

Memorandum

To: City of Phoenix From: Brett Stroup P.E.

Re: Cost Estimation of I-Girder Bridges, Deck Slab Bridges, and
Single Barrel Reinforced Concrete Box Culverts

Cost Estimation Approach

Date: June 27, 2018

Kimley-Horn, Inc. (KH) has estimated costs for the following structures:

I-Girder Bridges

For the purpose of this task, we determined dollar per square foot cost for bridge construction based on past and current projects. The ADOT Ina Rd./I-10 Bridge constructed in 2018, ADOT Ina Rd./UPRR Bridge constructed in 2018, and the City of Phoenix Sonoran Desert Drive Bridge constructed in 2015. The Ina Rd./I-10 bridge and Ina Rd./UPRR bridge were both designed by Kimley-Horn and were part of a single CMAR project. The project guaranteed maximum price (GMP) were obtained for the ADOT Ina Rd. bridges and used to estimate final construction cost per square foot of bridge deck. For Sonoran Desert Drive, the quantities along with historical pricing data were used to estimate a final construction cost. The average construction cost for these I-Girder bridges is \$129/SF.

Deck Slab Bridges

For the purpose of this task, we determined dollar per square foot cost for bridge construction based on past projects. Two City of Phoenix bridges along Chandler BLVD constructed in 2016. The Chandler BLVD bridges were part of a design build project and the quantities along with GMP data were used to estimate a final construction cost per square foot of bridge deck. The average construction cost for deck slab bridges is \$99/SF.

Reinforced Concrete Box Culverts

Culvert construction cost was calculated in units of dollars per square foot where square foot refers to one linear foot of the span length, distance between the inside face of the side walls. The average construction cost was calculated based on using dimensions and quantities specified in ADOT standard details (ADOT SD6.01-1 through SD6.01-5). Specifically, Table No. 1 from SD6.01-5 outlining dimensions for various single barrel box culverts with 0-10 feet of fill. Excavation and backfill were included in the average cost and calculated based on assuming existing ground was 5'-0" above the top slab, 1'-0" of which was not included as it was assumed to be part of roadway embankment. The average construction cost was split out into two groups, due to the standards not specifying smaller heights once the span increased to 12 feet. The estimated cost of single-barrel reinforced concrete box culverts with spans of 6 feet to 10 feet is \$135/SF. The estimated cost of single-barrel reinforced concrete box culverts with spans of 12 feet is \$167/SF.

TABLE OF CONTENTS

Average Construction Cost Estimates

I-Girder Bridges 3
Deck Slab Bridges 3
ADOT Single Barrel Reinforced Concrete Box 4

Estimates Using Historical Pricing Data

Sonoran Desert Drive Bridge 5

APPENDIX

ADOT E2C2 Unit Price Bid History 6
Hunter Contracting Co. Bid Schedule for Chandler Blvd Bridges 18
Sundt/Kiewit Bridges Bid Schedule for I-10 and UPRR Bridges 25
Ina Road I-10 Bridge Plan Sheets 31
Ina Road UPRR Bridge Plan Sheets 33
Sonoran Desert Drive Bridge Plan Sheets 35
Chandler Blvd. Bridges Plan Sheets 36

BRIDGE SF COST & BOX CULVERT COST PER X-SEC AREA

I-girder Bridge			
Project: Ina I-10 and UPRR Bridges (2018 CONSTRUCTION)			
STRUCTURE #	BID PRICE	TOTAL AREA (SF)	PRICE PER SF
20094 I-10 OVERPASS	\$ 4,775,702.33	35639.78	\$ 134.00
20095 UPRR OVERPASS	\$ 6,068,197.00	45503.43	\$ 134.00
		AVERAGE/SF	\$ 134.00
		TOTAL BID COST	\$ 10,843,899.33

I-girder Bridge			
Project: Sonoran Desert Drive Bridge (2015 CONSTRUCTION)			
STRUCTURE #	BID PRICE	TOTAL AREA (SF)	
N/A	\$ 7,389,542.72	67685.63	
		TOTAL COST/SF (2015)	\$ 110.00
		TOTAL COST/SF (2016)	\$ 114.40
		TOTAL COST/SF (2017)	\$ 118.98
		TOTAL COST/SF (2018)	\$ 123.74

AVERAGE COST/SF = \$ 129.00

Deck Slab Bridge			
Project: Chandler BLVD. Design Build Bridges (2016 CONSTRUCTION)			
STRUCTURE #	BID PRICE	TOTAL AREA (SF)	PRICE PER SF
BR019 (19th Ave)	\$ 872,050.61	9491.39	\$ 92.00
BR027 (27th Ave)	\$ 860,275.02	9491.39	\$ 91.00
		AVERAGE/SF (2016)	\$ 91.50
		AVERAGE/SF (2017)	\$ 95.16
		AVERAGE/SF (2018)	\$ 98.97
		TOTAL BID COST	\$ 1,732,325.63

AVERAGE COST/SF (2016) = \$ 92.00

AVERAGE COST/SF (2017) = \$ 96.00

AVERAGE COST/SF (2018) = \$ 99.00

ADOT SINGLE BARREL REINFORCED CONCRETE BOX CULVERT

SPAN (FT)	HEIGHT (FT)	AREA (SF)	CONCRETE			REINFORCING STEEL			EXCAVATION			BACKFILL			TOTAL PRICE (\$/LF)	TOTAL PRICE/SF	AVERAGE (\$/SF)		
			QUANTITY (C/Y/LF)	UNIT PRICE (\$/C/Y)	TOTAL COST (\$/LF)	QUANTITY (LB/LF)	UNIT PRICE (\$/LB)	TOTAL COST (\$/LF)	QUANTITY (C/Y/LF)	UNIT PRICE (\$/C/Y)	TOTAL COST (\$/LF)	QUANTITY (C/Y/LF)	UNIT PRICE (\$/C/Y)	TOTAL COST (\$/LF)					
6	3	18	0.662		\$ 198.60	83.9		\$ 104.88	2.67		\$ 106.80	2.7		\$ 220.50	693.85	\$ 115.64	\$ 139.18		
	4	24	0.718		\$ 215.40	95.3		\$ 119.13	3		\$ 120.00	2.7		\$ 240.30	764.31	\$ 127.38			
	5	30	0.773	\$ 300.00	\$ 231.90	109.7	\$ 1.25	\$ 137.13	3.34	\$ 40.00	\$ 133.60	2.9	\$ 90.00	\$ 260.10	839.00	\$ 139.83			
	6	36	0.829		\$ 248.70	118.5		\$ 148.13	3.67		\$ 146.80	3.1		\$ 280.80	906.87	\$ 151.14			
	7	42	0.884		\$ 265.70	125.9		\$ 157.38	4		\$ 160.00	3.3		\$ 300.60	971.49	\$ 161.92			
	8	48	0.949		\$ 284.70	121.5		\$ 151.88	3.67		\$ 146.80	3		\$ 267.30	935.74	\$ 116.97			
	9	54	1.016	\$ 300.00	\$ 304.80	126.2	\$ 1.25	\$ 157.75	4.08	\$ 40.00	\$ 163.20	3.2	\$ 90.00	\$ 287.10	1,004.14	\$ 125.52			
8	5	40	1.084		\$ 325.20	133.7		\$ 167.13	4.49		\$ 179.60	3.4		\$ 306.90	1,076.71	\$ 134.59	\$ 130.37		
	6	48	1.152		\$ 345.60	145.6		\$ 182.00	4.89		\$ 195.60	3.6		\$ 326.70	1,154.89	\$ 144.36			
	7	56	1.22		\$ 366.00	150.4		\$ 188.00	5.3		\$ 212.00	3.9		\$ 347.40	1,224.74	\$ 153.09			
	8	64	1.296		\$ 387.60	157.6		\$ 197.00	3.86		\$ 154.40	3	\$ 90.00	\$ 273.60	1,042.58	\$ 104.26			
	9	72	1.372		\$ 409.20	166.6		\$ 208.25	4.34		\$ 173.60	3.3		\$ 293.40	1,124.26	\$ 112.43			
	10	80	1.456		\$ 431.80	181.7		\$ 227.13	4.82		\$ 192.80	3.5		\$ 314.10	1,215.64	\$ 121.56			
	11	88	1.544		\$ 454.40	190.7	\$ 1.25	\$ 238.38	5.3	\$ 40.00	\$ 212.00	3.7		\$ 333.90	1,297.31	\$ 129.73			
10	6	60	1.317	\$ 300.00	\$ 395.10	200.9		\$ 251.13	5.78		\$ 231.20	3.9		\$ 353.70	1,380.64	\$ 138.06	\$ 133.98		
	7	70	1.397		\$ 419.10	211.1		\$ 263.88	6.26		\$ 250.40	4.2		\$ 373.50	1,463.96	\$ 146.40			
	8	80	1.477		\$ 443.10	221.8		\$ 277.25	6.75		\$ 270.00	4.4		\$ 394.20	1,549.74	\$ 154.97			
	9	90	1.558		\$ 467.40	231.4		\$ 289.25	7.23		\$ 289.20	4.6		\$ 414.00	1,644.45	\$ 164.44			
	10	100	1.675		\$ 502.50	305.6		\$ 382.00	7.23		\$ 289.20	4.5		\$ 400.50	1,795.64	\$ 149.64			
	11	110	1.792		\$ 537.60	317		\$ 396.25	7.78		\$ 311.20	4.7		\$ 420.30	1,887.66	\$ 157.30			
	12	120	1.910	\$ 300.00	\$ 616.20	333.9	\$ 1.25	\$ 417.38	8.34	\$ 40.00	\$ 333.60	4.9	\$ 90.00	\$ 440.10	1,988.00	\$ 165.67			
12	11	132	2.191		\$ 657.30	344.6		\$ 430.75	8.89		\$ 355.60	5.1		\$ 460.80	2,094.90	\$ 174.57	\$ 166.35		
	12	144	2.284		\$ 685.20	375.7		\$ 469.63	9.45		\$ 378.00	5.3		\$ 480.60	2,214.77	\$ 184.56			
															AVERAGE (\$/SF)		\$ 134.51		
															AVERAGE (\$/SF)		\$ 166.35		

NOTES:

- * CONCRETE (f_c = 3000psi)
- * MAXIMUM ALLOWABLE TOP FILL IS 0'-10"
- * TYPICAL SIDE FILLS IS 3'-0"
- * TYPICAL SIDE EXCAVATION 1'-6"

***TOTAL CULVERT PRICE IS MULTIPLIED BY A FACTOR OF 1.1 TO ACCOUNT FOR WINGWALLS**

SONORAN DESERT DRIVE BRIDGE

ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	UNIT COST SOURCE
STRUCTURE EXCAVATION	CY	176	\$ 12.00	\$ 2,112.00	1-10 OVERPASS
STRUCTURE BACKFILL	CY	386	\$ 25.00	\$ 9,650.00	1-10 OVERPASS
STRUCTURAL CONCRETE (CLASS S) (f'c = 3500 psi)	CY	1,103	\$ 869.00	\$ 958,507.00	1-10 OVERPASS
STRUCTURAL CONCRETE (CLASS S) (f'c = 4500 psi)	CY	2,390	\$ 595.00	\$ 1,422,050.00	1-10 OVERPASS
REINFORCING STEEL	LBS	710,634	\$ 0.83	\$ 589,826.22	1-10 OVERPASS
AASHTO GIRDER TYPE VI (MOD)	LF	7,800	\$ 250.00	\$ 1,950,000.00	ADOT E2C2
48" DIA DRILLED SHAFT	LF	900	\$ 450.00	\$ 405,000.00	ADOT E2C2
72" DIA DRILLED SHAFT	LF	1,360	\$ 680.00	\$ 924,800.00	1-10 OVERPASS
34" F-SHAPE BRIDGE CONCRETE BARRIER WITH RAIL	LF	693	\$ 55.00	\$ 38,115.00	ADOT E2C2
PEDESTRAIN-TRAFFIC BRIDGE RAIL	LF	693	\$ 435.00	\$ 301,455.00	1-10 OVERPASS
PEDESTRAIN RAILING WITH CURB	LF	693	\$ 170.00	\$ 117,810.00	ADOT E2C2
CONCRETE APPROACH SLAB (SD 2.01)	SF	4,457	\$ 16.00	\$ 71,312.00	1-10 OVERPASS
CONCRETE ANCHOR SLAB (SD 2.02)	SF	5,014	\$ 18.75	\$ 94,012.50	1-10 OVERPASS
DECK JOINT ASSEMBLIES (STRIP SEAL)	LF	223	\$ 245.00	\$ 54,635.00	1-10 OVERPASS
ELASTOMERIC BEARING PAD-PINNED	EA	104	\$ 2,000.00	\$ 208,000.00	ADOT E2C2
ELASTOMERIC BEARING PAD-EXPANSION	EA	26	\$ 2,500.00	\$ 65,000.00	ADOT E2C2
STRUCTURAL STEEL	LBS	55,750	\$ 3.00	\$ 167,250.00	ADOT E2C2
RESTRAINER, VERTICAL (EXPANSION)	EA	24	\$ 205.00	\$ 4,920.00	1-10 OVERPASS
RESTRAINER, VERTICAL (FIXED)	EA	48	\$ 106.00	\$ 5,088.00	1-10 OVERPASS

TOTAL BID COST \$ 7,389,542.72

ADOT E2C2 UNIT PRICE BID HISTORY

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
10/20/2017	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	5,945.00	275.00	250.00	200.00	300.00
05/11/2015	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H808001C	051 MA 15.0	BLACK MOUNTAIN BLVD RAMPS - SR 51	1.0	1,469.00	278.49	288.96	.00	.00
05/11/2015	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H808001C	051 MA 15.0	BLACK MOUNTAIN BLVD RAMPS - SR 51	1.0	4,129.00	216.60	232.03	.00	.00
NORTHCENT DISTRICT												
06/26/2009	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H469901C	260 GI 263.1	LITTLE GREEN VALLEY	6.9	1,577.00	245.00	240.00	225.00	240.00
09/13/2013	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H791501C	089 CN 463.5	SR-64 TO LITTLE COLORADO RIVER	3.6	4,266.00	210.00	195.00	194.09	225.00
09/13/2013	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H791501C	089 CN 463.5	SR-64 TO LITTLE COLORADO RIVER	3.6	4,266.00	210.00	195.00	194.09	220.00
NORTHEAST DISTRICT												
10/26/2012	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H436001C	191 AP 367.4	NAHATA' DZIL ROAD - SANDERS TI	1.4	2,006.00	195.00	218.50	260.00	245.00
03/21/2014	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H728601C	077 NA 366.0	FIVE MILE DRAW BRIDGE #20032	0.7	1,139.00	250.00	325.00	374.00	400.00
NORTHWEST DISTRICT												
10/08/2010	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H743901C	093 MO 109.1	US 93, SB WAGON BOW RANCH	3.9	738.00	240.00	.00	.00	.00
10/08/2010	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H743901C	093 MO 109.1	US 93, SB WAGON BOW RANCH	3.9	738.00	240.00	.00	.00	.00
SOUTHCENT DISTRICT												
08/21/2009	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H239001C	010 PM 289.4	CIENEGA CREEK - MARSH STATION PH1	2.2	1,575.00	240.00	230.00	200.00	200.00
08/24/2012	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H747301C	010 PM 288.0	CIENEGA CREEK-MARSH STATION PHASE III	2.6	2,526.00	250.00	152.14	170.00	200.00
08/24/2012	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H747301C	010 PM 288.0	CIENEGA CREEK-MARSH STATION PHASE III	2.6	2,526.00	250.00	152.14	170.00	200.00
05/04/2018	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	F013201C	019 PM 58.7	AJO WAY TI (JCT SR 86), PHASE 2	3.6	4,675.00	222.00	300.00	320.00	294.00
SOUTHEAST DISTRICT												
06/19/2015	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H790001C	060 PN 221.7	SILVER KING SECTION & SUPERIOR STREETS	5.1	759.00	210.00	250.00	185.00	250.00
06/19/2015	6014956	PRECAST, P/S MEMBER (AASHTO TYPE 6 MOD. GR.)	L.FT.	H790001C	060 PN 221.7	SILVER KING SECTION & SUPERIOR STREETS	5.1	759.00	210.00	300.00	185.00	250.00

June 26, 2018

Parameter(s) supplied: Item Number 6014956, From Bid Date 6/26/2009, To Bid Date 6/26/2018, Thank you!

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
08/26/2011	6015203	BEARING (	EACH	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	28.00	2,000.00	3,100.00	4,000.00	3,340.15
08/26/2011	6015203	BEARING (	EACH	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	24.00	2,000.00	3,100.00	5,000.00	3,433.12
01/12/2012	6015203	BEARING (	EACH	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	24.00	3,000.00	2,000.00	1,800.00	1,855.09
01/12/2012	6015203	BEARING (	EACH	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	24.00	3,000.00	2,050.00	1,900.00	1,855.09
05/11/2015	6015203	BEARING (	EACH	H808001C	051 MA 15.0	BLACK MOUNTAIN BLVD RAMP - SR 51	1.0	15.00	1,031.43	1,015.73	.00	.00
05/11/2015	6015203	BEARING (	EACH	H808001C	051 MA 15.0	BLACK MOUNTAIN BLVD RAMP - SR 51	1.0	16.00	979.86	1,284.69	.00	.00
11/20/2015	6015203	BEARING (	EACH	H857701C	303 MA 103.2	I-10/303L TI, PHASE II	1.3	10.00	2,500.00	220.00	650.00	.00
11/20/2015	6015203	BEARING (	EACH	H857701C	303 MA 103.2	I-10/303L TI, PHASE II	1.3	16.00	3,000.00	2,811.00	2,200.00	.00
11/20/2015	6015203	BEARING (	EACH	H857701C	303 MA 103.2	I-10/303L TI, PHASE II	1.3	24.00	2,500.00	2,500.00	2,150.00	.00
11/20/2015	6015203	BEARING (	EACH	H857701C	303 MA 103.2	I-10/303L TI, PHASE II	1.3	10.00	2,000.00	320.00	750.00	.00
HOLBROOK DISTRICT												
06/21/2013	6015203	BEARING (	EACH	SL52101C	0000 NA NNA	CHEVELON CREEK BRIDGE (#8158)	0.0	4.00	3,500.00	8,500.00	3,050.00	3,753.88
NORTHEAST DISTRICT												
02/08/2013	6015203	BEARING (	EACH	H771601C	040 AP 325.9	NAVAJO, CHAMBERS & QUERINO EB TI UPS	18.0	4.00	2,000.00	1,200.00	14,793.26	2,000.00
NORTHWEST DISTRICT												
01/29/2016	6015203	BEARING (	EACH	H861301C	040 MO 83.2	WILLOW CREEK BRIDGES EB #1592,1594,1595 & 1768	2.2	10.00	1,500.00	3,300.00	3,500.00	3,750.00
01/29/2016	6015203	BEARING (	EACH	H861301C	040 MO 83.2	WILLOW CREEK BRIDGES EB #1592,1594,1595 & 1768	2.2	4.00	1,500.00	4,000.00	6,000.00	5,000.00
01/29/2016	6015203	BEARING (	EACH	H861301C	040 MO 83.2	WILLOW CREEK BRIDGES EB #1592,1594,1595 & 1768	2.2	8.00	1,500.00	3,500.00	4,000.00	4,000.00
01/29/2016	6015203	BEARING (	EACH	H861301C	040 MO 83.2	WILLOW CREEK BRIDGES EB #1592,1594,1595 & 1768	2.2	8.00	1,500.00	3,000.00	4,000.00	4,000.00
11/04/2016	6015203	BEARING (	EACH	H882001C	040 YV 112.5	AUDLEY OVERPASS EB STR #1520 AND WB STR #1521	0.6	12.00	1,500.00	800.00	2,500.00	1,400.00
11/04/2016	6015203	BEARING (	EACH	H882001C	040 YV 112.5	AUDLEY OVERPASS EB STR #1520 AND WB STR #1521	0.6	12.00	1,500.00	800.00	2,500.00	1,400.00
01/26/2017	6015203	BEARING (	EACH	H879901C	040 MO 59.7	DW RANCH ROAD TI UNDERPASS #1249	1.0	12.00	1,250.00	2,500.00	2,900.00	1,500.00
PHOENIX DISTRICT												
03/05/2010	6015203	BEARING (	EACH	SS59101C	0000 MA GLN	63RD AVE / LOOP 101	0.4	6.00	1,000.00	1,100.00	710.00	6,000.00
SAFFORD DISTRICT												
05/11/2011	6015203	BEARING (	EACH	H833601C	010 CH 297.1	MESCAL RD TI UP #517	1.0	6.00	800.00	1,855.00	2,035.40	3,000.00

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
08/25/2017	6090060	DRILLED SHAFT FOUNDATION (60")	L.FT.	H700701C	347 PN 173.0	UNION PACIFIC RR CROSSING	1.0	525.00	500.00	375.00	360.00	380.00
08/25/2017	6090060	DRILLED SHAFT FOUNDATION (60")	L.FT.	H700701C	347 PN 173.0	UNION PACIFIC RR CROSSING	1.0	440.00	500.00	378.00	360.00	390.00
08/25/2017	6090084	DRILLED SHAFT FOUNDATION (84")	L.FT.	H700701C	347 PN 173.0	UNION PACIFIC RR CROSSING	1.0	740.00	700.00	700.00	660.00	710.00
10/20/2017	6090036	DRILLED SHAFT FOUNDATION (36")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	320.00	350.00	350.00	360.00	400.00
10/20/2017	6090036	DRILLED SHAFT FOUNDATION (36")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	320.00	350.00	390.00	360.00	400.00
10/20/2017	6090060	DRILLED SHAFT FOUNDATION (60")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	1,490.00	400.00	400.00	280.00	450.00
10/20/2017	6090072	DRILLED SHAFT FOUNDATION (72")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	800.00	600.00	450.00	425.00	550.00
12/08/2017	6090072	DRILLED SHAFT FOUNDATION (72")	L.FT.	H798401C	010 PN 196.4	EARLEY ROAD - JCT I-8	24.0	2,330.00	650.00	610.00	850.00	560.00
NORTHCENT DISTRICT												
02/23/2018	6091030	DRILLED SHAFTS (ROCK) (	L.FT.	H893401C	017 CN 311.0	COCONINO COUNTY LINE - I-40 (NB)	29.0	96.00	800.00	1,650.00	1,000.00	1,500.00
02/23/2018	6090048	DRILLED SHAFT FOUNDATION (48")	L.FT.	H893401C	017 CN 311.0	COCONINO COUNTY LINE - I-40 (NB)	29.0	389.00	600.00	1,750.00	1,050.00	1,600.00
NORTHEAST DISTRICT												
03/02/2018	6090072	DRILLED SHAFT FOUNDATION (72")	L.FT.	H849001C	160 AP 429.0	CHINLE WASH BR, STR #746	1.0	112.00	1,500.00	3,000.00	3,181.98	2,425.00
03/02/2018	6091031	DRILLED SHAFTS (ROCK) (	L.FT.	H849001C	160 AP 429.0	CHINLE WASH BR, STR #746	1.0	160.00	3,000.00	2,200.00	2,137.90	1,700.00
12/08/2017	6091030	DRILLED SHAFTS (ROCK) (	L.FT.	SL63201C	0000 NA PLS	WOODLAND ROAD; NAVAJO LANE - SETTLERS LANE	0.8	60.00	1,000.00	350.00	450.00	1,070.00
12/08/2017	6090030	DRILLED SHAFT FOUNDATION (30")	L.FT.	SL63201C	0000 NA PLS	WOODLAND ROAD; NAVAJO LANE - SETTLERS LANE	0.8	52.00	300.00	190.40	250.00	825.00
SOUTHCENT DISTRICT												
05/04/2018	6090078	DRILLED SHAFT FOUNDATION (78")	L.FT.	F013201C	019 PM 58.7	AJO WAY TI (JCT SR 86), PHASE 2	3.6	960.00	750.00	1,250.00	1,000.00	1,200.00
05/04/2018	6090148	DRILLED SHAFT FOUNDATION (	L.FT.	F013201C	019 PM 58.7	AJO WAY TI (JCT SR 86), PHASE 2	3.6	408.00	910.00	1,475.00	1,200.00	1,400.00

June 26, 2018

Parameter(s) supplied: Item Description drilled shaft, From Bid Date 6/26/2017, To Bid Date 6/26/2018, Thank you!

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
01/18/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	349.00	55.00	60.00	48.06	75.00
01/18/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	349.00	55.00	60.00	48.06	75.00
01/18/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	351.00	55.00	60.00	47.86	75.00
01/18/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	351.00	55.00	60.00	47.85	75.00
01/23/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H814501C	303 MA 118.0	US 60 / SR 303L INTERIM TI	2.0	78.00	79.35	75.00	.00	.00
10/20/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	246.00	80.00	75.00	64.86	80.00
10/20/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	246.00	80.00	75.00	60.00	80.00
10/20/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	500.00	80.00	75.00	62.55	80.00
10/20/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H769601C	010 PN 209.6	SR 87 - TOWN OF PICACHO	4.2	501.00	80.00	75.00	62.62	65.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	254.00	62.00	50.00	60.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	194.00	62.00	50.00	60.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	620.00	62.00	45.00	55.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	578.00	62.00	50.00	58.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	662.00	62.00	45.00	58.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	946.00	62.00	45.00	54.00	48.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	604.00	62.00	45.00	57.00	55.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	650.00	62.00	45.00	57.00	52.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	594.00	62.00	45.00	57.00	55.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	626.00	62.00	45.00	57.00	55.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	602.00	62.00	45.00	57.00	55.00
05/23/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H687401C	101 MA 41.0	SHEA BLVD - SR 202L (RED MTN)	10.5	15,449.00	55.00	92.00	100.00	120.00
10/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H857601C	303 MA 123.1	EL MIRAGE RD TI	1.0	768.00	70.00	70.00	62.00	75.00
12/08/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H798401C	010 PN 196.4	EARLEY ROAD - JCT I-8	24.0	1,284.00	80.00	45.00	110.00	70.00
12/08/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H798401C	010 PN 196.4	EARLEY ROAD - JCT I-8	24.0	3,480.00	80.00	143.00	150.00	100.00
NORTHCENT DISTRICT												
09/13/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H791501C	089 CN 463.5	SR-64 TO LITTLE COLORADO RIVER	3.6	583.00	60.00	175.00	93.03	190.00
05/17/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H840201C	040 CN 146.2	EAST ASHFORK TI TO WEST WILLIAMS TI	16.1	592.00	60.00	90.00	125.00	135.00
03/15/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H852001C	389 MO 27.0	MP 27 -32 & US 89A-MP 609.2 - 610.10	5.6	462.00	90.00	72.00	160.00	90.00

02/14/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H789001C	040 CN 218.6	CANYON PADRE BRIDGE, STR #1670	0.2	724.00	85.00	65.00	84.00	86.00
11/08/2013	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807701C	087 CN 323.9	LIMESTONE WASH BRIDGE #20048	0.1	320.00	75.00	85.00	68.00	105.32
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	409.00	75.00	80.00	80.00	78.96
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	409.00	75.00	80.00	80.00	78.96
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	290.00	75.00	80.00	80.00	125.03
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	290.00	75.00	80.00	80.00	125.29
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	306.00	75.00	80.00	80.00	120.79
01/10/2014	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H807401C	040 NA 254.6	RUBY WASH EB/WB - LITTLE COLORADO RIVER EB/WB	2.6	306.00	75.00	80.00	80.00	118.59
04/24/2015	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H867501C	040 NA 250.0	I-40 COUNTY LINE - JACKRABBIT ROAD	18.0	557.00	75.00	100.00	140.00	145.00
09/25/2015	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H867201C	015 MO 0.0	NEVADA STATE LINE - MP 13	13.0	782.00	100.00	115.00	75.00	205.00
11/20/2015	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H863301C	040 CN 229.8	CANYON DIABLO BR EB STR# 1671 & WB STR# 845	0.3	516.00	85.00	110.00	101.73	90.00
01/13/2017	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H873401C	040 CN 219.0	TWIN ARROWS TIUP, STR #1363	1.0	548.00	90.00	102.40	100.00	80.00
05/27/2016	6011140	F-SHAPE BRIDGE CONCRETE BARRIER AND TRANSITION (34")	L.FT.	H879301C	017 YV 232.0	NEW RIVER ROAD - COLDWATER CANYON ROAD	12.0	118.00	80.00	90.00	100.00	140.00

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
FLAGSTAFF DISTRICT												
05/13/2011	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H774001C	017 CN 319.0	MUNDS PARK, ELK VEHICLE COLLISION REDUCTION	5.5	467.00	155.00	180.00	230.00	230.00
NORTHWEST DISTRICT												
01/25/2011	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	583.00	110.00	162.92	.00	.00
SAFFORD DISTRICT												
11/18/2010	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H767401C	010 CH 367.8	LUZEAN - SAN SIMON POE (WB)	0.0	280.00	145.00	80.00	35.00	85.00
SOUTHCENT DISTRICT												
06/24/2011	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H624101C	010 PM 252.4	RUTHRAUFF RD - PRINCE RD	2.3	482.00	135.00	120.00	330.00	140.00
06/24/2011	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H624101C	010 PM 252.4	RUTHRAUFF RD - PRINCE RD	2.3	225.00	135.00	120.00	160.00	140.00
06/24/2011	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	H624101C	010 PM 252.4	RUTHRAUFF RD - PRINCE RD	2.3	159.00	135.00	120.00	165.00	140.00
SOUTHEAST DISTRICT												
03/09/2012	6011133	PEDESTRIAN FENCE FOR BRIDGE RAILING	L.FT.	SS93101C	0000 YU YUM	AVENUE 3E WIDENING - GLA RIDGE TO 24TH STREET	1.0	925.00	120.00	182.00	160.00	164.91

June 26, 2018

Parameter(s) supplied: Item Number 6011133, From Bid Date 6/26/2009, To Bid Date 6/26/2018, Thank you!

- 1 -

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	201,830.00	.50	.65	.50	.65
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	130,200.00	.50	.60	.50	.65
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	203,725.00	.50	.50	.50	.65
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	149,110.00	.50	.60	.50	.65
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	150,040.00	.50	.55	.50	.65
08/28/2009	6050002	REINFORCING STEEL	LB.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	559,360.00	.60	.50	.50	.65
09/25/2009	6050002	REINFORCING STEEL	LB.	H691201C	074 MA 19.5	US 60 TO SR 303L, MP 20 TO MP 22 (EB & WB)	3.2	6,647.00	1.50	.55	.50	.80
09/16/2010	6050002	REINFORCING STEEL	LB.	H752801C	143 MA 0.9	SR 143 / SKY HARBOR BLVD TI	2.5	372,300.00	.65	.72	.72	.70
09/16/2010	6050002	REINFORCING STEEL	LB.	H752801C	143 MA 0.9	SR 143 / SKY HARBOR BLVD TI	2.5	892,830.00	.65	.72	.72	.70
04/08/2011	6050002	REINFORCING STEEL	LB.	H786501C	060 PN 199.4	SIPHON DRAW - FLORENCE JCT.	11.7	4,010.00	1.25	1.05	2.50	2.00
02/18/2011	6050002	REINFORCING STEEL	LB.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	12,755.00	.85	.70	.80	.70
02/18/2011	6050002	REINFORCING STEEL	LB.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	24,983.00	.85	.70	.85	.70
02/18/2011	6050002	REINFORCING STEEL	LB.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	54,145.00	.85	.70	.80	.70
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	16,444.00	1.00	.80	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	16,325.00	1.00	.71	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	7,530.00	1.00	.74	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	6,133.00	1.00	.77	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	1,200.00	1.00	1.07	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	16,872.00	1.00	.66	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	11,985.00	1.00	.97	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	3,468.00	1.00	.75	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	830.00	1.00	.83	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	1,855.00	1.00	.80	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	18,550.00	1.00	.74	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	2,715.00	1.00	.70	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	22,620.00	1.00	.81	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	5,964.00	1.00	.80	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	51,948.00	1.00	.71	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	644.00	1.00	.78	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	378,973.00	1.00	.67	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	66,125.00	1.00	.72	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	343.00	11.02	1.02	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	455,955.00	1.00	.97	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	455,810.00	1.00	.97	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	458,155.00	1.00	.97	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	457,865.00	1.00	.97	.00	.00
07/14/2010	6050002	REINFORCING STEEL	LB.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	778,793.00	1.00	.94	.00	.00
08/26/2011	6050002	REINFORCING STEEL	LB.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	39,732.00	.70	.63	.70	.82
08/26/2011	6050002	REINFORCING STEEL	LB.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	43,767.00	.70	.63	Page 14	.83

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
04/29/2016	2030508	STRUCTURE BACKFILL	CU.YD.	SZ09501C	0000 MA BKY	WATSON RD; NORTH OF VAN BUREN - MCDOWELL, BUCKEYE	1.5	204.00	40.00	18.00	85.00	60.00
GLOBE DISTRICT												
01/29/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H726101C	260 AP 385.7	SR 260 FROM GREER TO RODEO GROUNDS	13.0	132.00	35.00	75.00	45.00	20.00
01/29/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H726101C	260 AP 385.7	SR 260 FROM GREER TO RODEO GROUNDS	13.0	104.00	35.00	75.00	45.00	18.00
01/29/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H726101C	260 AP 385.7	SR 260 FROM GREER TO RODEO GROUNDS	13.0	128.00	35.00	75.00	45.00	19.00
01/29/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H726101C	260 AP 385.7	SR 260 FROM GREER TO RODEO GROUNDS	13.0	104.00	35.00	75.00	45.00	20.00
HOLBROOK DISTRICT												
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	30.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	190.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	70.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	200.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	120.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	175.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	150.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	80.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	45.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	190.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	245.00	35.00	30.00	13.00	45.00
08/13/2010	2030508	STRUCTURE BACKFILL	CU.YD.	H753201C	077 NA 374.3	SR 77, MP 374.34 TO MP 383.68	11.0	180.00	35.00	30.00	13.00	45.00
NORTHCENT DISTRICT												
09/13/2013	2030508	STRUCTURE BACKFILL	CU.YD.	H791501C	089 CN 463.5	SR-64 TO LITTLE COLORADO RIVER	3.6	315.00	50.00	74.00	58.21	36.00
NORTHWEST DISTRICT												
01/25/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	370.00	58.28	58.90	.00	.00
01/25/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	180.00	40.00	72.79	.00	.00
01/25/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	885.00	84.01	84.90	.00	.00
01/25/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	1,315.00	58.28	58.88	.00	.00
01/25/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H426901C	017 YV 261.0	CORDES JCT TI	0.5	1,650.00	65.35	66.05	.00	.00
PHOENIX DISTRICT												
08/24/2012	2030508	STRUCTURE BACKFILL	CU.YD.	SS60701C	0000 MA LPK	LITCHFIELD PK @ WIGWAM BLVD	0.0	2,000.00	18.00	37.00	45.00	48.00
SOUTHCENT DISTRICT												
01/17/2014	2030508	STRUCTURE BACKFILL	CU.YD.	H796901C	077 PN 123.5	ARAVAIPA CREEK BRIDGE, STR #399	1.0	32.00	60.00	105.00	200.00	180.00
01/17/2014	2030508	STRUCTURE BACKFILL	CU.YD.	H796901C	077 PN 123.5	ARAVAIPA CREEK BRIDGE, STR #399	1.0	720.00	60.00	76.00	60.00	70.00
SOUTHEAST DISTRICT												
07/28/2017	2030508	STRUCTURE BACKFILL	CU.YD.	H854701C	070 GH 302.0	HOLYOAK WASH BR #514 & MATTHEWSVILLE WASH BR #394	1.0	505.00	80.00	12.00	25.00	90.00
TUCSON DISTRICT												
05/06/2011	2030508	STRUCTURE BACKFILL	CU.YD.	H771801C	019 PM 19.3	VARIOUS BRIDGES ON I-19	28.0	25.00	65.00	14.90	78.00	65.00

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
09/25/2009	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H691201C	074 MA 19.5	US 60 TO SR 303L, MP 20 TO MP 22 (EB & WB)	3.2	66.00	300.00	395.00	235.00	335.00
02/18/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	100.00	350.00	300.00	285.00	300.00
02/18/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	38.00	350.00	200.00	170.00	150.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	96.00	300.00	383.74	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	57.00	300.00	533.04	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	47.00	300.00	592.23	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	19.00	300.00	604.09	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	107.00	300.00	383.78	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	93.00	300.00	480.72	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	26.00	300.00	630.14	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	9.00	300.00	814.98	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	14.00	300.00	687.53	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	127.00	300.00	394.91	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	48.00	300.00	468.03	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	46.00	300.00	601.89	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	328.00	250.00	327.41	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	7.00	300.00	755.69	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	3,384.00	250.00	268.98	.00	.00
07/14/2010	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	419.00	300.00	325.14	.00	.00
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	230.00	300.00	375.00	275.00	377.43
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	288.00	300.00	300.00	275.00	292.88
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	485.00	270.00	250.00	235.00	240.67
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	2,035.00	240.00	175.00	200.00	207.84
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	435.00	275.00	225.00	255.00	257.11
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	1,330.00	260.00	200.00	235.00	213.54
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	125.00	350.00	450.00	550.00	612.35
08/26/2011	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	193.00	300.00	300.00	275.00	285.38
02/17/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787201C	303 MA 105.6	SR303L: THOMAS ROAD TO CAMELBACK ROAD	2.5	387.00	270.00	247.19	270.00	250.00
02/17/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787201C	303 MA 105.6	SR303L: THOMAS ROAD TO CAMELBACK ROAD	2.5	364.00	260.00	206.96	250.00	225.00
02/17/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787201C	303 MA 105.6	SR303L: THOMAS ROAD TO CAMELBACK ROAD	2.5	290.00	270.00	203.82	270.00	260.00
01/18/2013	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	722.00	225.00	210.00	194.46	235.00
01/18/2013	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787301C	303 MA 107.6	CAMELBACK ROAD TO GLENDALE AVENUE	4.8	494.00	225.00	215.00	195.50	245.00
03/30/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787401C	303 MA 109.6	GLENDALE AVENUE TO PEORIA AVENUE	3.0	510.00	260.00	165.00	194.78	220.00
03/30/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787401C	303 MA 109.6	GLENDALE AVENUE TO PEORIA AVENUE	3.0	755.00	250.00	155.00	172.99	200.00
03/30/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H787401C	303 MA 109.6	GLENDALE AVENUE TO PEORIA AVENUE	3.0	740.00	250.00	160.00	170.79	197.00
01/12/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	877.00	240.00	290.00	225.00	231.05
01/12/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	458.00	260.00	295.00	240.00	257.88
01/12/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	411.00	270.00	295.00	235.00	270.58
01/12/2012	6010002	STRUCTURAL CONCRETE (CLASS S) (FC = 3,000)	CU.YD.	H686701C	024 MA 0.0	SR 202L (SANTAN) TO ELLSWORTH RD, PHASE I	3.4	816.00	240.00	290.00	230.00	218.42

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	388.00	20.00	29.00	35.00	30.00
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	280.00	20.00	30.00	35.00	30.00
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	150.00	20.00	38.00	35.00	30.00
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	280.00	20.00	30.00	35.00	30.00
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	280.00	20.00	30.00	35.00	30.00
08/28/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H729601C	010 MA 126.0	SARIVAL AVE TO DYSART RD	18.0	890.00	20.00	44.00	50.00	30.00
09/25/2009	2030501	STRUCTURAL EXCAVATION	CU.YD.	H691201C	074 MA 19.5	US 60 TO SR 303L, MP 20 TO MP 22 (EB & WB)	3.2	43.00	15.00	67.00	17.00	120.00
09/16/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H752801C	143 MA 0.9	SR 143 / SKY HARBOR BLVD TI	2.5	175.00	30.00	65.00	25.00	30.00
09/16/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H752801C	143 MA 0.9	SR 143 / SKY HARBOR BLVD TI	2.5	178.00	30.00	6.50	50.00	30.00
02/18/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	69.00	25.00	28.00	47.00	60.00
02/18/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	113.00	20.00	40.00	275.00	60.00
02/18/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H752501C	888 MA 0.0	MAG REGIONAL FREEWAY SYSTEM	0.0	195.00	20.00	30.00	44.00	60.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	543.00	10.00	8.39	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	175.00	10.00	10.39	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	210.00	10.00	9.45	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	25.00	10.00	20.18	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	55.00	10.00	22.65	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	1,085.00	10.00	8.39	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	11.00	10.00	85.45	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	23,255.00	10.00	8.54	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	571.00	10.00	11.66	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	535.00	10.00	10.77	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	326.00	10.00	7.79	.00	.00
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	2,519.00	8.00	14.00	4.75	18.04
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	1,359.00	10.00	14.00	5.00	5.37
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	4,123.00	10.00	12.00	5.00	4.85
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	5,770.00	10.00	11.00	18.00	7.03
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	3,185.00	10.00	16.00	50.00	9.00
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	10,115.00	8.00	22.00	19.00	9.00
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	8,685.00	8.00	17.00	16.00	8.03
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	3,825.00	8.00	10.00	11.00	10.46
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	250.00	15.00	50.00	130.00	13.51
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	1,211.00	12.00	7.00	11.00	9.18
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	12,925.00	8.00	7.00	8.00	12.04
08/26/2011	2030501	STRUCTURAL EXCAVATION	CU.YD.	H713901C	303 MA 103.0	I-10/303L TI, PHASE I (I-10 REALIGNMENT)	4.7	10,140.00	8.00	7.00	8.00	8.48
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	212.00	10.00	9.96	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	85.00	10.00	16.34	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	439.00	10.00	9.25	.00	.00
07/14/2010	2030501	STRUCTURAL EXCAVATION	CU.YD.	H787501C	303 MA 112.0	PEORIA AVENUE TO MOUNTAIN VIEW BLVD	2.0	150.00	10.00	12.10	Page 17	.00

Arizona Department of Transportation

Estimated Engineering Construction Cost

Arizona Unit Price Bid History

Bid Date	Item #	Description	Measure	Tracs	Rt/Co/MP	Project Name	Length	Quantity	State	Bidder 1	Bidder 2	Bidder 3
CENTRAL DISTRICT												
01/11/2013	6040001	STRUCTURAL STEEL	LB.	SS71201C	0000 MA CHN	SR 101L AT GALVESTON STREET	0.3	210,330.00	2.10	2.28	3.65	3.82
05/11/2015	6040001	STRUCTURAL STEEL	LB.	H808001C	051 MA 15.0	BLACK MOUNTAIN BLVD RAMP - SR 51	1.0	69,600.00	5.67	5.76	.00	.00
GLOBE DISTRICT												
01/15/2010	6040001	STRUCTURAL STEEL	LB.	H681801C	060 GI 263.9	RYAN'S WATER - TIMBER MOUNTAIN	14.9	3,450.00	3.00	3.00	4.00	20.00
HOLBROOK DISTRICT												
06/21/2013	6040001	STRUCTURAL STEEL	LB.	SL52101C	0000 NA NNA	CHEVELON CREEK BRIDGE (#8158)	0.0	13,450.00	10.00	6.75	8.02	13.07
NORTHCENT DISTRICT												
03/24/2017	6040002	STRUCTURAL STEEL (	LB.	H879501C	040 CN 179.0	PARKS TI - RIORDAN BRIDGE	12.0	290.00	1.00	18.00	10.00	9.00
11/07/2012	6040001	STRUCTURAL STEEL	LB.	H857401C	015 MO 15.0	VIRGIN RIVER BRIDGE #6 (STR #1619)	1.0	2,996,185.00	2.27	2.32	.00	.00
01/13/2017	6040001	STRUCTURAL STEEL	LB.	H873401C	040 CN 219.0	TWIN ARROWS TIUP, STR #1363	1.0	136,500.00	2.50	3.60	3.38	3.05
NORTHEAST DISTRICT												
02/08/2013	6040001	STRUCTURAL STEEL	LB.	H771601C	040 AP 325.9	NAVAJO, CHAMBERS & QUERINO EB TI UPS	18.0	187,600.00	2.00	2.35	2.01	2.25
02/08/2013	6040001	STRUCTURAL STEEL	LB.	H745301C	040 AP 311.6	PAINTED DESERT TI UP #590	0.2	303,870.00	2.00	2.15	1.91	1.80
02/08/2013	6040003	STRUCTURAL STEEL (MISC)	LB.	H771601C	040 AP 325.9	NAVAJO, CHAMBERS & QUERINO EB TI UPS	18.0	3,500.00	2.00	5.20	5.29	5.00
02/08/2013	6040003	STRUCTURAL STEEL (MISC)	LB.	H771601C	040 AP 325.9	NAVAJO, CHAMBERS & QUERINO EB TI UPS	18.0	1,055.00	2.00	6.20	9.28	5.00
NORTHWEST DISTRICT												
10/21/2016	6040002	STRUCTURAL STEEL (	LB.	H842001C	040 MO 73.3	PEACOCK & BIG SANDY WASH	2.3	970.00	10.00	5.15	11.00	5.00
10/21/2016	6040002	STRUCTURAL STEEL (	LB.	H842001C	040 MO 73.3	PEACOCK & BIG SANDY WASH	2.3	1,440.00	10.00	5.15	11.50	5.00
11/18/2010	6040001	STRUCTURAL STEEL	LB.	H776601C	060 MA 117.8	SAN DOMINGO - WITTMANN	10.9	2,900.00	2.50	3.00	5.50	3.00
01/26/2017	6040002	STRUCTURAL STEEL (	LB.	H879901C	040 MO 59.7	DW RANCH ROAD TI UNDERPASS #1249	1.0	100,410.00	3.00	4.00	3.00	4.08
06/22/2012	6040001	STRUCTURAL STEEL	LB.	H821001C	017 YV 251.3	SUNSET POINT RA	0.6	28,600.00	4.15	7.50	3.75	4.40
02/27/2015	6040001	STRUCTURAL STEEL	LB.	H851401C	089 YV 345.1	HELL CANYON BRIDGE	1.3	2,089,140.00	2.00	1.85	2.32	2.28
01/26/2017	6040003	STRUCTURAL STEEL (MISC)	LB.	H879901C	040 MO 59.7	DW RANCH ROAD TI UNDERPASS #1249	1.0	1,200.00	10.00	10.00	12.85	9.00
05/09/2014	6040002	STRUCTURAL STEEL (	LB.	H842301C	040 MO 73.2	PEACOCK WASH WB #1251 & BIG SANDY WASH WB #1253	3.6	812.00	31.00	8.85	10.00	2.00
05/09/2014	6040002	STRUCTURAL STEEL (	LB.	H842301C	040 MO 73.2	PEACOCK WASH WB #1251 & BIG SANDY WASH WB #1253	3.6	1,203.00	31.00	8.85	9.00	2.00
05/17/2013	6040001	STRUCTURAL STEEL	LB.	H797601C	089 YV 335.9	BIG CHINO WASH BRIDGE #979	0.3	127,870.00	2.50	2.86	3.22	3.47
11/04/2016	6040001	STRUCTURAL STEEL	LB.	H882001C	040 YV 112.5	AUDLEY OVERPASS EB STR #1520 AND WB STR #1521	0.6	168,730.00	2.30	3.20	2.20	3.30
11/04/2016	6040001	STRUCTURAL STEEL	LB.	H882001C	040 YV 112.5	AUDLEY OVERPASS EB STR #1520 AND WB STR #1521	0.6	168,730.00	2.30	3.20	2.20	3.30
PHOENIX DISTRICT												
03/05/2010	6040001	STRUCTURAL STEEL	LB.	SS59101C	0000 MA GLN	63RD AVE / LOOP 101	0.4	62,100.00	3.50	2.00	3.00	3.10
05/06/2011	6040001	STRUCTURAL STEEL	LB.	H810701C	017 MA 220.0	MP 220.35 @ CAP	0.0	80,115.00	2.60	2.42	2.70	2.00
05/20/2010	6040001	STRUCTURAL STEEL	LB.	H746501C	017 MA 200.0	I-10 TO INDIAN SCHOOL RD	3.0	12,300.00	5.00	5.00	4.00	2.15
03/05/2010	6040002	STRUCTURAL STEEL (	LB.	SS59101C	0000 MA GLN	63RD AVE / LOOP 101	0.4	81,620.00	3.80	1.85	1.80	1.85
SAFFORD DISTRICT												
07/22/2010	6040002	STRUCTURAL STEEL (	LB.	H641701C	191 GE 152.9	GUTHRIE BRIDGE #352	1.2	997,000.00	.40	.46	.77	.60
SOUTHEAST DISTRICT												
05/13/2011	6040001	STRUCTURAL STEEL	LB.	H661401C	070 GI 271.3	SAN CARLOS RIVER BRIDGE #2910	0.4	450.00	70.00	44.00	5.00	18.00
YUMA DISTRICT												
07/24/2009	6040001	STRUCTURAL STEEL	LB.	H705301C	095 YU 23.8	ARIZONA AVE TO YUMA PALMS PKWY	0.7	458,160.00	2.00	1.40	1.69	1.20

HUNTER CONTRACTING CO. BID
SCHEDULE FOR CHANDLER BLVD
BRIDGES

Chandler Boulevard - 27th Ave to 19th Ave Roadway Improvements

City of Phoenix

Street Transportation Department

Project Number: ST85100367 - Amendment 1 to Contract 140977

Submitted by: Hunter Contracting Co.

100% GMP 1 Proposal Summary Sheet

Project Number: ST85100367-2		Date: 9/16/2016
Project Title: Chandler Boulevard - 27th Ave to 19th Ave Roadway Improvements		
CONSTRUCTION SERVICES		
		AMOUNT
DIRECT COSTS		
A.	Cost of Construction (Labor, Materials, Equipment)	\$4,410,154.68
B.	CMAR's/Design-Builder's Contingency	\$100,000.00
C.		\$4,510,154.68
INDIRECT COSTS		
		CALCULATED RATE ¹:
D.	General Conditions (Excluding Bonds and Insurance)	9.35%
E.	Payment and Performance Bond ²	0.77%
F.	Insurance	1.00%
G.		11.12%
G. SUBTOTAL GENERAL CONDITIONS COSTS		\$642,438.93
H.		\$5,152,593.61
H. SUBTOTAL DIRECT AND INDIRECT COSTS		\$5,152,593.61
I.	Construction Fee (Overhead & Profit)	5.70%
J.		\$5,481,690.34
J. SUBTOTAL DIRECT AND INDIRECT COSTS (INCLUDING FEE)		\$5,481,690.34
K.	Sales Tax *Note 4	\$295,601.58
L.		\$5,777,291.92
L. GMP (Minus Owner's Contingency) **		\$5,777,291.92
M.		\$0.00
M. Owner's Contingency		\$0.00
N.		\$5,777,291.92
N. Total GMP (Amendment to GMP 1)		\$5,777,291.92
O.		\$1,088,956.78
O. Total Prior GMP's (Design)		\$1,088,956.78
P.		\$0.00
P. Total Prior Change Orders		\$0.00
Q.		\$0.00
Q. Design Services		\$0.00
R.		\$0.00
R. Contract Administration Services		\$0.00
S.		\$6,866,248.70
S. Total Contract Amount ³		\$6,866,248.70

A
B
C = (A + B)

D
E
F
G = D + E + F
H = C + G
I
J = H + I
K
L = J + K
M
N = L + M
O
P
Q
R
S = N + O + P + Q + R

Schedule of Values of Hunter Contracting Co.
Chandler Boulevard - 27th Ave to 19th Avenue Roadway Improvements
Project Number: ST85100367-2

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
1	Roadway Fill Construction						
1.1	Public Outreach/Communication	1	LS	22,943.25	22,943.25	Gunn Communications, Inc.	Yes
1.2	T- Post & Rope, installed as delineated on plans	12800	LF	0.49	6,272.00	Hunter Contracting Co.	No
1.3	Site Clearing, Grubbing	15	AC	1,284.34	19,265.10	Hunter Contracting Co.	No
1.4	Import, Place & Compact	32580	CY	18.96	617,716.80	Hunter Contracting Co.	No
1.5	Precompact Fill Areas	45290	SY	0.48	21,739.20	Hunter Contracting Co.	No
1.6	Misc Removals & Other Work						
1.6.1	Parkway Grading	17455	SY	1.68	29,324.40	Hunter Contracting Co.	No
1.6.2	Remove Asphalt Concrete Pavement w/ Loader	1255	SY	6.57	8,245.35	Hunter Contracting Co.	No
1.6.3	Remove Existing Curb & Gutter	244	LF	3.25	793.00	Hunter Contracting Co.	No
1.6.4	Remove Portland Cement Concrete Valley Gutter & Apron (9" Thi	653	SF	6.31	4,120.43	Hunter Contracting Co.	No
1.6.5	Remove Existing Sidewalk (4" Thick)	979	SF	1.32	1,292.28	Hunter Contracting Co.	No
1.6.6	Remove Type B Barricades	179	LF	8.02	1,435.58	Hunter Contracting Co.	No
1.6.7	Remove Swing Gate	2	EA	359.00	718.00	Hunter Contracting Co.	No
1.6.8	Remove SRP Duct Bank	612	LF	8.49	5,195.88	Hunter Contracting Co.	No
1.6.9	PIP Saguaro, Tree	50	Each	24.11	1,205.50	Hunter Contracting Co.	No
1.6.10	Lower Existing Manholes	3	EA	160.00	480.00	Specialty Companies Group	No
1.6.11	Lower Existing Valves Clean-outs	10	EA	160.00	1,600.00	Specialty Companies Group	No
1.6.12	Remove Telephone Manhole 4x4x4 (Adjust for size)	1	EA	645.00	645.00	Hunter Contracting Co.	No
1.6.13	Paving Support (Match Paving Production)	10	DY	1,164.44	11,644.40	Hunter Contracting Co.	No
1.6.14	Remove Misc Debris	1	LS	33,349.91	33,349.91	Hunter Contracting Co.	No
				Subtotal	787,986.08		

2 Pavement (Included in GMP 2)

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
3	Channel Work						
3.1	Drainage Excavation	3873	CY	13.57	52,556.61	Hunter Contracting Co.	No
3.2	Gabions	807	CY	156.81	126,550.86	Hunter Contracting Co.	No
3.2.1	Gabions - Excavate	2220	CY	6.92	15,362.40	Hunter Contracting Co.	No
3.2.2	Install Gabions	807	CY	130.00	104,910.00	Specialty Companies Group	No
3.2.3	Gabions - Backfill	1614	CY	3.89	6,278.46	Hunter Contracting Co.	No
3.3	Gabion Mattress	54	SY	90.66	4,895.71	Hunter Contracting Co.	No
3.3.1	Gabion Mattress - Excavate	18	CY	6.92	124.56	Hunter Contracting Co.	No
3.3.2	Install Gabion Mattress	54	SY	75.00	4,050.00	Specialty Companies Group	No
3.3.3	Gabion Mattress - Backfill	5	CY	144.23	721.15	Hunter Contracting Co.	No
3.4	Rip-Rap D50=6"	573	CY	134.28	76,944.77	Hunter Contracting Co.	No
3.4.1	Dumped Rip Rap - Excavate	573	CY	27.51	15,763.23	Hunter Contracting Co.	No
3.4.2	Grade for Rip Rap	17971.95	SF	1.30	23,363.54	Hunter Contracting Co.	No
3.4.3	Install Rip Rap D50=6"	573	CY	66.00	37,818.00	Specialty Companies Group	No
3.5	Grouted, Dumped Riprap 12"	18	CY	198.24	3,568.32	Hunter Contracting Co.	No
3.6	Handrail per Detl P1173 w/ Mag Type 4 Foundation	402	LF	46.50	18,693.00	Specialty Companies Group	No
				Subtotal	283,209.27		

Schedule of Values of Hunter Contracting Co.
 Chandler Boulevard - 27th Ave to 19th Avenue Roadway Improvements
 Project Number: ST85100367-2

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
4 Curb & Gutter and Valley Gutter							
4.1	Combined Concrete Curb and Gutter, Std. Detail 220, Type "A", H=6"	6181	LF	11.70	72,317.70	Hunter Contracting Co.	No
4.2	Curb Transition, MAG Std. Dtl. 220-2 Type E to A (4lf/ea)	8	LF	22.87	182.96	Hunter Contracting Co.	No
4.3	Concrete Valley Gutter, Std. Detail 240	489	SF	7.19	3,515.91	Hunter Contracting Co.	No
4.4	Concrete Mountable Curb and Gutter, Standard Detail 220, Type "E"	207	LF	18.88	3,908.16	Hunter Contracting Co.	No
					Subtotal		
					79,924.73		
5 Sidewalks, Sidewalk Ramps & Driveways							
5.1	Concrete Sidewalk, Std. Detail P-1230	27949	SF	3.64	101,734.36	Hunter Contracting Co.	No
5.2	Concrete Sidewalk, Std. Detail P-1230 Modified 9" Thick	1520	SF	4.91	7,463.20	Hunter Contracting Co.	No
5.3	Truncated Domes	85	SF	31.11	2,644.35	Hunter Contracting Co.	No
5.4	Concrete Driveway Entrance, Std. Detail P-1255-1	348	SF	6.64	2,310.72	Hunter Contracting Co.	No
5.5	Concrete Sidewalk with Parapet	318	LF	264.46	84,099.50		No
5.5.1	Concrete Sidewalk with Parapet - Rebar	318	LF	42.17	13,410.06	Gerdau	No
5.5.2	Parapet Footing	106	CY	274.13	29,057.78	Hunter Contracting Co.	No
5.5.3	Parapet Wall	42	CY	991.23	41,631.66	Hunter Contracting Co.	No
					Subtotal		
					198,252.13		
6 Striping - By City of Phx							
7 Signage - By City of Phx							
8 Street and Pedestrian Lighting							
8.1	L.E.D. Street Light Fixture	33	EA	516.00	17,028.00	Kimbrell Electric, Inc.	No
8.2	Furnish and Install Street Light Per C.O.P. Street Lighting Procedures, Standards and Specifications Manual, latest edition. SRP Direct Bury Pole	31	EA	1,908.00	59,148.00	Kimbrell Electric, Inc.	No
8.3	Furnish and Install Parapet Mounted Street Light Per C.O.P. Street Lighting Procedures, Standards and Specifications Manual, latest edition. SRP Direct Bury Pole	2	EA	2,808.00	5,616.00	Kimbrell Electric, Inc.	No
8.4	Junction Box, Install	31	EA	161.00	4,991.00	Kimbrell Electric, Inc.	No
8.5	Junction Box Parapet Mounted, Install	2	EA	1,476.00	2,952.00	Kimbrell Electric, Inc.	No
					Subtotal		
					89,735.00		
9 Storm Drain - Pipe, Catch Basins, & Headwalls							
9.1	Concrete Catch Basin, Type "M-1, L=6-Ft" Phx. Supp. Detail P-1569-1	6	EA	2,854.74	17,128.44	Hunter Contracting Co.	No
9.2	Concrete Catch Basin, Type "M-1, L=17-Ft", Phx. Supp. Detail P-1569-	4	EA	4,155.73	16,622.92	Hunter Contracting Co.	No
9.3	Headwall For 18" Pipe, MAG Standard Details 501-1 And 501-2	1	EA	6,428.28	6,428.28	Hunter Contracting Co.	No
9.4	Headwall For 24" Pipe, MAG Standard Details 501-1 And 501-2	2	EA	3,826.25	7,652.50	Hunter Contracting Co.	No

**Schedule of Values of Hunter Contracting Co.
Chandler Boulevard - 27th Ave to 19th Avenue Roadway Improvements
Project Number: ST85100367-2**

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
9.5	Headwall For Double 24" Pipe, MAG Standard Details 501-1 And 501-2	1	EA	4,111.72	4,111.72	Hunter Contracting Co.	No
9.6	Storm Sewer Access Barrier, Standard Detail P-1563	5	EA	373.62	1,868.10	Hunter Contracting Co.	No
9.7	Restrain Existing 12" Waterline at 19th Ave Bridge	150	LF	134.09	20,113.50	Hunter Contracting Co.	No
9.8	18" Catch Basin Connector Pipe	433	LF	65.40	28,318.20	B&F Contracting Inc.	No
9.9	18" Storm Sewer Pipe	4532	LF	50.30	227,959.60	B&F Contracting Inc.	No
9.1	24" Storm Sewer Pipe	839	LF	75.50	63,344.50	B&F Contracting Inc.	No
9.11	24" X 24" X 18" Prefabricated Tee	2	EA	1,185.00	2,370.00	B&F Contracting Inc.	No
9.12	18" X 18" X 18" Prefabricated Tee	7	EA	855.70	5,989.90	B&F Contracting Inc.	No
9.13	Pipe Plug Mag 427	9	EA	277.10	2,493.90	B&F Contracting Inc.	No
9.14	SD Manhole, MAG 522 / COP Detail P-1520 (Shallow)	16	EA	2,815.90	45,054.40	B&F Contracting Inc.	No
9.15	SD Manhole, MAG 522 / COP Detail P-1520	4	EA	2,987.40	11,949.60	B&F Contracting Inc.	No
Subtotal					461,405.56		

10 Landscaping

10.1	Hydroseed, Type "A", General Use	4.1	AC	4,268.00	17,498.80	Sun Valley Landscape	No
10.2	Salvage Saguaro	4	EA	300.00	1,200.00	Sun Valley Landscape	No
10.3	Salvage Trees ~ .556 Caliper Inch	28	EA	433.13	12,127.64	Sun Valley Landscape	No
10.4	Salvage Small Cactus	4	EA	43.75	175.00	Sun Valley Landscape	No
10.5	Restore Landscaping	14866	SF	0.75	11,149.50	Hunter Contracting Co.	No
10.6	Decomposed Granite, 3/4" Minus For General Landscape	76365	SF	0.37	28,255.05	Sun Valley Landscape	No
Subtotal					70,405.99		

11 Landscape Establishment

11.1	Establishment Nursey	1	EA	750.00	750.00	Sun Valley Landscape	No
11.2	Nursey Maintenance	12	MO	500.00	6,000.00	Sun Valley Landscape	No
11.3	Replant Allowance	1	LS	10,013.85	10,013.85	Hunter Contracting Co.	No
11.4	Delivery Plant Salvage Allowance	1	LD	10,000.00	10,000.00	Hunter Contracting Co.	No
Subtotal					26,763.85		

12 Relocate Waterlines

12.1	48" DIP Waterline	210	LF	1,278.17	268,415.70	B&F Contracting Inc.	No
12.2	12" DIP Waterline	210	LF	240.65	50,536.50	B&F Contracting Inc.	No
12.3	Catholic Protection (48" and 12" Waterlines)	1	EA	29,653.00	29,653.00	B&F Contracting Inc.	No
Subtotal					348,605.20		

13 Bridge 27th Ave

13.1	Site Work for Bridge	1	EA	14,894.14	14,894.14	Hunter Contracting Co.	No
13.2	Reinforcing Steel - Material & Hoisting	165999	LB	0.594944	98,760.11		
13.2.1	Reinforcing Steel	165999	LB	0.527500	87,564.47	Gerdau	No
13.2.2	Reinforcing Steel hoisting	165999	LB	0.067444	11,195.64	Hunter Contracting Co.	No
13.3	Structural Concrete (Class S) (F'c = 3,500)	11	CY	2,169.26	23,861.86	Hunter Contracting Co.	No

Schedule of Values of Hunter Contracting Co.
Chandler Boulevard - 27th Ave to 19th Avenue Roadway Improvements
Project Number: ST85100367-2

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
13.4	Structural Concrete (f'c = 4,500)	643	CY	576.05	370,400.15		No
13.4a	Structural Concrete (f'c = 4500)	643	CY	389.817963	250,652.95	Hunter Contracting Co.	
13.4.2.5.1	Deck shoring Mob	1	EA	1,750.00	1,750.00	Action Equipment	No
13.4.2.5.2	Deck shoring Set up/Take down	9640	SF	11.381328	109,716.00	Action Equipment	No
13.4.2.5.3	Deck shoring - Extra Days	15	DY	552.08	8,281.20	Action Equipment	No
13.5	Drilled Shaft Caissons 3' Ø x 50'	1124	LF	205.27	230,718.74		No
13.5.1	Drilled Shaft Caisson Sub - Mob	1	EA	22,000.00	22,000.00	Case Foundation	No
13.5.2	Drilled Shaft Caisson Sub - 3'-0"	1124	LF	150.00	168,600.00	Case Foundation	No
13.5.3	Drilled Shaft Rebar	1124	LF	29.38	33,023.12	Gerdau	No
13.5.4	Driller Support	1124	LF	6.31	7,095.62	Hunter Contracting Co.	No
13.6	Approach Slab (Adot Sd 2.01)	2350	SF	15.64	36,755.47		No
13.6.1	Approach Slab Rebar	2350	SF	4.06	9,541.00	Gerdau	No
13.6.2	Approach Slab	87	CY	312.81	27,214.47	Hunter Contracting Co.	No
13.7	Combination Pedestrian-Traffic Bridge Railing SD 1.04	303	LF	261.18	79,138.55		No
13.7.1	Combination Pedestrian-Traffic Bridge Railing - Rebar	303	LF	15.68	4,751.04	Gerdau	No
13.7.2-3	Bridge Parapet Wall and Sidewalk	58	CY	746.96	43,323.95	Hunter Contracting Co.	No
13.7.4	Std Steel Railing	303	LF	102.52	31,063.56	Specialty Companies	No
13.8	Paint Bridge - Bridge 27th Ave	1	LS	5,746.00	5,746.00	Serrano Painting	Yes
Subtotal					860,275.02		

14 Bridge 19th Ave

14.1	Site Work for Bridge	1	EA	17,528.57	17,528.57	Hunter Contracting Co.	No
14.2	Reinforcing Steel - Material & Hoisting	168109	LB	0.5650587	94,991.46		
14.2.1	Reinforcing Steel Bridge 19th Ave	168109	LB	0.5284000	88,828.80	Gerdau	No
14.2.2	Reinforcing Steel hoisting	168109	LB	0.0366587	6,162.66	Hunter Contracting Co.	No
14.3	Structural Concrete (Class S) (F'c = 3.500)	18	CY	1,888.42	33,991.56	Hunter Contracting Co.	No
14.4	Structural Concrete (f'c = 4,500)	647	CY	569.00	368,143.00		No
14.4a	Structural Concrete (f'c = 4500)	647	CY	388.185781	251,156.20	Hunter Contracting Co.	
14.4.2.5.1	Deck shoring Mob	1	EA	1,750.00	1,750.00	Action Equipment	No
14.4.2.5.2	Deck shoring Set up/Take down	9640	SF	11.381328	109,716.00	Action Equipment	No
14.4.2.5.3	Deck shoring - Extra Days	10	DY	552.08	5,520.80	Action Equipment	No
14.5	Drilled Shaft Caissons 3' Ø x 50'	1122	LF	207.64	232,973.03		No
14.5.1	Drilled Shaft Caisson Sub - Mob	1	EA	22,000.00	22,000.00	Case Foundation	No
14.5.2	Drilled Shaft Caisson Sub - 3'-0"	1122	LF	150.00	168,300.00	Case Foundation	No
14.5.3	Drilled Shaft Rebar	1122	LF	29.38	32,964.36	Gerdau	No
14.5.4	Driller Support	1122	LF	8.65	9,708.67	Hunter Contracting Co.	No
14.6	Approach Slab (Adot Sd 2.01)	2350	SF	16.82	39,538.45		No
14.6.1	Approach Slab Rebar	2350	SF	4.06	9,541.00	Gerdau	No
14.6.2	Approach Slab	105	CY	285.69	29,997.45	Hunter Contracting Co.	No
14.7	Combination Pedestrian-Traffic Bridge Railing SD 1.04	303	LF	261.18	79,138.55		No
14.7.1	Combination Pedestrian-Traffic Bridge Railing - Rebar	303	LF	15.68	4,751.04	Gerdau Page 24	No
14.7.2-3	Bridge Parapet Wall and Sidewalk	58	CY	746.96	43,323.95	Hunter Contracting Co.	No

Schedule of Values of Hunter Contracting Co.
 Chandler Boulevard - 27th Ave to 19th Avenue Roadway Improvements
 Project Number: ST85100367-2

Item No.	Description	Qty	Unit	Unit Cost	GMP 1 Total Cost	Contractor	SBE
14.7.4	Std Steel Railing	303	LF	102.52	31,063.56	Specialty Companies	No
14.8	Paint Bridge - Bridge 19th Ave	1	LS	5,746.00	5,746.00	Serrano Painting	Yes
Subtotal					872,050.61		

15 General Requirements

15.1	Mobilization	1	LS	104,529.22	104,529.22	Hunter Contracting Co.	No
15.2	Survey (Bridges only)	1	LS	-	-		
15.3	Service	10	MO	4,969.85	49,698.50	Hunter Contracting Co.	No
15.4	Security	10	MO	450.00	4,500.00	Hunter Contracting Co.	No
15.5	SWPPP	1	LS	38,007.80	38,007.80	Hunter Contracting Co.	No
15.6	Traffic Control	1	LS	13,800.02	13,800.02		No
15.6.1-4	Traffic Control	1	LS	11,840.02	11,840.02	RoadSafe	No
15.6.5	Off-Duty Officers	5	DY	392.00	1,960.00	Hunter Contracting Co.	No
15.7	Construction Water	10	MO	4,857.73	48,577.30	Hunter Contracting Co.	No
15.8	Dust Control Water Truck	10	MO	7,242.84	72,428.40	Hunter Contracting Co.	No
Subtotal					331,541.24		
A. Cost of Construction					\$ 4,410,154.68		

17 DB Team Contingency

17.1	Contractor Contingency	1	LS	100,000.00	100,000.00	Hunter Contracting Co.	No
17.2	Scope Gap	1	LS	-	-		

B. CM@Risk's Contingency \$ 100,000.00

**SUNDT/KIEWIT BID SCHEDULE
FOR I-10 AND UPRR BRIDGES**

BID SCHEDULE

0000 PM MRN SB41301C, 010 PM 248 H847901C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
STR #20094 I-10 OVERPASS					
2030501 E	STRUCTURAL EXCAVATION	CU.YD.	205	\$12.00	\$2,460.00
2030506 E	STRUCTURE BACKFILL	CU.YD.	141	\$25.00	\$3,525.00
6010003 E	STRUCTURAL CONCRETE (CLASS S) (F'C = 3,500)	CU.YD.	1,299	\$869.00	\$1,128,831.00
6010004 E	STRUCTURAL CONCRETE (CLASS S) (F'C = 4,000)	CU.YD.	33	\$333.00	\$10,989.00
6010005 E	STRUCTURAL CONCRETE (CLASS S) (F'C = 4,500)	CU.YD.	1,375	\$595.00	\$818,125.00
6011115 E	COMBINATION PEDESTRIAN-TRAFFIC BRIDGE RAILING W/FENCE	L.FT.	586	\$435.00	\$254,910.00
6011345 E	DECK JOINT ASSEMBLY (STRIP SEAL JOINT)	L.FT.	164	\$245.00	\$40,180.00
6011371 E	APPROACH SLAB (SD 2.01)	SQ.FT.	6,789	\$16.50	\$112,018.50
6011373 E	ANCHOR SLAB (TYPE 2) (SD 2.03)	SQ.FT.	3,158	\$18.75	\$59,212.50
6014973 E	PRECAST, P/S MEMBER (AASHTO TYPE SUPER 6 GIRDER)	L.FT.	4,260	\$251.00	\$1,069,260.00
6015101 E	RESTRAINERS, VERTICAL EARTHQUAKE (FIXED)	EACH	56	\$106.00	\$5,936.00
6015102 E	RESTRAINERS, VERTICAL EARTHQUAKE (EXPANSION)	EACH	56	\$205.00	\$11,480.00
6050002 E	REINFORCING STEEL	LB.	564,651	\$.83	\$468,660.33
7320050 E	ELECTRICAL CONDUIT (2") (PVC)	L.FT.	1,320	\$5.00	\$6,600.00
7320073 E	ELECTRICAL CONDUIT (2 - 3") (PVC)	L.FT.	580	\$9.00	\$5,220.00

BID SCHEDULE

0000 PM MRN SB41301C, 010 PM 248 H847901C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
STR #20094 I-10 OVERPASS					
7320090 E	ELECTRICAL CONDUIT (4") (PVC)	L.FT.	505	\$9.00	\$4,545.00
7320110 E	ELECTRICAL CONDUIT (1") (RIGID METAL)	L.FT.	270	\$17.00	\$4,590.00
7320470 E	BRIDGE JUNCTION BOX (CAST METAL)	EACH	4	\$1,370.00	\$5,480.00
7320475 E	JUNCTION BOX (TYPE I)	EACH	5	\$900.00	\$4,500.00

STR #20094 I-10 OVERPASS : \$4,016,522.33

STR #20094 I-10 OVERPASS					
6090060 F	DRILLED SHAFT FOUNDATION (60")	L.FT.	870	\$542.00	\$471,540.00
6090072 F	DRILLED SHAFT FOUNDATION (72")	L.FT.	423	\$680.00	\$287,640.00

STR #20094 I-10 OVERPASS : \$759,180.00

Total STR #20094 I-10 OVERPASS (E & F) : \$4,775,702.33

BID SCHEDULE

0000 PM MRN SB41301C, 010 PM 248 H847901C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
STR #20095 UPRR OVERPASS					
2030501 G	STRUCTURAL EXCAVATION	CU.YD.	90	\$12.00	\$1,080.00
2030506 G	STRUCTURE BACKFILL	CU.YD.	60	\$25.00	\$1,500.00
6010003 G	STRUCTURAL CONCRETE (CLASS S) (F'C = 3,500)	CU.YD.	1,490	\$668.00	\$995,320.00
6010004 G	STRUCTURAL CONCRETE (CLASS S) (F'C = 4,000)	CU.YD.	109	\$380.00	\$41,420.00
6010005 G	STRUCTURAL CONCRETE (CLASS S) (F'C = 4,500)	CU.YD.	2,059	\$640.00	\$1,317,760.00
6011115 G	COMBINATION PEDESTRIAN-TRAFFIC BRIDGE RAILING W/FENCE	L.FT.	672	\$455.00	\$305,760.00
6011345 G	DECK JOINT ASSEMBLY (STRIP SEAL JOINT)	L.FT.	199	\$254.00	\$50,546.00
6011371 G	APPROACH SLAB (SD 2.01)	SQ.FT.	5,058	\$19.50	\$98,631.00
6014952 G	PRECAST, P/S MEMBER (AASHTO TYPE 4 GIRDER)	L.FT.	2,562	\$220.00	\$563,640.00
6014973 G	PRECAST, P/S MEMBER (AASHTO TYPE SUPER 6 MODIFIED)	L.FT.	3,087	\$227.00	\$700,749.00
6015101 G	RESTRAINERS, VERTICAL EARTHQUAKE (FIXED)	EACH	54	\$106.00	\$5,724.00
6015102 G	RESTRAINERS, VERTICAL EARTHQUAKE (EXPANSION)	EACH	36	\$205.00	\$7,380.00
6050002 G	REINFORCING STEEL	LB.	690,900	\$.83	\$573,447.00
7320050 G	ELECTRICAL CONDUIT (2") (PVC)	L.FT.	520	\$5.00	\$2,600.00
7320070 G	ELECTRICAL CONDUIT (3") (PVC)	L.FT.	35	\$8.00	\$280.00

BID SCHEDULE

0000 PM MRN SB41301C, 010 PM 248 H847901C

Item No.	Item Description	Unit	Quantity	Unit Price	Extended Amount
STR #20095 UPRR OVERPASS					
7320475 G	JUNCTION BOX (TYPE I)	EACH	2	\$900.00	\$1,800.00

STR #20095 UPRR OVERPASS : \$4,667,637.00

STR #20095 UPRR OVERPASS

6090060 H	DRILLED SHAFT FOUNDATION (60")	L.FT.	1,280	\$536.00	\$686,080.00
6090072 H	DRILLED SHAFT FOUNDATION (72")	L.FT.	1,040	\$687.00	\$714,480.00

STR #20095 UPRR OVERPASS : \$1,400,560.00

Total STR #20095 UPRR OVERPASS (G & H) : \$6,068,197.00

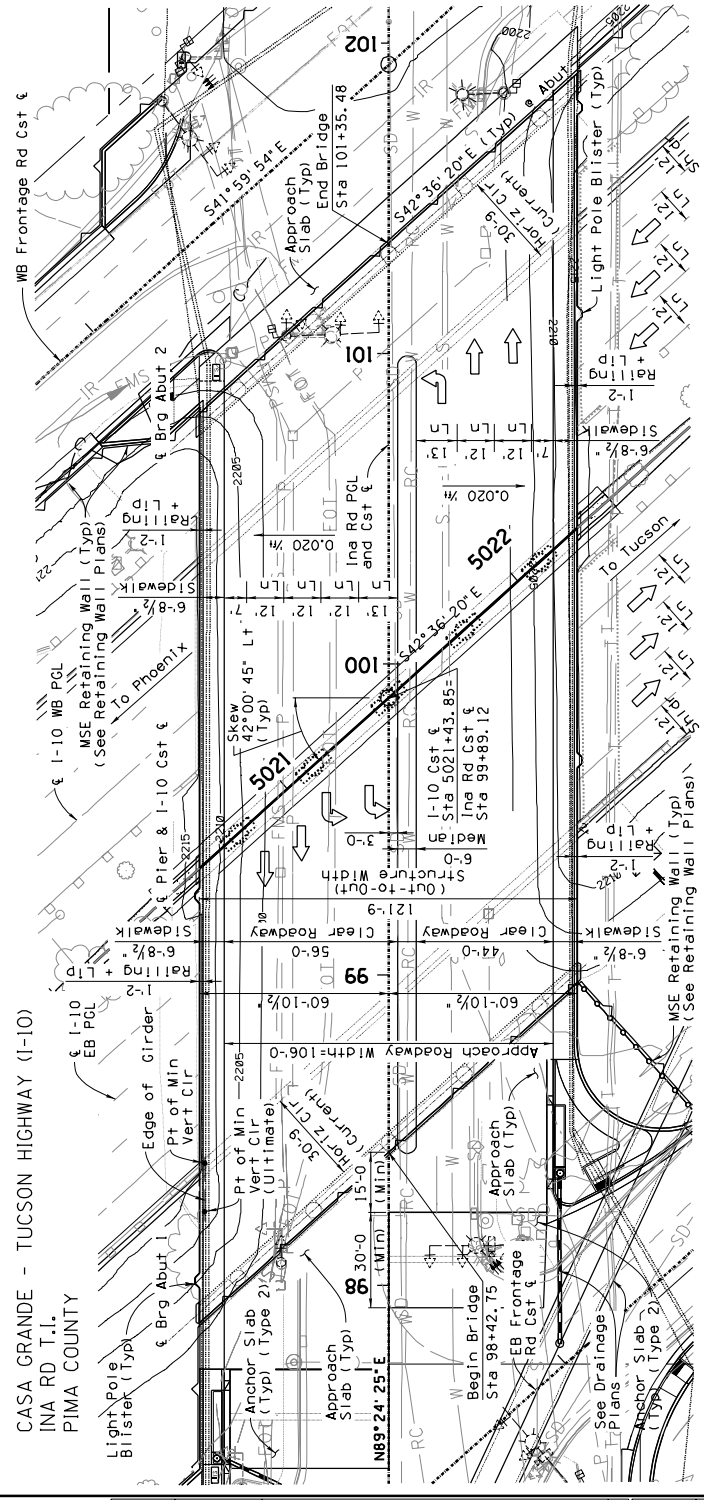
F.A.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	TOTAL RECORD DRAWING
9	ARIZ.	010-021615	550	850	
DRAWING NO.			DATE		
010 PM 248					



INDEX OF DRAWINGS

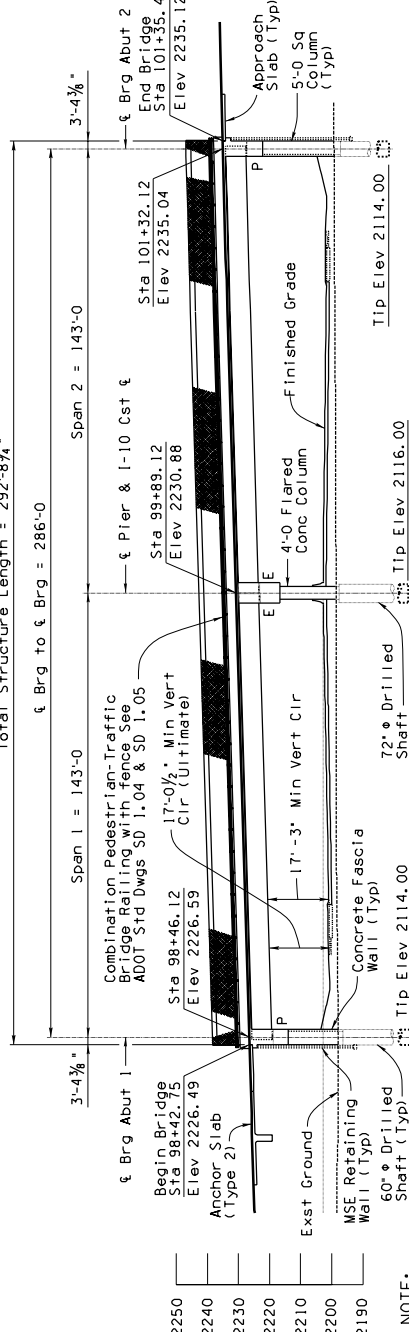
DWG NO.	TITLE
S-1.01	GENERAL PLAN & ELEVATION
S-1.02	TYPICAL SECTION & DETAILS
S-1.03	GENERAL NOTES & QUANTITIES
S-1.04	FOUNDATION PLAN
S-1.05	DRILLED SHAFT DETAILS
S-1.06	ABUTMENT 1 PLAN & ELEVATION 1
S-1.07	ABUTMENT 1 PLAN & ELEVATION 2
S-1.08	ABUTMENT 2 PLAN & ELEVATION 1
S-1.09	ABUTMENT 2 PLAN & ELEVATION 2
S-1.10	ABUTMENT DETAILS 1
S-1.11	ABUTMENT DETAILS 2
S-1.12	ABUTMENT DETAILS 3
S-1.13	PIER PLAN & ELEVATION 1
S-1.14	PIER PLAN & ELEVATION 2
S-1.15	PIER DETAILS 1
S-1.16	PIER DETAILS 2
S-1.17	PIER DETAILS 3
S-1.18	RESTRAINER & BEARING PAD DETAILS
S-1.19	DECK PLAN
S-1.20	BRIDGE APPROACH DETAILS
S-1.21	FRAMING PLAN 1
S-1.22	FRAMING PLAN 2
S-1.23	DECK SECTION
S-1.24	DECK & INT. DIAPHRAGM DETAILS
S-1.25	GIRDER DETAILS 1
S-1.26	GIRDER DETAILS 2
S-1.27	ABUTMENT DIAPHRAGM DETAILS
S-1.28	PIER DIAPHRAGM DETAILS
S-1.29	DECK LIGHT DTLS
S-1.30	CAMBER DETAILS
S-1.31	SCREED ELEVATIONS 1
S-1.32	SCREED ELEVATIONS 2

SF-1.01 FOUNDATION DATA SHEETS
-SF-1.07



EXISTING STRUCTURE NOTE:

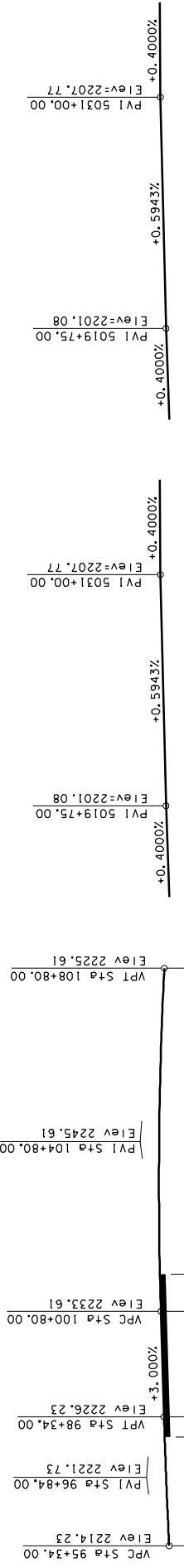
Existing Structure Numbers 866 & 867 are two parallel three span Steel Plate Girder Bridges Constructed in 1965 under AADOT Project No. 1-10-4(1321).



NOTE:
Bridge Stations, length and elevations measured along Ina Rd Cst &.

DESIGNER	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION
CHECKED	10/16/16	INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
APPROVED	10/16/16	BRIDGE GROUP
	10/26/16	
Kimley-Horn		
CONSULTING ENGINEERS AND ARCHITECTS, INC.		
PROJECT NO.	248.00	LOCATION
STRUCTURE NO.	20094	INA RD T.I.
TRACS NO.	H8479 01C	INA RD T.I.
DWG NO.	S-1.01	OF

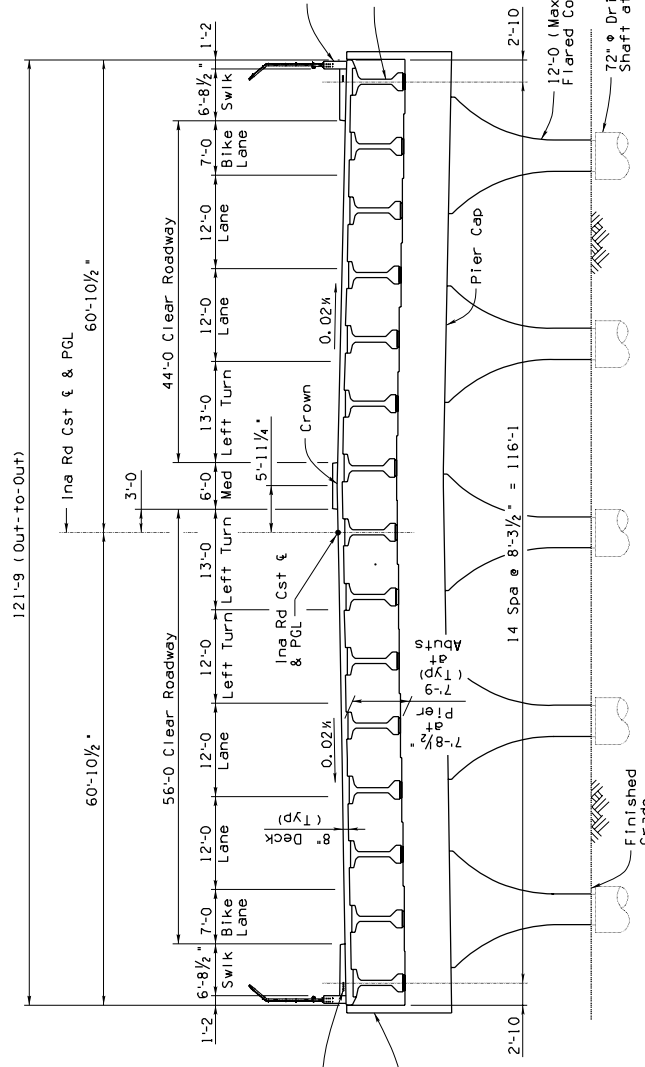
F.A.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	010-D1216S	551	850	
010 PM 248					



INA RD PGL & CST & PROFILE
Not to Scale

I-10 MAINLANE WESTBOUND PGL (37' FROM CST &)
Not to Scale

I-10 MAINLANE EASTBOUND PGL (37' FROM CST &)
Not to Scale



TYPICAL SECTION
Scale: 1/8" = 1'-0"
(Dimensions shown perpendicular to Cst &)

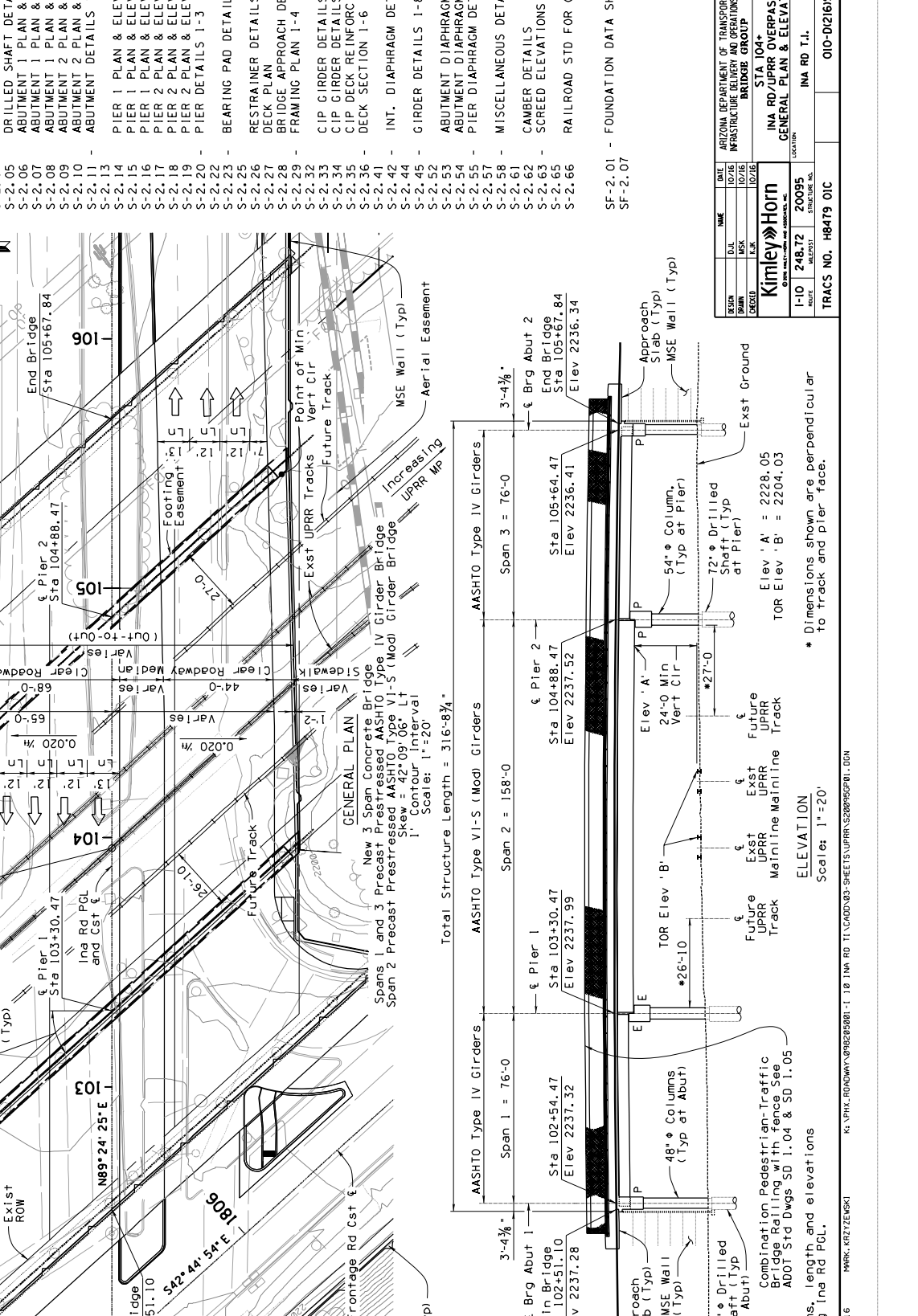
Combination Pedestrian-Traffic Bridge Rail With Fence See ADOT Std SD 1.04 & SD 1.05 (Typ)
Precast Prestressed AASHTO Type VI-S Girders (Typ)

DESIGNER	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION
DRAWN	BMS	10/16	INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
CHECKED	KSK	10/16	BRIDGE GROUP
DATE	DK	10/16	
Kimley-Horn			
CONSULTING ENGINEERS AND ARCHITECTS, INC.			
PROJECT	1-10	248.00	20094
LOCATION	INA RD T.I. UP		
STRUCTURE NO.	20094		
TRACS NO.	HB479 OIC		
DWG NO. S-102	010-D1216S		
	OF		

F.A.W. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	010-D121615	582	850		
010 PM 248					

INDEX OF DRAWINGS

DWG NO	TITLE
S-2.01	GENERAL PLAN & ELEVATION
S-2.02	TYPICAL SECTIONS
S-2.03	GENERAL NOTES, QUANT. & TYP SEC.
S-2.04	FOUNDATION PLAN
S-2.05	DRILLED SHAFT DETAILS
S-2.06	ABUTMENT 1 PLAN & ELEVATION 1
S-2.07	ABUTMENT 1 PLAN & ELEVATION 2
S-2.08	ABUTMENT 1 PLAN & ELEVATION 3
S-2.09	ABUTMENT 2 PLAN & ELEVATION 1
S-2.10	ABUTMENT 2 PLAN & ELEVATION 2
S-2.11	ABUTMENT 2 PLAN & ELEVATION 3
S-2.12	PIER 1 PLAN & ELEVATION 1
S-2.13	PIER 1 PLAN & ELEVATION 2
S-2.14	PIER 1 PLAN & ELEVATION 3
S-2.15	PIER 2 PLAN & ELEVATION 1
S-2.16	PIER 2 PLAN & ELEVATION 2
S-2.17	PIER 2 PLAN & ELEVATION 3
S-2.18	PIER 2 PLAN & ELEVATION 1
S-2.19	PIER 2 PLAN & ELEVATION 2
S-2.20	PIER 2 PLAN & ELEVATION 3
S-2.21	PIER DETAILS 1-3
S-2.22	BEARING PAD DETAILS 1-3
S-2.23	RESTRAINER DETAILS
S-2.24	DECK PLAN
S-2.25	BRIDGE APPROACH DETAILS
S-2.26	FRAMING PLAN 1-4
S-2.27	CIP GIRDER DETAILS 1
S-2.28	CIP GIRDER DETAILS 2
S-2.29	CIP DECK REINFORCING
S-2.30	DECK SECTION 1-6
S-2.31	INT. DIAPHRAGM DETAILS 1-3
S-2.32	GIRDER DETAILS 1-8
S-2.33	ABUTMENT DIAPHRAGM DETAILS 1
S-2.34	ABUTMENT DIAPHRAGM DETAILS 2
S-2.35	PIER DIAPHRAGM DETAILS 1-3
S-2.36	MISCELLANEOUS DETAILS 1-4
S-2.37	CAMBER DETAILS
S-2.38	SCREED ELEVATIONS 1-3
S-2.39	RAILROAD STD FOR OVERHEAD BRIDGES
SF-2.01	FOUNDATION DATA SHEETS
SF-2.02	



CASA GRANDE - TUCSON HIGHWAY (I-10)
 INA RD TO RUTHRAUFF ROAD
 PIMA COUNTY

NOTE:
 Bridge Stations, length and elevations
 measured along Ina Rd P.C.L.

* Dimensions shown are perpendicular
 to track and pier face.

ELEVATION
 Scale: 1"=20'

Kimley-Horn
 ENGINEERS AND ARCHITECTS, INC.
 1-10 248.72 20095
 TRACS NO. H8479 01C

ARIZONA DEPARTMENT OF TRANSPORTATION
 INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
 BRIDGE GROUP
 STA 104+
 INA RD/UPRR OVERPASS
 GENERAL PLAN & ELEVATION
 LOCATION: INA RD T.J.
 DWG NO. S-2.01

DATE: 10/16/08
 DESIGNED BY: JMK
 CHECKED BY: JMK
 DRAWN BY: JMK
 DATE: 10/16/08
 PROJECT: 010-D121615
 SHEET NO.: 582
 TOTAL SHEETS: 850

12/15/2016
 6:53:59 AM
 P:\MK_KRZ\ZEW\K1_VPHX_ROW\WAY\UP9224881-1 10 INA RD T.J.CADD\03-SHEET\5\UPRR\5260950R1.DGN

GENERAL NOTES:

Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, Edition of 2008.

Design Specifications - AASHTO Standard Specifications for Highway Bridges, 6th Edition, 2012.

Dead Load - Dead Load includes an allowance of 25 pounds per square foot for future wearing surface. The bridge design assumes a dead load of 15 pounds per square foot for stay-in-place deck forms.

Loading Class - HL-93.

The bridge site is classified as Site Class D with Peak Ground Acceleration (PGA) = 0.076 and Spectral Acceleration Coefficients at Period 0.2 sec (S_a) = 0.175 and at Period 1.0 sec (S₁) = 0.049. The bridge is assigned to Seismic Zone 1.

Inventory and operating ratings for HL-93 are in accordance with AASHTO Manual for Bridge Evaluation, 2nd Edition 2011 and the most current Interims, in accordance with the Load and Resistance Factor Method.

Inventory Rating RF 1.32
Operating Rating RF 2.10

All concrete shall be Class 'S' unless noted otherwise. Reinforcing steel shall conform to ASTM Specification A615. All reinforcing shall be furnished as Grade 60.

All bends and hooks shall meet the requirements of AASHTO Article 5.10.2. All bend dimensions for reinforcing steel shall be out-to-out of bars. All placement dimensions for reinforcing steel shall be to center of bars unless noted otherwise.

All reinforcing steel shall have 2 inch clear cover unless noted otherwise.

All mechanical splices shall conform to the requirements of mechanical connections in Section 605-3.02 of the Standard Specifications.

- Strengths:
- Superstructure (Deck, Diaphragms, CIP Girders) f_c = 4.5 ksi
 - Barriers, sidewalks and median f_c = 4.0 ksi
 - Abutments and Piers f_c = 3.5 ksi
 - Drilled Shafts f_c = 3.5 ksi
 - All other Class 'S' Concrete f_c = 3.0 ksi
 - Grade 60 Transverse Deck Reinforcing f_s = 24.0 ksi
 - Prestress Steel f_y = 50.0 ksi
 - (0.6" Dia 7-wire Low Relaxation Strand) f_{pu} = 270.0 ksi
 - Structural Steel f_y = 36.0 ksi

Barriers, sidewalk and median shall be constructed after spans have taken dead load deflection. Barriers shall not be slip formed.

Chamfer all exposed corners 3/4" unless noted otherwise.

Dimensions shall not be scaled from drawings.

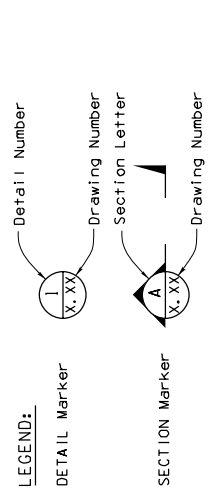
Exposed concrete surfaces shall be painted in accordance with the Standard Specifications and Special Provisions. For girders outside face only, no undersurface painting required.



CHAMFER DETAIL
NOT to Scale

ABBREVIATIONS:
NF = Near Face
FF = Fill Face
EF = Each Face

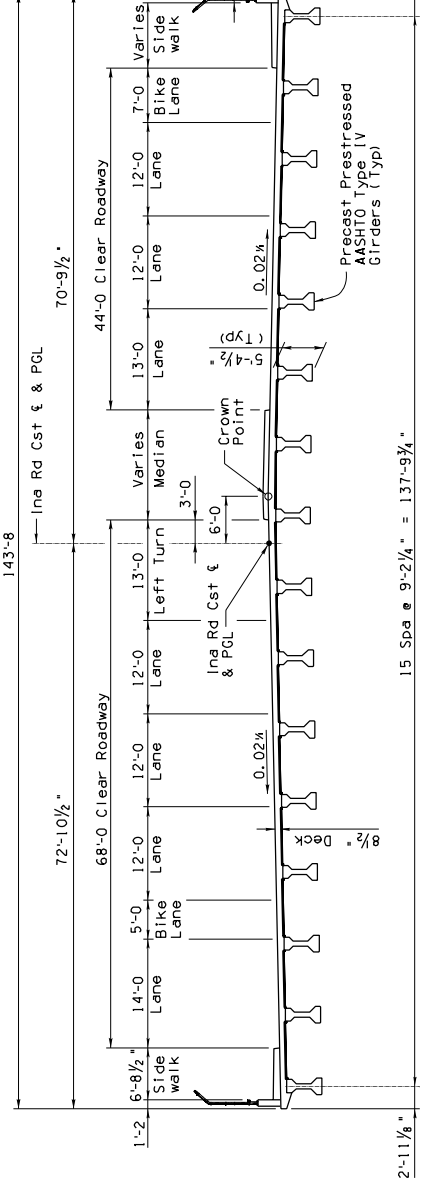
Item	Struct Excav		Struct Bkfill		Class 'S' Concrete		Reinf Steel	Precast AASHTO TYPE IV Girders	Precast AASHTO TYPE VI-S Mod Girders	Drilled Shaft 60" ø	Drilled Shaft 72" ø
	CY	LF	CY	LF	F: c=3500psi	CY					
Abutment 1	25	15	363	15	51,735	560	62,625	720			
Pier 1	25	15	441	15	65,075	480					
Pier 2	20	15	277	15	38,730	560					
Abutment 2	20	15	277	15	38,730	560					
Superstructure	90	60	1490	247	2059	2562	690,900	3087	3087	1280	1040
As-Built Total											



ADOT STRUCTURE DETAIL DRAWINGS:

- SD 1.04, SD 1.05, SD 2.01,
- SD 3.02, SD 5.01 & SD 5.02

The cost of stay-in-place forms is incidental to the cost of deck concrete. Approximate deck concrete quantity includes the concrete in the stay-in-place forms.



TYPICAL SECTION - SPAN 3
Scale: 1/8" = 1'-0"
(Dimensions shown perpendicular to Cst ø)

F.A.M.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	AZ	010-D1216S	584	950	

DATE: 010 PM 248

DESIGNER	D.J.L.	DATE	10/16
DRAWN	M.S.K.	DATE	10/16
CHECKED	L.W.K.	DATE	10/16

Kimley-Horn
CONSULTANTS AND ENGINEERS, INC.

PROJECT: I-10 248.72 OVERPASS
SHEET: 584 OF 950

LOCATION: INA RD T.J.I.

TRACS NO. HB479 01C

DWG NO. S-2103

SONORAN DESERT DRIVE
NORTH VALLEY PARKWAY
PHOENIX STREETS - MARICOPA CO.

PROJ. NO. STB5110090
SHEET NO. 97 OF 236
DATE: 12/7/14

STATE ARIZ.
CITY OF PHOENIX
DESIGNER: KIMLEY-HORN
DATE: 12/7/14



GENERAL NOTES:
DESIGN SPECIFICATIONS:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, FIFTH EDITION, 2010. (LRFD) INCLUDING 2010 INTERIM REVISIONS.

CONSTRUCTION SPECIFICATIONS:
MARICOPA ASSOCIATION OF GOVERNMENTS (MAG), UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION AND REVISION DATE.
CITY OF PHOENIX SUPPLEMENT TO MAG UNIFORM STANDARD SPECIFICATIONS.

ARIZONA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2008 EDITION, APPLICABLE WHEN REFERENCED IN SPECIAL PROVISIONS AND AREAS NOT COVERED BY MAG SPECIFICATION.

DESIGN LOADING:
LIVE LOAD, HL-93 (LRFD)
DEAD LOAD INCLUDED ALLOWANCES OF 25 PSF FOR FUTURE WEARING SURFACE.

UTILITY SUPPORTS DESIGNED FOR MAXIMUM 100 PLF FUTURE UTILITY AT EACH DESIGNATED FUTURE UTILITY LOCATION.
THE SUPERSTRUCTURE IS DESIGNED AS A COMPOSITE SECTION WITH THE TOP 1/2" OF CONCRETE SLAB TO BE CAST IN PLACE WITH THE DESIGN SECTION PROPERTIES TO ACCOUNT FOR CURING, CREEPING AND SHRINKING.

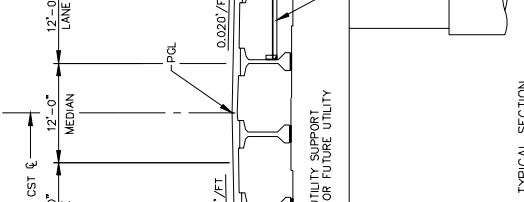
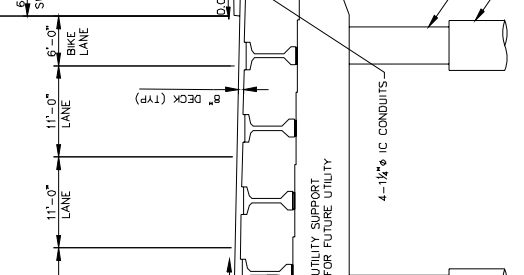
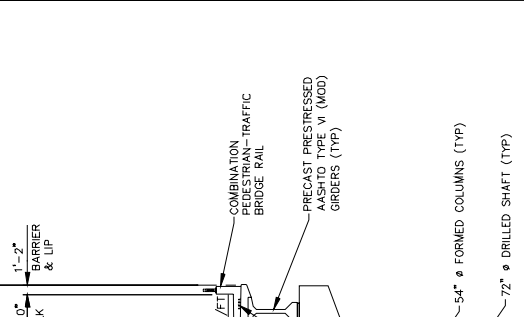
SEISMIC PERFORMANCE ZONE 1 (ACCELERATION COEFFICIENT OF 0.06).
DESIGN MAXIMUM SCOUR 25'-0" AT ABUTMENTS FOR 500-YR EVENT.
RATING:
RATING FACTORS ARE BASED ON AASHTO LRFD AND LFD METHODS WITH LFD LOAD RATING FOR INVENTORY BASED ON HS-20.

LFR METHOD (HS-20): INVENTORY 1.07
OPERATING 1.79
LFR METHOD (HL-93): INVENTORY 1.18
OPERATING 1.78

CONCRETE STRENGTHS:
DECK, DIAPHRAGMS, BARRIERS $f_c = 4500$ psi - ADOT CLASS S
ABUTMENTS, PIERS, COLUMNS $f_c = 3500$ psi - ADOT CLASS S
GRIDERS $f_c = 3500$ psi - SEE GRIDER SHIS
DRILLED SHAFTS $f_c = 3500$ psi - ADOT CLASS S

REINFORCING STEEL SHALL CONFORM TO ASTM A615 EXCEPT WHERE ASTM A706 IS SPECIFIED FOR WELDABILITY; ALL REINFORCING STEEL SHALL BE FURNISHED AS GRADE 60. PRESTRESSING STEEL SHALL CONFORM TO ASTM A416 GRADE 270 LOW RELAXATION 7-WIRE STRAND.
ALL BENDS AND HOOKS SHALL MEET THE REQUIREMENTS OF AASHTO LRFD SECTION 5.10.2. ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE CENTER-TO-CENTER OF BARS. ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE CENTER OF BARS UNLESS NOTED OTHERWISE.
ALL REINFORCING STEEL SHALL HAVE 2 INCH CLEAR COVER, UNLESS NOTED OTHERWISE.
CHAMFER ALL EXPOSED CORNERS 3/4" UNLESS NOTED OTHERWISE.
ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN WELDING SOCIETY BRIDGE WELDING CODE D15, LATEST EDITION, UNLESS NOTED OTHERWISE.
ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A500 GRADE B (HSS), A53 GRADE B (PIPE), AND A36 (PLATES) UNLESS NOTED OTHERWISE.
STEEL RAILINGS TO BE HOT-DIPPED GALVANIZED PER ASTM A123. STEEL RAILING PIPE, WIRE MESH AND HARDWARE TO BE HOT-DIP GALVANIZED PER ASTM A155.
DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.
STRUCTURE SHALL BE PAINTED IN ACCORDANCE WITH THE STANDARD SPECIFICATION AND THE SPECIAL PROVISIONS.
STAY-IN-PLACE DECK FORMS SHALL NOT BE USED ON THIS BRIDGE.
ALL CONTINUOUS HORIZONTAL BARS IN DECK DIAPHRAGMS, BRIDGE BARRIERS, CURB, AND SIDEWALKS MAY BE SPICED WHERE REQUIRED WITH THE FOLLOWING MINIMUM LAP LENGTH:
#4 BARS 1'-6"
#5 BARS 2'-0"

NOTE: STRUCTURE EXCAVATION AND BACKFILL QUANTITIES BASED ON ADOT SD 5.01 & 5.02.



APPROXIMATE QUANTITIES

ITEM	STRUCTURE EXCAVATION	STRUCTURE BACKFILL	CONCRETE CLASS S ($f_c=3500$ psi)	CONCRETE CLASS S ($f_c=4500$ psi)	AASHTO REINFORCING STEEL	AASHTO ORDER TYPE V (MOD)	72" Ø DRILLED SHAFT	48" Ø DRILLED SHAFT	3/4" F-SHAPE BRIDGE CONCRETE BARRIER WITH RAIL	PERFECTED TRAFFIC BRIDGE RAIL	PERFECTED TRAFFIC RAILING WITH CURB
	CY	CY	CY	CY	LEBS	LF	LF	LF	LF	LF	LF
ABUTMENT 1	88	193	162	24,065	24,065	450					
ABUTMENT 2	88	193	162	24,065	24,065	450					
PIER 1			151	28,890	28,890		340				
PIER 2			154	29,345	29,345		340				
PIER 3			154	29,357	29,357		340				
PIER 4			191	28,988	28,988		340				
SUPERSTRUCTURE			169	2,390	545,924	7,800	893	893	893	893	693
TOTAL	176	386	1,103	2,390	710,634	7,800	900	1,360	693	693	693
AS BUILT											

CONCRETE APPROACH SLAB ADOT DETAIL SD 2.01 4,457 SF
CONCRETE ANCHOR SLAB ADOT DETAIL SD 2.02 5,014 SF
DECK JOINT ASSEMBLIES (STRIP SEAL) ADOT DETAIL SD 3.02 223 LF
ELASTOMERIC BEARING AND EXPANSION 06 EA
STRUCTURAL STEEL 55,750 LBS
RESTRAINER, VERTICAL (EXPANSION) 24 EA
RESTRAINER, VERTICAL (FIXED) 48 EA

GENERAL NOTES AND QUANTITIES
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
SONORAN DESERT DRIVE
I-17 TO NORTH VALLEY PARKWAY
STB5110090

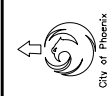
OTHER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-29 THESE PLANS ARE FOR OFFICIAL USE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTORS CONTRACT WITH THE CITY OF PHOENIX.

DATE: 12/7/14
DRAWN BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CHK BY	DATE

STATE	ARIZ.	PROJ. NO.	ST85100367	SHT	TOTAL
DR. CHG.	DES. NUM	CK. DUL.	DATE: 5/16	79	155



CHANDLER BOULEVARD
FROM 19TH AVENUE
TO 15TH AVENUE
MARGOPEA CO.

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

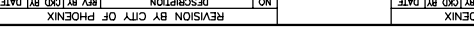
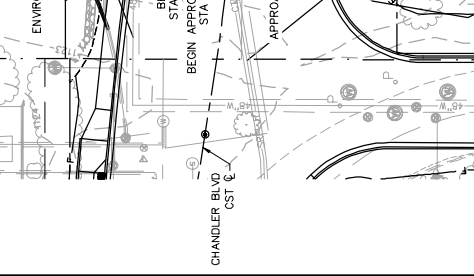
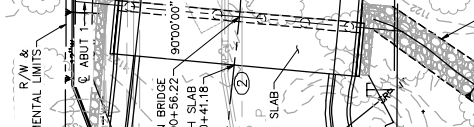
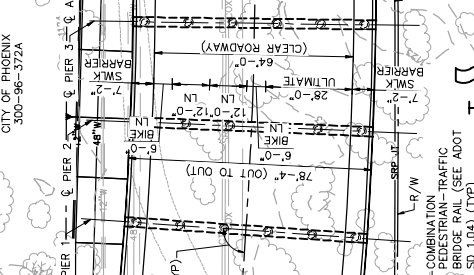
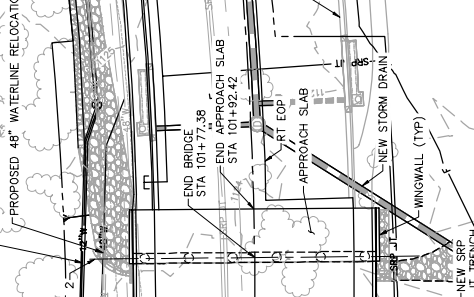
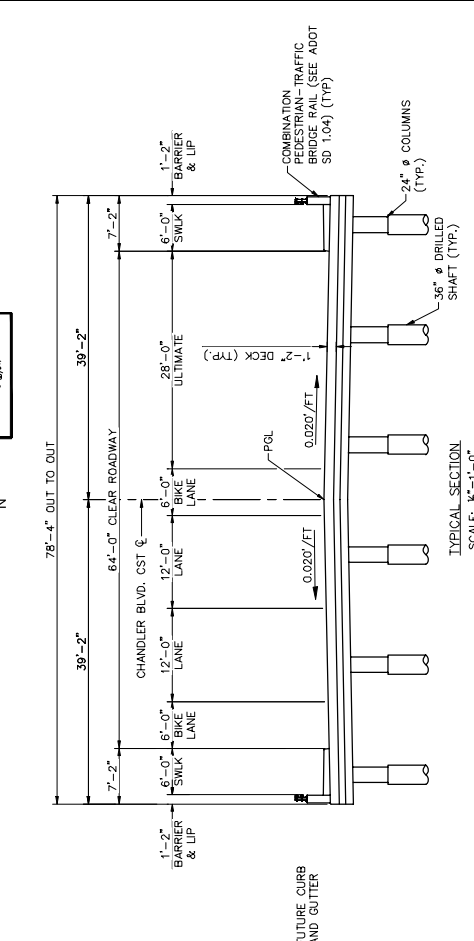
NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE

NO.	DESCRIPTION	REV BY	CHK BY	DATE



INDEX OF SHEETS

SHEET NO.	SHEET TITLE
79	GENERAL PLAN, ELEVATION, & TYP. SECTION
80	GENERAL NOTES & QUANTITIES
81	FOUNDATION PLAN
82	DRILLED SHAFT & COLUMN DETAILS
83	ABUTMENT #1 PLAN & ELEVATION
84	ABUTMENT #2 PLAN & ELEVATION
85	ABUTMENT TYPICAL SECTION & DETAILS
86	PIER PLAN & ELEVATION
87	PIER CAP REINFORCING DETAILS
88	SUPERSTRUCTURE PLAN
89	SUPERSTRUCTURE SECTION & DETAILS
90	MISCELLANEOUS DETAILS
91	SPEED ELEVATIONS
92	COMBINATION PEDESTRIAN-TRAFFIC BRIDGE RAIL
93	FOUNDATION DATA (1 OF 6)
94	FOUNDATION DATA (2 OF 6)
95	FOUNDATION DATA (3 OF 6)
96	FOUNDATION DATA (4 OF 6)
97	FOUNDATION DATA (5 OF 6)
98	FOUNDATION DATA (6 OF 6)
99	FOUNDATION DATA (6 OF 6)

PER CITY OF PHOENIX ORDINANCE G-4.395, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF THE CITY OF PHOENIX.

GENERAL PLAN, ELEVATION, & TYP. SECTION
WASH BRIDGE BR027

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CHANDLER BOULEVARD
27TH AVENUE TO 19TH AVENUE
ST85100367

DATE: 5/16 12:00 PM
DES: NUM
CK: DUL
SCALE: N/A

