200





8.5.

**COMPETITIVE SEALED BID  
CERTIFICATION FORM**

HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD  
TO UNIVERSITY DRIVE  
PROJECT NO. 6004371

Bidder certifies that it is a: \_\_\_\_\_ proprietorship; \_\_\_\_\_ partnership;  corporation; \_\_\_\_\_ other.

Arizona Sales Tax No. 07458306

Use Tax No. for Out-of-State Supplier \_\_\_\_\_

City of Tempe Sales Tax No. 112423

Taxpayer's Federal Identification No. 86-0786364

Bidder certifies that it has read, understands, and will fully and faithfully comply with this Invitation for Bids, its attachments, and any referenced documents. Bidder also certifies that the bid was independently developed without consultation with any other Bidders or potential Bidders.

Company's Legal Name: TALIS Construction Corporation

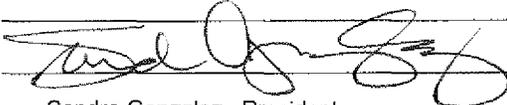
Address: 2342 S. McClintock Drive

City, State and Zip Code: Tempe, Arizona 85282

Telephone Number: 480-557-6100

Company's Fax Number: 480-557-6200

Company's Toll Free Number: \_\_\_\_\_

Signature: 

Printed Name and Title: Sandra Gonzalez - President

E-Mail Address: sandyg@talis.us

**MAILING ADDRESSES**

Purchase Order Address: (If different from above)

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

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

City, State and Zip Code: \_\_\_\_\_

Payment Address: (If different from above)

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

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

City, State and Zip Code: \_\_\_\_\_

8.7.

**PERFORMANCE BOND FORM**

(Bond Amount to Be Equal to 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ (hereinafter called the Principal), as Principal, and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ (hereinafter called the Surety), are held and firmly bound unto \_\_\_\_\_ (hereinafter called the Obligee) in the amount of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), for the payment whereof the said 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 Contract with the Obligee, dated the 9<sup>th</sup> day of January, 2014, to complete Project No. 6004371, Federal Aid Project No. CM-TMP-0-(229)D, ADOT TRACS No. 0000 MA TMP SZ055 01C, which Contract 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 faithfully performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of the Contract during the original term of the Contract and any extension of the Contract, with or without notice to the Surety, and during the life of any guaranty required under the Contract, and also performs and fulfills all of the undertakings, covenants, terms, conditions and agreements of all duly authorized modifications of the Contract 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 shall be determined in accordance with the provisions of title 34, chapter 2, article 2, Arizona Revised Statutes, to the extent as if it were copied at length in this agreement.

The prevailing party in a suit on this bond shall recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
PRINCIPAL SEAL

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

\_\_\_\_\_  
\*SURETY SEAL

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

\_\_\_\_\_  
AGENCY ADDRESS

\*Surety hereby acknowledges it holds a certificate of authority to transact surety business in the State of Arizona, issued by the director of the department of insurance pursuant to Title 20, Chapter 2, Article 1, Arizona Revised Statutes.

8.8.

**PAYMENT BOND FORM**

(Bond Amount to Be Equal to 100% of the Contract Amount)

KNOW ALL MEN BY THESE PRESENTS:

That \_\_\_\_\_ (hereinafter called the Principal), as Principal, and \_\_\_\_\_, a corporation organized and existing under the laws of the State of \_\_\_\_\_, with its principal office in the City of \_\_\_\_\_ (hereinafter called the Surety), are held and firmly bound unto \_\_\_\_\_ (hereinafter called the Obligee) in the amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment whereof the said 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 Contract with the Obligee, dated the 9<sup>th</sup> day of January, 2014, to complete Project No. 6004371, Federal Aid Project No. CM-TMP-0-(229)D, ADOT TRACS No. 0000 MA TMP SZ055 01C, which Contract 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 monies 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 the Contract, 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 shall 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 they were copied at length in this agreement.

The prevailing party in a suit on this bond shall recover as a part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 2014.

\_\_\_\_\_  
PRINCIPAL SEAL

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

\_\_\_\_\_  
\*SURETY SEAL

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

\_\_\_\_\_  
AGENCY ADDRESS

\*Surety hereby acknowledges it holds a certificate of authority to transact surety business in the State of Arizona, issued by the director of the department of insurance pursuant to Title 20, Chapter 2, Article 1, Arizona Revised Statutes.

**UNCONDITIONAL WAIVER AND RELEASE  
FOR CONTRACTOR'S PAYMENT  
AND SETTLEMENT OF CLAIMS**

Upon receipt of payment from the City of Tempe, the undersigned:

Contractor's Name: \_\_\_\_\_

Contractor's Address: \_\_\_\_\_

The undersigned has been paid and acknowledges having received final payment from the City of Tempe in the amount of \$ \_\_\_\_\_ [state dollar amount for final, total contract amount] for full and final payment of all work, services, equipment, labor, skill, and material furnished, delivered, and performed by the undersigned for the City or anyone in the construction [or other services] for HARDY DRIVE STREET IMPROVEMENTS – BROADWAY ROAD TO UNIVERSITY DRIVE, PROJECT NO. 6004371, FEDERAL AID PROJECT NO. CM-TMP-0-(229)D, ADOT TRACS NO. 0000 MA TMP SZ055 01C, at the location of Hardy Drive, between University Drive and Broadway Road in Tempe, Arizona; and does hereby waive and release any and all rights to mechanic's liens, any state or federal statutory bond right, any private bond right, any claim for payment, and any and all rights under any applicable federal, state, or local laws related to claim or payment rights for persons in the undersigned's position held on the above-referenced project against the City of Tempe, for this value received. The undersigned further agrees to defend, indemnify, and hold harmless the City of Tempe against any and all liens, claims, suits, actions, damages, charges, and expenses whatsoever, which the City may incur, arising out of the failure of the undersigned to pay in full for all work, services, equipment, labor, skill, and material furnished with regard to the project.

The undersigned, in consideration of the payment acknowledged, hereby warrants that he/she has already paid or will pay using the monies received from this final payment to promptly pay in full all of his contractors, subcontractors, laborers, materialmen, and suppliers for all work, materials, equipment, or services provided to the above-referenced project.

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
By (Print Name and Title)

Notice: This document waives rights unconditionally and states that you have been paid for giving up those rights. This document is enforceable against you if signed, even if you have not been paid. If you have not been paid in full, use a conditional release form.

[NOTARY SEAL TO FOLLOW]

STATE OF ARIZONA )  
COUNTY OF MARICOPA )

On \_\_\_\_ day of \_\_\_\_\_, 2014, \_\_\_\_\_ personally appeared before me, and proved by lawful identification documents to be the person who signed the preceding document in my presence, and who affirmed to me that the contents therein are truthful and accurate to the best of his/her knowledge and belief.

Notary Seal

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

\_\_\_\_\_  
Printed Name

My Commission Expires:

\_\_\_\_\_

8.10.

**PROMPT PAYMENT AND RETURN OF RETENTION REQUIREMENTS**

In accordance with ADOT Standard Specifications for Road and Bridge Construction (2008), Section 109(B), the Contractor shall make prompt partial payments to its subcontractors within seven days of receipt of payment from Tempe.

The Contractor also shall make prompt final payment to each of its subcontractors of all monies, including retention, due the subcontractor within 14 days after the subcontractor has satisfactorily completed all of its work.

If prompt partial payment, or prompt final payment including any retention, is not made within the time frames established above, Tempe will retain \$2,000 per subcontractor, per occurrence. Each additional month that payment is not made constitutes an additional occurrence. The amount withheld by Tempe will be released after the issue is resolved.

**AFFIDAVIT DEMONSTRATING LAWFUL PRESENCE IN THE UNITED STATES**

A.R.S. § 1-501 and § 1-502 require any individual person or sole proprietor who applies to the City for a local public benefit (including the award of a contract) to demonstrate his or her lawful presence in the United States. An individual person or sole proprietor who submits a bid for this contract must complete this Affidavit and submit it with the bid, along with a copy of one of the documents listed below.

**LAWFUL PRESENCE IN THE UNITED STATES CAN BE DEMONSTRATED BY PRESENTATION OF ONE (1) OF THE DOCUMENTS LISTED BELOW.**

Please present the document indicated below to the City. If mailing the document, attach a copy of the document to this Affidavit. (If the document may not be copied, present the document in person to the City for review and signing of the affidavit.)

- \_\_\_\_\_ 1. An Arizona driver license issued after 1996.  
Print first 4 numbers/letters from license: \_\_\_\_\_
- \_\_\_\_\_ 2. An Arizona non-operating identification License.  
Print first 4 numbers/letters: \_\_\_\_\_
- \_\_\_\_\_ 3. A birth certificate or delayed birth certificate issued in any state, territory or possession of the United States.  
Year of birth: \_\_\_\_\_; Place of birth: \_\_\_\_\_
- \_\_\_\_\_ 4. A United States Certificate of Birth abroad.  
Year of birth: \_\_\_\_\_; Place of birth: \_\_\_\_\_
- \_\_\_\_\_ 5. A United States passport.  
Print first 4 numbers/letters on Passport: \_\_\_\_\_
- \_\_\_\_\_ 6. A foreign passport with a United States Visa.  
Print first 4 numbers/letters on Passport \_\_\_\_\_  
Print first 4 numbers/letters on Visa \_\_\_\_\_
- \_\_\_\_\_ 7. An I-94 form with a photograph.  
Print first 4 numbers on I-94: \_\_\_\_\_
- \_\_\_\_\_ 8. **A United States Citizenship and Immigration Services Employment Authorization Document (EAD).**  
Print first 4 numbers/letters on EAD: \_\_\_\_\_
- \_\_\_\_\_ 9. **Refugee travel document.**  
Date of Issuance: \_\_\_\_\_ Refugee Country: \_\_\_\_\_
- \_\_\_\_\_ 10. **A United States Certificate of Naturalization.**  
Print first 4 digits of CIS Reg. No.: \_\_\_\_\_
- \_\_\_\_\_ 11. **A United States Certificate of Citizenship.**  
Date of Issuance: \_\_\_\_\_ Place of Issuance: \_\_\_\_\_
- \_\_\_\_\_ 12. **A tribal Certificate of Indian Blood.**  
Date of Issuance: \_\_\_\_\_ Name of Tribe: \_\_\_\_\_
- \_\_\_\_\_ 13. **A tribal or Bureau of Indian Affairs Affidavit of Birth.**  
Year of Birth: \_\_\_\_\_ Place of Birth: \_\_\_\_\_

**I DO SWEAR OR AFFIRM UNDER PENALTY OF LAW THAT I AM LAWFULLY PRESENT IN THE UNITED STATES AND THAT THE DOCUMENT I PRESENTED ABOVE AS VERIFICATION IS TRUE.**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Business/Company (if applicable)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Address

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

\_\_\_\_\_  
City, State, Zip Code

OFFICE USE ONLY: EMPLOYEE NAME: \_\_\_\_\_  
EMPLOYEE NUMBER: \_\_\_\_\_











Agency Name \_\_\_\_\_

8.17

CERTIFICATION OF PAYMENTS

BECO 306S R1/13

The undersigned prime contractor on Project # \_\_\_\_\_ 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 Vendor Registration # \_\_\_\_\_

Name of DBE Firm \_\_\_\_\_ was paid \$ \_\_\_\_\_

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 prime 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.

\_\_\_\_\_  
Prime Contractor

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

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

The undersigned subcontractor/supplier/manufacturer for the above named project hereby certified that payments were received and/or justification by 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.

\_\_\_\_\_  
Subcontractor/Supplier/Manufacturer

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

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

State of \_\_\_\_\_

County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_

X  
\_\_\_\_\_  
Signature of Notary Public

SEAL

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

**8.18. LABOR STANDARDS CERTIFICATION**

\_\_\_\_\_ (“Subcontractor”) has been contracted by \_\_\_\_\_  
(Subcontractor's Name) (Prime Contractor's Name)

for \_\_\_\_\_ on the City of Tempe’s \_\_\_\_\_ Project (“Project”).  
(Nature and General Scope of Work) (Project Name or Number)

The subcontract is for \$ \_\_\_\_\_ Subcontractor’s work is expected to commence on \_\_\_\_\_  
(Dollar Amount) (Month, Day, Year)

**Certification by Subcontractor’s Legally Authorized Representative**

As a legally authorized representative of the Subcontractor, I certify that:

1. Subcontractor acknowledges that the Project is funded, in part, by the Federal Highway Administration (FHWA).
2. Subcontractor acknowledges that the following are physically present in its subcontract:
  - a. Form FHWA-1273 (Rev. May 1, 2012). Subcontractor must initial and date each page of Form FHWA-1273 (Rev. May 1, 2012) in the subcontract.
  - b. The Disadvantaged Business Enterprises provisions applicable to the Project (Part XV of the IFB / Contract section captioned FEDERAL PROVISIONS).
  - c. The Wage Determination applicable to the Project.
3. Subcontractor will insert the items listed in 2 a–c, above, in all lower-tier subcontracts for the Project, and will require lower-tier subcontractors to do the same in any subcontracts they enter.
4. Subcontractor, nor any person or firm that has a substantial interest in Subcontractor's firm, is debarred, suspended, or otherwise ineligible to be awarded federal contracts.
5. Subcontractor will not subcontract any part of the above-referenced subcontract to any person or firm that is debarred, suspended, or otherwise ineligible to be awarded federal contracts.
6. Subcontractor’s legal name and contact information is:

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

Mailing Address \_\_\_\_\_  
(Number & Street) (City, State, Zip code)

Main Phone Number \_\_\_\_\_ Main Fax Number \_\_\_\_\_

7. Subcontractor’s Federal Business Tax ID # \_\_\_\_\_ and Contractor License # \_\_\_\_\_

8. The Subcontractor is (✓ one):  a Corporation, incorporated in the State of \_\_\_\_\_  
 a Proprietorship  a Partnership  an LLC  Other (specify): \_\_\_\_\_

9. The following are the Subcontractor's owner(s), partners, and officers (add lines or attach sheets if needed):

<small>(Full Name)</small>	<small>(Title)</small>	<small>(Address)</small>	<small>(Phone)</small>
/			
/			
/			
/			

10.  Yes  No A representative of the Subcontractor attended the Project Preconstruction Conference that was held on \_\_\_\_\_ (date of Pre-Construction Conference).
11. I (Subcontractor's legally authorized representative, or Subcontractor's Appointee for supervision of payrolls) have reviewed the Wage Determination applicable to this project and have identified the following:

Construction Work Activities the Subcontractor Expects to Be Performing at the Project Job Site	Corresponding Work Classifications Listed in the Applicable Wage Determination
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**IMPORTANT:** If no Work Classification is listed in the Wage Determination for a task or activity that the Subcontractor will be performing at the job site, please request a "Additional Classification & Wage Rate" form (SF-1444) from the Prime Contractor.

12. Fringe Benefit information.  
 Yes  No The Subcontractor's employees receive fringe benefits (medical, dental, 401K, training benefits).  
 Yes  No The Subcontractor is bound by a signed document such as a Union Agreement.
13. Truck Owner-Operator information.  
 Yes  No The Subcontractor is a Truck Owner-Operator (if Yes, additional documentation will be required).
14. **The penalty for making a false statement in this Certification is prescribed in the U.S. Criminal Code, 18 U.S.C. § 1001.**

**Certification by  
Subcontractor's Legally Authorized Representative**

I hereby certify that I have reviewed the statements made in this Labor Standards Certification and that, to the best of my knowledge, these statements are true.

\_\_\_\_\_  
(SIGNATURE of Subcontractor's Legally Authorized Representative) (Date)

\_\_\_\_\_  
(PRINTED name) (Title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_\_.

\_\_\_\_\_  
(Notary Public)  My Commission expires \_\_\_\_\_.

**Subcontractor's Appointee for Supervision of Payrolls**

The Subcontractor has designated and appointed \_\_\_\_\_ ("Appointee"),  
(name of Subcontractor's Appointee for Supervision of Payrolls)

whose original signature appears in the Certification below, to supervise the payment of employees for the

Subcontractor, beginning on \_\_\_\_\_  
(Month, Day, Year)

The Appointee is in a position to have full knowledge of: (a) the facts set forth in the Subcontractor's payroll documents; (b) the Statement of Compliance referred to in 29 C.F.R. 5.5(a)(3)(ii)(B), which the Appointee is to execute with each payroll report; and (c) the Copeland "Anti-Kickback" Act ( 18 U.S.C. § 874, as implemented and supplemented by 29 C.F.R. part 3).

**Certification by**  
**Subcontractor's Appointee for Supervision of Payrolls**

I hereby certify that I have reviewed the statements made in this Labor Standards Certification and that, to the best of my knowledge, these statements are true.

\_\_\_\_\_  
(SIGNATURE of Subcontractor's Appointee for Supervision of Payrolls) (Date)

\_\_\_\_\_  
(PRINTED name) (Title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_\_.

\_\_\_\_\_  
(Notary Public)  My Commission expires \_\_\_\_\_.

**NOTE:** If the Subcontractor's Appointee for Supervision of Payrolls is changed, or a new Appointee is added, a new "Certification by Subcontractor's Appointee for Supervision of Payrolls" must accompany the first payroll for which the new appointee executes a Statement of Compliance.

**CITY OF TEMPE**  
**Public Works Department, Engineering Division**  
**31 East 5th Street, West Garden Level • Tempe, Arizona 85281**  
**Phone 480-350-8200 • Fax 480-350-8591**

8.19 WAGE DETERMINATION

General Decision Number: AZ130008 08/23/2013 AZ8

Superseded General Decision Number: AZ20120013

State: Arizona

Construction Type: Highway

Counties: Coconino, Maricopa, Mohave, Pima, Pinal, Yavapai and Yuma Counties in Arizona.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/04/2013
1	01/11/2013
2	02/22/2013
3	03/22/2013
4	06/14/2013
5	08/23/2013

CARP0408-005 10/01/2012

	Rates	Fringes
CARPENTER (Including Cement Form Work).....	\$ 23.58	9.49

\* ENGI0428-001 07/29/2013

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1.....	\$ 20.99	9.05
Group 2.....	\$ 24.26	9.05
Group 3.....	\$ 25.34	9.05
Group 4.....	\$ 26.37	9.05

POWER EQUIPMENT OPERATORS CLASSIFICATIONS:

GROUP 1: A-frame boom truck, air compressor, Beltcrete, boring bridge and texture, brakeman, concrete mixer (skip type), conductor, conveyor, cross timing and pipe float, curing machine, dinky (under 20 tons), elevator hoist (Husky and similar), firemen, forklift, generator (all), handler, highline cableway signalman, hydrographic mulcher, joint inserter, jumbo finishing machine, Kolman belt loader, machine conveyor, multiple power concrete saw, pavement breaker, power grizzly, pressure grout machine, pump, self-propelled chip spreading machine, slurry seal machine (Moto paver driver), small self-propelled compactor (with blade-backfill, ditch operation), straw blower, tractor (wheel type), tripper, tugger (single drum), welding machine, winch truck

GROUP 2:

ALL COUNTIES INCLUDING MARICOPA: Aggregate Plant, Asphalt plant Mixer, Bee Gee, Boring Machine, Concrete Pump, Concrete Mechanical Tamping-Spreading Finishing Machine,

Concrete Batch Plant, Concrete Mixer (paving & mobile), Elevating Grader (except as otherwise classified), Field Equipment Serviceman, Locomotive Engineer (including Dinky 20 tons & over), Moto-Paver, Oiler-Driver, Operating Enginser Rigger, Power Jumbo Form Setter, Road Oil Mixing Machine, Self-Propelled Compactor (with blade-grade operation), Slip Form (power driven lifting device for concrete forms), Soil Cement Road Mixing Machine, Pipe-Wrapping & Cleaning Machine (stationary or traveling), Surface Heater & Planer, Trenching Machine, Tugger (2 or more drums).

MARICOPA COUNTY ONLY: Backhoe < 1 cu yd, Motor Grader (rough), Scraper (pneumatic tired), Roller (all types asphalt), Screed, Skip Loader (all types 3<6 cu yd), Tractor (dozer, pusher-all).

GROUP 3:

ALL COUNTIES INCLUDING MARICOPA: Auto Grade Machine, Barge, Boring Machine (including Mole, Badger & similar type directional/horizontal), Crane (crawler & pneumatic 15>100 tons), Crawler type Tractor with boom attachment & slope bar, Derrick, Gradall, Heavy Duty Mechanic-Welder, Helicopter Hoist or Pilot, Highline Cableway, Mechanical Hoist, Mucking Machine, Overhead Crane, Pile Driver Engineer (portable, stationary or skid), Power Driven Ditch Lining or Ditch Trimming Machine, Remote Control Earth Moving Machine, Slip Form Paving Machine (including Gunnert, Zimmerman & similar types), Tower Crane or similar type.

MARICOPA COUNTY ONLY: Backhoe<10 cu yd, Clamshell < 10 cu yd, Concrete Pump (truck mounted with boom only), Dragline <10 cu yd, Grade Checker, Motor Grader (finish-any type power blade), Shovel < 10 cu yd.

GROUP 4: Backhoe 10 cu yd and over, Clamshell 10 cu yd and over, Crane (pneumatic or crawler 100 tons & over), Dragline 10 cu yd and over, Shovel 10 cu yd and over.

All Operators, Oilers, and Motor Crane Drivers on equipment with Booms, except concrete pumping truck booms, including Jibs, shall receive \$0.01 per hour per foot over 80 ft in addition to regular rate of pay

Premium pay for performing hazardous waste removal \$0.50 per hour over base rate.

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IRON0075-004 01/01/2013

COCONINO, MARICOPA, MOHAVE, YAVAPAI & YUMA COUNTIES

	Rates	Fringes
Ironworker, Rebar.....	\$ 26.52	20.65
Zone 1: 0 to 50 miles from City Hall in Phoenix or Tucson		
Zone 2: 050 to 100 miles - Add \$4.00		
Zone 3: 100 to 150 miles - Add \$5.00		

Zone 4: 150 miles & over - Add \$6.50

-----  
LABO0383-002 06/01/2010

	Rates	Fringes
Laborers:		
Group 1.....	\$ 17.61	4.35
Group 2.....	\$ 18.63	4.35
Group 3.....	\$ 19.42	4.35
Group 4.....	\$ 20.51	4.35
Group 5.....	\$ 21.49	4.35

LABORERS CLASSIFICATIONS:

GROUP 1: All Counties: Chipper, Rip Rap Stoneman. Pinal County Only: General/Cleanup Laborer. Maricopa County Only: Flagger.

GROUP 2: Asphalt Laborer (Shoveling-excluding Asphalt Raker or Ironer), Bander, Cement Mason Tender, Concrete Mucker, Cutting Torch Operator, Fine Grader, Guinea Chaser, Power Type Concrete Buggy

GROUP 3: Chain Saw, Concrete Small Tools, Concrete Vibrating Machine, Cribber & Shorer (except tunnel), Hydraulic Jacks and similar tools, Operator and Tender of Pneumatic and Electric Tools (not herein separately classified), Pipe Caulker and Back-Up Man-Pipeline, Pipe Wrapper, Pneumatic Gopher, Pre-Cast Manhole Erector, Rigger and Signal Man-Pipeline

GROUP 4: Air and Water Washout Nozzleman; Bio-Filter, Pressman, Installer, Operator; Scaffold Laborer; Chuck Tender; Concrete Cutting Torch; Gunite; Hand-Guided Trencher; Jackhammer and/or Pavement Breaker; Scaler (using boson's chair or safety belt); Tamper (mechanical all types).

GROUP 5: AC Dumpman, Asbestos Abatement, Asphalt Raker II, Drill Doctor/Air Tool Repairman, Hazardous Waste Removal, Lead Abatement, Lead Pipeman, Process Piping Installer, Scaler (Driller), Pest Technician/Weed Control, Scissor Lift, Hydro Mobile Scaffold Builder.

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PAIN0086-001 04/01/2013

	Rates	Fringes
PAINTER		
PAINTER (Yavapai County only), SAND BLASTER/WATER BLASTER (all Counties).....	\$ 19.35	4.75

ZONE PAY: More than 100 miles from Old Phoenix Courthouse \$3.50 additional per hour.

SUAZ2009-001 04/20/2009

	Rates	Pringes
CEMENT MASON.....	\$ 19.28	3.99
ELECTRICIAN.....	\$ 22.84	6.48
IRONWORKER (Rebar)		
Pima County.....	\$ 23.17	14.83
Pinal County.....	\$ 20.27	8.35
LABORER		
Asphalt Raker.....	\$ 15.49	3.49
Compaction Tool Operator....	\$ 14.59	2.91
Concrete Worker.....	\$ 13.55	3.20
Concrete/Asphalt Saw.....	\$ 13.95	2.58
Driller-Core, diamond, wagon, air track.....	\$ 16.94	3.12
Dumpman Spotter.....	\$ 14.99	3.16
Fence Builder.....	\$ 13.28	2.99
Flagger		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 12.35	1.59
Formsetter.....	\$ 16.09	3.97
General/Cleanup Laborer		
Coconino, Maricopa, Mohave, Pima, Yavapai & Yuma.....	\$ 14.54	3.49
Grade Setter (Pipeline).....	\$ 17.83	5.45
Guard Rail Installer.....	\$ 13.28	2.99
Landscape Laborer.....	\$ 11.39	
Landscape Sprinkler Installer.....	\$ 15.27	
Pipelayer.....	\$ 14.81	2.96
Powderman, Hydrasonic.....	\$ 16.39	2.58
OPERATOR: Power Equipment		
Asphalt Laydown Machine.....	\$ 21.19	6.05
Backhoe < 1 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 17.37	3.85
Backhoe < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Clamshell < 10 cu yd		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Concrete Pump (Truck Mounted with boom only)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 19.92	7.10
Crane (under 15 tons).....	\$ 21.35	7.36
Dragline (up to 10 cu yd)		
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....	\$ 18.72	3.59
Drilling Machine (including Water Wells).....	\$ 20.58	5.65
Grade Checker		
Coconino, Mohave, Pima,		

Pinal, Yavapai & Yuma.....\$ 16.04	3.68
Hydrographic Seeder.....\$ 15.88	7.67
Mass Excavator.....\$ 20.97	4.28
Milling Machine/Rotomill....\$ 21.42	7.45
Motor Grader (Finish-any type power blade)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 21.92	4.66
Motor Grader (Rough)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 20.07	4.13
Oiler.....\$ 18.15	8.24
Power Sweeper.....\$ 16.76	4.44
Roller (all types Asphalt)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 18.27	3.99
Roller (excluding asphalt)..\$ 15.65	3.32
Scraper (pneumatic tired)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 17.69	3.45
Screed	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 17.54	3.72
Shovel < 10 cu yd	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 18.72	3.59
Skip Loader (all types <3 cu yd).....\$ 18.28	5.30
Skip Loader (all types 3 < 6 cu yd)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 18.64	4.86
Skip Loader (all types 6 < 10 cu yd).....\$ 20.15	4.52
Tractor (dozer, pusher - all)	
Coconino, Mohave, Pima, Pinal, Yavapai & Yuma.....\$ 17.26	2.65
 PAINTER	
Coconino, Maricopa, Mohave, Pima, Pinal & Yuma..\$ 15.57	3.92
 TRUCK DRIVER	
2 or 3 Axle Dump or Flatrack.....\$ 16.27	3.30
5 Axle Dump or Flatrack....\$ 13.97	2.89
6 Axle Dump or Flatrack (< 16 cu yd).....\$ 17.79	6.42
Belly Dump.....\$ 14.67	
Oil Tanker Bootman.....\$ 22.03	
Self-Propelled Street Sweeper.....\$ 13.11	5.48
Water Truck 2500 < 3900 gallons.....\$ 18.14	4.55
Water Truck 3900 gallons and over.....\$ 15.92	3.33
Water Truck under 2500 gallons.....\$ 15.94	4.16

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

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

#### Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

#### Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued

as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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WAGE DETERMINATION APPEALS PROCESS

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

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION



# TECHNICAL SPECIFICATIONS

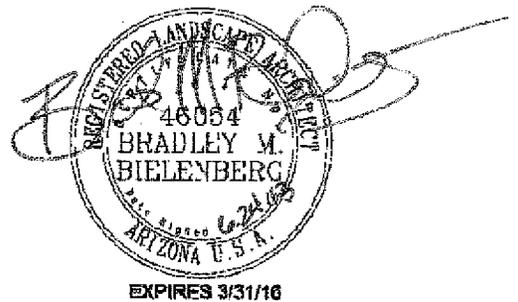
**Hardy Drive Improvements  
Broadway Road to University Drive  
City of Tempe Project No. 6004371**

**City of Tempe  
Public Works Department  
31 East 5<sup>th</sup> Street  
Tempe, Arizona 85281**

**October 1, 2013  
June 24, 2013**



Expires 9/30/2015



EXPIRES 3/31/16

## MITIGATION MEASURES

(From the ADOT-EPG Environmental Clearance dated May 6, 2013.)

These mitigation measures are not subject to change without prior written approval from the Federal Highway Administration.

No additional payment by the City will be made to the contractor or the subcontractor for adherence to these requirements.

The staging area environmentally cleared for this project is shown in Figure 2, at the end of these Mitigation Measures.

### City of Tempe Responsibilities

- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.
- If previously unidentified cultural resources are encountered during activity related to the construction of the project, the contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation of those resources. The City of Tempe Engineer will contact the Arizona Department of Transportation Environmental Planning Group, Historic Preservation Team, at 602.712.7767 or 602.712.8636 immediately, and make arrangements for proper treatment of those resources.
- The City of Tempe will communicate traffic control measures with the public, local officials, and the media prior to and during construction activities. Communication may include, but is not limited to, media alerts, direct mailings to area businesses and property owners, information on freeway variable message signs, and paid newspaper notices.
- The City of Tempe will provide a construction notice to residents and businesses in the general project area at least 2 weeks prior to construction.
- Access to adjacent businesses and residences will be maintained throughout construction.
- No sidewalk widening or upgrading will occur until the lead-based paint abatement plan is approved and implemented.
- The City of Tempe will ensure that a Stormwater Pollution Prevention Plan meeting the requirements of the current Arizona Pollutant Discharge Elimination System General Permit for Discharge From Construction Activities To the Waters of the United States issued by the Arizona Department of Environmental Quality is prepared and approved for the project.
- The City of Tempe will approve the Stormwater Pollution Prevention Plan and upon approval shall file a Notice of Intent to Arizona Department of Environmental Quality. Upon final acceptance of the project, the City of Tempe shall file a Notice of Termination for the project to Arizona Department of Environmental Quality.
- Fugitive dust generated from construction activities shall be controlled in accordance with Maricopa County Rule 310 as well as other local rules or ordinances.

- The City of Tempe project manager will contact the Arizona Department of Transportation Environmental Planning Group hazardous materials coordinator (602.920.3882 or 602.712.7767) 30 (thirty) days prior to bid advertisement to determine the need for additional site assessment.

#### **Contractor Responsibilities**

- To prevent the introduction of invasive species seeds, all earth moving and hauling equipment shall be washed at the contractor's storage facility prior to entering the construction site.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.
- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.
- If previously unidentified cultural resources are encountered during activity related to the construction of the project, the contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation of those resources. The Arizona Department of Transportation Engineer will contact the Arizona Department of Transportation Environmental Planning Group, Historic Preservation Team, at 602.712.7767 immediately, and make arrangements for proper treatment of those resources.
- The contractor shall contact local emergency services (hospital, fire, police) at least 14 calendar days in advance of lane closures so that they can arrange for alternate travel routes.
- The contractor shall notify the public and business owners of temporary access changes during construction at least 7 calendar days in advance of the change.
- At least 14 calendar days prior to construction, the contractor shall place advance-warning signs at locations designated by the City of Tempe to notify motorists, pedestrians and bicyclists of construction-related delays.
- If suspected hazardous materials are encountered during construction, work shall cease at that location and the City of Tempe Engineer shall be contacted to arrange for proper assessment, treatment, or disposal of those materials.
- An approved contractor shall develop and implement a lead-based paint abatement plan for the removal of the lead based paint, Toxicity Characteristic Leaching Procedure testing of the generated waste stream, and proper disposal of the waste stream derived from the removal of yellow painted Americans with Disabilities Act ramps within the project limits. A list of approved lead-based paint abatement contractors is attached to the special provisions. The Contractor shall follow all applicable local, state and federal codes and regulations, including Arizona Department of Transportation Standard Specifications, related to the treatment and handling of lead-based paint.
- The contractor shall submit a lead-based paint removal and disposal plan for the removal of yellow painted Americans with Disabilities Act ramps within the project limits to the Engineer and the Department Hazardous Materials Coordinator (602.712.7767) for review and approval at least 10 working days prior to sidewalk widening and upgrading.
- No sidewalk widening or upgrading shall occur until the lead-based paint abatement plan is approved by the Department Hazardous Material Coordinator and implemented.

- Visible fugitive dust emissions from paint removal must be controlled through wet or dry (e.g. vacuum) means during the removal process. If the liquid waste stream generated by a water blasting obliteration method passes the Toxicity Characteristic Leaching Process analysis, it may be used as a dust palliative or for compaction on the project. If the water is not used on the project, it must be properly disposed of, in accordance with all applicable Federal State and Local regulations.
- The contractor shall implement and prepare a Stormwater Pollution Prevention Plan. The contractor shall also prepare a Notice of Intent and a Notice of Termination meeting the terms and conditions of the Arizona Pollutant Discharge Elimination System general permit.
- The contractor shall submit the Stormwater Pollution Prevention Plan to the Arizona Department of Transportation Engineer for approval prior to submission of a Notice of Intent to the Arizona Department of Environmental Quality by the City of Tempe and the contractor.
- This project is located within a designated municipal separate storm sewer system. Therefore the contractor, in association with the City of Tempe, shall send a copy of the certificate authorizing permit coverage and a copy of the Notice of Termination acknowledgement letter to the City of Tempe Engineering Department.
- Fugitive dust generated from construction activities shall be controlled in accordance with Maricopa County Rule 310 as well as other local rules or ordinances.



## ITEMS, MEASUREMENT, AND PAYMENT

Measurement and payment for all pay items in the proposal shall be as specified in the applicable section of the Maricopa Association of Governments Uniform Standard specifications for Public Works Construction (MAG Specifications) latest edition, and City of Tempe supplements, and any applicable City specifications or Standards as specified in these Technical Specifications. In the event of a conflict between these Specifications and the requirements of the plans, detail drawings, or City Standard Details and the MAG Specifications, these Specifications shall prevail.

Payment of the contract items shall be compensation in full for furnishing all overhead, labor, material, tools, equipment, and appurtenances necessary to complete the work in a good, neat, and satisfactory manner as indicated on the plans, or as specified, with all necessary connections and appurtenances for the satisfactory use of and/or operation of said item. No additional payment will be made for work related to each item unless specifically noted or specified. Measurement will be in place for the completed work with no allowance for waste.

All individual item quantities presented are approximate and shall be field verified prior to payment.

### **Item No. 1 – Mobilization/Demobilization**

Mobilization/Demobilization shall conform to MAG Specification Section 109.10 and the City of Tempe Supplement.

Measurement and payment will be at the contract lump sum bid and shall be full compensation for the item complete.

### **Item No. 2 - Traffic Control Allowance**

Traffic Control shall be regulated in accordance with the MAG Specifications; the City of Tempe Traffic Barricade Manual, latest edition; the Manual on Uniform Traffic Control Devices (MUTCD); and any special provisions included herein.

The allowance for traffic control will not exceed \$50,000 for traffic control requirements, with no mark up, as stated in the contract.

At the time of the pre-construction conference, Contractor shall designate an American Traffic Safety Services Association (ATSSA) certified individual, who is well qualified and experienced in construction traffic control and safety, to be responsible for implementing, monitoring, and altering traffic control measures, as necessary, to ensure that traffic is carried through the work area in an effective manner and that motorists, pedestrians, bicyclists, and workers are protected from hazard including, but not limited to, motor vehicle accidents. City shall designate a representative who will oversee and monitor Contractor's agent and enforce City's requirements set forth herein. Contractor covenants to give City any assignment and/or assurances which may be necessary to affect such right of direct enforcement.

Contractor is solely responsible for, and assumes full liability for, the traffic control relating to this project. Contractor shall submit a final traffic control plan to City for its review and approval no less than one (1) week prior to commencing work under this Contract. Traffic, as referenced herein, shall include any and all motor vehicles, bicyclists, and pedestrian traffic on roadways, sidewalks, bicycle paths, alleys, and/or rights of way at,

attendant to, and/or adjacent to the Project.

In the event alteration of traffic control is required for work or services provided herein, alterations shall be made in accordance with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices, "Traffic Control for Streets and Highway Construction and Maintenance Operations," or the City of Tempe Traffic Barricade Manual, latest edition. The most restrictive provision shall apply. Any and all revisions relating to traffic and/or traffic control shall be submitted to City for review and approval in City's sole discretion.

Contractor is solely responsible for any and all loss, damage, replacement, or repair necessitated to any traffic signal equipment, traffic signal conduit, and/or circuits, arising from or relating to Contractor's work or services performed hereunder. Contractor shall have all repairs performed immediately at its sole expense by a licensed electrical contractor with experience in traffic signal repair, subject to pre-approval by City. Any and all repairs and/or replacement costs expended by City in this regard shall be reimbursed by Contractor at twice City's actual cost.

Contractor shall notify all adjacent or affected residents or businesses at least forty-eight (48) hours in advance of any street, alley, sidewalk, and/or driveway closures or modifications, and make suitable arrangements to have all vehicles moved to a satisfactory location outside the closed area. Pedestrian access shall be maintained along the length of the project at all times per the requirements of the Americans with Disabilities Act and as approved by City. Contractor shall abide by applicable speed limits. Additional information may be obtained by contacting the City Transportation Division at 480-350-8219.

Temporary barricades shall be regulated in accordance with the City of Tempe Traffic Barricade Manual, latest edition. No additional payment by City will be made to Contractor or its subcontractor for temporary barricades, unless otherwise specified in the bid.

**Item No. 3 - Survey**

Survey shall conform to MAG Specification Section 105.8 and the City of Tempe Supplement.

Measurement and payment will be at the contract lump sum bid and shall be full compensation for the item complete.

**Item No. 4 - Not Used**

**Item No. 5 - SWPPP Allowance**

The allowance for SWPPP will not exceed \$10,000 for erosion control and pollution prevention program requirements, with no mark up, as stated in the contract section 3.4 Pre-Construction Meeting.

**Item No. 6 – Permits Allowance**

Permits shall conform to MAG Specification Section 107.2 and the City of Tempe Supplement.

The allowance for permits shall not exceed \$3,000, with no mark up for permits other than City of Tempe Water Utilities Division permits.

**Item No. 7 - 2" AC (A-12.5 EVAC) over 4" (A-19 EVAC)**

AC pavement shall be constructed in accordance with Section 321 of the MAG Specifications with the following exceptions and modifications:

**Material and Manufacture**

AC pavement mixture shall be a High Traffic Superpave Mix Design conforming EVAC Hot Asphalt Mix Criteria (general information and specification below).

An EVAC approved mix design shall be submitted prior to construction.

Measurement for furnishing and installing asphalt concrete pavement shall be made at the contract unit price bid per square yard for these items in these specifications.

Payment shall be made at the contract unit price bid per square yard for these items including base re-grading, compaction, removal of excess material, and new pavement complete and in place to the thickness specified in these specifications. Payment shall be full compensation for the work completed.

**GENERAL INFORMATION regarding the East Valley Asphalt Committee Hot Asphalt Mix Criteria, Revised September 2012 and effective November 1, 2012:**

General Information, I.B.; delete this section for this project.

General Information, I.C.; delete this section for this project

General Information, I. D.; replace section with:

"Approval of the asphalt mix, hot mix facility, and laboratory certifications will be required prior to the start of the project. Additional submittals will be required if the City of Tempe Engineering representative determines that the product in the field is not meeting the design as required in the following criteria."

General Information, I. F.; delete this section for this project

General Information, I. G.; replace section with:

"For projects within the City of Tempe, paving asphalt samples will be required for each project and samples will be taken by an independent materials testing company designated by the City at any time throughout the project life."

Requirements, II. 1.0 A.; replace "and must be included on the current approved asphalt mix list." with "and must be approved by the City of Tempe Engineering representative and the designated City of Tempe material testing company."

Mix design shall be designed using the Marshall Mix Design for a high traffic application. The Marshall Compaction method shall be used. The mix design shall be as shown on plans.

**East Valley Asphalt Committee**  
**HOT ASPHALT MIX CRITERIA**

Revised September 2012  
Effective November 1, 2012

In an effort to standardize asphalt mix designs in Eastern Maricopa County, the Cities of Chandler, Mesa, Scottsdale, Tempe and the Towns of Gilbert and Queen Creek formed an East Valley Asphalt Committee (EVAC). The Committee initially established and has now revised the following procedures for submitting, reviewing and approving asphalt mixes. Once an asphalt mix design is approved, the mix may be used in any of the six communities per approved plans, details and specifications. The following is the procedure for asphalt producers to obtain approval of their asphalt mixes.

**I. General Information:**

- A. Many of the references provided herein are to Maricopa Association of Governments (MAG) Uniform Standard Specifications (Specification). The specification refers to the 2012 version.
- B. Who needs to submit: All producers of hot asphalt concrete whose mixes may be placed within the right-of-ways of the Cities of Chandler, Tempe, Mesa, Scottsdale, and/or Towns of Gilbert and Queen Creek.
- C. Where to submit: Two (2) copies of the reports shall be submitted to the Chairman of the East Valley Asphalt Committee (City of Mesa) with the appropriate cover sheet.
- D. When to submit: New approvals or re-approvals of asphalt mixes, hot mix facilities, and laboratory certifications will be required on an annual basis. The submittals will be due beginning the first workday in November and no later than the last work day in November for approval by the following first workday of January. After that date, submittals may experience significant delays in the approval process. Additional submittals may be required when the committee, in their judgment, determines the product in the field is not meeting the design or as required in the following criteria.
- E. A format is included in this document for itemizing data critical to the mix design review. Completion of this format is necessary for acceptance of each mix design. Please use the COM HMA Input Sheets. These forms are located online at [www.mesaaz.gov/engineering/Policiesandforms.aspx](http://www.mesaaz.gov/engineering/Policiesandforms.aspx).
- F. For projects within the City of Mesa, bulk samples of the proposed mix designs must be submitted to the City of Mesa Materials Lab no earlier than 7 days and no later than 3 days prior to the first use of an approved mix placed within the City of Mesa. Bulk sample requirements for other EVAC communities will be per their standard specifications and requirements.
- G. For projects within the City of Mesa, paving asphalt samples (1 quart) will be required for each project and each day's production placed within the City of Mesa in accordance with AASHTO T-40. The sample must be submitted by the contractor/supplier in contractor/supplier provided approved containers to the City of Mesa Materials Lab before the end of the day's production. Paving asphalt sample requirements for other EVAC communities will be per their standard specifications and requirements.

- H. The asphalt mix design submittal will include the following information:
1. The mix design will be stamped, signed and dated by the Engineer responsible for the mix design.
  2. A unique product code for each mix design.
  3. Grade of asphalt binder, including type of modifiers if present.
  4. Recommended asphalt binder content.
  5. Paving asphalt test results shall be submitted for the material per MAG Specification Section 711 that are stamped, signed and dated by a licensed professional engineer in Arizona.
  - 6a. For Marshall Mix designs: stability and flow.
  - 6b. For Superpave™ Mix designs: number of gyrations at initial, design and maximum.
  7. Anti-strip supplier with certifications for the material.
  8. Method to add anti-strip agent to the aggregate.
  9. Specific gravity of aggregates (bulk, bulk SSD, apparent and effective).
  10. Specific gravity of anti-strip agent and asphalt binder.
  11. Maximum specific gravity of asphalt mixture.
  12. Bulk density.
  13. Moisture sensitivity.
  14. Aggregate proportions (including anti-strip agent) based on bin percentages and composite gradation. The composite plotted on a graph raised to 0.45 power gradation chart.
  15. Sand Equivalent.
  16. Fractured face count.
  17. Plasticity Index.
  18. Percent voids in mineral aggregate.
  19. Percent voids filled.
  20. Percent effective air voids.
  21. Dust proportion.
  22. Film thickness.
  23. Unconfined void content.
  24. Mixing and compaction temperatures.
  25. Plant and Laboratory Certifications including addresses.

## II. Requirements:

### ASPHALT CONCRETE

#### 1.0 GENERAL:

Asphalt concrete shall be a mixture of asphalt cement and mineral aggregates. Mineral admixture, mineral filler and anti-stripping agent shall be included in the mixture when required by the mix design or by the Engineer. All materials shall be proportioned by weight, volume or a combination in a central mix plant in the proportions required by the mix design to provide a homogeneous and workable mass. Asphalt concrete shall be produced in accordance with the MAG Specification Sections 321 and 710 with the following modifications:

A. Subsection 321.5; delete 1<sup>st</sup> paragraph and substitute the following: "If the contractor/supplier elects to change the source of material, the contractor/supplier shall furnish a new mix design that is in accordance with

the East Valley Asphalt Committee criteria and must be included on the current approved asphalt mix list.”

**B.** Subsection 321.10.2; delete reference to “fan drying per AASHTO T209 Section 15.”

**C.** Subsection 710.1; delete 2<sup>nd</sup> sentence in 1<sup>st</sup> paragraph and substitute the following: “Mineral admixture, mineral filler and anti-stripping agent shall be included in the mixture when required by the mix design or by the Engineer. All materials shall be proportions by weight, volume or a combination in a central mix plant in the proportions required by the mix design to provide a homogeneous and workable mass.”

**D.** Subsection 710.2.2; delete the last paragraph and substitute the following: “The natural sand shall not exceed 15 percent for Marshall mixes and Gyratory mixes by weight of the total aggregate for a mix.”

**E.** Subsection 710.2.3; Add the following to this subsection: “When liquid anti-stripping agents are used, the agent shall conform to the requirements of AASHTO designation R 15-89. The agent shall be added in accordance with the manufacturer’s recommended dosage rate. Other mineral filler, mineral admixture, or anti-stripping agents, shall be approved by the Engineer prior to start of mix design.”

The designation for asphalt concrete mixes shall be based on the nominal maximum aggregate size of the mix. The applicable mix designations are 3/8 inch, 1/2 inch, 3/4 inch and Base (1 inch) mix.

Asphalt Rubber and Recycled Asphalt mixes are not part of the EVAC approved list. Each agency shall review and approve these mixes as appropriate.

Each mix shall be designed using Marshall or Gyratory compaction methods. Either Gyratory or Marshall Mixes may be used for low or high traffic conditions, as determined by the agency. Low traffic conditions are conditions where the asphalt mix will be subject to low volume and low weight vehicle usage. Examples of this condition are residential streets, most parking lots and residential minor collector streets. High traffic conditions are conditions where the asphalt mix will be subject to high volume and/or heavy weight vehicle usage as found on major collector, arterial and commercial streets. Street classifications (i.e. minor collector and major collector) shall be determined by the specifying agency. The following table (Table 1) displays the recommended lift thickness for various asphalt concrete mix designations found within MAG Standard Specification Section 710. Please note that these recommended lift thicknesses are minimums based on each mix designation’s “Nominal Aggregate Size” and the relative coarseness of its gradation. The compacted thickness of layers placed shall not exceed 150% of the Minimum Lift Thickness of Table 1 except as otherwise provided in the plans and specifications, or if approved in writing by the Engineer.

**TABLE 1**  
**RECOMMENDED MINIMUM LIFT THICKNESSES for ASPHALT CONCRETE MIXES**

Asphalt Concrete Mix Designation (inches)	Minimum Lift Thickness Marshall Mixes	Minimum Lift Thickness Gyratory Mixes
3/8”	1.0 inches	1.5 inches
1/2”	1.5 inches	2.0 inches
3/4”	2.5 inches	3.0 inches
Base	3.0 inches	n/a

**2.0 MATERIAL:**

**2.1 Asphalt Binder:** The asphalt binder specified in this section has been developed for use in desert climate conditions. Should it be utilized in other climates, consideration should be given to adjustments in the asphalt binder selection. The asphalt binder shall be Performance Grade Asphalt conforming to the requirements of MAG Standard Specification Section 711 for PG 70-10 or PG 76-16, unless otherwise approved by the Engineer or specified differently in the plans or special provisions.

**2.2 Aggregate:** Coarse and Fine aggregates shall conform to the applicable requirements of this section. Coarse mineral aggregate shall consist of crushed gravel, crushed rock, or other approved inert material with similar characteristics, or a combination thereof, conforming to the requirements of these specifications.

Coarse aggregate for hot mix asphalt is material retained on or above the No. 4 sieve and Fine aggregate is material passing the No. 4 sieve. Aggregates shall be relatively free of deleterious materials, clay balls, and adhering films or other material that prevent coating with the asphalt binder. Coarse and Fine aggregates shall conform to the following requirements when tested in accordance with the applicable test methods.

<b>TABLE 2</b>			
<b>COARSE/FINE AGGREGATE REQUIREMENTS</b>			
Characteristics	Test Method	Low Traffic	High Traffic
Fractured Faces, % (Coarse Aggregate Only)	Arizona 212	75, 1 or more	85, 1 or more 80, 2 or more
Uncompacted Voids, % Min.	AASHTO T-304, Method A	42	45
Flat & Elongated Pieces, % 5:1 Ratio	ASTM D4791	10.0 Max.	10.0 Max.
Sand Equivalent, %	AASHTO T-176	50 Min.	50 Min.
Plasticity Index	AASHTO T-90	Non-plastic	Non-plastic
L.A. Abrasion, %Loss	AASHTO T-96	9 max. @ 100 Rev. 40 max. @ 500 Rev.	9 max. @ 100 Rev. 40 max. @ 500 Rev.
Combined Bulk Specific Gravity	AI MS-2/SP-2	2.35 – 2.85	2.35 – 2.85
Combined Water Absorption	AI MS-2/SP-2	0 – 2.5%	0 – 2.5%

Tests on aggregates used in asphalt concrete outlined above, shall be performed on materials furnished for mix design purposes and composited to the mix design gradation.

Blend sand (naturally occurring or crushed fines) shall be clean, hard and sound material which will readily accept asphalt binder coating. The blend sand grading shall be such that, when it is mixed with the other mineral aggregates, the combined product shall meet the requirements of Table 2.

The natural sand shall not exceed 15 percent for the Marshall and Gyrotory mixes by weight of the total aggregate for a mix.

**2.3 Mineral Admixture:** Mineral admixture when used as an anti-stripping agent in asphalt concrete shall conform to the requirements of AASHTO M-17. Mineral admixture used in asphalt concrete shall be dry hydrated lime, conforming to the requirements of ASTM C1097 or Portland cement conforming to ASTM C150 Type II or ASTM C595 Type IP. The amount of hydrated lime or Portland cement used shall be determined by

the mix design. The minimum Mineral admixture content within a mix will be 1.00 percent, by weight of total aggregate. When liquid anti-stripping agents are used, the agent shall conform to the requirements of AASHTO designation R 15-89. The agent shall be added in accordance with the manufacturer's recommended dosage rate. Other mineral filler, mineral admixture, or anti-stripping agents, shall be approved by the Engineer prior to the start of the mix design.

### **3.0 MIX DESIGN REQUIREMENTS:**

**3.1 General:** The mix design for asphalt concrete shall be prepared by a laboratory that is accredited through the AASHTO Accreditation Program (AAP) in Hot Mix Asphalt Aggregates and Hot Mix Asphalt. The laboratory shall be under the direct supervision of a Civil Engineer, registered by the State of Arizona, and who is listed by ADOT as a "Qualified Asphaltic Concrete Mix Design Engineer" within ADOT's latest list of approved laboratories. The latest list of approved laboratories is available on ADOT's web page [www.azdot.gov](http://www.azdot.gov). The date of the design shall not be older than one year from the date of submittal, unless supportive documentation is provided and approved by the Engineer.

The mix design report shall include the elements as outlined in Section I H above and also include the following:

- (1) The name and address of the testing organization and the person responsible for the mix design report.
- (2) The mix plant identification and/or location, as well as the supplier or producer name.
- (3) A description of all products that are incorporated in the asphalt concrete along with the sources of all products, including admixtures and asphalt binder, and their method of introduction.
- (4) The supplier and grade of asphalt binder, the source and type of mineral aggregate, and the percentage of asphalt binder and mineral admixture used.
- (5) The mix design report shall state the traffic condition (low or high traffic) and size designation. In all cases Gyrotory based mix designs shall be designated as high traffic mixes. Marshall based mix design shall be designated either low or high traffic mixes.
- (6) The results of all testing, determinations, etc., such as: specific gravity and gradation of each component, water absorption, sand equivalent, loss on abrasion, fractured coarse aggregate particles, Tensile Strength Ratio (AASHTO T 283), Marshall stability and flow, asphalt absorption, percent air voids, voids in mineral aggregate, and bulk density. Historical abrasion values may be supplied on existing sources. The submittal should include a plot of the gradation on the Federal Highway Administration 0.45 Power Gradation Chart, plots of the compaction curves and the results of moisture sensitivity testing.
- (7) The laboratory mixing and compaction temperature ranges for the supplier and grade of asphalt binder used within the mix design.
- (8) A specific recommendation for design asphalt binder content and any limiting conditions that may be associated with the use of the design, such as minimum percentages of crushed or washed fine aggregate.
- (9) The supplier's product code, the laboratory Engineer's seal (signed and dated), and the date the design was performed. The mix design shall be submitted to the Agency or Engineer by the Contractor/Supplier for

which it was developed as part of his project submittals. Once the mix design has been approved by the agency or Engineer, the Contractor and/or his supplier shall not change plants nor utilize additional mixing plants without prior approval of the Engineer. Any changes in the plant operation, the producer's pit, the asphalt binder, including modifiers in the asphalt binder, or any other item that will cause an adjustment in the mix, shall be justification for a new mix design to be submitted.

**3.2 Mix Design Criteria:** The mix design shall be performed by one of two methods, Marshall Mix Design or Gyratory Mix Design. The method shall be specified on the plans, special provisions, or by the Engineer. A minimum of 4 points will be used to establish the mix design results. The oven aging period for both Marshall and Gyratory mix design samples shall be 2 hours.

**3.2.1 Marshall Mix Design:** The Marshall Mix Design shall be performed in accordance with the requirements of the latest edition of the Asphalt Institute's Manual, MS-2 "Mix Design Methods for Asphalt Concrete." The mix shall utilize the compactive effort of 75 blows per side of specimen. The mix shall comply with the criteria in Table 3.

**TABLE 3**  
**MARSHALL MIX DESIGN**  
**CRITERIA Requirements**

Criteria	3/8" Mix	1/2" Mix	3/4" Mix	Base Mix	Designated Test
					Method
1. Voids in Mineral Aggregate: %, min	15.0	14.0	13.0	12.0	AI MS-2
2. Effective Voids: %, Range	4.0 ± 0.2	4.0 ± 0.2	4.0 ± 0.2	4.0 ± 0.2	AI MS-2
3. Absorbed Asphalt: %, Range *	0 - 1.0	0 - 1.0	0 - 1.0	0 - 1.0	AI MS-2
4. Dust to Eff. Asphalt Ratio, Range **	0.6 - 1.4	0.6 - 1.4	0.6 - 1.4	0.6 - 1.4	AI MS-2
5. Tensile Strength Ratio: %, Min.	65	65	65	65	ASTM D 4867
6. Dry Tensile Strength: psi, Min.	100	100	100	100	ASTM D 4867
7. Stability: pounds, Minimum	2,000	2,500	2,500	3000	AASHTO T-245
8. Flow: 0.01-inch, Range	8 - 16	8 - 16	8 - 16	8 - 16	AASHTO T-245
9. Mineral Aggregate Grading Limits					AASHTO T-27

Percent Passing with Admix shall be per  
MAG Standard Specification Section 710

\* Unless otherwise approved by the Engineer.

\*\* The ratio of the mix design composite gradation target for the No. 200 sieve, including admixture, to the effective asphalt content shall be within the indicated range.

**3.2.2 Gyratory Mix Design:** Gyratory Mix Designs shall be performed in accordance with the requirements of latest edition of the Asphalt Institute's SP-2 manual. Mix design laboratory compacted specimens shall be prepared using a gyratory compactor in accordance with AASHTO T-312.

The mix design shall be formulated in a manner described for volumetric mix designs in the current edition of the Asphalt Institute Manual SP-2, except the number of trial blend gradations necessary will be determined by the mix design laboratory. Duplicate gyratory samples shall be prepared at a minimum of four (4) binder contents to select the recommended binder content. The completed mix design shall meet all the mineral aggregate and mix design criteria specified herein.

For purposes of design, the number of gyrations shall be 8 for Nini, 100 for Ndes, and 160 for Nmax. The corrected density of the specimens shall be less than 89.0 percent of maximum theoretical density at 8 gyrations. The corrected density of the specimens shall be less than 98.0 percent of maximum theoretical density at 160 gyrations.

The Gyratory mix shall comply with the criteria in Table 4

**TABLE 4  
GYRATORY MIX DESIGN  
CRITERIA**

Criteria	Requirements			Designated Test
	3/8" Mix	1/2" Mix	3/4" Mix	Method
1. Voids in Mineral Aggregate: %, Min.	15.0	14.0	13.0	AI SP-2
2. Effective Voids: %, Range	4.0 ± 0.2	4.0 ± 0.2	4.0 ± 0.2	AI SP-2
3. Absorbed Asphalt: %, Range *	0 - 1.0	0 - 1.0	0 - 1.0	AI SP-2
4. Dust to Eff. Asphalt Ratio, Range **	0.6 - 1.4	0.6 - 1.4	0.6 - 1.4	AI SP-2
5. Tensile Strength Ratio: %, Min.	75	75	75	AASHTO T-283
6. Dry Tensile Strength: psi, Min.	75	75	75	AASHTO T-283
7. Mineral Aggregate Grading Limits				AASHTO T-27

Percent Passing with Admix shall be per  
MAG Standard Specification Section 710

\* Unless otherwise approved by the Engineer.

\*\* The ratio of the mix design composite gradation target for the No. 200 sieve, including admixture, to the effective asphalt content shall be within the indicated range.

**3.2.3 Moisture Sensitivity Testing:** Moisture sensitivity testing will be performed in accordance with AASHTO Test Method T283 for both Marshall and Gyratory mix designs. The minimum required Tensile Strength Ratio is indicated in the tables above.

**APPROVALS:**

City of Mesa

By: *s/ Elizabeth Huning*  
City Engineer  
Date: September 2012

Town of Gilbert

By: *s/ Mike Gillespie*  
Town Engineer  
September 2012

City of Tempe

By: *s/ Andy Goh*  
City Engineer  
Date: September 2012

City of Scottsdale

By: *s/ Derek Earle*  
City Engineer  
September 2012

City of Chandler

By: *s/ Sheina Hughes*  
City Engineer  
Date: September 2012

Town of Queen Creek

By: *s/ Chris Douel*  
Town Engineer  
September 2012

**Item No. 8 – Microseal Type III**

Microseal shall be constructed in accordance with Section 331 and 714 of the MAG Specifications and the City of Tempe Supplement with the following exceptions and modifications:

Street cracks in AC pavement shall be cleaned and filled prior to placing the Microseal.

All cracks larger than 1/4 inch will be cleaned using a rotary impact crack router. All cracks will be clean and dry when sealed. Crack cleaning shall be done using high-pressure air vacuum recovery equipment (vactor system). This cleaning must be performed immediately ahead of the sealing operation.

Sealant will be applied at a minimum temperature of 350 degrees to clean, dry pavement. Sealant will be applied, level with a V-shaped rubber squeegee, in a simple band-aid or standard recessed band-aid configuration with a maximum overhand thickness of 1/8 inch. Sealant must be applied, under pressure, in continuous motion with the applicator opening over the crack channel so that the channel is filled from the bottom up to prevent air being trapped beneath the sealant. Under-filled cracks will be resealed. It may be necessary to sand or apply detacking spray to sealed areas prior to opening the area to traffic. The sealant shall be a Crafcro PolyFlex 3 or equal as approved by the Engineer.

All areas routed and/or sealed will be swept by means of a self-propelled pick up sweeper prior to opening any area to traffic. The contractor is also responsible for cleaning adjacent sidewalks and driveways of any dust or debris generated by the routing and sealing operation.

Measurement and payment will be at the contract unit price bid per square yard and shall be full compensation for the item complete including crack sealing.

**Item No. 9 - Concrete Sidewalk per COT Std. Det. T-345**

Concrete sidewalk per cross-section in City of Tempe Standard Detail T-345 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. Modify note 5 in T-345 to:

Alternate 2" deep contraction joint and 1/2" deep score joint every 6'. Contraction joints and score joints shall be scored or saw cut with a 1/4" maximum radius. Expansion joints shall be every 50' maximum. In areas of wider sidewalk, the joints shall be on an approximate grid of 6'.

The contractor shall provide all materials, equipment, and labor to install the concrete sidewalk in place.

The following specification shall apply for sand blasted concrete strip between the curb and the sidewalk as noted on the plans.

**Sandblasted Concrete Sidewalk:**

The work under this section shall consist of furnishing all labor, materials and equipment to apply water-based reactive stain to sand blasted concrete paving strip between the curb and the 6' wide pedestrian sidewalk.

### **Field Constructed Mockup:**

1. At a location on Project selected by the Engineer and Landscape Architect prepare (1) 6-foot x 6-foot sample of sand blasted concrete for review and approval.
2. Construct mockup using processes and techniques intended for use on permanent work, including curing procedures. Include samples of control, construction, and expansion joints in mockup panels.
3. When Engineer and Landscape Architect determine that mockups do not meet requirements, demolish and remove from the site and cast another until the mockup is accepted.
4. Demolish accepted mockup and remove from site when directed by Engineer.

### **Preparation**

#### *New Concrete:*

1. Newly placed concrete shall be sufficiently cured to allow concrete to become reactive, minimum 28 days.
2. Concrete shall be sand blasted to a maximum depth of 1/8" in the patterns shown on the drawings.
3. Do not use liquid curing materials. Cure concrete flatwork with new, unwrinkled, non-staining, high quality curing paper. Do not overlap curing paper.
4. Concrete surfaces must be uniformly slip resistant and profiled to meet a Concrete Surface Preparation (CSP) profile of 1-2 per ICRI guidelines.
5. Some concrete may require abrading to open the surface and make it sufficiently penetrable. In these instances the concrete surface must be sanded using a 60-80 mesh-sanding screen or a grit brush. After sanding, all residue must be removed by power vacuuming. The surface should then be pressure washed or scrubbed using a rotary floor machine.
6. For preparation, the sandblaster should be capable of producing a Heavy, uniform sandblast and be equipped with a dust collector.
7. For preparation, the pressure washer should be equipped with a fan tip and have a minimum pressure capability of 4000 psi (14 MPa). Hot water capability may facilitate cleaning of existing concrete.
8. Acid washing may be required when the above surface preparation does not yield adequate penetration or if there are excessive alkali deposits or surface discoloration. The reacted residue must be abraded using a low-speed floor machine equipped with a 60 mesh screen or a grit brush and then thoroughly rinsed until the rinse water is clear and free of solids, a minimum of two times. After rinsing, neutralize any remaining acid residue by washing with a solution of baking soda (sodium bicarbonate) and water. (Test pH of floor should be 7 or higher.)

Measurement and payment will be at the contract unit price bid per square foot and shall be full compensation for the item complete for both plain and sandblasted concrete sidewalk and concrete bike lane.

Measurement and payment for concrete slab at bus stops will be included in the contract price for bus stops. Concrete at bus stops shall include integral color per section 515.

### **Item No. 10 - Sidewalk Ramp per COT Std. Det. T-324**

Sidewalk ramp per City of Tempe Standard Detail T-324 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the Sidewalk ramp per COT Standard Detail T-324. If field conditions exist that prevent the construction of City of Tempe Standard Detail T-324, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This item shall include the ramp, sidewalk, detectable warning, and curb and

gutter complete and in place bounded by the limits of the applicable City of Tempe standard or consultant detail.

**Item No. 11 - Sidewalk Ramp per COT Std. Det. T-326**

Sidewalk ramp per City of Tempe Standard Detail T-326 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the Sidewalk ramp per COT Standard Detail T-326. If field conditions exist that prevent the construction of City of Tempe Standard Detail T-326, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This item shall include the ramp, sidewalk, detectable warning, and curb and gutter complete and in place bounded by the limits of the applicable City of Tempe standard or consultant detail.

**Item No. 12 - Sidewalk Ramp per COT Std. Det. T-329**

Sidewalk ramp per City of Tempe Standard Detail T-329 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the Sidewalk ramp per COT Standard Detail T-329. If field conditions exist that prevent the construction of City of Tempe Standard Detail T-329, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This item shall include the ramp, sidewalk, detectable warning, and curb and gutter complete and in place bounded by the limits of the applicable City of Tempe standard or consultant detail.

**Item No. 13 - Sidewalk Ramp per COT Std. Det. T-348 Type B**

Sidewalk ramp per City of Tempe Standard Detail T-348 Type B shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the Sidewalk ramp per COT Standard Detail T-348 Type B. If field conditions exist that prevent the construction of City of Tempe Standard Detail T-348 Type B, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This item shall include the ramp, sidewalk, detectable warning, and curb and gutter complete and in place bounded by the limits of the applicable City of Tempe standard or consultant detail.

**Item No. 14- Sidewalk Ramp Modified, Detail Sheet 8**

Sidewalk ramp per detail on plan sheet 8 shall conform to MAG Specification Sections 301, 340, 725 and 729 and the City of Tempe Supplement. The contractor shall provide all materials, equipment and labor to install the Sidewalk ramp per detail on plan sheet 8. If field conditions exist that prevent the construction of ramp per detail on plan sheet 8, field adjustments will be made as recommended by the City Engineer.

Measurement and payment will be at the contract unit price bid per each and shall be full compensation for the item complete in place. This item shall include the ramp, sidewalk, detectable warning, and curb and gutter complete and in place bounded by the limits of the applicable City of Tempe standard or consultant detail.

**Item No. 15 - Single Curb MAG Std. Det. 222 Type A**

Single curb per MAG Standard Detail 222 Type A shall conform to MAG Specification Sections 301, 340, 725, and 729 and the City of Tempe Supplement. The Contractor shall provide all materials, equipment, and labor to install the curb and gutter per MAG Standard Detail 222 Type A.

Measurement and payment will be at the contract unit price bid per linear foot and shall be full compensation for the item complete in place.

**Item No. 16 - Curb & Gutter & Transitions MAG Std. Det. 220-1 Type A**

Curb and gutter per MAG Standard Detail 220-1 Type A shall conform to MAG Specification Sections 301, 340, 725, and 729 and the City of Tempe Supplement. The Contractor shall provide all materials, equipment, and labor to install the curb and gutter per MAG Standard Detail 220-1 Type A. The Contractor shall provide all materials, equipment, and labor to install the ribbon curb per MAG Standard Detail 220-1 Type B.

Measurement and payment will be at the contract unit price bid per linear foot of Type A Curb and Gutter, Transitions, and Type B Ribbon Curb and shall be full compensation for the item complete in place.

**Item No. 17 - Residential Driveway COT Std. Det. T-320**

Residential driveway per City of Tempe Standard Detail T-320 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications and the City of Tempe Supplement.

The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 18 - Commercial Driveway COT Std. Det. T-320**

Commercial driveway per City of Tempe Standard Detail T-320 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications and the City of Tempe Supplement. The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 19 – Alley Entrance MAG Std. Det. 260**

Alley entrance per MAG Standard Detail 260 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications and the City of Tempe Supplement. The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 20 – Concrete Driveway Connections**

Concrete driveway connections per City of Tempe Standard Detail T-320 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications and the City of Tempe Supplement. The section shall be either a residential or commercial thickness based on the adjacent driveway. The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 21 - Valley Gutter MAG Std. Det. 240**

Valley gutter per MAG Standard Detail 240 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications, Standard Details 240, 250, 262, 263, and 206-3 and Section 301.3 of the City of Tempe Supplement thereto. Valley gutter will be to match existing and provide positive drainage.

The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 22 – Remove and Reconstruct Valley Gutter Apron MAG Std. Det. 240**

Valley gutter apron per MAG Standard Detail 240 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications, Standard Details 240, 250, 262, 263, and 206-3 and Section 301.3 of the City of Tempe Supplement thereto. Valley gutter apron will be to match existing and provide positive drainage.

The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square foot complete in place.

**Item No. 23 - 8" PCCP**

PCCP per ADOT Drawing C-07.01 shall conform to the provisions of Sections 340 and 725 of the MAG Specifications and the City of Tempe Supplement.

The subgrade shall be constructed and compacted true to line and grade as specified in Section 301 of the MAG Specifications and all soft or unsuitable material shall be removed to a depth of not less than 6" and replaced with a material satisfactory to the Engineering Division representative.

Measurement and payment shall be made at the contract unit price per square yard for speed table and bike ramps complete in place.

**Item No. 24 – Catch Basin MAG Std. Det. 530 – Type A 3'-6" Opening**

Catch Basin per MAG Standard Detail 530 shall conform to the provisions of Sections 505, 725, and 790 of the MAG Specifications and the City of Tempe Supplement.

Measurement and payment shall be made at the contract unit price per each complete in place.

**Item No. 25 – Catch Basin MAG Std. Det. 532 – Type C 8'-0" Opening**

Catch Basin per MAG Standard Detail 532 shall conform to the provisions of Sections 505, 725, and 790 of the MAG Specifications and the City of Tempe Supplement.

Measurement and payment shall be made at the contract unit price per each complete in place.

**Item No. 26 – 18" RCP Class III Storm Drain**

Storm drain pipe shall conform to the provisions of Sections 618 of the MAG Specifications and the City of Tempe Supplement. The pipe material shall be reinforced concrete pipe.

Measurement and payment shall be made at the contract unit price per linear foot complete in place.

**Item No. 27 – 24" RCP Class III Storm Drain**

Storm drain pipe shall conform to the provisions of Sections 618 of the MAG Specifications and the City of Tempe Supplement. The pipe material shall be reinforced concrete pipe.

Measurement and payment shall be made at the contract unit price per linear foot complete in place.

**Item No. 28 – 27" RCP Class III Storm Drain**

Storm drain pipe shall conform to the provisions of Sections 618 of the MAG Specifications and the City of Tempe Supplement. The pipe material shall be reinforced concrete pipe.

Measurement and payment shall be made at the contract unit price per linear foot complete in place.

**Item No. 29 – Concrete Pipe Collar MAG Std. Det. 505**

Concrete pipe collar per MAG Standard Detail 505 shall conform to the provisions of Sections 618 of the MAG Specifications and the City of Tempe Supplement.

Measurement and payment shall be made at the contract unit price per each complete in place.

**Item No. 30 – Storm Drain Manhole (5' No Steps) MAG Std. Det. 521 & 522**

Storm drain manhole per MAG Standard Detail 520 and 522 shall conform to the provisions of Sections 505, 725, and 727 of the MAG Specifications and the City of Tempe Supplement.

Measurement and payment shall be made at the contract unit price per each complete in place.

**Item No. 31-Adjust & Clean Existing Manhole COT Std. Det. T-446**

Adjust and clean existing manhole per City of Tempe Standard Detail T-446 shall conform to the provisions of Section 345 of MAG Specifications and the City of Tempe Supplement. The contractor shall provide all materials, equipment, and labor to adjust manhole including removal and replacement of AC pavement if applicable.

Measurement and payment will be made at the contract unit price per each complete in place.

**Item No. 32 – Adjust & Clean Valve Box & Cover COT Std. Det. T-445**

Adjust valve box and cover per City of Tempe Standard Detail T-445 and shall conform to Section 345 of MAG Specification Sections and the City of Tempe Supplement. The Contractor shall provide all materials, equipment, and labor to adjust the valve box including removal and replacement of AC pavement if applicable.

Measurement and payment will be at the contract unit price bid per each complete in place.

**Item No. 33 – Relocate Existing Water Meter COT Std. Det. 212**

Water meters boxes will be relocated by the contractor per City of Tempe Standard Detail T-212 or T-212A. Contractor will obtain meter relocation permit (WATSEW) from Community Development Services for no fee. Contractor will coordinate for water shutdown, remove meter and hold for to City, extend the service to a new meter box, and connect to the existing private service using a temporary spacer as shown in City of Tempe Standard Detail T-212. Water Utilities Division will reinstall meters and perform shutdown only. All other work shall be performed by the contractor. Contractor must coordinate with City of Tempe Engineering representative, resident, and Water Utilities for line shut down, meter installation, inspection, and timing to minimize service interruption to customer. Based upon successful coordination with residents, some night work may be required.

Measurement and payment will be at the contract unit price bid per each complete in place. Payment shall be full compensation for the work completed.

**Item No. 34 - Sawcut and Remove Concrete Sidewalk**

Removal of existing improvements such as sidewalk, sidewalk ramps, bus shelter pads and other items necessary

for the improvement shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price bid per square foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 35 - Sawcut and Remove Curb or Curb and Gutter**

Removal of existing improvements such as curb and gutter and other items necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price per linear foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 36 - Sawcut and Remove Pavement**

Removal of existing improvements such as AC pavement and other items necessary for the improvement shall conform to the provisions of Section 350 of the MAG Specifications. Asphalt concrete pavement removal shall be cut in accordance with Section 336 of the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price bid per square yard and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 37 - Sawcut and Remove Driveway**

Removal of existing improvements such as driveways and other items necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price per square foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 38 - Remove and Salvage Bus Shelter**

Removal of existing improvements such as bus shelters and other items necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications. Bus shelters shall be salvaged and taken to a City of Tempe designated location.

Measurement and payment shall be made at the contract unit price per each and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 39 – Remove Wall, Replace in Kind**

Removal of existing improvements such as walls and other items necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications. Walls removed shall be replaced in kind at locations identified by the Engineer along the existing property line.

Measurement and payment shall be made at the contract unit price per linear foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 40 – Remove Fence, Replace in Kind**

Removal of existing improvements such as fences and other items necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications. Fences removed shall be replaced in kind at locations identified by the Engineer along the existing property line.

Measurement and payment shall be made at the contract unit price per linear foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 41 – Remove Concrete Pipe**

Removal of existing improvements necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price per linear foot and shall be full compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 42 – Remove Existing Slotted Drain and Catch Basin**

Removal of existing improvements necessary for the improvements shall conform to the provisions of Section 350 of the MAG Specifications. Backfill and compaction of all excavated areas shall be to the densities as prescribed in Section 301 of the MAG Specifications and Section 301.3 of the City of Tempe Supplement to the MAG Specifications. All surplus materials shall be immediately hauled from the job site and disposed in accordance with Section 205 of the MAG Specifications.

Measurement and payment shall be made at the contract unit price per each and shall be full

compensation for the item complete. Removal items not identified will be considered incidental to other items.

**Item No. 43 – Safety Rail MAG Std. Det. 145**

Safety Rail per MAG Standard Detail 145 shall conform to Section 520 of MAG Specification Sections and the City of Tempe Supplement. The Contractor shall provide all materials, equipment, and labor to install safety rail.

Measurement and payment will be the contract unit price per linear foot and shall be full compensation for the item complete.

**Item No. 44 – Bollard Type 2 Removable MAG Std. Det. 140**

Bollards shall be per MAG Standard Detail 140. The Contractor shall provide all materials, equipment, and labor to install bollards.

Measurement and payment will be at the contract unit price bid per each complete in place.

**Item No. 45 - 4" Solid Yellow, 4" Broken Yellow**

**Item No. 46 – 8" Solid White**

**Item No. 47 – 8" Dashed White**

**Item No. 48 – 12" Solid White**

**Item No. 49 – 8" Bike Lane Dashed White**

**Item No. 50 – 24" Stop Bar**

**Item No. 51 – 12' Solid Yellow**

**Item No. 52 – 4" Double Yellow**

The contractor shall provide all materials, equipment and labor to stripe the street with thermoplastic. Areas to be marked will be free of debris and swept prior to marking installation. Curing compound shall be removed on new PCCP and primer-sealer applied on PCCP in areas to be striped prior to applying thermoplastic. Pavement marking shall conform to Section 460-463 of the Maricopa County Department of Transportation Supplement to the MAG. Contractor shall spot entire project before striping and shall call City of Tempe Department of Transportation project inspector, to make arrangements for inspection prior to applying any paint. The permanent pavement marking plans may be modified as directed by the Engineer. Any striping applied before inspection shall be removed and re-striped at the contractor's expense. All striping will be done in thermoplastic paint. Cross walks, stop bars, holding bars, arrows shall be installed with a thickness of ninety (90) mils. All longitudinal lines, such as lane lines, edge lines, center lines and taper lines shall be installed with a thickness of sixty (60) mils.

Measurement and payment will be made at the contract unit price bid per linear foot based on 4" wide equivalent and shall be full compensation for the unit price item per linear foot complete in place, including pavement surface preparation and glass beads.

**Item No. 53 – 4'x 20' Preformed Thermoplastic Green Bike Symbol**

The following specification is for skid/slip resistant preformed thermoplastic pavement material to be used for green bike lane pavement marking.

A durable, high skid and slip resistant, pavement marking material suitable for use as bike lane, pathway, roadway,

intersection, airport, commercial or private pavement delineation and markings shall be used for use on asphalt or portland cement concrete pavement surfaces.

The material shall be a resilient preformed thermoplastic product containing a minimum thirty percent (30%) intermix of anti-skid/anti-slip elements and where the top surface contains anti-skid/anti-slip elements. These anti-skid/anti-slip elements must have a minimum hardness of 8 (Mohs scale).

The material shall be resistant to the detrimental effects of motor fuels, antifreeze, lubricants, hydraulic fluids, etc.

The material shall be capable of being applied on bituminous and/or portland cement concrete pavements by the use of a handheld heat torch, infrared heater, or a blue-flame radiant heater.

The material shall be capable of being applied to asphalt and portland cement concrete surfaces without preheating the application surface to a specific temperature. The material shall be capable of being affixed to green concrete (concrete that has set but not appreciably hardened). The material shall not require the portland cement concrete application areas to be cured or dried out.

The material shall be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures.

The material is typically supplied in segments measuring 2 ft. x 3 ft. (.61 m x .915 m). The material shall be capable of being applied in temperatures down to 45°F without any special storage, preheating or treatment of the material before application.

The material shall contain heating indicators evenly distributed on the surface that shall act as visual cues during both the application process and post-application.

#### **Manufacturing Control And Iso Certification**

The manufacturer shall be ISO 9001:2008 certified for design, development and manufacturing and provide proof of current certification. The scope of the certification shall include the design, development and manufacture of preformed thermoplastic marking material.

#### **Material**

Shall be composed of an ester-modified resin impervious to degradation by motor fuels, lubricants, etc., in conjunction with aggregates, pigments, binders, and anti-skid/anti-slip elements uniformly distributed throughout the material. The thermoplastic material shall conform to AASHTO designation M249, with the exception of the relevant differences due to the material being supplied in a preformed state, being non-reflective, and being of a color different from white or yellow.

Pigment: The color of the pavement marking material shall be accordance with FHWA Memorandum dated April 15, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14).

Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
x	y	x	y	x	y	x	y
0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.520

The pigment system shall not contain heavy metals or any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

**Heating indicators:** The top surface of the material shall have regularly spaced indents. The closing of these indents during application shall act as a visual cue that the material has reached a molten state, allowing for satisfactory adhesion and proper embedment of the anti-skid/anti-slip elements, and a post-application visual cue that proper application procedures have been followed.

**Skid Resistance:** The surface of the preformed thermoplastic material shall contain factory applied anti-skid elements with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM E 303.

**Slip Resistance:** The surface of the preformed thermoplastic material shall contain factory applied anti-skid elements with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum static coefficient of friction of 0.6 when tested according to ASTM C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM D 2047.

**Thickness:** The material shall be supplied at a minimum thickness of 90 mil (2.29 mm).

**Environmental Resistance:** The material shall be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

#### **Application**

**Asphalt:** The material shall be capable of being applied using the propane torch method, and, or infrared or blue flame heater recommended by the manufacturer. The material shall be capable of being applied at ambient and road temperatures down to 45°F without any preheating of the pavement to a specific temperature. A sealer specified by the manufacturer shall be applied to the pavement surface prior to material application to ensure proper adhesion. A thermometer shall not be required during the application process. The pavement shall be clean, dry and free of debris. Supplier shall enclose application instructions with each box/package.

**Portland Cement Concrete:** The same application procedure shall be used as described above.

#### **Packaging**

The preformed thermoplastic material shall be packaged in cardboard cartons. The cartons in which packed shall be non-returnable and shall not exceed 40 in. (1.02 m) in length and 25 in. (.64 m) in width. The cartons shall be labeled for ease of identification. The weight of the individual carton must not exceed fifty (50) pounds (23 kg). A protective film around the carton must be applied in order to protect the material from rain or premature aging.

### **Technical Services**

The successful bidder shall provide technical services as required.

### **Performance**

The preformed thermoplastic markings shall meet state specifications and be approved for use by the appropriate state agency.

Measurement and payment will be made at the contract unit price bid per each based on a 4' x 20' preformed panel including pavement surface preparation and glass beads.

#### **Item No. 54 - Dual Component Pavement Symbol**

#### **Item No. 55 - Shared Lane Marking**

#### **Item No. 56 - Paint Median Nose Solid Yellow**

#### **Item No. 57 - Pedestrian Pavement Symbol**

#### **Item No. 58 - Speed Table Markings**

#### **Item No. 59 - 24" Solid Circle (School Roll-Out Signs)**

The contractor shall provide all materials, equipment and labor to furnish and apply thermoplastic reflectorized pavement symbols and legends in accordance with Maricopa County Department of Transportation supplement to the MAG section 462.

Thermoplastic pavement symbols and legends will be measured by each unit applied. Each complete pavement symbol and/or each complete legend will be considered a unit.

Measurement and payment for the accepted quantities of thermoplastic pavement markings of the type specified, measured as provided above, shall be full compensation for the unit price per each, complete in place, including pavement surface preparation and glass beads.

#### **Item No. 60- Raised Pavement Markers Type D**

Raised pavement markers shall be installed per section 463.2.2 of the Maricopa County Department of Transportation Supplement to MAG.

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

#### **Item No. 61 - Sign Removal**

Sign removal shall be per section 464 and 465 of the Maricopa County Department of Transportation Supplement to MAG.

Measurement and payment will be at the contract lump sum price and shall be full compensation for the item complete.

**Item No. 62 – Sign Panel**

Signs shall be per section 464 and 465 of the Maricopa County Department of Transportation Supplement to MAG.

Measurement and payment will be at the contract unit price per square foot of sign panel complete in place.

**Item No. 63 – Sign Post & Base**

Sign post and base shall be per section 464 and 465 of the Maricopa County Department of Transportation Supplement to MAG.

Measurement and payment will be at the contract unit price per linear feet for sign post complete in place.

**Item No. 64 - Reconstruct Existing Traffic Loops COT Std. Det. T-575**

The contractor shall provide all materials, equipment and labor necessary to reconstruct existing traffic loops in accordance with City of Tempe Standard Detail T-575.

Measurement and payment will be at the contract unit price per each (single lane) and shall be full compensation for the item complete in place.

**Item No. 65 – Remove Existing Pedestrian Push Button**

The contractor shall remove existing pedestrian push button as noted on the plans.

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

**Item No. 66 – Remove and Reset Existing Pedestrian Push Button**

The contractor shall remove and reset existing pedestrian push button as noted on the plans.

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

**Item No. 67 – Remove and Reset Existing Bicycle Push Button & Pole**

The contractor shall remove and reset existing bicycle push button and pole as noted on the plans.

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

**Item No. 68 – Pedestrian Push Button & Pole**

The contractor shall provide all materials, equipment and labor necessary to install pedestrian push button and pole in accordance with plans

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

**Item No. 69 - Adjust Survey Marker Type A to Grade MAG Std. Det. 120-1**

**Item No. 70 - Install Survey Marker Type A to Grade MAG Std. Det. 120-1**

The contractor shall provide all materials, equipment and labor necessary to uncover (1" to 6" depth) and reconstruct survey monuments to grade in accordance with MAG Standard Detail 120-1, Type A and MAG Sections 345 and 405. Rims for uncovered monuments in existing hand holes shall be raised to local finished pavement grade. Uncovered monuments not existing in hand holes (Type A) shall be reconstructed as Type A monuments.

City of Tempe Land Services will locate existing, tie down and verify locations of all undamaged monuments. Monuments damaged by contractor during construction shall be re-established by an Arizona Registered Land Surveyor

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place.

**Item No. 71 - Plant Removal**

**Item No. 72 - Existing Plant Pruning**

**Item No. 73 - Existing Plant Relocation**

**Item No. 74 - Miscellaneous Landform Grading**

**Item No. 75 - Existing Tree Protection**

**Section 201 Clearing And Grubbing**

Comply with MAG Section 201, except as noted below.

**201.1 Description:**

This work shall consist of removing objectionable material from the right-of-way, easements and such other areas adjacent to the sidewalk improvements as directed by the Engineer. Clearing and grubbing shall be performed in advance of grading operations and shall consist of removal of plant material shown on the plans, removal and stockpiling of existing decomposed granite for reuse, pruning of trees, shrubs, and other plant material in conflict with proposed improvements, removal of fences, and removal of miscellaneous items in conflict with proposed improvements.

**201.3 Construction Methods:**

**Add the following paragraph**

Tree branches extending over the sidewalk, which hang within 8 feet of the profile grade or that restrict pedestrian and bicycle movement shall be cut off close to the trunk or stem of the tree in a neat and workmanlike manner. The Contractor shall remove additional tree branches under the direction of the Engineer, in such a manner that the tree will present a balanced appearance. Scars resulting from the removal of branches shall be treated with a heavy coat of an approved tree sealant.

Measurement and payment will be at the contract unit price per each and shall be full compensation for the item complete in place. The allowance for existing plant pruning, existing plant relocation, and miscellaneous landform grading will not exceed \$2,500, \$5,000, and \$2,500 respectively for each of those items, with no mark up, as stated in the contract.

Item No. 76 – Trees 36" Box

Item No. 77 – Trees 24" Box

Item No. 78 – Root Barrier

Item No. 79 – Medium Shrubs (5 Gallon)

Item No. 80 – Low Shrubs (1 Gallon)

Item No. 81 – Vines (1 Gallon)

Item No. 82 – Lawn Restoration

Item No. 83 – Decomposed Granite Mulch

Item No. 84 – Decorative River Rock 1-2"

#### Section 425 Topsoils

Replace the entire MAG Section 425 with the applicable sections of the City of Tempe Planting Section of the City of Tempe Public Works Engineering Division Standard Landscape and Irrigation Details and Specifications dated July 2011.

#### Section 430 Landscaping And Planting

Replace entire MAG Section 430 with the City of Tempe Planting Sections of the City of Tempe Public Works Engineering Division Standard Landscape and Irrigation Details and Specifications dated July 2011.

Measurement and payment will be at the contract unit price and shall be full compensation for the item complete in place.

Item No. 85 – Irrigation Emitters & Dist. Tube ( Bowsmith 6-outlet or approved equal)

Item No. 86 – Irrigation Valves (Rain Bird ¾" Control Zone or approved equal)

Item No. 87 – Irrigation Piping, 2" Mainline Schedule 40 PVC

Item No. 88 – Irrigation Piping, ¾" Lateral Class 200 PVC

Item No. 89 – Irrigation Sleeving, 4" Ductile Iron at Streets

Item No. 90 – Irrigation Sleeving, 2" Schedule 40 PVC at Alleys/Drives

Item No. 91 – Irrigation Controller (Solar Panel/Type)

Item No. 92 – Irrigation Backflow (2")

Item No. 93 – Irrigation Water Meter (2")

Item No. 94 – Irrigation Restoration (Private Property)

Item No. 95 – Ball Valves

Item No. 96 – Quick Couplers

Item No. 97 – Flush Valves

#### Section 440 Sprinkler Irrigation System Installation

Replace entire MAG Section 440 with the City of Tempe Irrigation System Section of the City of Tempe Public Works Engineering Division Standard Landscape and Irrigation Details and Specifications dated July 2011.

Modify the Tempe Irrigation System Section as follows:

**1. General Requirements:**

*Add the following paragraphs*

- b. Work within this section shall include the installation of a new irrigation system within the public right-of-way as shown on the plans and as specified herein and the removal and restoration of private landscape irrigation systems within the public right-of-way.
- c. Contractor to contact Owner(s) of existing private irrigations systems and have Owner(s) show that the system works and show the locations of the controls.
- d. Contractor shall provide ample notification for Owners who desire to remove and restore their own system. The Contractor shall notify the affected property owners at least 14 days prior to the scheduled removal of the irrigation system.

**2. As-built Drawings:**

*Add the following paragraph*

- h. Contractor is not responsible for providing as-built drawings of the private irrigations systems.

**4. Operation and Maintenance Manuals:**

*Add the following paragraph*

- c. Upon completion of restoration of the private irrigation system, the Contractor shall prepare and deliver to the private Owner all descriptive material, product information, cut sheets, manufacturer information, and other applicable information for the restored irrigation system. The material shall be prepared as bound copies and provide sufficient detail and information to permit the Owner to operate and maintain the restored irrigation system.

**5. Spare Parts:**

*Add the following paragraph*

- b. Contractor is not responsible for providing spare parts for the private irrigations systems.

**6. Guarantee:**

*Add the following to paragraph a.*

The Contractor shall submit a written guarantee for all restored private irrigation systems, in approved form, that all work showing defects in materials or workmanship will be repaired or replaced at no additional cost to the private property Owner or City for a period of one (1) year from the date of acceptance from the Engineer.

*Add the following to paragraph b.*

The Contractor shall prepare a separate guarantee form, retyped on the Contractor's letterhead, for each Private Property Owner whose existing irrigation system was restored. Contract shall provide two (2) copies of the guarantee form for private property irrigation system restorations. One copy shall be provided to the Owner and the other copy shall be provided to the City.

**Irrigation System Specifications: Products**

*Add the following subsection to the Products Section*

**21. Private Irrigation System:**

- a. Existing private irrigation systems shall be restored with irrigation material and products equal to or better than the existing system.
- b. The Contractor shall have the option to salvage and reuse existing materials. In the event that it is not feasible to reinstall the salvaged materials, new materials shall be installed.
- c. The Contractor shall submit a complete list of existing irrigation system products to be removed.
- d. The Contractor shall provide a complete list of existing irrigation system products to be reused for approval by the Engineer.
- e. The Contractor shall provide a complete list of new products to be used in restoring the existing private irrigation systems for approval by the Engineer.

**Irrigation System Specifications: Execution**

*Add the following to the Execution Section*

**2. Water Supply:**

*Add the following paragraph*

- d. Contractor shall verify water supply available for private irrigation systems and its shut down prior to commencement of private irrigation system restoration work.

**3. Layout:**

*Add the following paragraph*

- h. Layout restored private irrigation system based on the existing system layout and make any adjustments required due to changes in the area to be covered based on the improvements within the right-of-way.

**4. Assemblies:**

*Add the following paragraph*

- f. Routing of irrigation lines for the restored private irrigation system shall follow the existing line layout and conform with performance of the existing conditions.

*Add the following subsection*

**17. Private Irrigation System Restoration:**

- a. When construction encroaches into an existing landscaped irrigation system, the Contractor shall remove the conflicting portion of the system within the right-of-way and/or easements and any portion which may remain under the proposed improvements, whether shown or not shown on the plans. If the removals affect other areas of the system not in conflict with the construction, the Contractor shall permanently or temporarily restore or modify the existing system to provide water to the unaffected areas. The restoration or modifications shall be completed within 24 hours after the disruption occurs or notification by the Engineer.
- b. The Contractor shall restore the affected landscape irrigation system to an operational condition equal to or better than the existing system. When necessary, bubbler and/or sprinkler heads shall be reinstalled at the edge of the new improvements. The reconstructed or modified system shall provide completed irrigation coverage without overspray onto walks, pavement, walls, buildings, etc.
- c. The Contractor shall have the option to salvage and reuse existing materials. In the event that it is not feasible to reinstall the salvaged materials, new materials shall be installed.
- d. When determined by the Engineer that the existing sprinkler system cannot be practically restored, the existing system shall be plugged and removed as directed.
- e. Unless specified by the City and called out in the bid documents, this work shall be considered incidental to the contract and no separate payment shall be made to comply with these provisions.

*Add the following section*

**18. Measurement and Payment:**

Measurement and payment will be at the contract unit price and shall be full compensation for the item complete in place. The allowance for irrigation restoration (private property) will not exceed \$25,000 for this item, with no mark up, as stated in the contract.

**Item No. 98 – Type 1 Bus Shelter**

**Item No. 99 – Type 2 Bus Shelter**

**Item No. 100 – Type 3 Bus Stop**

**Item No. 101 – Type 4 Bus Stop**

Bus shelter, benches, trash receptacles, bike racks, photovoltaic panel, lighting, and concrete pad shall be constructed in accordance with Section 515 and 530 of the MAG Specifications with the following exceptions and modifications:

**Section 515 Steel Structures**

**1.0 General:**

- a. Work to be completed in this section shall consist of all labor, material, and equipment necessary to install custom designed bus shelter which includes metal post, shade screen, and light fixtures. Bus shelter equipment shall include; bike rack, benches, trash receptacles, and concrete pad in the locations shown on the plans.

**1.1 Related Work:**

- a. Section 340 of the MAG Uniform Standard Specification for Public Works Construction and applicable portions of COT Supplemental Specifications Section 340, as modified within these special provisions.
- b. Section 505 of the MAG Uniform Standard Specification for Public Works.
- c. Section 530 of the MAG Uniform Standard Specification for Public Works.

## **1.2 Submittals:**

### **a. Submittals required:**

1. Detailed shop drawings of the bus shelter and bus shelter equipment.
2. Descriptions and catalog cuts of all hardware.

### **b. Product Data:**

Submit manufacturer's technical information for the following items:

1. Manufacturer's information and product literature on bus shelter bench.
2. Manufacturer's information and product literature on lighting system, including photovoltaic cells.
3. Manufacturer's information and color chart for powder coating.
4. Anchors, dowels and other attachments or fasteners as required.

### **c. Samples:**

Submit 12"x12" samples of the following metal to be used in the bus shelters.

### **d. Mock-ups:**

Contractor shall construct a full-sized mock-up of the bus shelter in the field for review and approval by the engineer, landscape architect and artist team prior to construction of all shelters. Contractor may choose to construct the mock-up in the final location for review and approval by the landscape architect and artist team prior to construction of all elements with the understanding that if it is not approved, the Contractor shall remove all items related to the construction of the mock-up and construct a new mock-up at no additional cost to the Owner.

## **1.3 Quality Assurance:**

### **a. Except as modified by governing codes and by this Specification, comply with the applicable provisions and recommendations of the following codes and standards.**

1. AWS "Structural Welding Code" including all supplements, addenda and special rulings applicable to building construction.
2. SSPC "Steel Structures Painting Manual, Volume 2, Systems and Specifications".
3. Inspection: All welding in the shop or field shall be subject to controlled inspection per local Building Code.

### **b. All steelwork shall be performed only by a firm specializing in such construction.**

## **1.4 System Performance Requirements:**

- a. Structural performance of bus shelter: Design, engineer, fabricate, and install bus shelter, to withstand the following structural loads without exceeding the allowable design working stress of the materials for the bus shelter. Apply each load to produce the maximum stress in each of the respective components comprising fences and railing systems.

Lateral:

Wind Load = 90 MPH Wind Speed, Exposure C.

Seismic Zone 2B ( $Z=0.075$ )

### **1.5 Product Handling:**

- a. Use all means necessary to protect the materials of this section before, during, and after construction.

### **2.0 Products**

#### **2.1 Metal**

- a. Bus shelter elements shall be constructed of cor-ten steel metal plates, tubes, angles and channels as shown on the drawings. All material shall comply with the following

1. Weathered Steel: ASTM A 588

#### **2.2 Furnishings**

- a. Benches: Bus shelter benches shall be "Flip Seat", model number 55903 as manufactured by Daytech, 1-877-329-1907, [www.daytechlimited.com](http://www.daytechlimited.com), or approved equal. The bench shall comply with the following:

1. Tilt up seats
2. Surface mounted
3. Powdercoated: black and silver

- b. Trash receptacles: Bus shelter trash receptacles shall be HN1 Perforated Steel Pole Mounted Receptacle, model number UNTDH1N as manufactured by Trash Can Depot, (877)284-0855, [www.trashcandepot.com](http://www.trashcandepot.com), or approved equal. The bicycle rack shall comply with the following:

1. 10 gallon capacity
2. 16 gauge perforated steel
3. Dimensions: 12" dia x 24" high
4. Powder coated finish
5. Color: black
6. Galvanized steel mounting pipe; color black
7. Surface mounted

- c. Bicycle rack: Bicycle racks shall be a u-channel constructed of steel pipe as shown on the drawings. The bicycle rack shall comply with the following:

1. Surface mounted

2. Powdercoated: silver

### **2.3 Lighting**

- a. Bus shelter lighting shall be PV-Shelter as manufactured by Urban Solar Corp, 1.778.340.5516, 1.778.430.5516, [www.urbansolarcorp.com](http://www.urbansolarcorp.com) or approved equal. The PV-Shelter lighting system shall consist of the following:
  1. 6W LED Strip luminaire with a 5500K output color
  2. 50W Solar Module constructed of flexible-amorphous mono and poly-crystalline photovoltaic
  3. 12 volt Energy Control Module
  4. 54 amp Battery Bank
  5. Aluminum Chassis Material, powdercoated per Section 530.

### **2.2 Hardware**

- a. Bolts: Bolts shall be provided in the sizes, shape, and materials shown on the drawings. All bolts shall conform to specification ASTM A325 and ASTM A490 for high strength bolts and ASTM A307 for common bolts.
- b. Pinwheels Art Elements: Pinwheel art elements shall be provided by the project artist, Melissa Martinez, and shall be installed by the fabricator per the direction of the project artist. Fabricator shall notify project artist a minimum of 48 hour in advance of installation of the Pinwheels. Phone: 480.570.2924; website: [www.howestreetstudio.com](http://www.howestreetstudio.com)

### **2.3 Grout**

- a. Non-shrink grout for anchoring shade structure supports shall be two-part epoxy grout of approved manufacturer, compatible with lead caulking. Vertical shade structure supports shall be caulked with molten lead after grouting is set.

### **2.4 Concrete**

- a. Concrete for bus shelter pad shall be 3,000 psi concrete meeting requirements of Section 505 of the MAG Uniform Standard Specification for Public Works Construction and applicable portions of COT Supplemental Specifications Section 505, as modified within these specifications.
- b. Concrete for bus shelter pad within the limits shown on the plans shall be integrally colored.
- c. Acceptable Manufacturer's or approved equal:

*Scofield Western USA*  
L. M. Scofield Company  
6533 Bandini Blvd.  
Los Angeles, CA 90040  
Phone: 1.800.800.9900 or (323) 720-3000  
Fax: (323) 720-3030  
[www.scofield.com](http://www.scofield.com)

Davis Colors  
3700 East Olympic Blvd.  
Los Angeles, CA 90023  
Phone: 800-356-4848 or 323-269-7311  
fax: 323-269-1053  
[www.daviscolors.com](http://www.daviscolors.com)

Cohill Building Specialities  
3825 East Anne Street  
Phoenix, AZ 85040  
Phone: 877-709-2220 or 602-266-0462  
Fax: 602-470-1836  
[www.cohills.com](http://www.cohills.com)

- d. Color: colors noted on the plans are Scofield or approved equal from other manufacturers.
- e. Construction: integral color shall be per manufacturer's instructions.

## **2.5 Powdercoating**

- a. Powdercoating for metal bus shelters shall meet requirements of Section 530 of the MAG Uniform Standard Specification for Public Works Construction, as modified within these special provisions.

## **3.0 Execution**

### **3.1 General**

- a. Construction shall be in accordance with AISC Specifications and as specified herein.
  - 1. Steel members shall be set accurately in place and shall be properly aligned.
  - 2. Temporary bracing shall be provided wherever necessary during assembly and erection, and shall be left in place as long as required. It is the Contractor's responsibility for safe practice in this regard.
  - 3. Field errors and adjustments shall not be corrected by burning unless permitted by the Site Engineer.
  - 4. Field connections shall be bolted or welded as directed by the Site Engineer.

### **3.2 Bus Shelters**

- a. Bus shelters shall be fabricated in strict accordance with the plans and approved shop drawings. Connections shall be provided as indicated on the plans.
- b. Bus shelters shall be assembled on site and in compliance with OSHA, APS, and Cox Communication clearance requirements and State of Arizona law regarding High Voltage Power Lines and Safety Restricts (A.R.S. 40-360.41-45). Contractor shall contact APS prior to commencement of construction the bus shelters.

### **3.3 Welding**

- a. Do not begin welding until joint elements are bolted or tacked in intimate contact and adjusted to dimensions with allowance for any weld shrinkage that is expected. Weld sections with low hydrogen-type electrodes. No members are to be spliced without prior review by the Site Engineer.

- b. Welding shall be performed by operators who have been qualified within the preceding one-year period under AWS standard qualification procedure for the type of work required.
- c. All welds shall be ground smooth before painting.
- d. Welding certificates shall be submitted and approved by the City.

### **3.4 Site Furnishings**

- a. Install site furnishing in strict accordance with the plans, approved shop drawings, and manufacturer's recommendation.

### **3.5 Measurement And Payment**

- a. Payment for the bus shelter and equipment shall be made on the basis of the price bid per each. Price bid shall include all labor, material, and equipment necessary to install the bus shelter, bike rack, benches, trash receptacles, pinwheels, and concrete pad in the locations shown on the plans.

## **Section 530 Painting**

### **General:**

Comply with MAG Section 530 as modified herein.

### **530.1 Description:**

*Delete the paragraph and add the following:*

The work under this Section shall consist of furnishing all labor, materials and equipment to touch-up paint all bus shelters and miscellaneous metal items located within the right-of-way.

*Add the following sub section*

### **530.9.6 Field Touch-Up of Painting**

- a. Following site installation of powdercoated and painted elements, additional finish paint shall be applied to touch-up all fastenings, scratches, or damaged areas. Paint shall be applied with brush and roller in a workmanlike manner, and thoroughly worked into the surface without fins or runs. Drop cloths shall be used to protect existing ground surfaces and adjacent appurtenances.
- b. Any touch-up of painting required shall be done in accordance with specifications for shop-applied finish and shall use same product and manufacturer as used by fabricator. Color shall match exactly.
- c. Touch-up bare areas and shop-applied prime coats that have been damaged. Wire-brush, clean with solvents recommended by the paint manufacturer, and touch-up with the same primer as the shop coat.
- d. Minimum thickness of paint film shall be as follows or as recommended by manufacturer if thicker than specified herein: Two coats over primer with total dry film thickness not less than 2.0 mils.

### **Powder Coating**

#### **General:**

Comply with MAG Section 530 except as modified herein

### **Work Included**

- a. Work of this Section shall consist of furnishing all labor, materials, equipment and services necessary to complete the powdercoating work, including but not limited to the following:
  1. Provide powdercoated finish to custom fabricated bus shelter

### **Submittals**

- a. Product Data:

Submit manufacturers and processors technical data and installation instructions:

1. Process and equipment for powdercoating and related material use.
2. Solar-powered LED Bus Shelter lighting

- b. Statement of Qualifications:

1. Submit confirmation of fabricator's qualifications as specified herein.
2. Submit confirmation of qualifications for powdercoating applicator with identification and location of firm, equipment and processes used, and quality control procedures typically followed and additionally procedures that will be instituted for work of this Project.

- c. Samples:

Submit fabricated samples (of sufficient size to fully show construction, materials and finishes, plus requirements indicated below) of the following items:

1. Submit finished samples, 6" x 6", for each color selected by Design Consultant, indicating the complete range of color, texture, gloss, and other characteristics for each item of custom fabrication.
2. Samples submitted shall be representative of the workmanship and finishes to be incorporated in the completed Project.

### **References**

- a. The American Institute of Steel Construction for the Design, Fabrication and Erection of Structural Steel (AISC).
- b. Code for Welding in Building Construction: American Welding Society (AWS).
- c. Steel Structures Painting Council (SSPC).
- d. Federal Specification (FS).
- e. American Society for Testing and Materials (ASTM).
- f. Conflicts:

In case of conflict between the referenced standards, codes, or Contract Documents, the referenced standard, code, or Contract Document having the more stringent requirement shall govern as approved by Design Consultant.

#### **Quality Assurance**

a. **Qualifications:**

Work of this Section shall be fabricated by an experienced manufacturer, who has been previously engaged for a period of at least five (5) years in powdercoated finishing of equal scope and fabrication standards to Project requirements.

#### **Delivery, Storage, And Handling**

- a. Load and store all metal items to prevent formation of wet storage film. Allow air between and around galvanized surfaces and allow for continuous drainage of units until painted and also until installed.
- b. **Finished Metals:**

Protect finishes against soiling, staining, or damage from scratches and abrasions. Maintain protection during construction until project completion or as otherwise approved by Owner's Representative.

1. Provide wrappings, strippable coatings, or other means of protection on shop finishes.
2. During construction, remove protection if necessary for visual observation of finish by Owner's Representative and replace to maintain protection.

#### **Materials**

- a. Powdercoating shall be electrostatically applied to 3.0 to 5.0 mil thickness and oven cured between 375 degrees F. to 425 degrees F.
- b. Meet or exceed the following requirements:
1. Pencil Hardness H (ASTM D3363).
  2. Abrasion (ASTM 1907).
  3. Impact (ASTM D2794-69).
  4. Wedge Bend (ASTM D522-68).
  5. Adhesion (Cross Hatch ASTM D3359 & Knife Scratch ASTM D-2197).
  6. Environmental (Stain Resistance ASTM D1306, Humidity ASTM D2242, Salt Spray ASTM B117 and Fadometer 300 hours with no loss of gloss).
  7. Over Bake Stability: 100% at 400 degrees F.

c. Colors:

The following elements shall be painted with the identified colors.

1. Bus Shelter Lighting and Photovoltaic Chassis: Rust colored approximately matching a cor-ten steel in color.
2. Bus shelter benches, trash receptacles, and bike racks: silver and black.

**Execution**

**Preparation**

- a. Provide powdercoated finish for all items fabricated under Section 515. Perform coating after fabrication including all cutting, bending, welding and the like has been completed for any assembly, section, or component that will be fitted, installed, or attached in the field as a complete unit.
- b. Preparation for Powdercoating shall include but not be limited to the following:

1. Remove welding flux.
2. Drill appropriate vent holes and provide for drainage in inconspicuous locations of hollow sections and semi-enclosed element. Plug vent holes with shaped lead and grind smooth.

c. Cleaning:

Thoroughly clean metal surfaces of all mill scale, rust, dirt, grease, oil moisture and other contaminants in a six-stage bath system with an iron phosphate wash, as a rust inhibitor, and a sealer to prevent flash rust before coating. Prior to powdercoating all components will be free of sharp edges and excess weld splatter.

**Cleaning, Protection And Adjustment**

- a. Provide protective coverings to adequately protect all items during shipment. Restore all finishes which have been damaged during shipment or installation of work. Remove protective coverings only when there is no possibility of damage from other work yet to be performed at the same location.
- b. Touching-up of factory finished surfaces permitted only with approval by Design Consultant. If resultant touch-up is not satisfactory as determined by Owner Representative, the item shall be removed and replaced at no expense to the Owner. Touch-up painting shall comply with Section 503.

**Measurement and Payment:**

Measurement and Payment for powdercoating will be paid under bus shelters.

**Item No. 102 – Foundation for Art Sculpture**

Foundation materials and construction shall be per detail on sheet 11A of the plans. The location shall be per plan sheet 19. The anchor bolts, washers, and nuts shall be protected for subsequent sculpture installation by others.

Measurement and payment will be at the contract unit price per each for foundation complete in place. The art sculpture foundation shall not be submitted to ADOT for reimbursement and shall be paid solely by the City of Tempe.

**END OF SECTION**