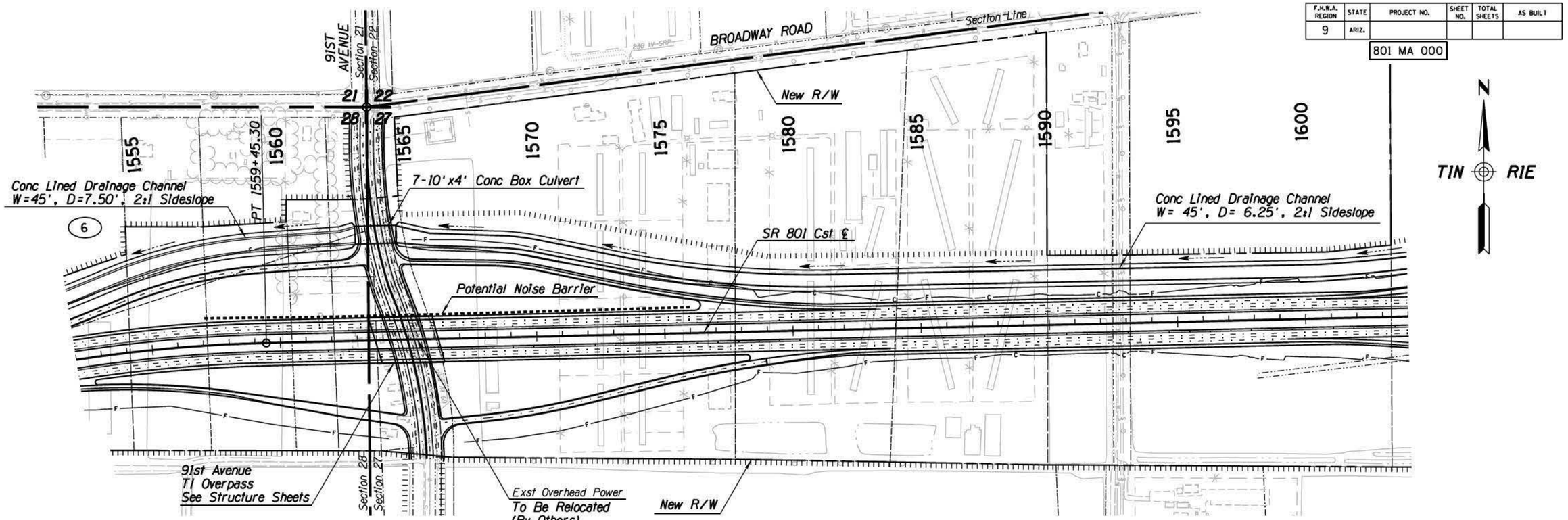
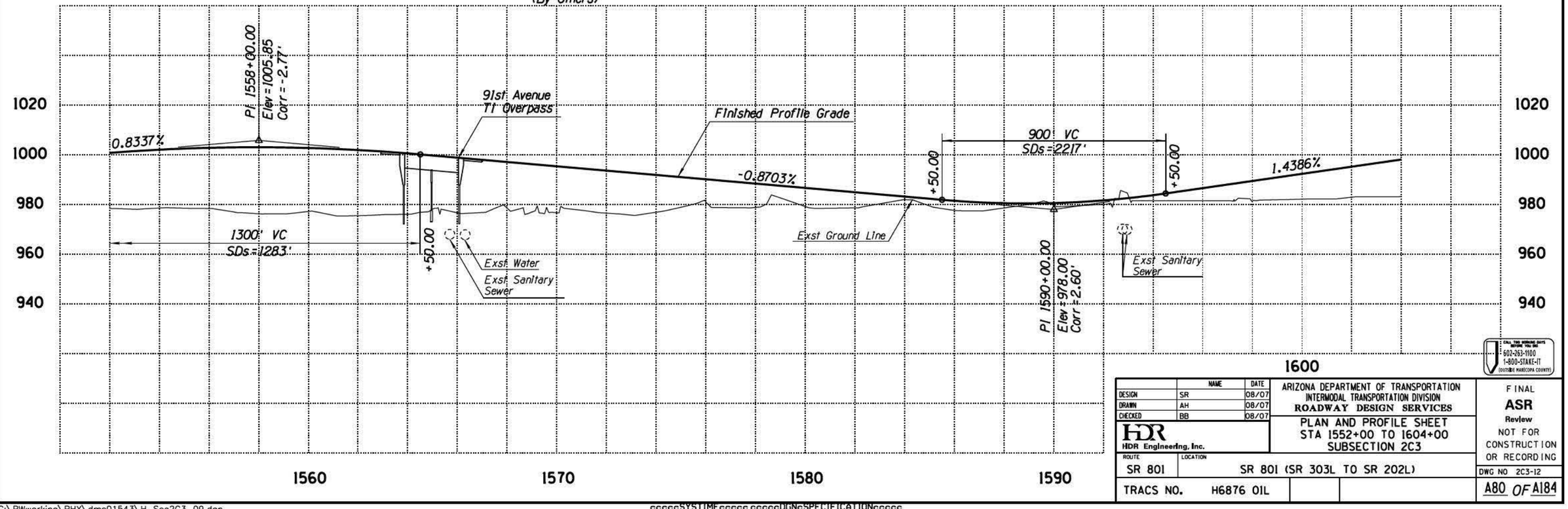
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 1552+00 TO 1604+00
SUBSECTION 2C3

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 2C3-12

TRACS NO. H6876 01L

A80 OF A184

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ahoffman 8/16/2007 9:01:36 AM

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

N

TIN ⊕ RIE

91ST AVENUE

Section Line

Section 21 | Section 22 | Section 27 | Section 28

BROADWAY ROAD

Conc Lined Drainage Channel
W= 30', D= 6.75', 2:1 Sideslope

Conc Lined Drainage Channel
W= 35', D= 6.50', 2:1 Sideslope

7-10'x4' Conc Box Culvert

New R/W

SR 801 Cst ℄

2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040

PC 2005+77.62

PT 2024+02.25

2044+85.20 PC

Broadway Road
TI Overpass
See Structure Sheets

Exst 230 KV (SRP) OHP
To Be Relocated
(By Others)

Potential Noise Barrier

91st Avenue
TI Overpass
See Structure Sheets

Exst Overhead Power
To Be Relocated
(By Others)

① CURVE DATA

PI Sta 2015+22.36

Main Curve
Δ=36°30'10"
D=2°00'00"
R=2864.79
L=1825.13
T=944.74
Ext=151.76
Super=0.049

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 2000+00 TO 2046+00
SUBSECTION 3A

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-01

TRACS NO. H6876 01L

A81 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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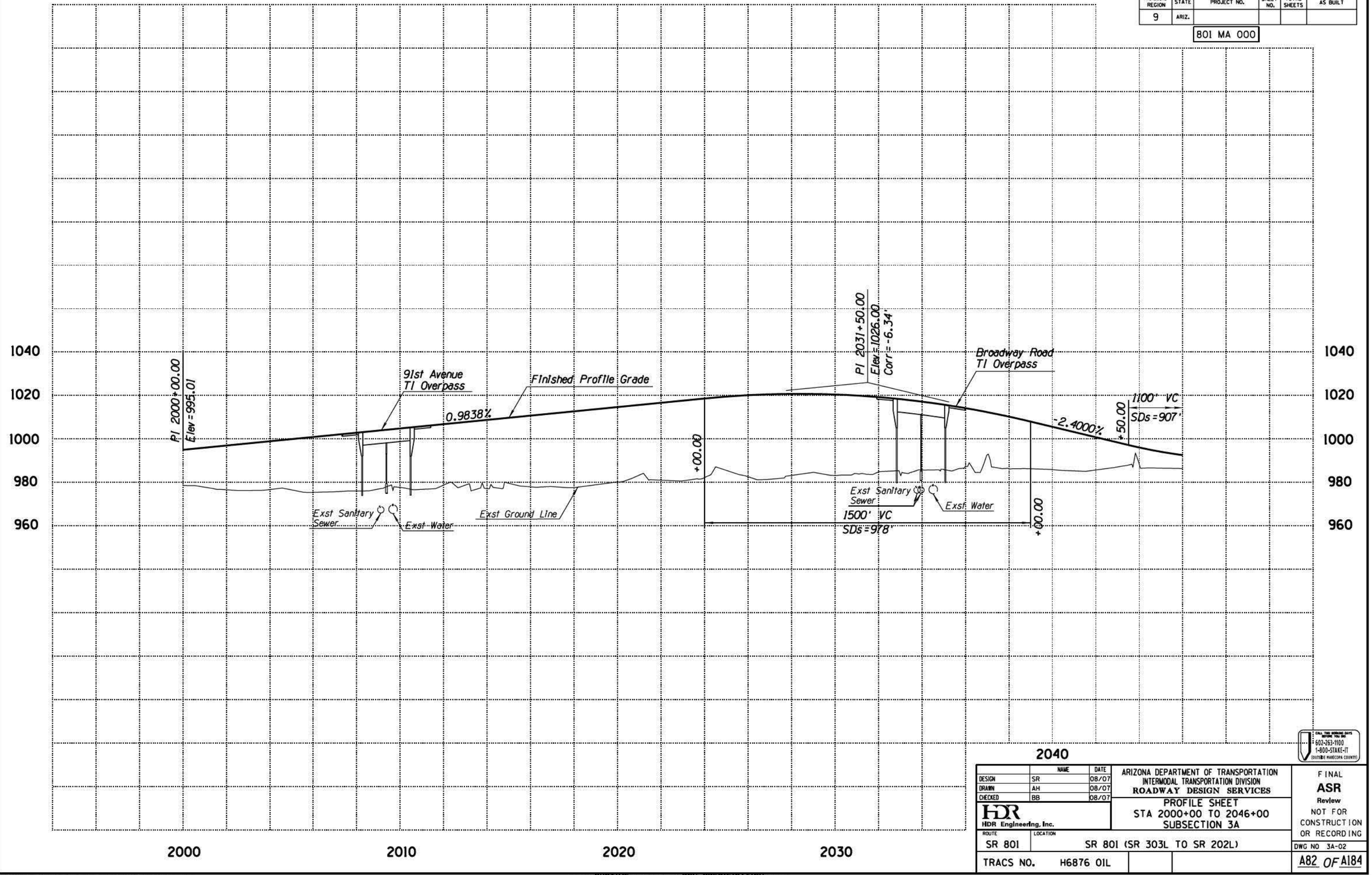
ahoffman 8/16/2007 9:01:38 AM

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PROFILE SHEET
STA 2000+00 TO 2046+00
SUBSECTION 3A

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3A-02

A82 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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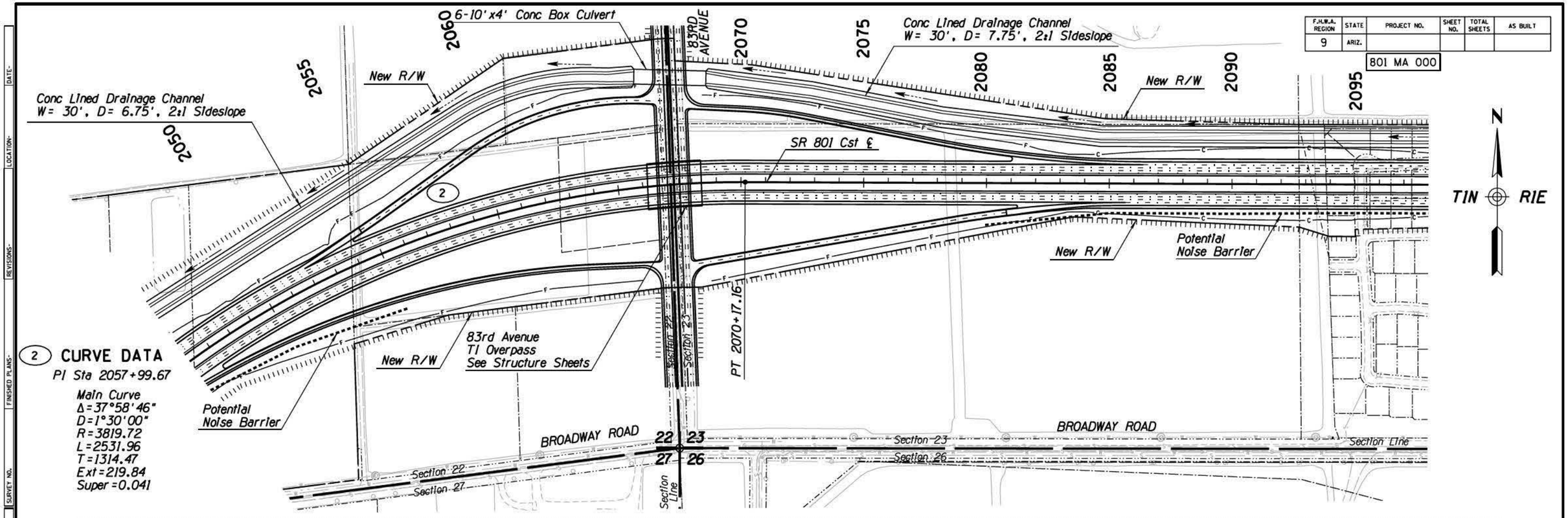
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



(2) CURVE DATA

PI Sta 2057+99.67

Main Curve
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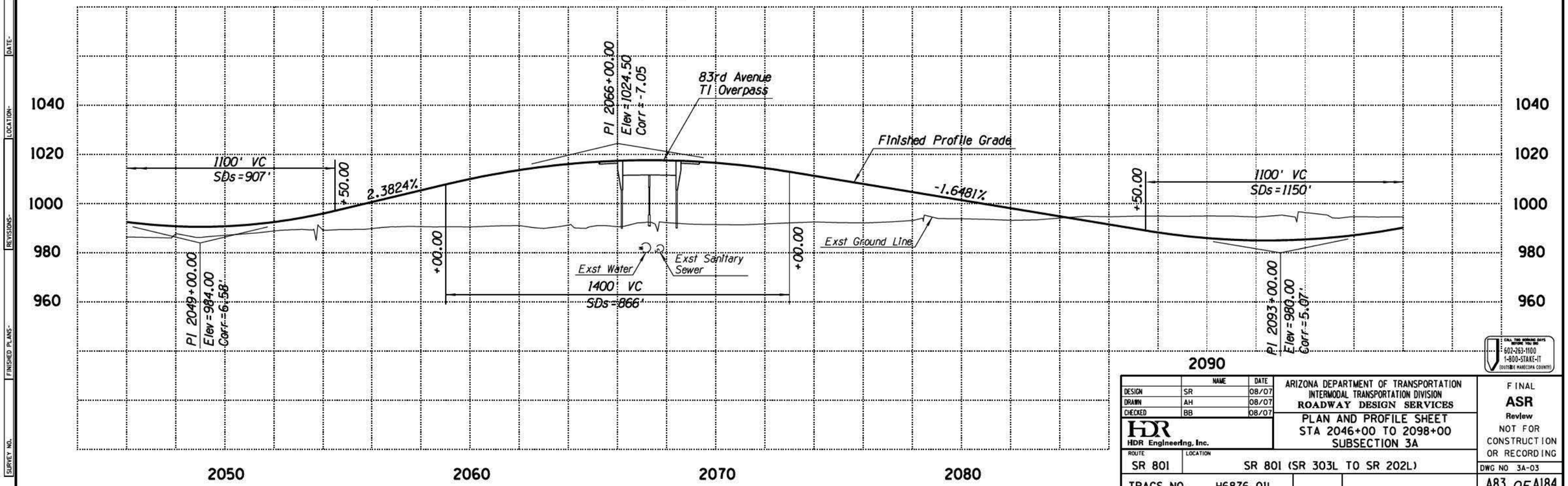
D=1°30'00"
R=3819.72
L=2531.96
T=1314.47
Ext=219.84
Super=0.041



602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 2046+00 TO 2098+00
SUBSECTION 3A

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3A-03

A83 OF A184

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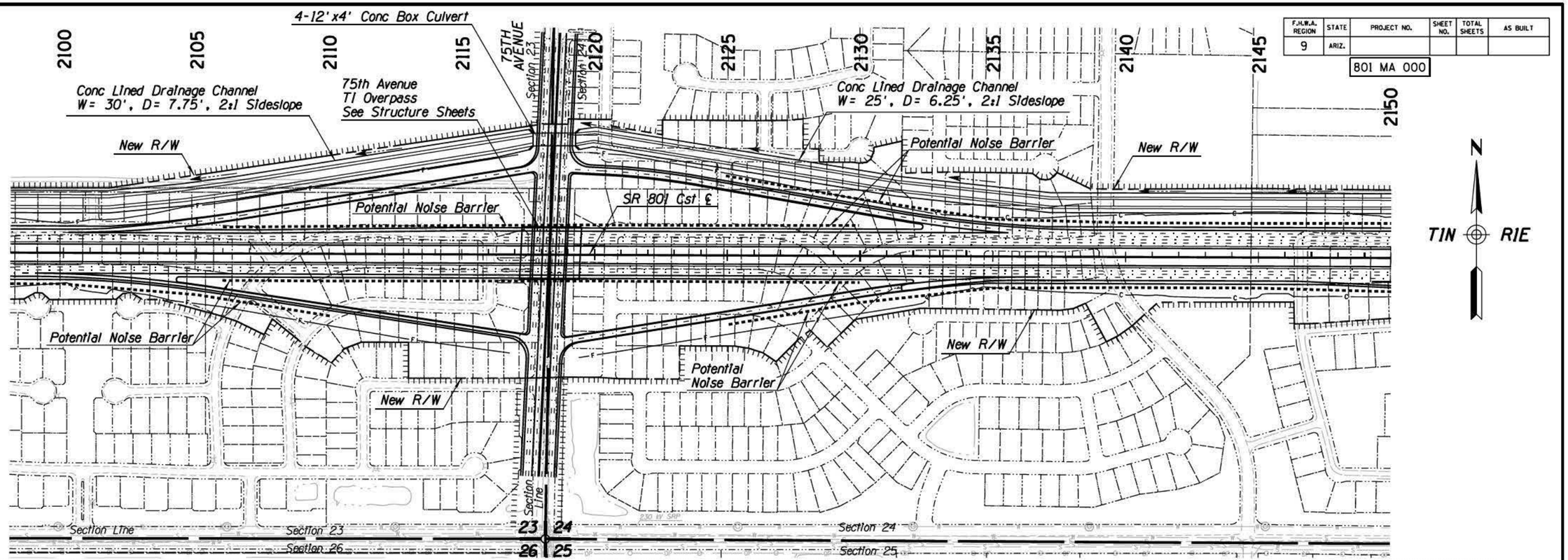
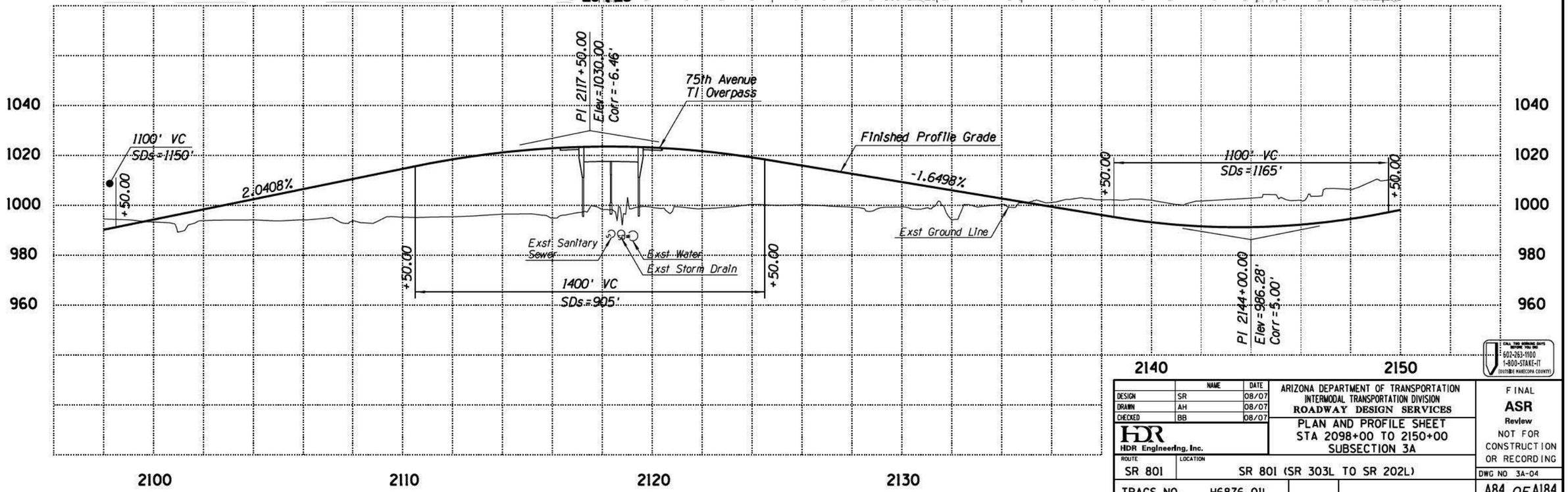
ahaffman 8/16/2007 9:01:42 AM

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 2098+00 TO 2150+00
SUBSECTION 3A

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-04

TRACS NO. H6876 01L

A84 OF A184

DATE-
LOCATION-
REVISIONS-
FINISHED PLANS-
SURVEY NO.

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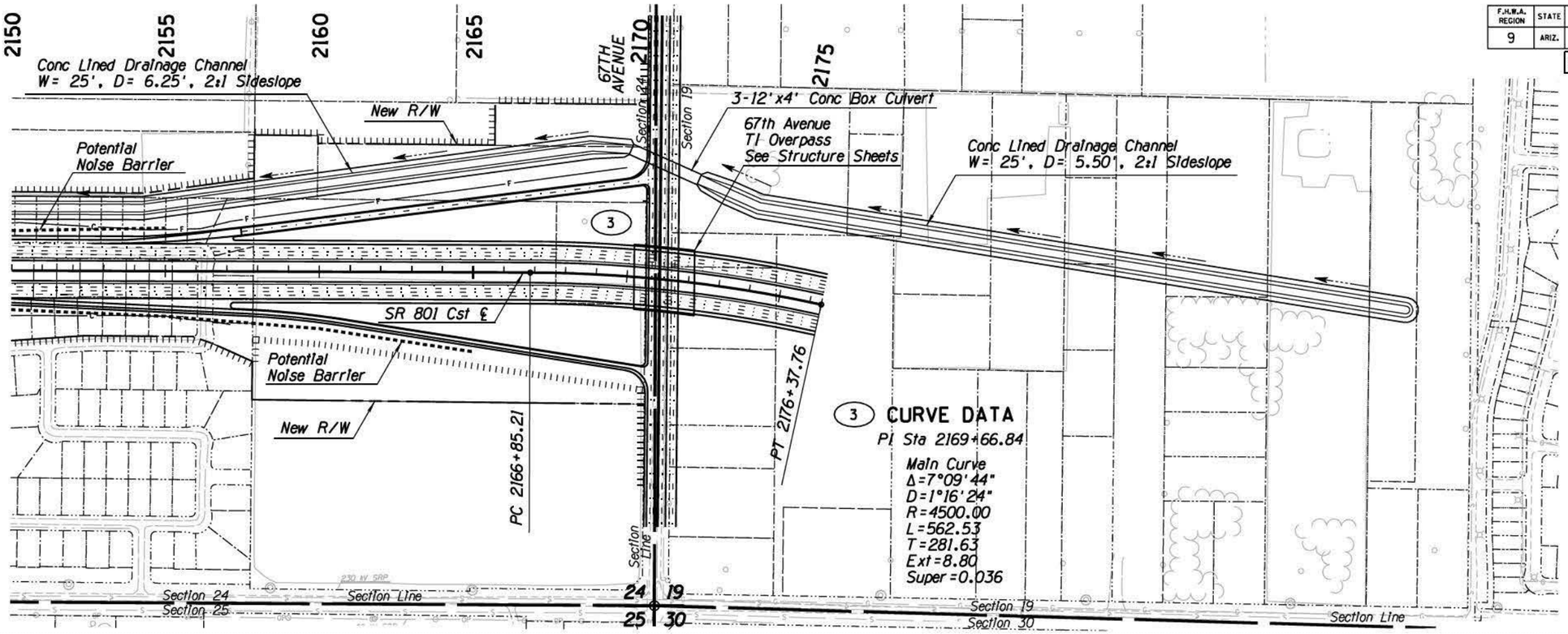
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



3 CURVE DATA

PI Sta 2169+66.84

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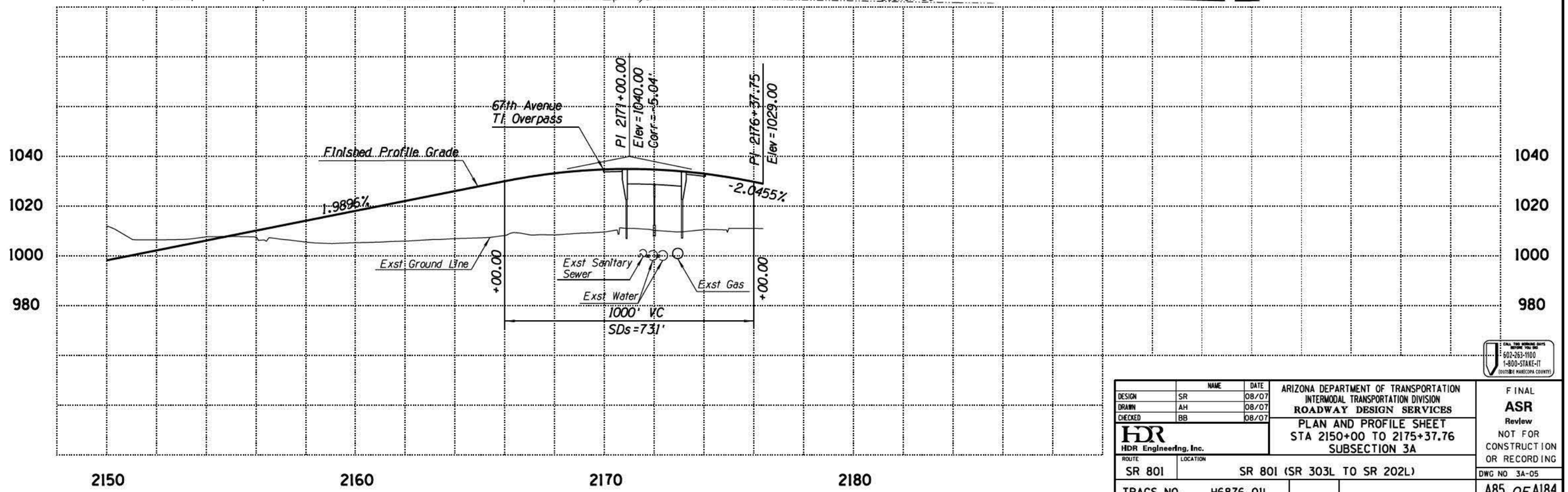
D=1°16'24"
R=4500.00
L=562.53
T=281.63
Ext=8.80
Super=0.036



CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 2150+00 TO 2175+37.76
SUBSECTION 3A

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-05

TRACS NO. H6876 01L

A85 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

SURVEY NO. | DATE- | LOCATION- | REVISIONS- | FINISHED PLANS-

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
SUBSECTION 3A-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION	
SR 801	SR 801 (SR 303L TO SR 202L)	DWG NO 3A-06
TRACS NO. H6876 01L		A86 OF A184

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ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

DATE- | LOCATION- | REVISIONS- | FINISHED PLANS- | SURVEY NO.

N

T1N R2E

59TH AVENUE

New R/W

Broadway Road Ramp C

Ramp SW

N Frt Rd

Broadway Road Ramp D

Ramp EN

Exst SR 202L

Section 19

Section 30

New R/W

19 20

30 29

Broadway Road

Section Line

New R/W

Ramp ES

Broadway Road Ramp B

Section 30

Section 29

Ramp NW

100-Year Floodway

Broadway Road Ramp A

S Frt Rd

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
SUBSECTION 3A-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-07

TRACS NO. H6876 01L

A87 OF A184

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

T1N R2E

N

Section 31

Section 30

SOUTHERN AVENUE

100-Year Floodway

100-Year Floodway

Southern Avenue Ramp C

Ramp ES

New R/W

Exst SR 202L

Ramp NW

New R/W

Southern Avenue Ramp D

Section 30

Section 29

31 30

32 29

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
SUBSECTION 3B-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-08

TRACS NO. H6876 01L

A88 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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ccccSYSTIMEcccccc ccccDGNcSPECIFICATIONcccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

T1N
R2E
N

LOWER BUCKEYE ROAD

Section Line

Exst SR 202L

Lower Buckeye Road
Ramp A

New R/W

New R/W

Lower Buckeye Road
Ramp B

59TH AVENUE

Section 19

Section 20

Section 19

Section 18

19 18

20 17

602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

HDR Engineering, Inc.

PLAN SHEET
SUBSECTION 3A-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3A-09

TRACS NO. H6876 01L

A89 OF A184

DATE- | LOCATION- | REVISIONS- | FINISHED PLANS- | SURVEY NO.

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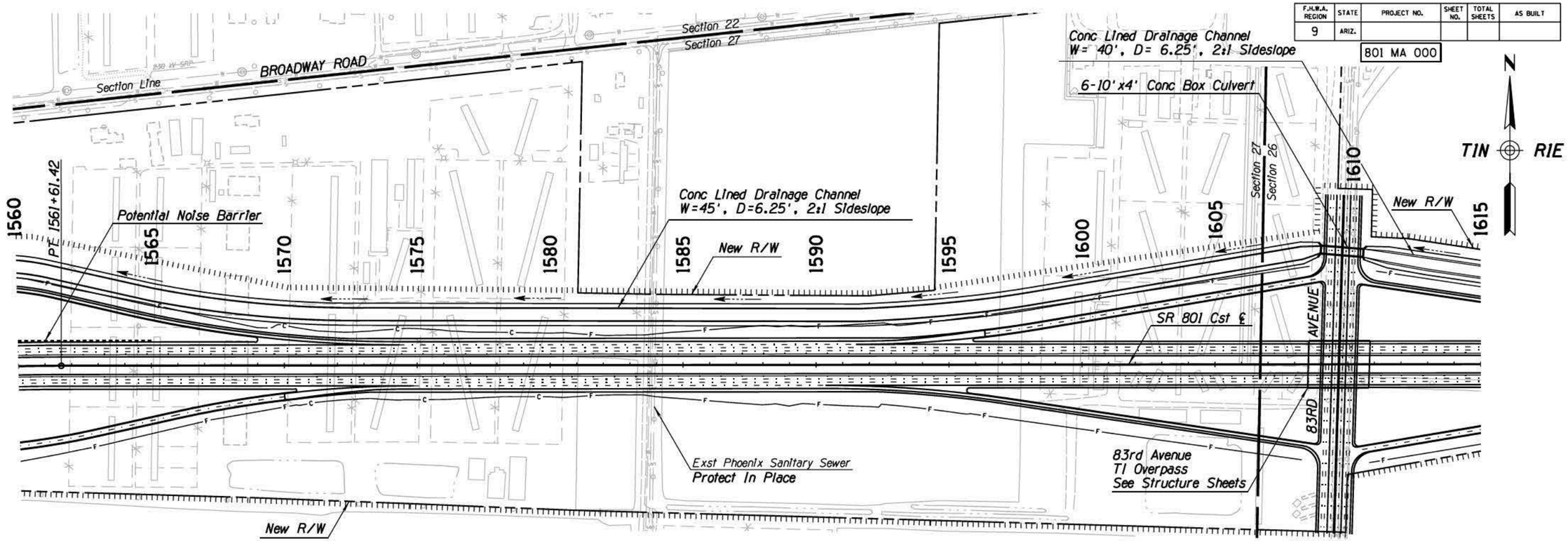
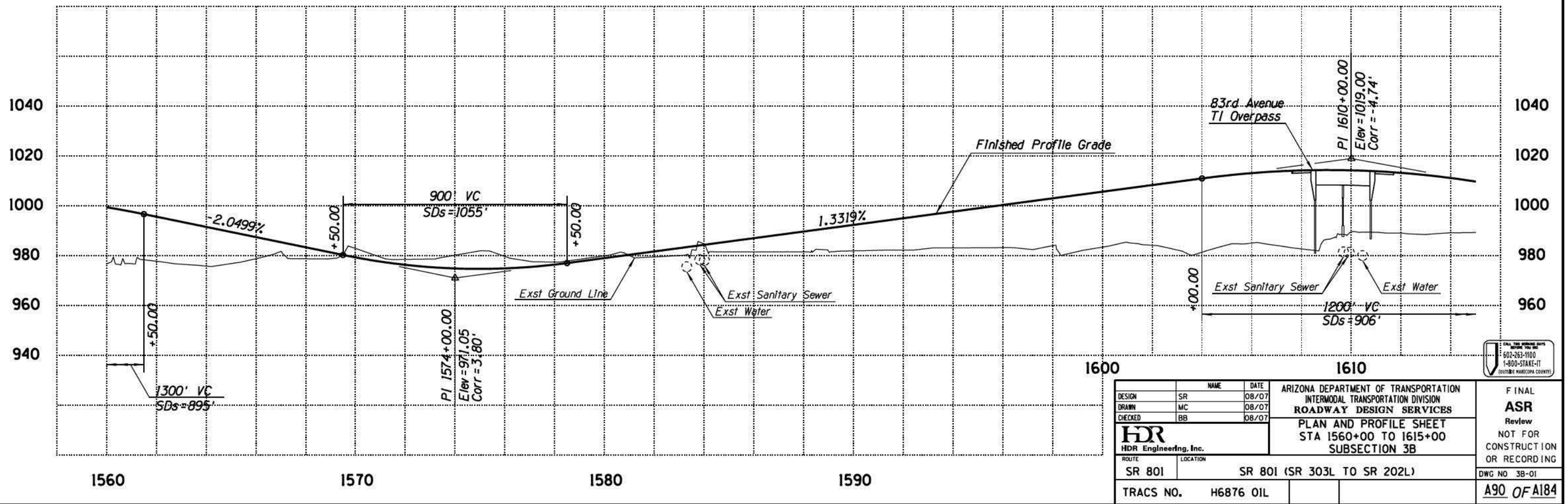
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 1560+00 TO 1615+00
SUBSECTION 3B

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-01

A90 OF A184

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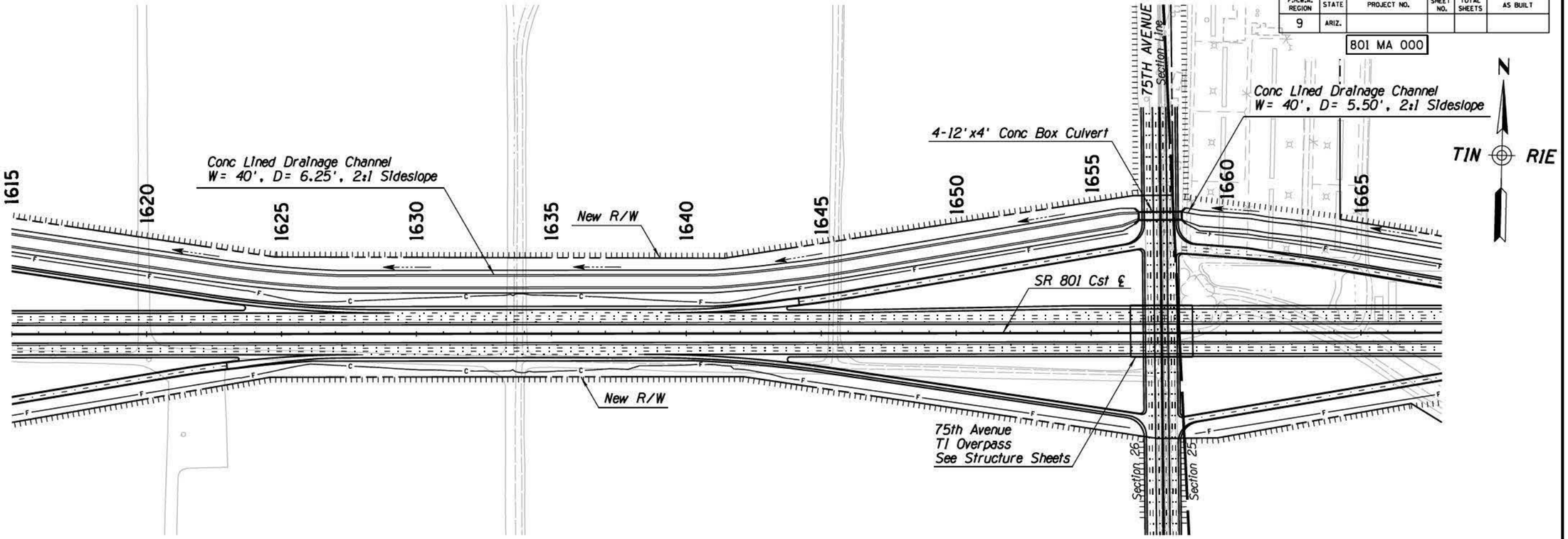
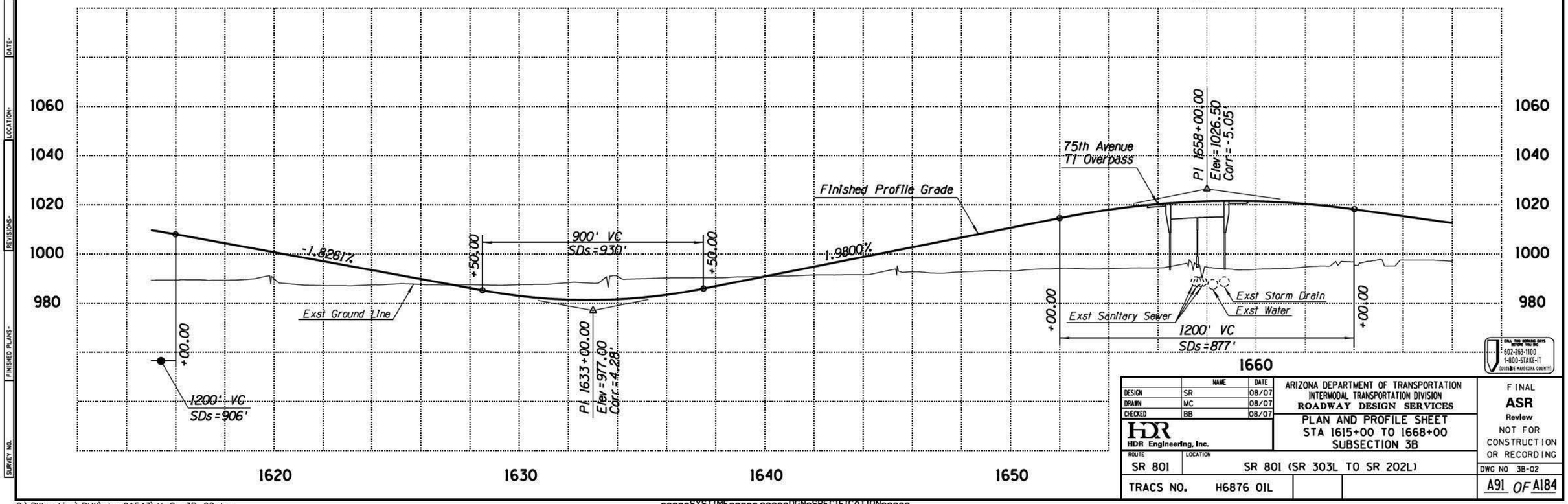
ahoffman 8/16/2007 9:01:54 AM

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 1615+00 TO 1668+00
SUBSECTION 3B

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-02

A91 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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ahoffman 8/16/2007 9:01:56 AM

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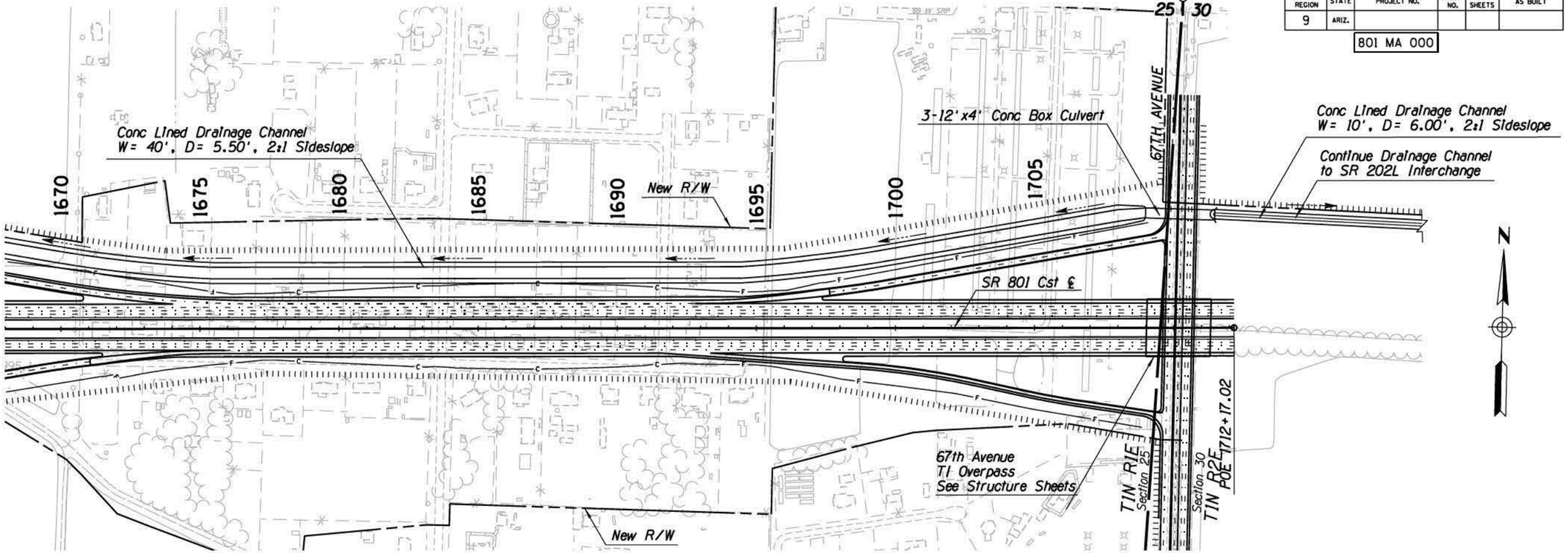
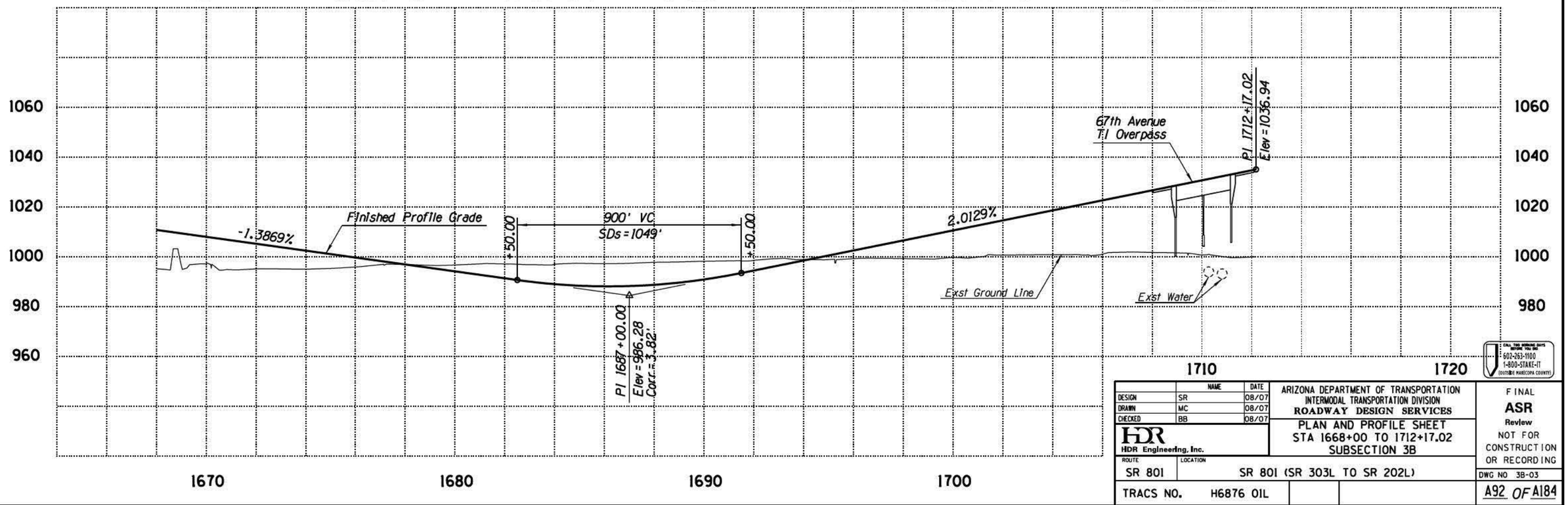
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN AND PROFILE SHEET
STA 1668+00 TO 1712+17.02
SUBSECTION 3B

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-03

A92 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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ahoffman 8/16/2007 9:01:58 AM

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES		All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016			
	67th Avenue Ramp D													
	POB	100+00.00												
	PC	105+29.09												
	PI	110+58.11			Δ=20°00'06"	D=1°54'35"	R=3000.00	T=529.02	L=1047.28	Ext=46.29				
	PT	115+76.37												
	PC	118+81.60												
	PI	122+19.59			Δ=34°09'38"	D=5°12'31"	R=1100.00	T=337.99	L=655.84	Ext=50.76				
	PT	125+37.44												
	PC	129+31.08												
	PI	131+32.64			Δ=7°41'14"	D=1°54'35"	R=3000.00	T=201.55	L=402.50	Ext=6.76				
	PT	133+33.59												
	POE	140+09.43												
	67th Avenue Ramp C													
	POB	200+00.00												
	PC	208+49.61												
	PI	212+12.81			Δ=17°51'20"	D=2°28'41"	R=2312.00	T=363.20	L=720.50	Ext=28.35				
	PT	215+70.11												
	PC	220+20.54												
	PI	224+76.41			Δ=14°47'30"	D=1°37'53"	R=3512.00	T=455.87	L=906.67	Ext=29.46				
	PT	229+27.21												
	S Frt Road													
	PC	300+00.00												
	PI	307+32.50			Δ=13°02'04"	D=0°53'37"	R=6412.00	T=732.50	L=1458.68	Ext=41.70				
	PT	314+58.68												
	PC	318+99.06												
	PI	321+89.81			Δ=32°25'25"	D=5°43'46"	R=1000.00	T=290.75	L=565.90	Ext=41.41				
	PRC	324+64.96												
	PI	329+51.84			Δ=19°23'21"	D=2°00'37"	R=2850.00	T=486.88	L=964.46	Ext=41.29				
	PT	334+29.42												
	Southern Avenue Ramp D													
	POB	500+00.00												
	PC	502+05.01												
	PI	503+19.54			Δ=16°03'24"	D=7°03'22"	R=812.00	T=114.53	L=227.56	Ext=8.04				
	PT	504+32.56												
	PC	504+90.30												

CENTERLINE CONTROL POINT AND CURVE DATA TABLE

All bearings and angles have been rounded to the nearest second.
Use the control points provided and their respective state plane coordinates to re-establish the centerline of each roadway.

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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DWG NO 3B-04

A93 OF A184

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016
	PI	507+16.70		Δ=31°09'33"	D=7°03'22"	R=812.00	T=226.40	L=441.59	Ext=30.97	
	PT	509+31.88								
	PC	509+78.07								
	PI	512+72.64		Δ=11°15'39"	D=1°55'03"	R=2988.00	T=294.57	L=587.25	Ext=14.49	
	PT	515+65.32								
	PC	516+21.19								
	PI	519+05.54		Δ=5°25'36"	D=0°57'18"	R=6000.00	T=284.35	L=568.27	Ext=6.73	
	PT	521+89.46								
	Southern Avenue Ramp H									
	POB	600+00.00								
	PC	601+41.35								
	PI	604+10.69		Δ=16°54'33"	D=3°09'43"	R=1812.00	T=269.34	L=534.76	Ext=19.91	
	PRC	606+76.11								
	PI	610+24.62		Δ=13°15'09"	D=1°54'35"	R=3000.00	T=348.51	L=693.90	Ext=20.17	
	PT	613+70.01								
	PC	614+16.24								
	PI	616+66.59		Δ=5°43'58"	D=1°08'45"	R=5000.00	T=250.35	L=500.28	Ext=6.26	
	PT	619+16.52								
	Southern Avenue Ramp C									
	PC	400+00.00								
	PI	402+90.30		Δ=13°14'50"	D=2°17'31"	R=2500.00	T=290.30	L=578.01	Ext=16.80	
	PT	405+78.01								
	PC	408+64.91								
	PI	411+03.77		Δ=22°30'55"	D=4°46'29"	R=1200.00	T=238.86	L=471.56	Ext=23.54	
	PT	413+36.47								
	POE	418+55.77								
	Broadway Road Ramp A									
	POB	700+00.00								
	PC	701+33.52								
	PI	709+19.08		Δ=17°51'28"	D=1°08'45"	R=5000.00	T=785.56	L=1558.38	Ext=61.33	
	PT	716+91.90								
	Broadway Road Ramp B									
	PC	800+00.00								
	PI	802+98.10		Δ=7°24'56"	D=1°14'44"	R=4600.00	T=298.10	L=595.37	Ext=9.65	

CENTERLINE CONTROL POINT AND CURVE DATA TABLE

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	NAME	DATE
DESIGN	SR	08/07
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CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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A94 OF A184

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DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

DATE-
LOCATION-
REVISIONS-
FINISHED PLANS-
SURVEY NO.

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016			
	PT	805+95.37											
	PC	809+79.39											
	PI	812+12.68			Δ=10°36'41"	D=2°16'51"	R=2512.00	T=233.28	L=465.23	Ext=10.81			
	PT	814+44.63											
	POE	818+07.73											
	Broadway Road Ramp D												
	POB	900+00.00											
	PC	915+80.07											
	PI	917+38.74			Δ=3°11'45"	D=1°00'26"	R=5688.00	T=158.67	L=317.26	Ext=2.21			
	PT	918+97.33											
	Broadway Road Ramp C												
	PC	1000+00.00											
	PI	1002+58.18			Δ=5°11'13"	D=1°00'19"	R=5700.00	T=258.18	L=516.01	Ext=5.84			
	PT	1005+16.01											
	PC	1013+92.31											
	PI	1016+12.31			Δ=10°00'37"	D=2°16'51"	R=2512.00	T=220.00	L=438.87	Ext=9.62			
	PT	1018+31.19											
	POE	1021+08.69											
	Lower Buckeye Road Ramp B												
	PC	1100+00.00											
	PI	1108+35.56			Δ=31°00'33"	D=1°54'08"	R=3012.00	T=835.56	L=1630.12	Ext=113.75			
	PT	1116+30.12											
	PC	1120+96.78											
	PI	1122+24.19			Δ=18°22'09"	D=7°16'16"	R=788.00	T=127.41	L=252.63	Ext=10.23			
	PT	1123+49.42											
	POE	1123+89.84											
	Lower Buckeye Road Ramp A												
	POB	1300+00.00											
	PC	1303+15.97											
	PI	1304+60.93			Δ=8°20'29"	D=2°52'55"	R=1988.00	T=144.97	L=289.42	Ext=5.28			
	PT	1306+05.39											
	PC	1309+60.48											
	PI	1318+14.88			Δ=19°23'38"	D=1°08'45"	R=5000.00	T=854.39	L=1692.44	Ext=72.47			
	PT	1326+52.92											

CENTERLINE CONTROL POINT AND CURVE DATA TABLE

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	NAME	DATE
DESIGN	SR	08/07
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HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG NO 3B-06

A95 OF A184

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings	C.A.F. = 1.00016
	Lower Buckeye Road Ramp F				
	PC	1200+00.00			
	PI	1202+89.12		Δ=13°11'38" D=2°17'31" R=2500.00 T=289.12 L=575.69 Ext=16.66	
	PT	1205+75.69			
	POE	1223+61.73			
	Lower Buckeye Road Ramp E				
	PC	1400+00.00			
	PI	1401+46.75		Δ=18°46'05" D=6°27'08" R=888.00 T=146.75 L=290.88 Ext=12.04	
	PT	1402+90.88			
	PC	1406+48.52			
	PI	1411+70.38		Δ=29°21'39" D=2°52'35" R=1992.00 T=521.86 L=1020.78 Ext=67.22	
	PT	1416+69.30			
	POE	1421+22.55			
	Ramp EN				
	PC	10000+00.00			
	PI	10003+99.60		Δ=7°58'47" D=1°00'00" R=5729.00 T=399.60 L=797.90 Ext=13.92	
	PT	10007+97.90			
	PC	10015+03.63			
	PI	10037+69.09		Δ=109°07'55" D=3°33'16" R=1612.00 T=2265.45 L=3070.39 Ext=1168.43	
	PT	10045+74.03			
	PC	10059+71.18			
	PI	10071+78.20		Δ=27°12'23" D=1°08'55" R=4988.00 T=1207.01 L=2368.50 Ext=143.96	
	PT	10083+39.68			
	PC	10085+49.80			
	PI	10087+70.62		Δ=2°31'37" D=0°34'20" R=10012.00 T=220.81 L=441.52 Ext=2.43	
	PT	10089+91.36			
	PC	10100+71.98			
	PI	10104+55.35		Δ=7°40'46" D=1°00'11" R=5712.00 T=383.36 L=765.58 Ext=12.85	
	PT	10108+37.56			
	Ramp ES				
	POB	15000+00.00			
	PC	15005+55.74			
	PI	15014+35.12		Δ=78°02'55" D=5°16'51" R=1085.00 T=879.38 L=1477.99 Ext=311.61	
	PT	15020+33.73			

CENTERLINE CONTROL POINT AND CURVE DATA TABLE

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	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
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HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

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ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-07

TRACS NO. H6876 01L

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016		
	PC	15039+97.21										
	PI	15046+36.25		Δ=9°06'26"	D=0°42'51"	R=8024.00	T=639.05	L=1275.40	Ext=25.41			
	PT	15052+72.61										
	POE	15056+28.15										
	Ramp WS											
	PC	30000+00.00										
	PI	30007+32.16		Δ=27°32'11"	D=1°55'03"	R=2988.00	T=732.16	L=1436.03	Ext=88.39			
	PT	30014+36.03										
	PC	30031+97.08										
	PI	30041+35.98		Δ=82°22'23"	D=5°20'23"	R=1073.00	T=938.90	L=1542.63	Ext=352.78			
	PT	30047+39.71										
	POE	30049+90.51										
	Ramp NW											
	PC	20000+00.00										
	PI	20006+70.58		Δ=12°43'44"	D=0°57'11"	R=6012.00	T=670.58	L=1335.65	Ext=37.28			
	PT	20013+35.65										
	PC	20015+32.02										
	PI	20016+86.26		Δ=2°56'00"	D=0°57'04"	R=6024.00	T=154.24	L=308.41	Ext=1.97			
	PT	20018+40.43										
	PC	20030+96.24										
	PI	20034+93.73		Δ=7°58'17"	D=1°00'16"	R=5705.00	T=397.49	L=793.71	Ext=13.83			
	PT	20038+89.94										
	PC	20041+17.83										
	PI	20060+76.81		Δ=100°40'56"	D=3°31'41"	R=1624.00	T=1958.97	L=2853.75	Ext=920.59			
	PT	20069+71.59										
	POE	20102+88.74										
	Ramp SE											
	PC	40000+00.00										
	PI	40001+28.08		Δ=2°05'21"	D=0°48'57"	R=7024.00	T=128.08	L=256.13	Ext=1.17			
	PT	40002+56.13										
	PC	40012+09.53										
	PI	40021+67.58		Δ=30°37'02"	D=1°38'13"	R=3500.00	T=958.05	L=1870.29	Ext=128.76			
	PT	40030+79.82										
	PC	40056+20.98		Δ=20°44'52"	D=3°45'34"	R=1524.00	T=278.99	L=551.87	Ext=25.33			
	PI	40058+99.96										

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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A97 OF A184

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DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016
	PRC	40061+72.84								
	PI	40087+42.44		Δ=135°07'41"	D=5°24'01"	R=1061.00	T=2569.60	L=2502.29	Ext=1719.03	
	PT	40086+75.14								
	PC	40103+85.58								
	PI	40110+37.95		Δ=43°46'15"	D=3°31'41"	R=1624.00	T=652.36	L=1240.65	Ext=126.13	
	PT	40116+26.23								
	Ramp WN									
	PC	35000+00.00								
	PI	35013+30.89		Δ=102°52'32"	D=5°24'01"	R=1061.00	T=1330.89	L=1905.04	Ext=641.05	
	PT	35019+05.04								
	Ramp SW									
	PC	45000+00.00								
	PI	45010+05.85		Δ=67°16'03"	D=3°47'22"	R=1512.00	T=1005.85	L=1775.14	Ext=304.01	
	PT	45017+75.14								
	Ramp NE									
	POB	25000+00.00								
	PC	25002+44.41								
	PI	25009+33.21		Δ=64°06'28"	D=5°12'31"	R=1100.00	T=688.80	L=1230.78	Ext=197.86	
	PT	25014+75.19								
	POE	25016+44.04								
	SR 801									
	POB	2000+00.00								
	PC	2015+70.86								
	PI	2021+70.79		Δ=5°59'38"	D=0°30'00"	R=11459.00	T=599.92	L=1198.75	Ext=15.69	
	PT	2027+69.61								
	PC	2057+45.90								
	PI	2069+02.27		Δ=34°53'19"	D=1°33'25"	R=3680.00	T=1156.36	L=2240.82	Ext=177.41	
	PT	2079+86.73								
	PC	2083+91.21								
	PI	2102+13.35		Δ=76°46'30"	D=2°29'28"	R=2300.00	T=1822.14	L=3081.95	Ext=634.32	
	PT	2114+73.16								
	PC	2129+01.50								
	PI	2135+48.01		Δ=46°37'58"	D=3°49'11"	R=1500.00	T=646.51	L=1220.84	Ext=133.39	
	PT	2141+22.34								

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HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG NO 3B-09

A98 OF A184

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DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

PLAN REF NO.	LOCATION	P.I./P.O.T. STATION	COORDINATES	All Coordinates Are Ground Coordinates And All Bearings Are Grid Bearings						C.A.F. = 1.00016
	Exst SR 202L									
	POB	3000+00.00								
	PC	3006+89.24								
	PI	3010+29.63		Δ=5°06'09"	D=0°45'00"	R=7639.44	T=340.39	L=680.33	Ext=7.58	
	PT	3013+69.57								
	PC	3038+87.15								
	PI	3053+17.82		Δ=34°40'08"	D=1°15'00"	R=4583.66	T=1430.67	L=2773.50	Ext=218.09	
	PT	3066+60.65								
	PC	3101+82.17								
	PI	3112+59.53		Δ=26°27'14"	D=1°15'00"	R=4583.66	T=1077.36	L=2116.30	Ext=124.91	
	PT	3122+98.47								
	PC	3126+87.71								
	PI	3141+72.28		Δ=35°53'34"	D=1°15'00"	R=4583.66	T=1484.58	L=2871.41	Ext=234.42	
	PT	3155+59.12								
	PC	3192+01.97								
	PI	3196+58.29		Δ=9°06'26"	D=1°00'00"	R=5729.58	T=456.32	L=910.71	Ext=18.14	
	PT	3201+12.68								
	PC	3283+14.62								
	PI	3293+38.27		Δ=25°10'41"	D=1°15'00"	R=4583.66	T=1023.65	L=2014.25	Ext=112.91	
	PT	3303+28.87								
	PC	3329+27.86								
	PI	3334+94.58		Δ=14°05'47"	D=1°15'00"	R=4583.66	T=566.71	L=1127.71	Ext=34.90	
	PT	3340+55.57								
	PC	3375+46.86								
	PI	3383+40.87		Δ=19°39'18"	D=1°15'00"	R=4583.66	T=794.01	L=1572.41	Ext=68.26	
	PT	3391+19.27								
	PC	3397+30.52								
	PI	3411+80.79		Δ=35°06'53"	D=1°15'00"	R=4583.66	T=1450.27	L=2809.19	Ext=223.96	
	PT	3425+39.71								
	POE	3448+77.73								

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

GEOMETRIC DATA SHEET

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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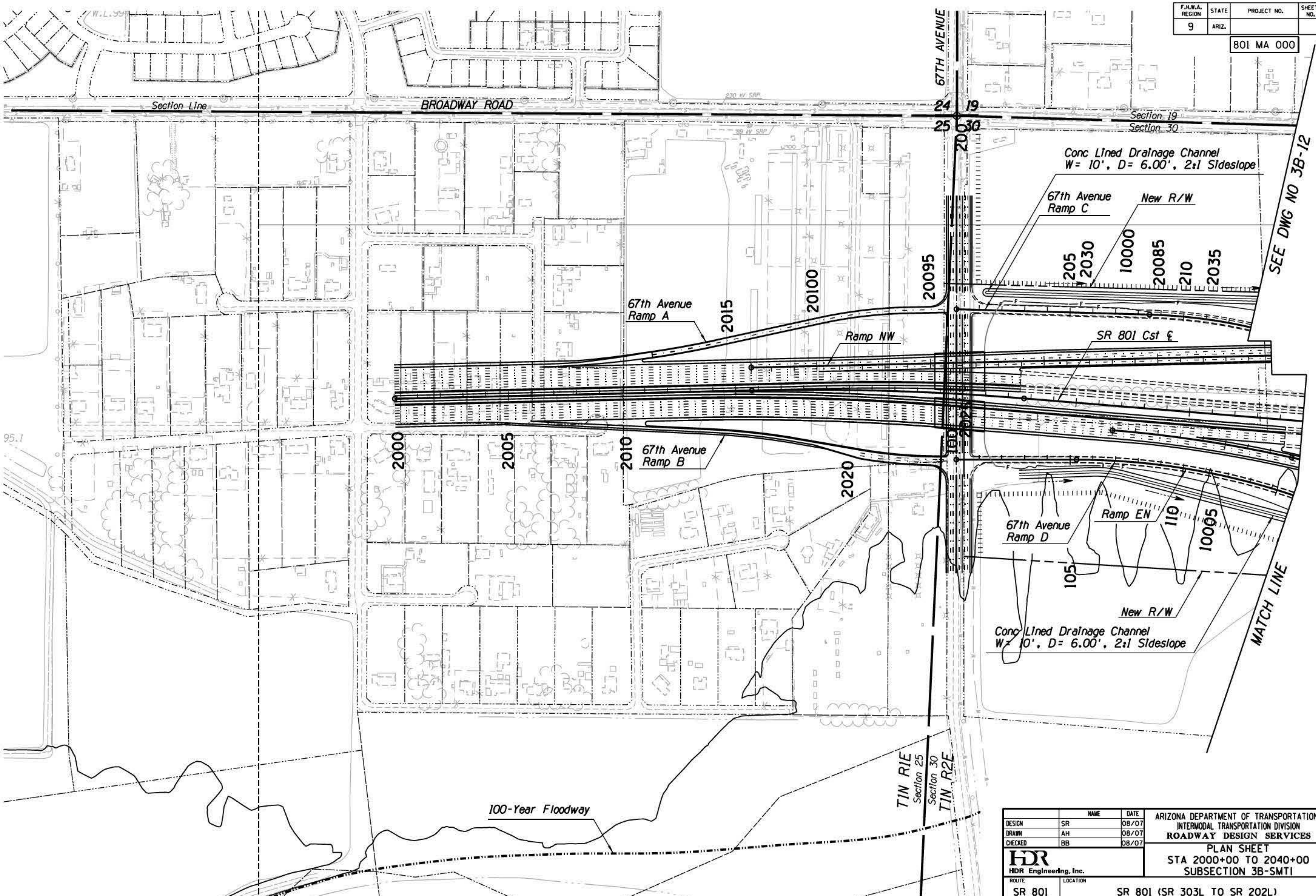
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-10

A99 OF A184

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
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HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 2000+00 TO 2040+00
SUBSECTION 3B-SMTI

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ROUTE: SR 801
LOCATION: SR 801 (SR 303L TO SR 202L)
DWG NO 3B-11
TRACS NO. H6876 01L

A100 OF A184

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

MATCH LINE

SEE DWG NO 3B-16

SEE DWG NO 3B-11

SEE DWG NO 3B-13

MATCH LINE

MATCH LINE

SEE DWG NO 3B-15

Broadway Road Ramp C

Broadway Road Ramp D

Broadway Road Ramp A

Broadway Road Ramp B

Exst SR 202L R/W

BROADWAY ROAD

Section 19
Section 30

Section Line

59TH AVENUE

Section 20
Section 29

Conc Lined Drainage Channel
W= 10', D= 6.00', 2:1 Sideslope

New R/W

Detention Basin

Ramp SW

Ramp NW

Ramp WN

Ramp EN

Ramp WS

Ramp SE

Ramp NE

Ramp ES

SR 801 Cst ℄

67th Avenue Ramp C

67th Avenue Ramp D

Conc Lined Drainage Channel
W= 10',
D= 3.50',
2:1 Sideslope

100-Year Floodway

S Frt Rd

Exst SR 202L

N

T1N R2E

Section 30
Section 29

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 2040+00 TO 2090+00
SUBSECTION 3B-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-12

TRACS NO. H6876 01L

A101 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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ccccSYSTIMEccccc ccccDGNcSPECIFICATIONcccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

SEE DWG NO 3B-12

MATCH LINE

Section Line

BROADWAY ROAD

Section 20
Section 29

Section Line

20 21
29 28

51ST AVENUE

Section 29
Section 28

Ramp WS

Ramp SE

SR 801 Cst ℄

100-Year Floodway

100-Year Floodway

W.L.969.3

W.L.972.9

30005
2095
2100
2105
2110
2115
2120
2125
2130
2135
2140
40105
40110
40115

N

T1N R2E

CALL TWO WORKING DAYS BEFORE YOU DIG
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1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 2090+00 TO 2141+22.34
SUBSECTION 3B-SMTI

ROUTE: SR 801
LOCATION: SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-13

A102 OF A184

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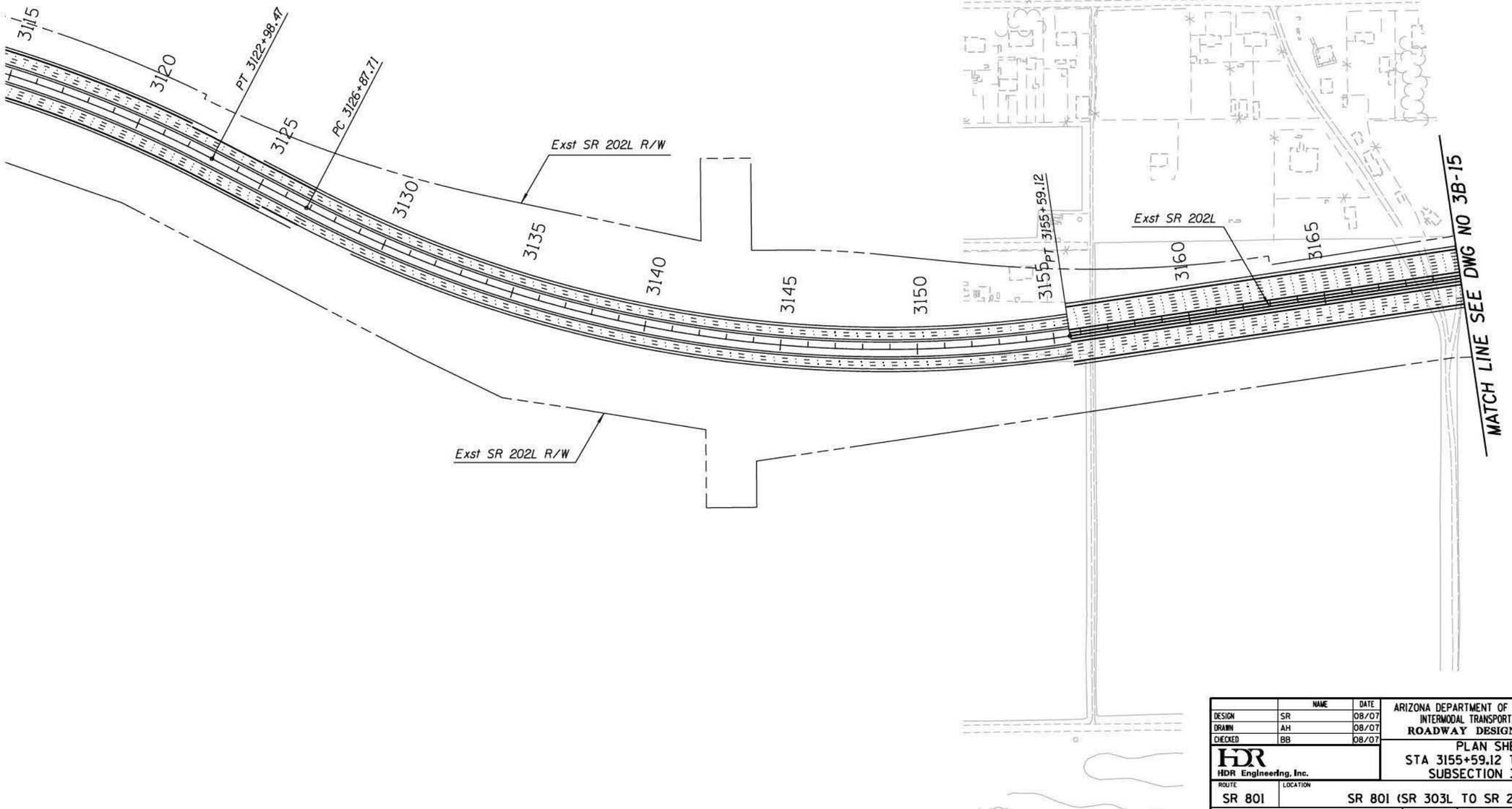
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

T1N R2E

N



CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 3155+59.12 TO 3170+00
SUBSECTION 3B-SMTI

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-14

TRACS NO. H6876 01L

A103 OF A184

SURVEY NO. | FINISHED PLANS- | LOCATION- | REVISIONS- | DATE- | SURVEY NO.

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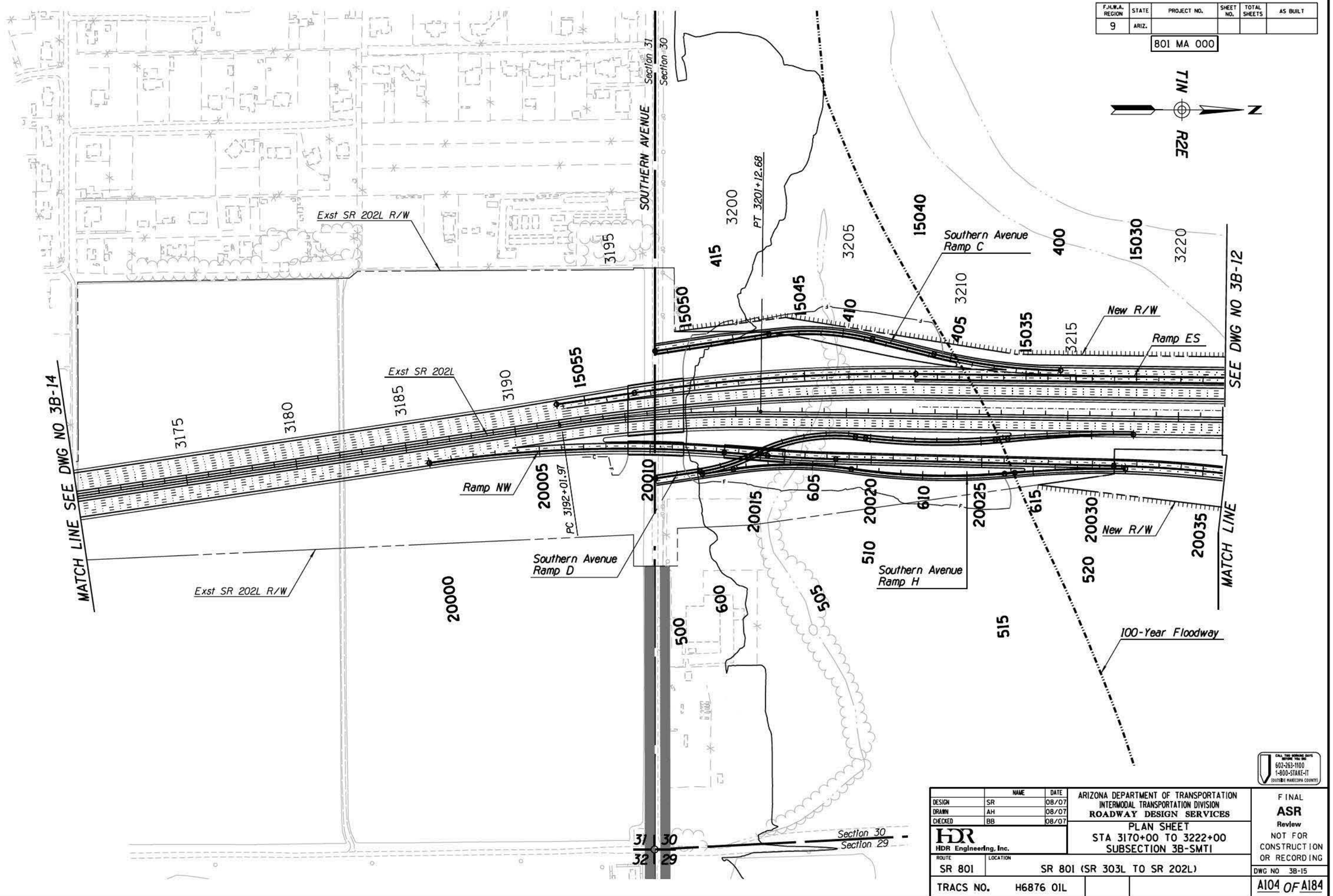
SURVEY NO.	FINISHED PLANS-	REVISIONS-	LOCATION-	DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 3170+00 TO 3222+00
SUBSECTION 3B-SMTI

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-15

TRACS NO. H6876 01L

A104 OF A184

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

T1N R2E

SEE DWG NO 3B-15

MATCH LINE

SEE DWG NO 3B-17

Broadway Road Ramp C

Broadway Road Ramp D

SR 202L

Ramp SE

New R/W

Lower Buckeye Road Ramp E

Lower Buckeye Road Ramp A

Ramp EN

Lower Buckeye Road Ramp F

Lower Buckeye Road Ramp B

Exst SR 202L R/W

LOWER BUCKEYE ROAD Section Line

59TH AVENUE Section Line

Section 19 Section 20

Section 19 Section 18

20 17

PC 3283+14.62

PT 3303+28.87

3265 3270 3275 3280 3285 3290 3295 3300 3305 3310 3315

40055 1005 10060 1015 1010 40050 40045 1000 40040 40035 1325 40030 1420 1320 1105 1415 40025 1315 1110 1410 40020 1310 40015 1115 1405 1305 1300 40010 1400

10050 1005 910 10055 915 10065 10070 1205 10080 1210 1200 1100 10075 1215 1120 1220 10095 10085 10090 10100 40005 40000

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 3222+00 TO 3317+00
SUBSECTION 3B-SMTI

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
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DWG NO 3B-16

A105 OF A184

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602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

DATE- | LOCATION- | REVISIONS- | FINISHED PLANS- | SURVEY NO.

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9	ARIZ.				

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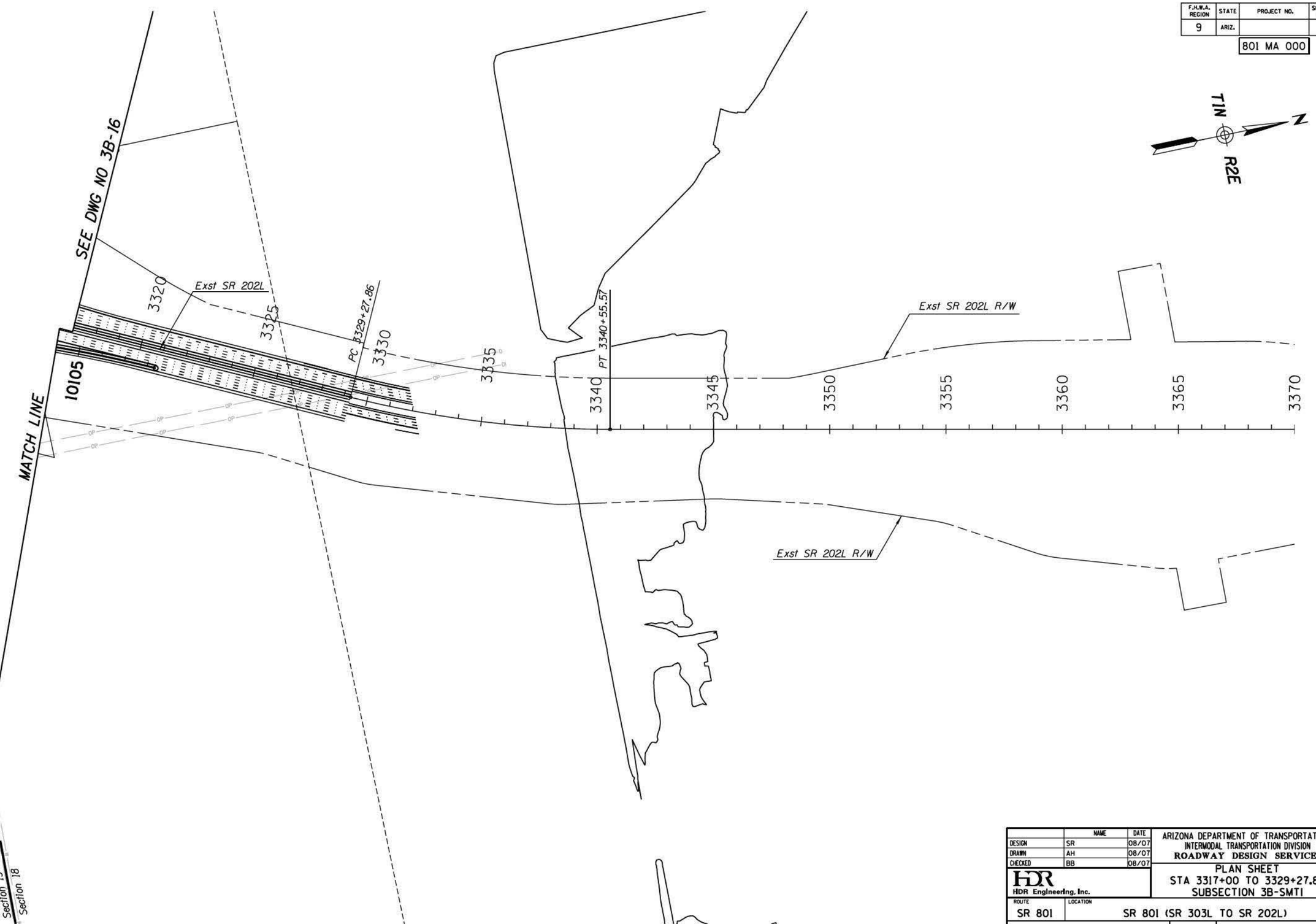

CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	AH	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

PLAN SHEET
STA 3317+00 TO 3329+27.86
SUBSECTION 3B-SMTI

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-17

TRACS NO. H6876 01L

A106 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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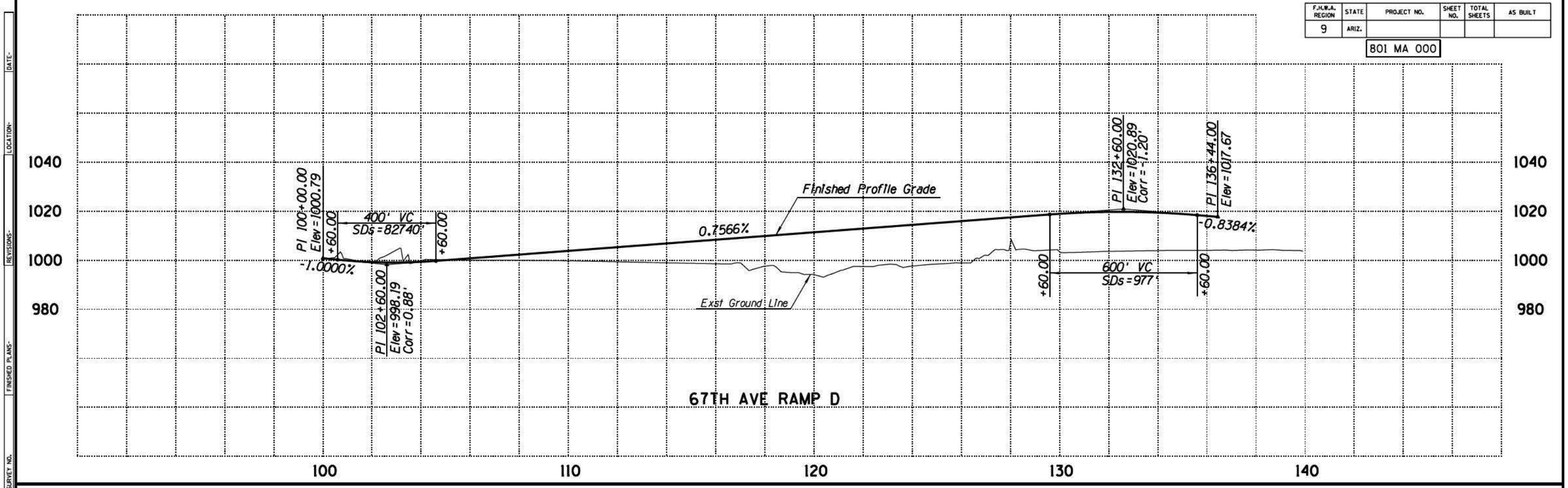
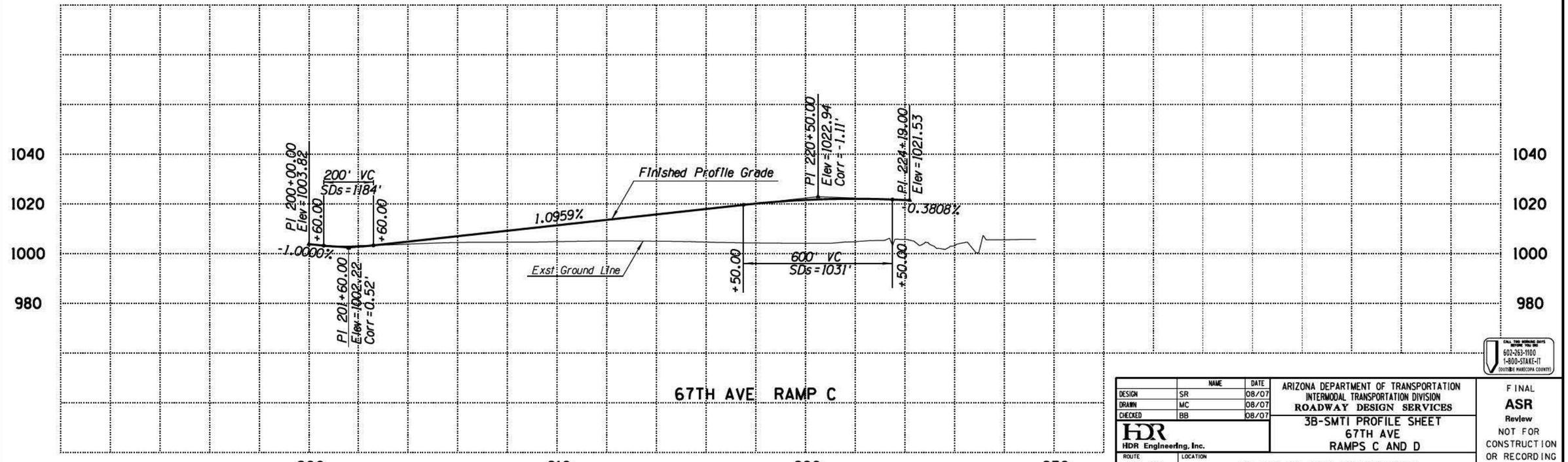
9	ARIZ.				

801 MA 000



67TH AVE RAMP D



67TH AVE RAMP C

602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
67TH AVE
RAMPS C AND D

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION	DWG NO 3B-18
SR 801	SR 801 (SR 303L TO SR 202L)	

TRACS NO. H6876 01L

A107 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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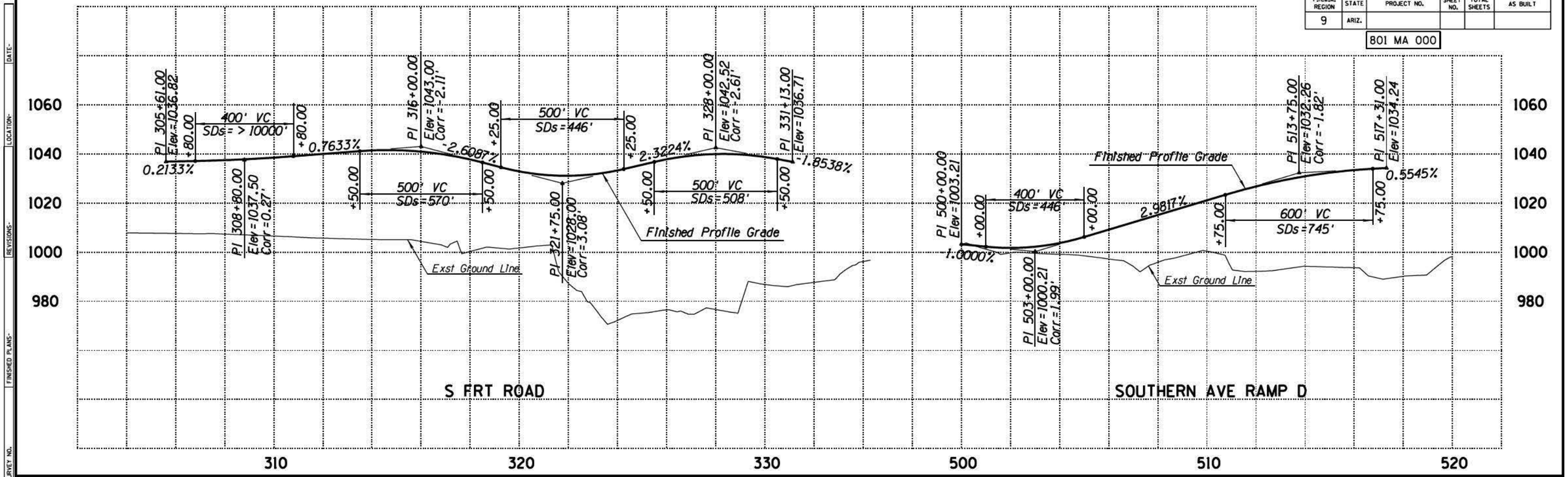
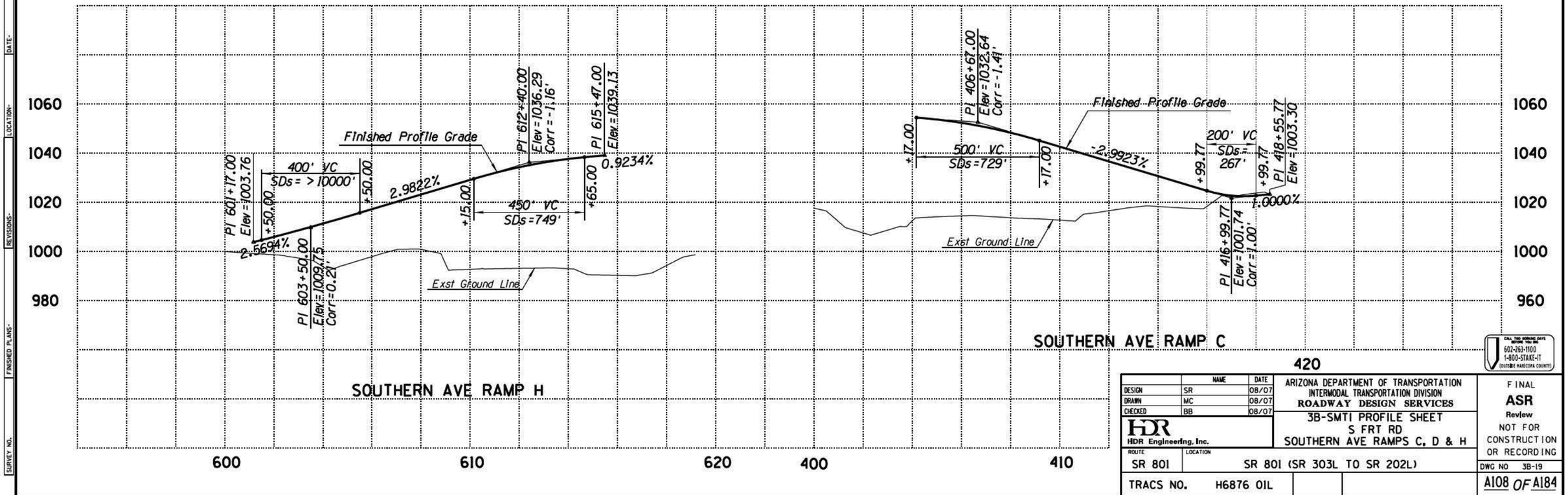
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

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INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
S FRT RD
SOUTHERN AVE RAMPS C, D & H

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG NO 3B-19

A108 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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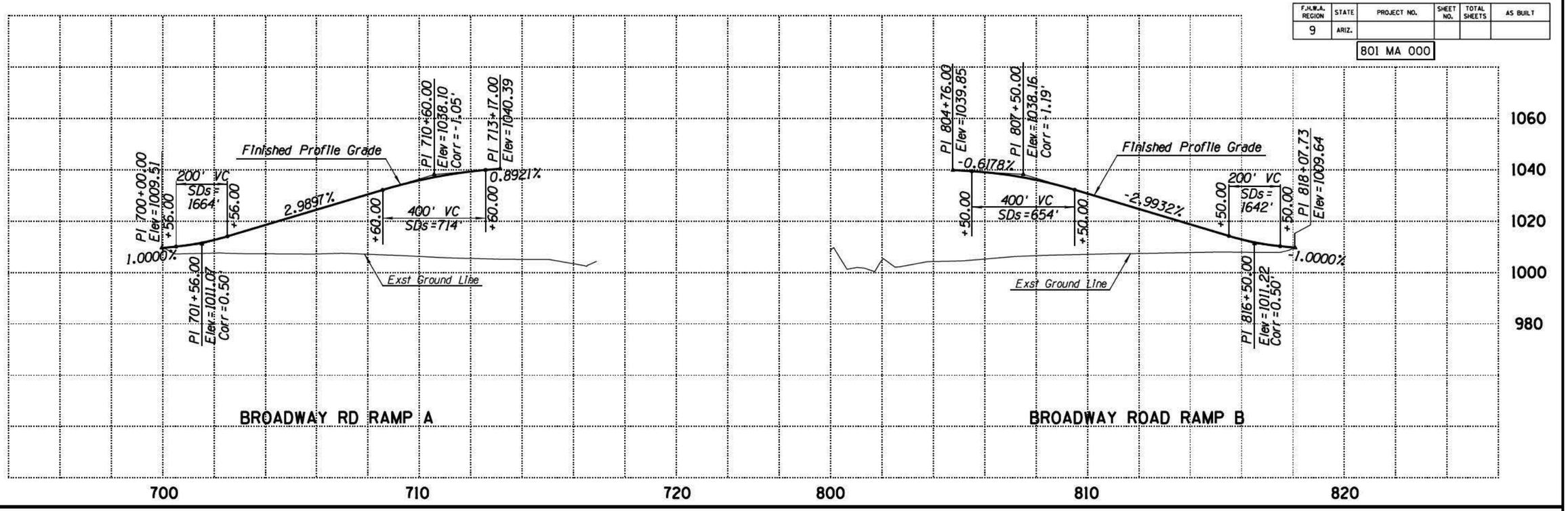
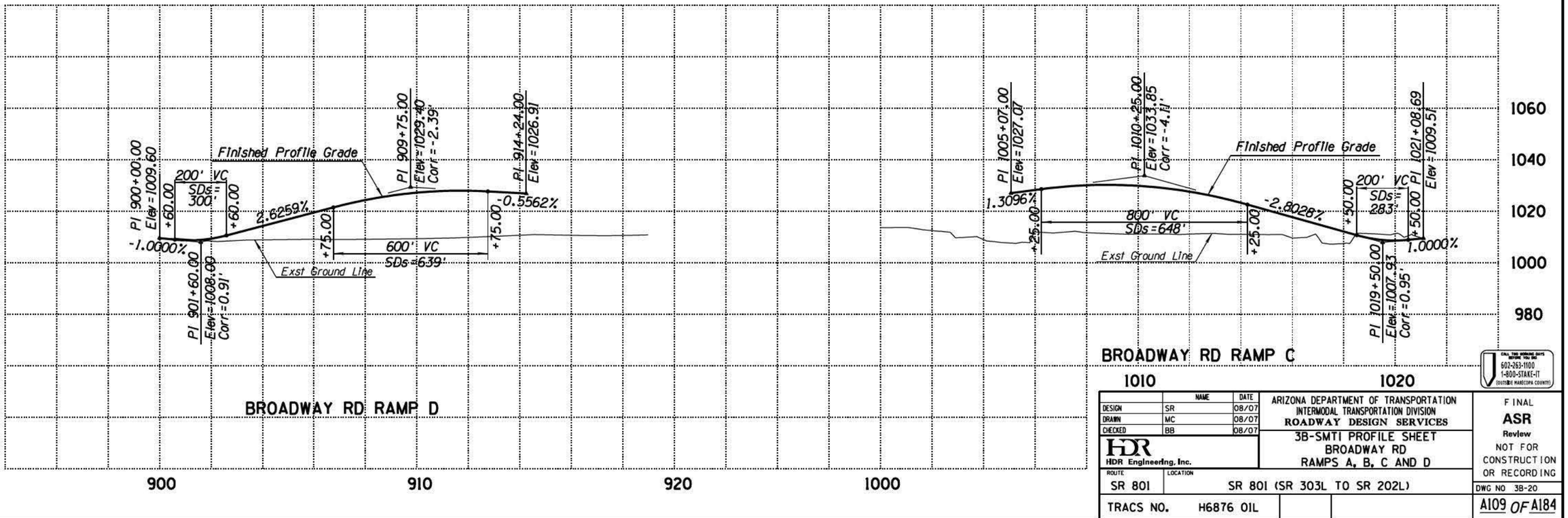
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
BROADWAY RD
RAMPS A, B, C AND D

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-20

TRACS NO. H6876 01L

A109 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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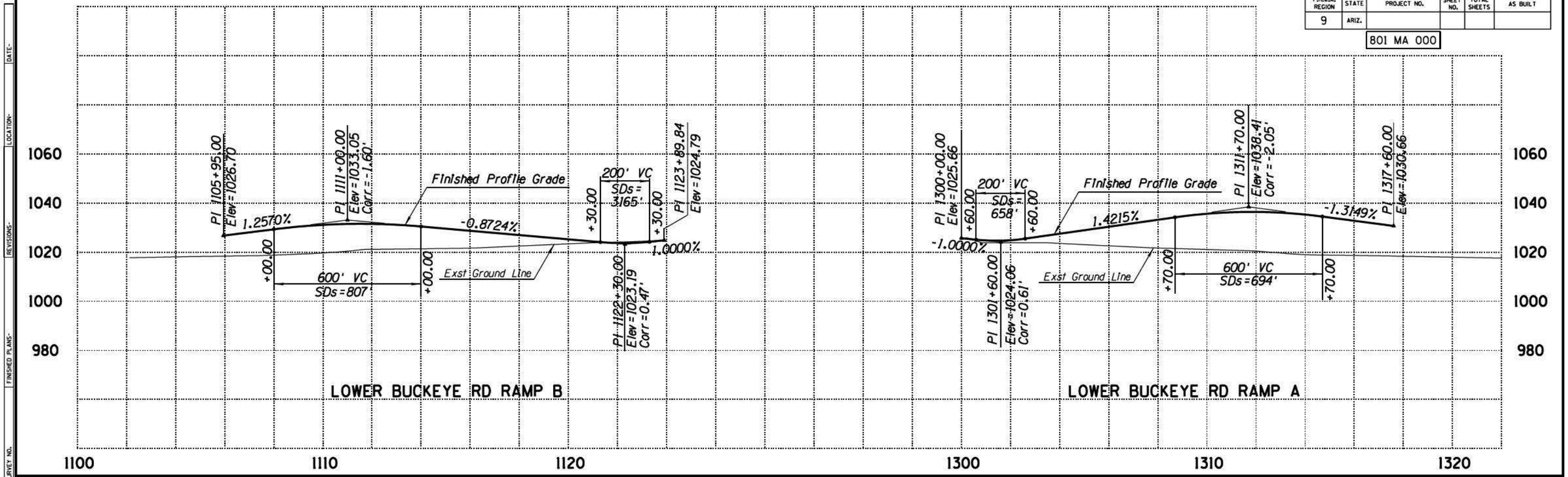
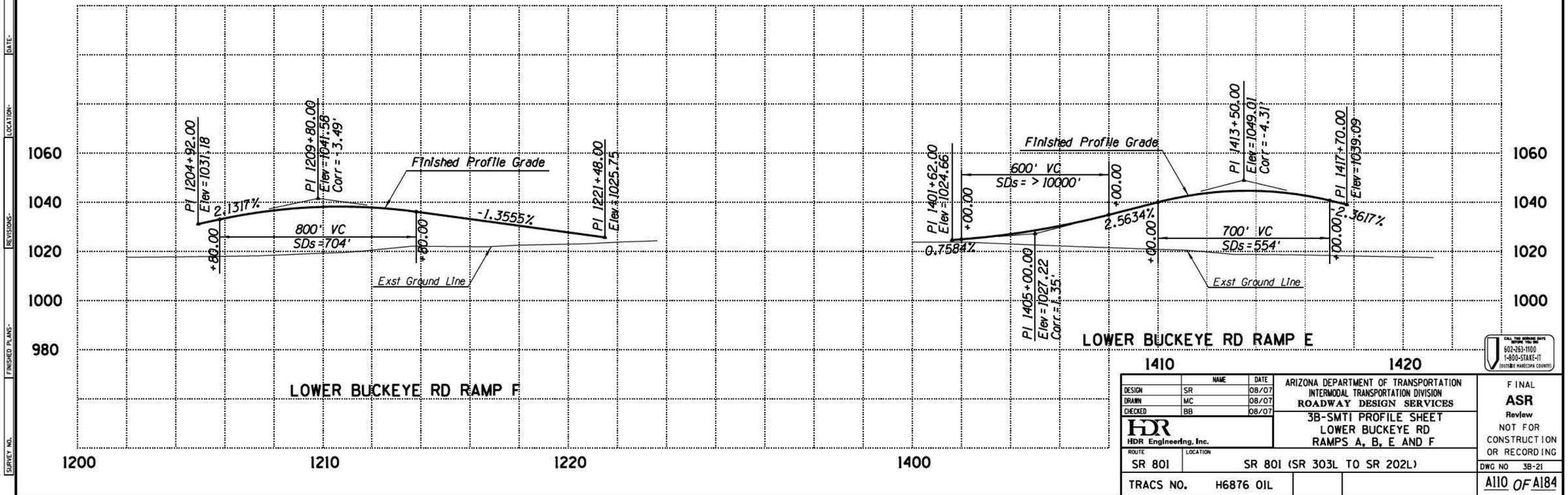
9	ARIZ.				

801 MA 000





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(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
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ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
LOWER BUCKEYE RD
RAMPS A, B, E AND F

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG NO 3B-21

A110 OF A184

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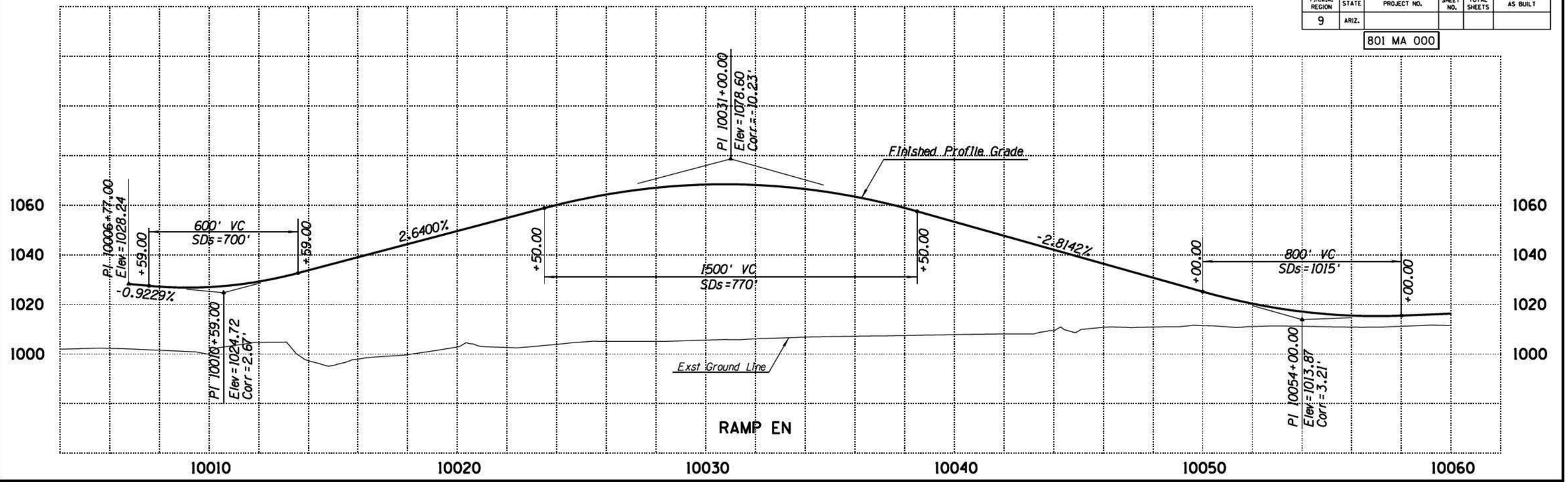
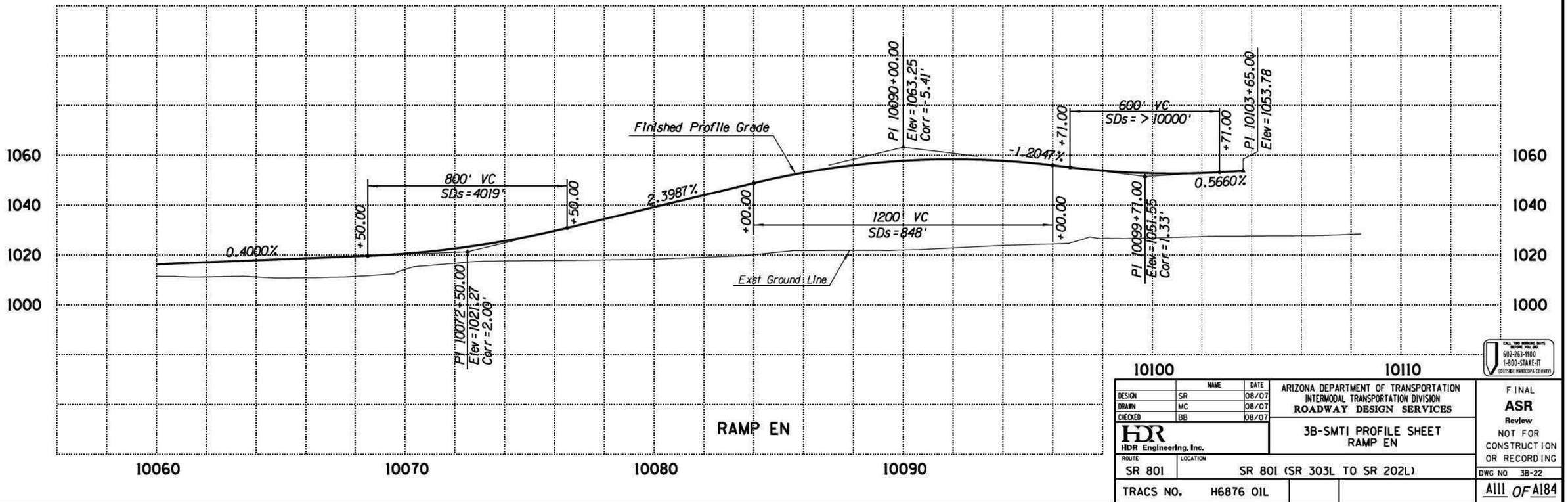
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

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ARIZONA DEPARTMENT OF TRANSPORTATION
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ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP EN

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ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-22

TRACS NO. H6876 01L

A111 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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9	ARIZ.				

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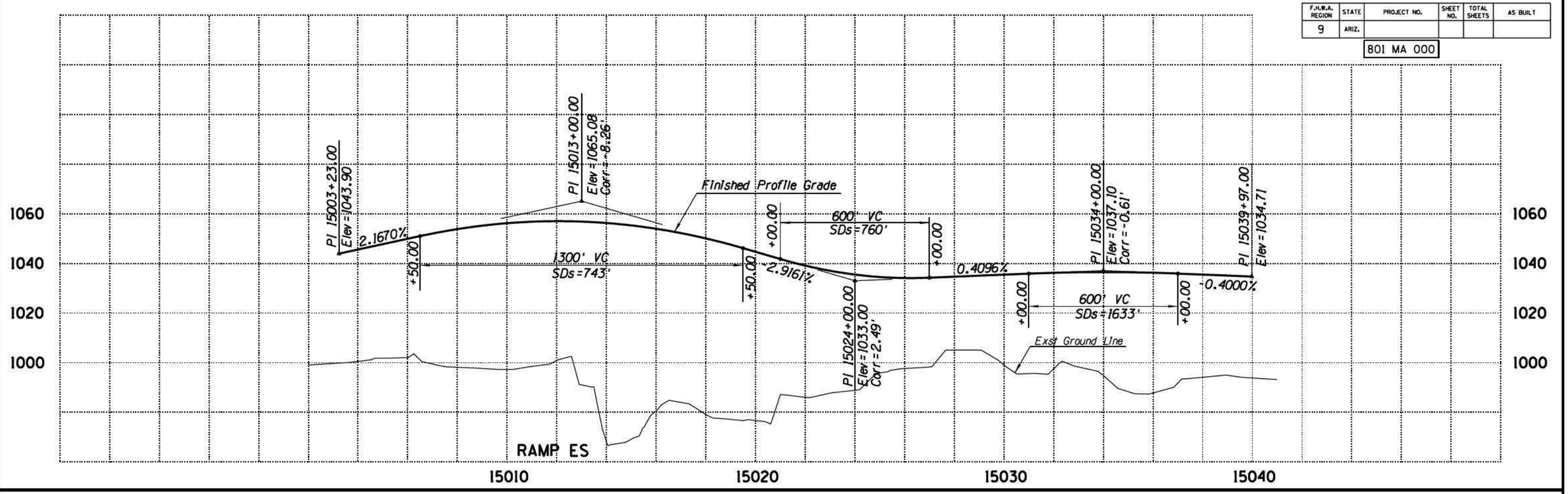

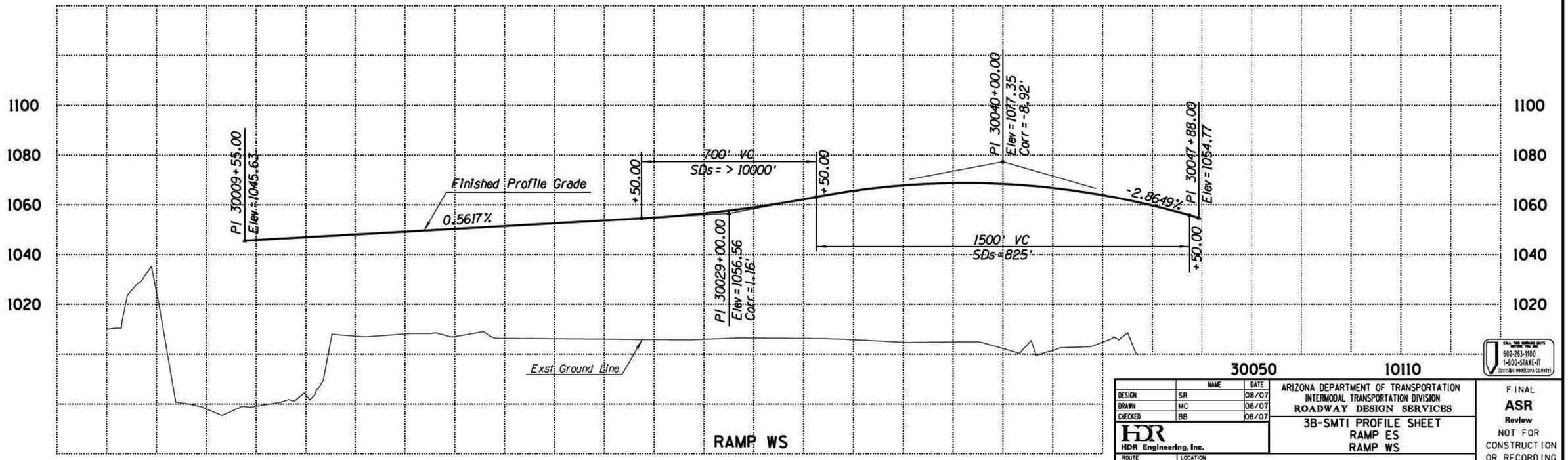

602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

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ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP ES
RAMP WS

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ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-23

TRACS NO. H6876 01L

A112 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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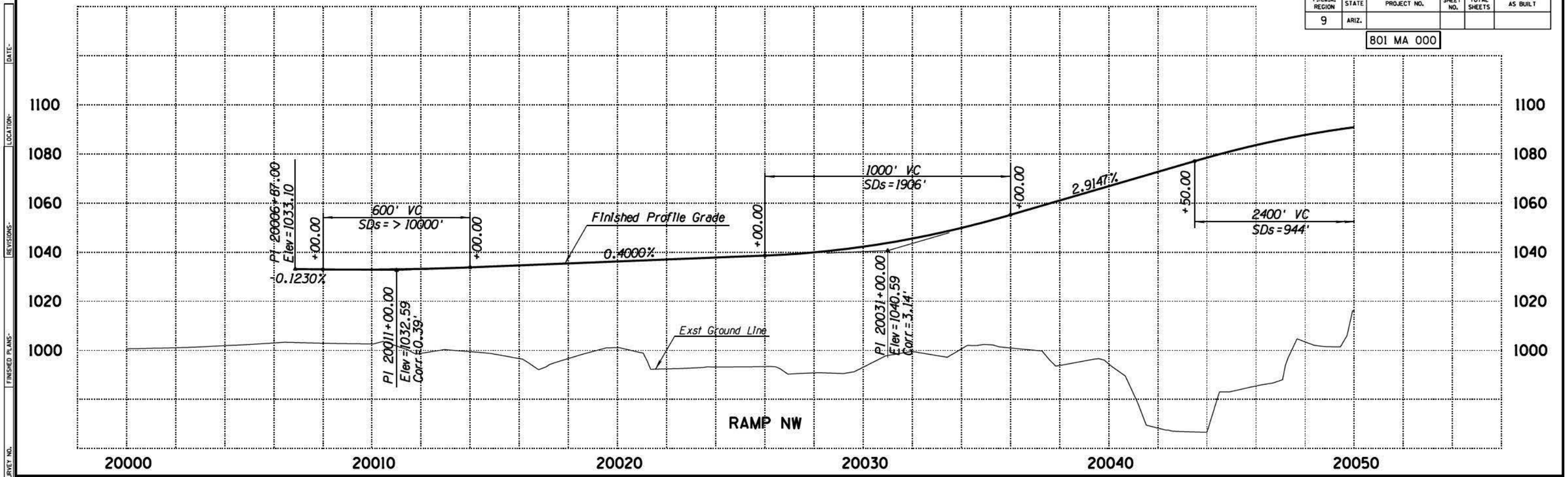
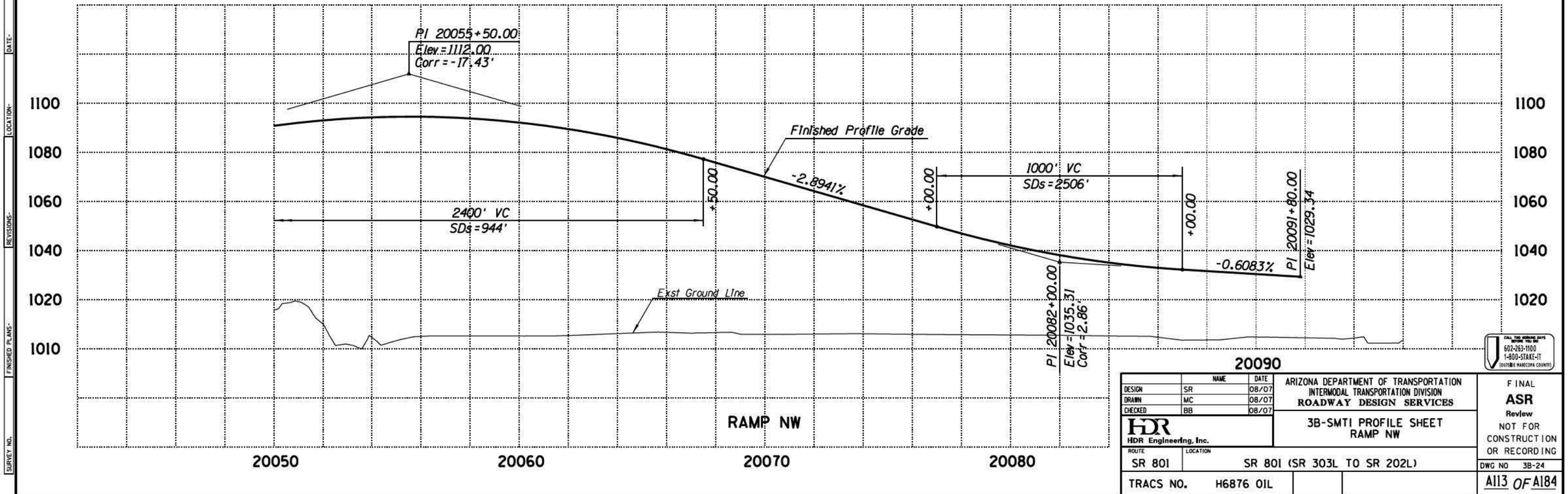
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP NW

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ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-24

TRACS NO. H6876 01L

A113 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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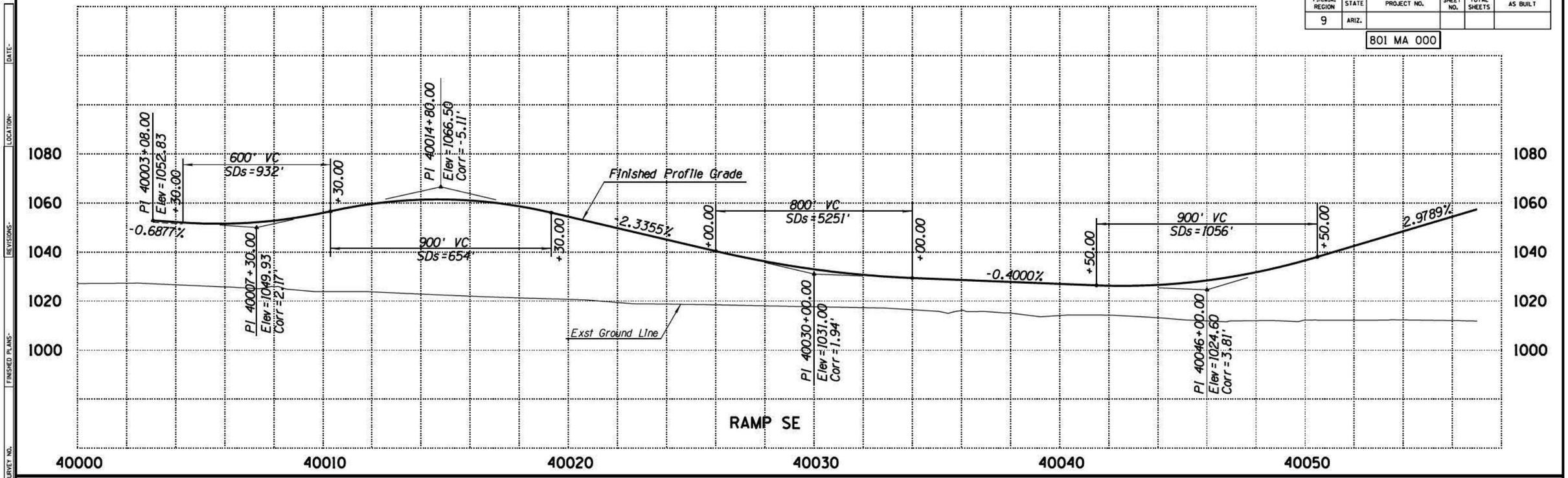
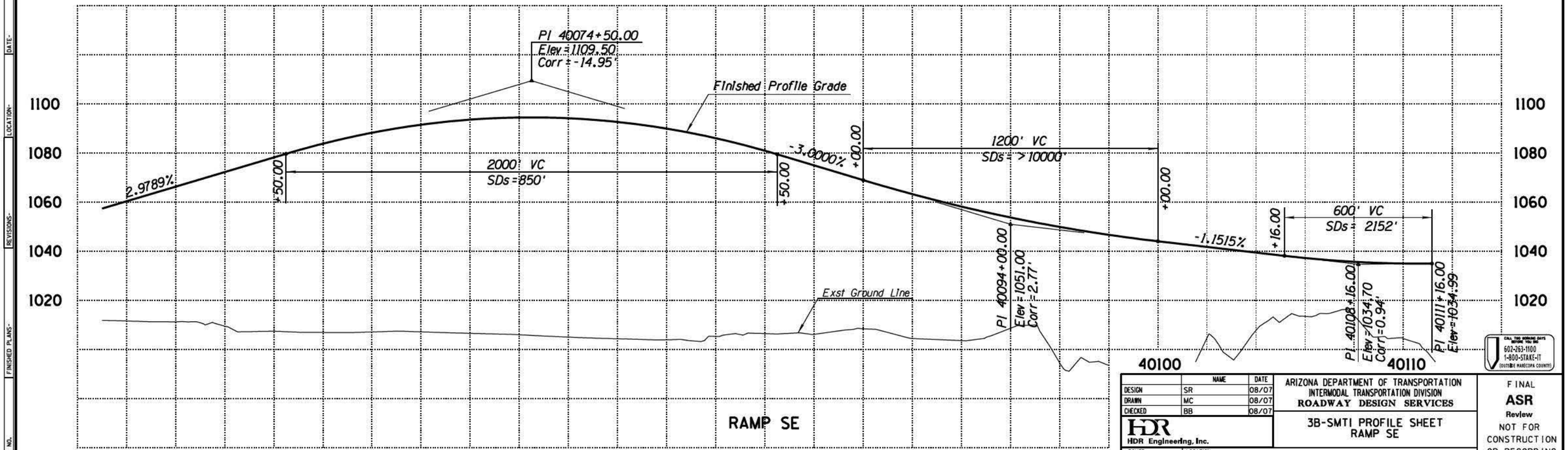
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

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INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP SE

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ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-25

TRACS NO. H6876 01L

A114 OF A184

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ahoffman 8/16/2007 9:02:51 AM

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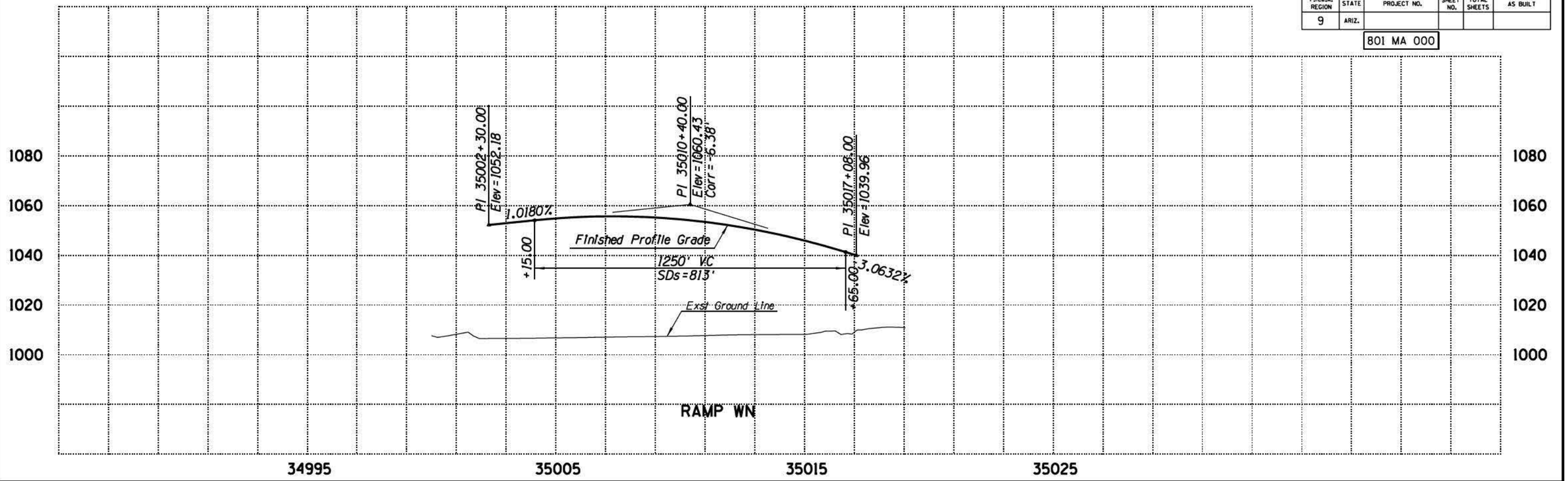
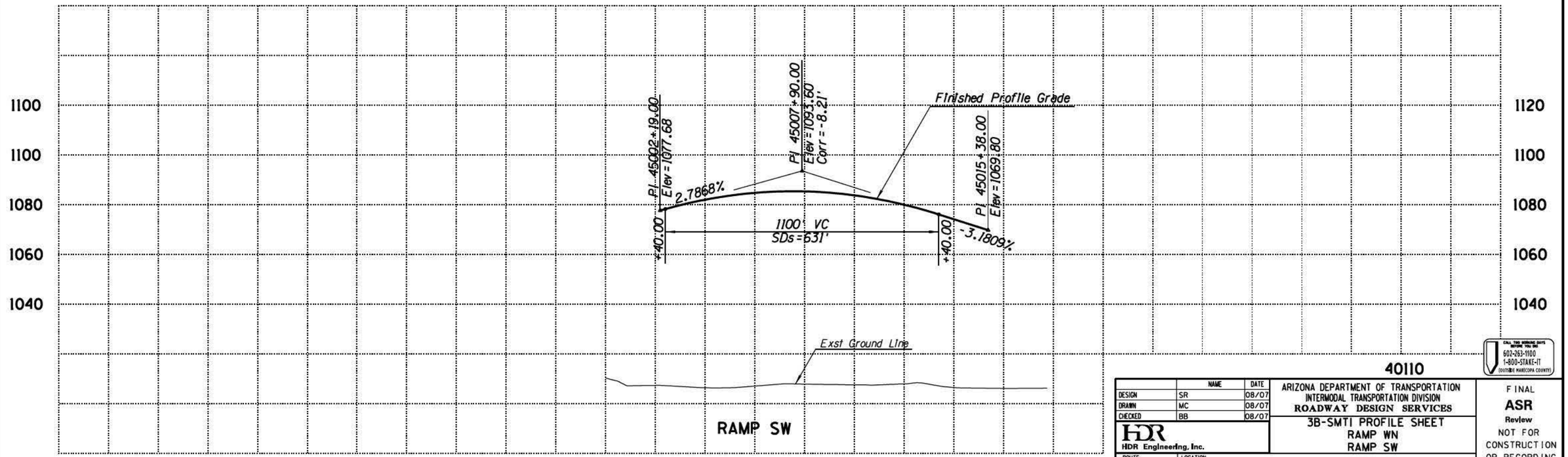
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP WN
RAMP SW

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-26

TRACS NO. H6876 01L

A115 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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ahoffman 8/16/2007 9:02:53 AM

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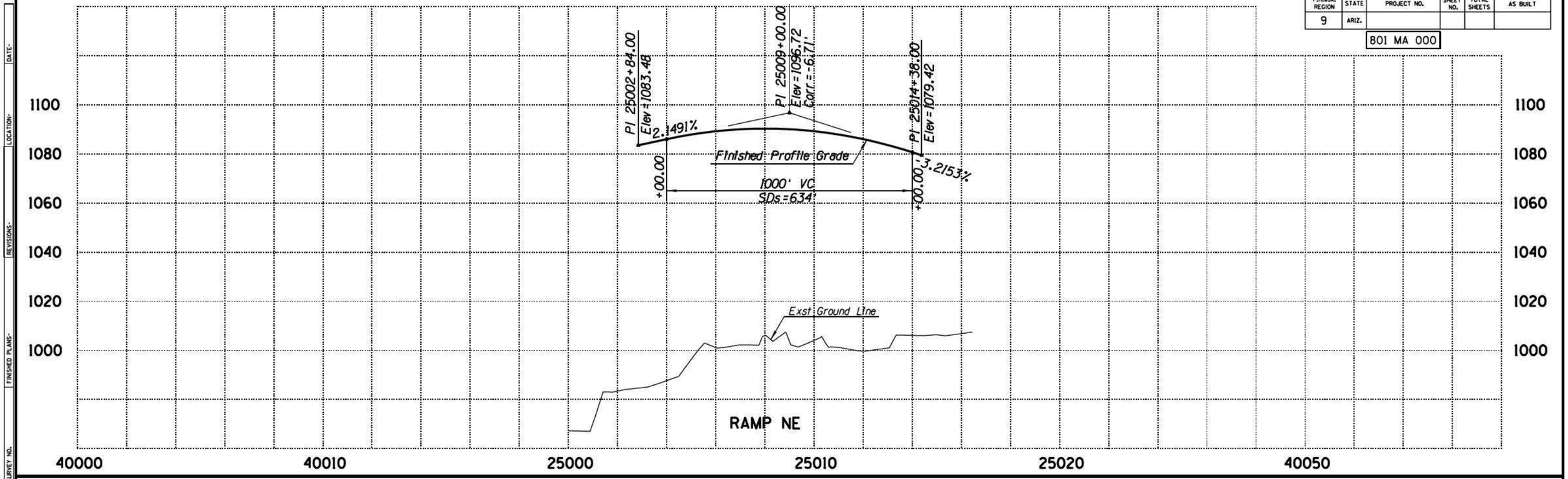
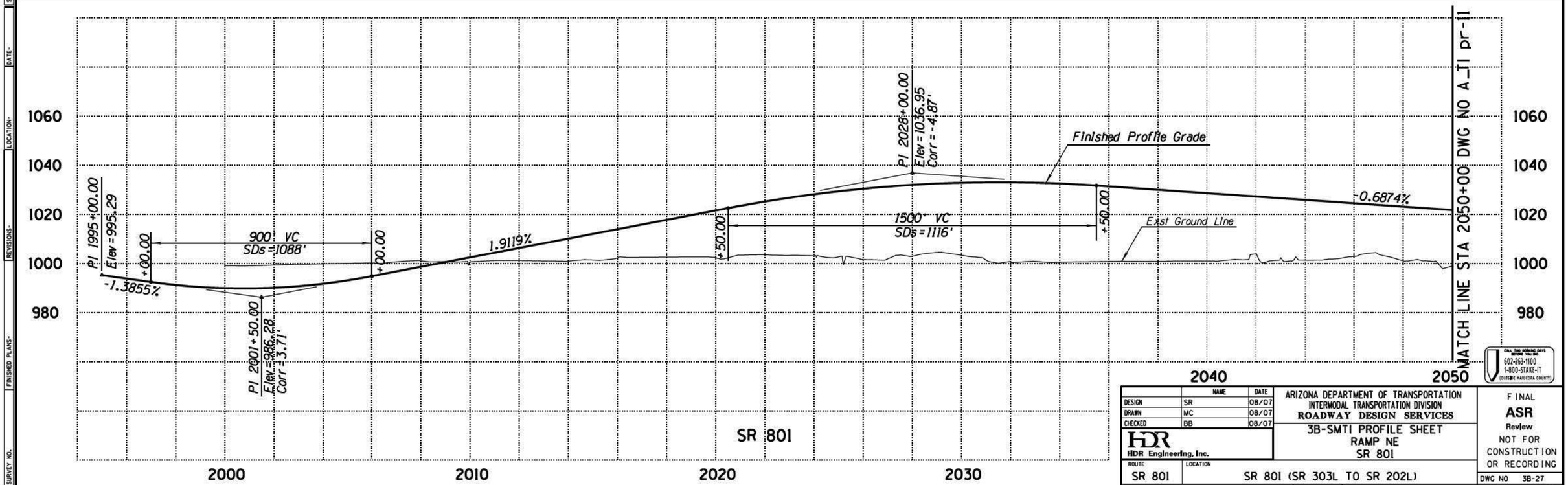
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
RAMP NE
SR 801

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ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-27

TRACS NO. H6876 01L

A116 OF A184

602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

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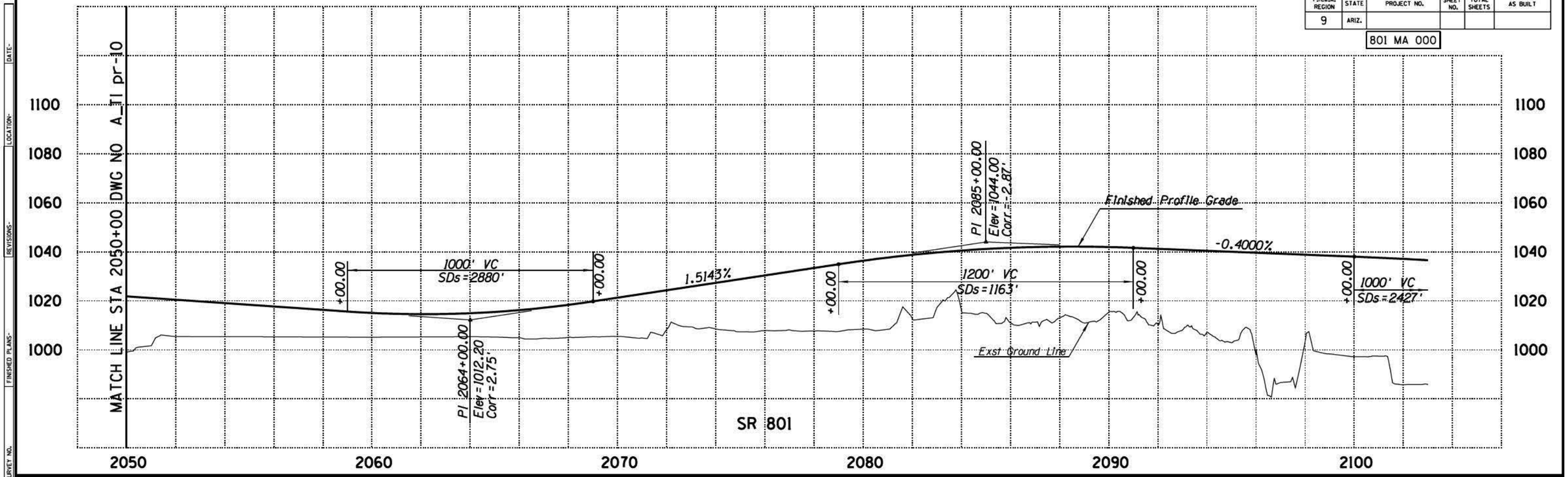
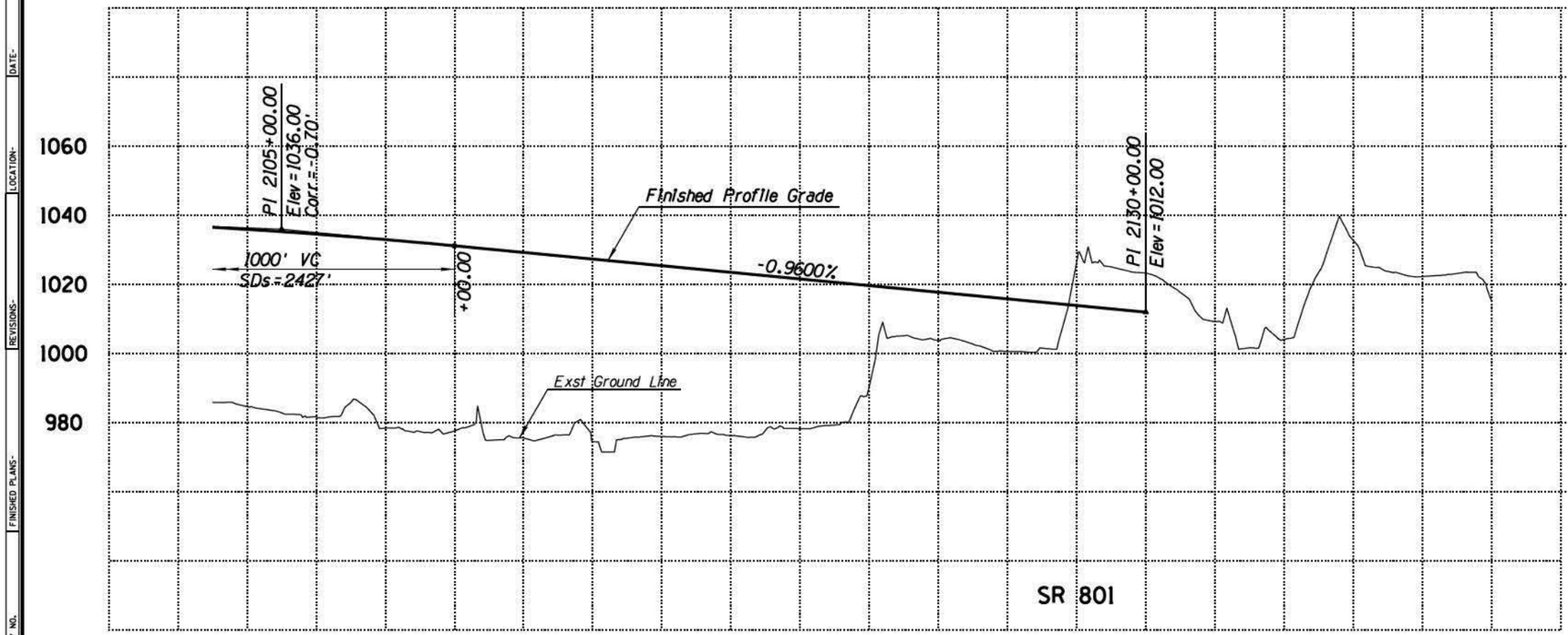
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
SR 801

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ROUTE	LOCATION	DWG NO 3B-28
SR 801	SR 801 (SR 303L TO SR 202L)	
TRACS NO. H6876 01L		A117 OF A184

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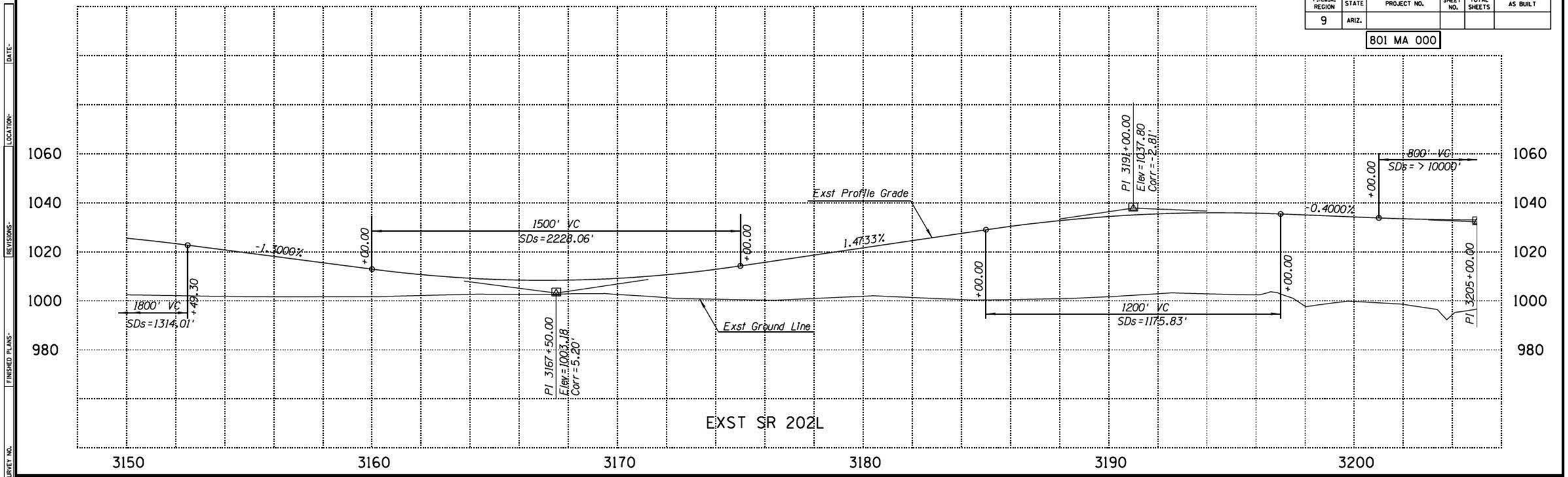
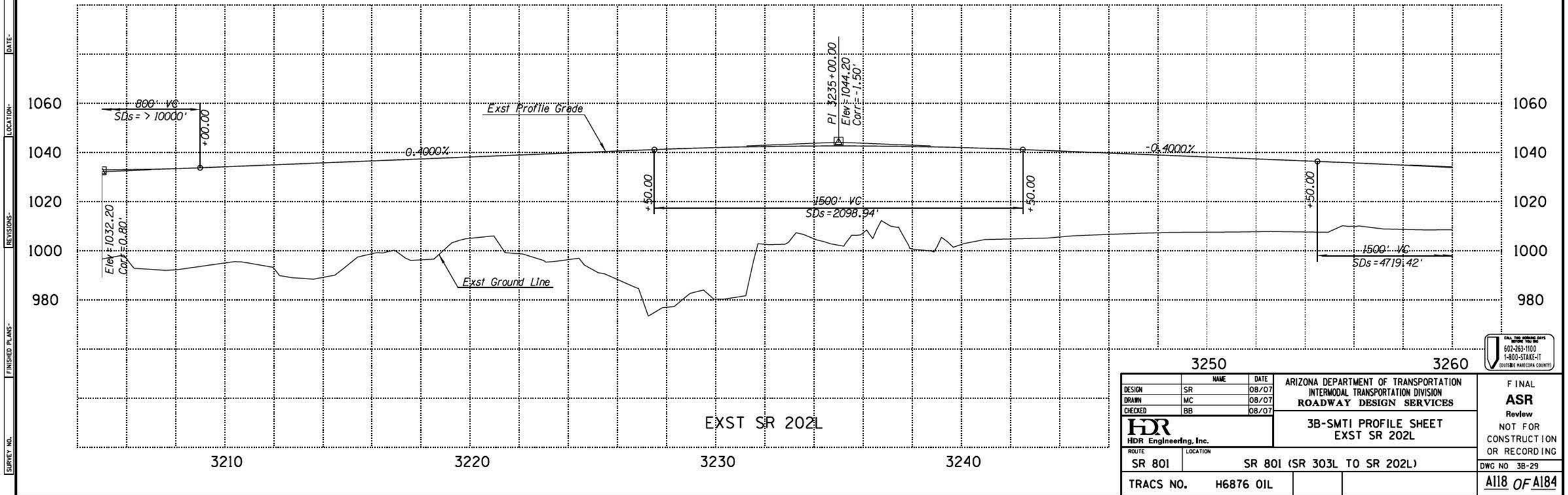
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
EXST SR 202L

FINAL
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NOT FOR CONSTRUCTION OR RECORDING

ROUTE	LOCATION
SR 801	SR 801 (SR 303L TO SR 202L)

DWG NO 3B-29

TRACS NO. H6876 01L

A118 OF A184

DATE- LOCATION- REVISIONS- FINISHED PLANS- SURVEY NO.

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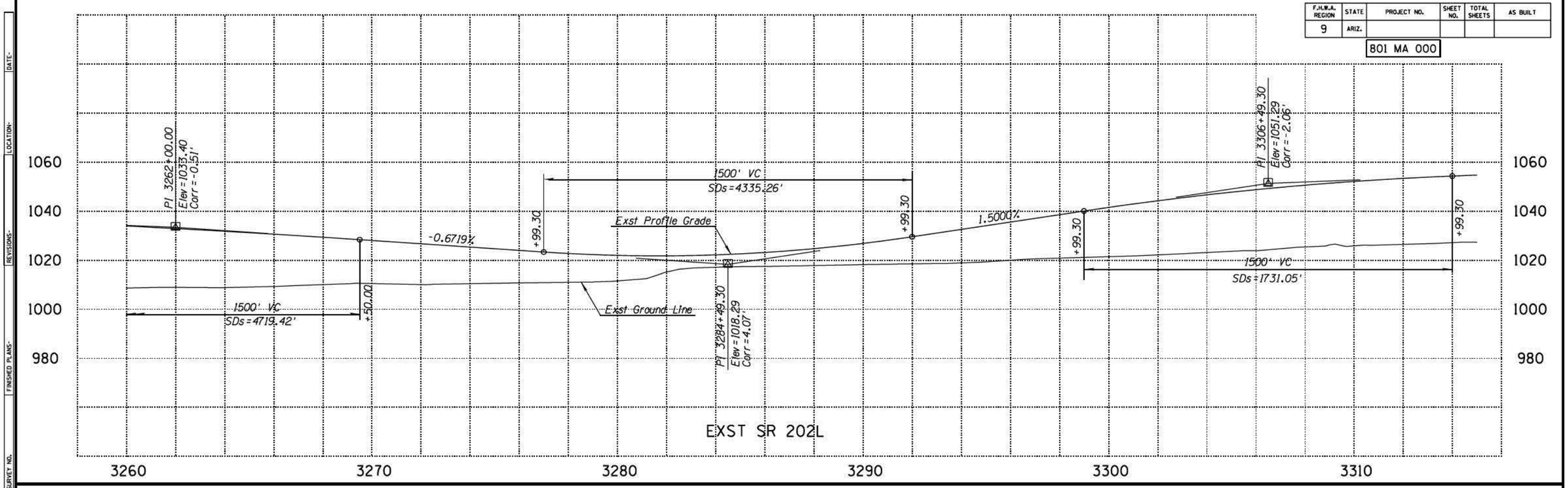
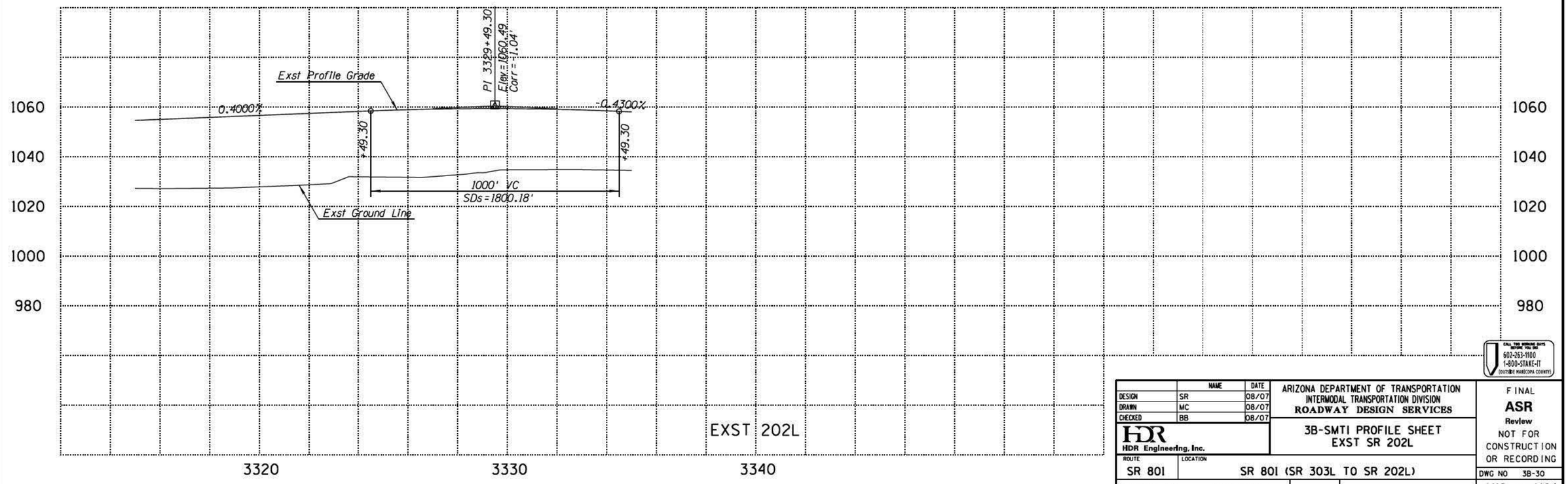
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONcccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

	NAME	DATE
DESIGN	SR	08/07
DRAWN	MC	08/07
CHECKED	BB	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
ROADWAY DESIGN SERVICES

3B-SMTI PROFILE SHEET
EXST SR 202L

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ROUTE	LOCATION	DWG NO
SR 801	SR 801 (SR 303L TO SR 202L)	3B-30

TRACS NO. H6876 01L

A119 OF A184

DATE- | LOCATION- | REVISIONS- | FINISHED PLANS- | SURVEY NO.

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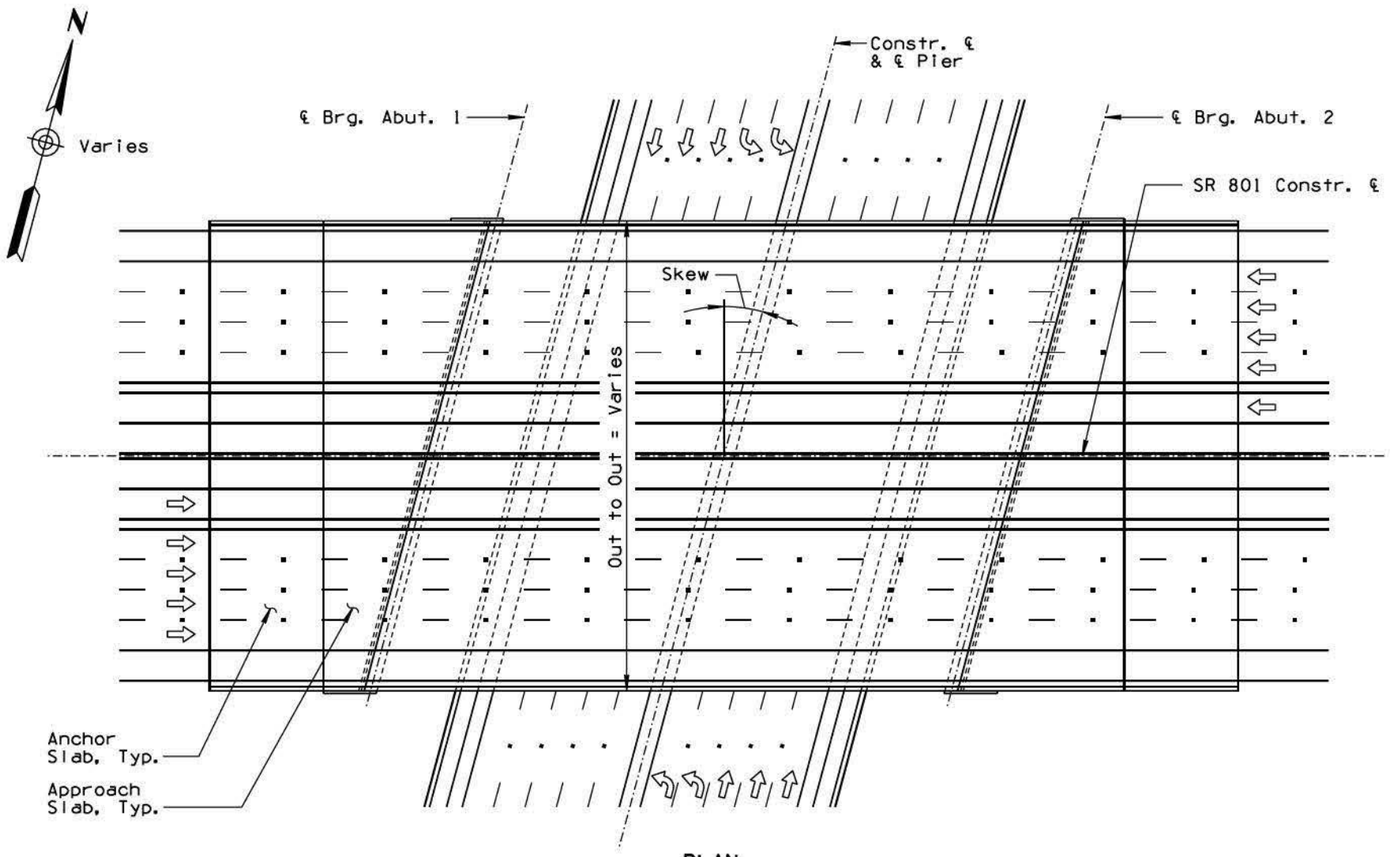
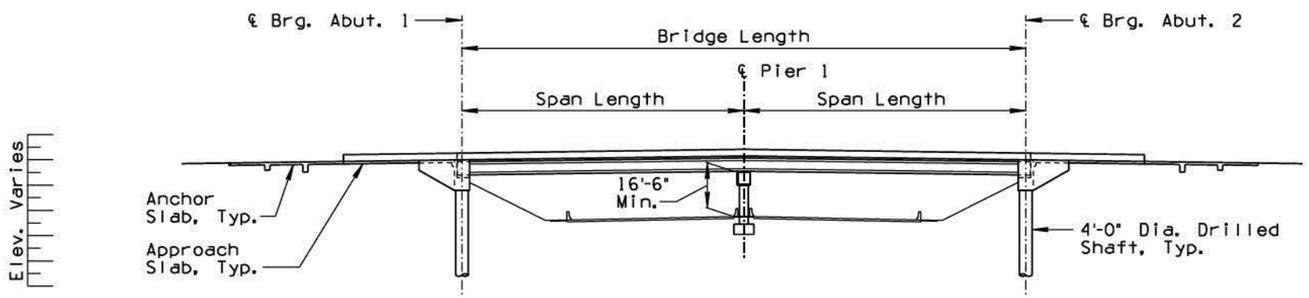
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Cotton Lane	6°Rt.	5	119	238	178	42364
Buckeye Canal	35°Lt.	5	119	238	178	42364
Sarival Avenue	24°Rt.	5	119	238	178	42364



ELEVATION
Scale: 1"=30'

OVERPASS CROSSINGS SUBSECTION 1B

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 1B

FINAL
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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. S-01

TRACS NO. H6876 01L

A120 OF A184

DATE: 8/16/2007 9:02:59 AM

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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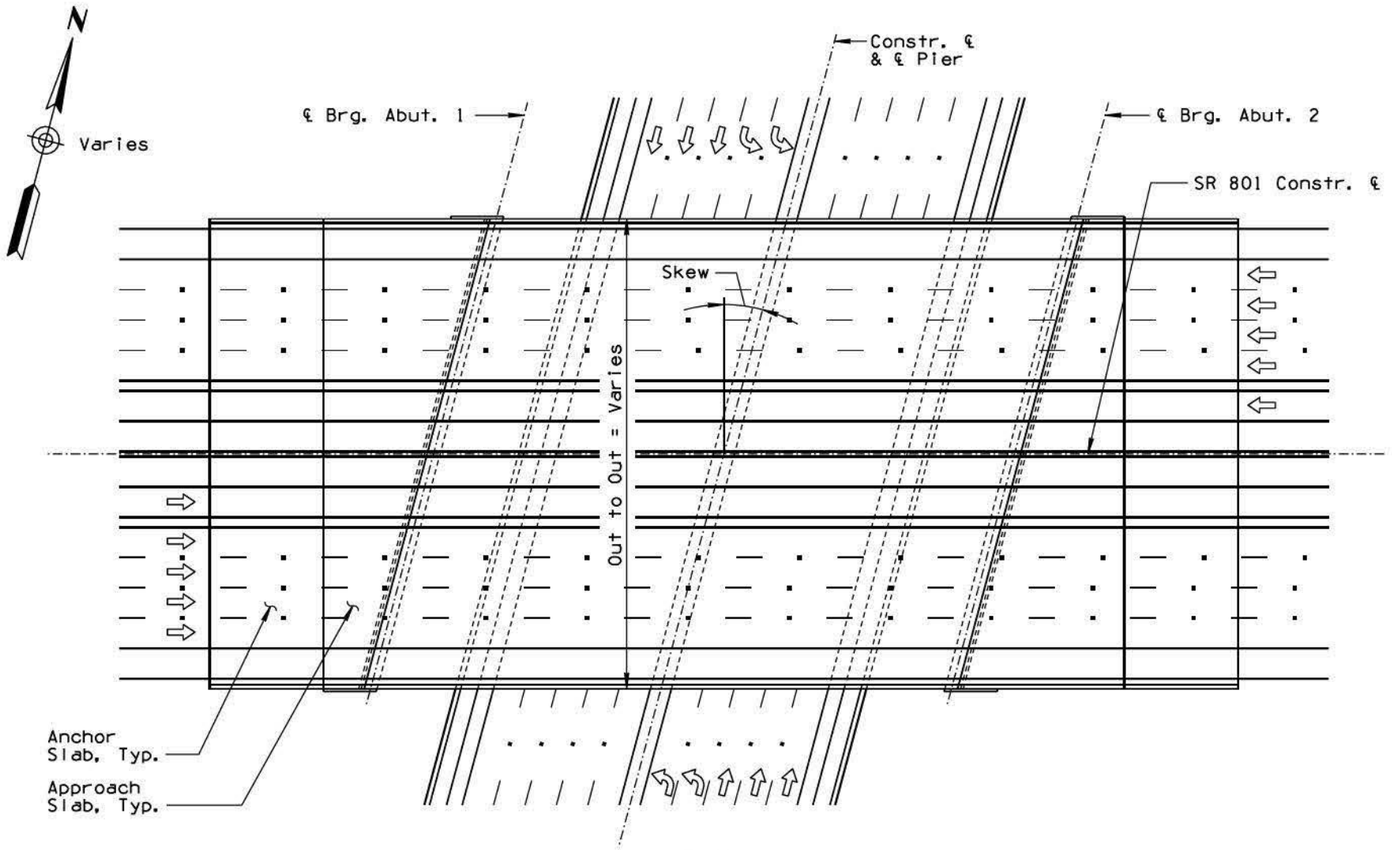
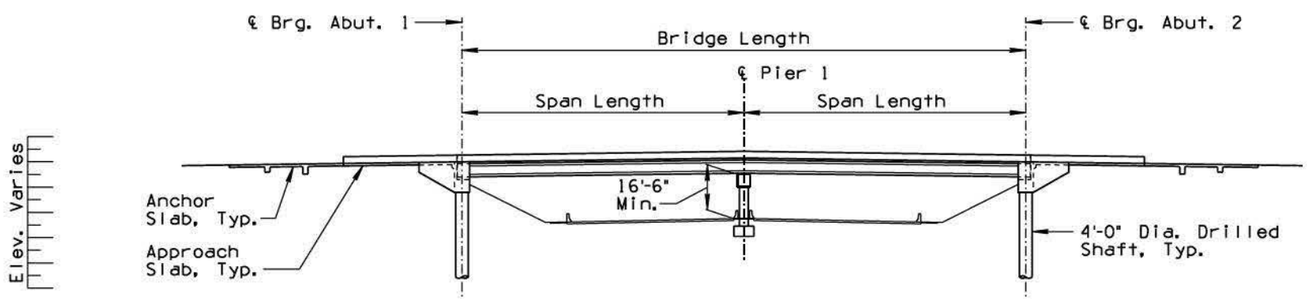
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1" = 30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	1°Rt.	4.75	115	230	182	41860
Bullard Avenue	1°Rt.	4.75	115	230	182	41860
Dysart Road	2°Lt.	4.75	115	230	182	41860
El Mirage Road	2°Lt.	4.75	115	230	182	41860
115th Avenue	5°Rt.	4.75	115	230	182	41860
107th Avenue	1°Rt.	4.75	115	230	182	41860
99th Avenue	1°Rt.	4.75	115	230	182	41860

OVERPASS CROSSINGS SUBSECTION 2A1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2A1

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

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Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-02

A121 OF A184

DATE: 8/16/2007 9:03:00 AM

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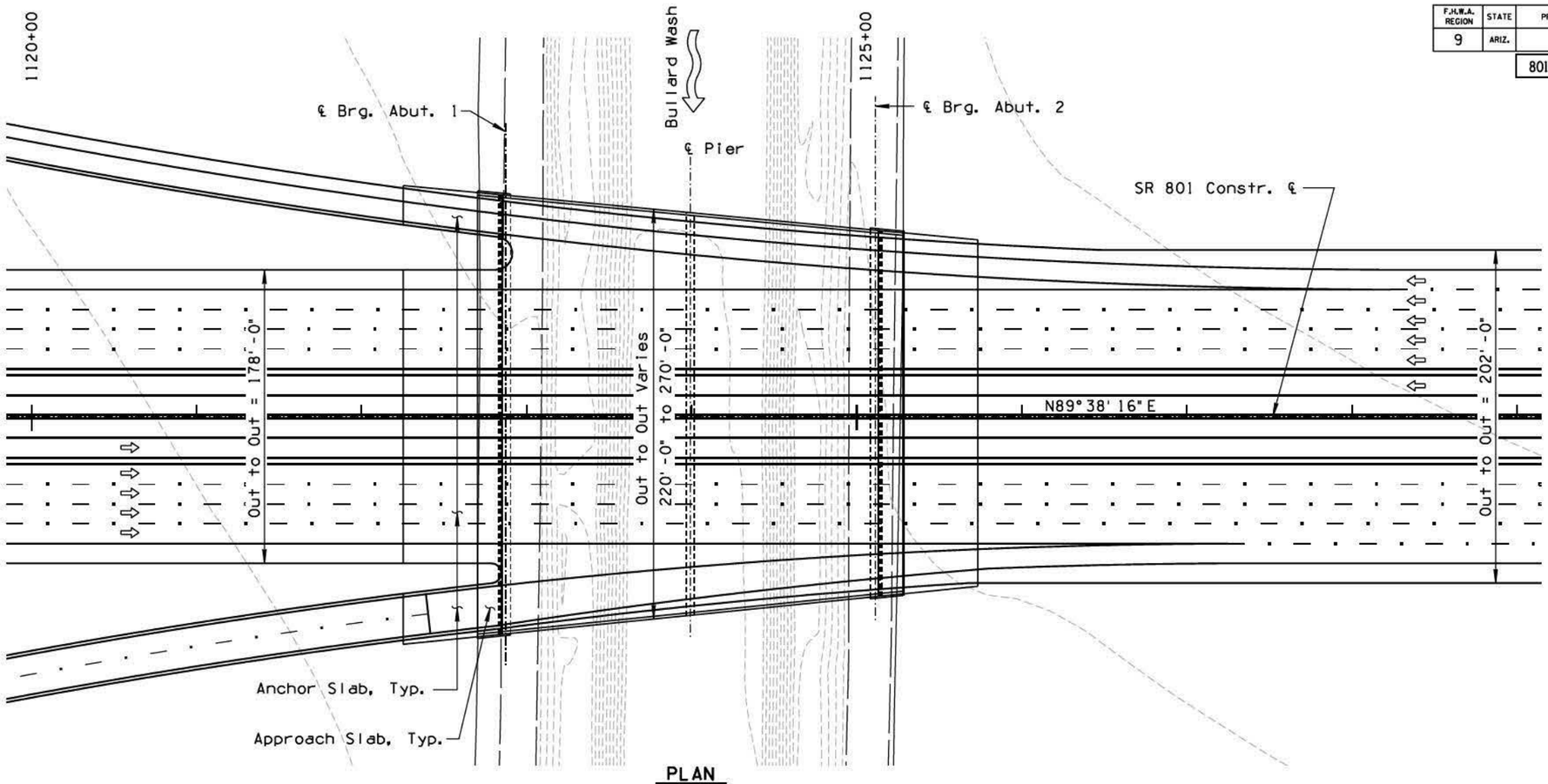
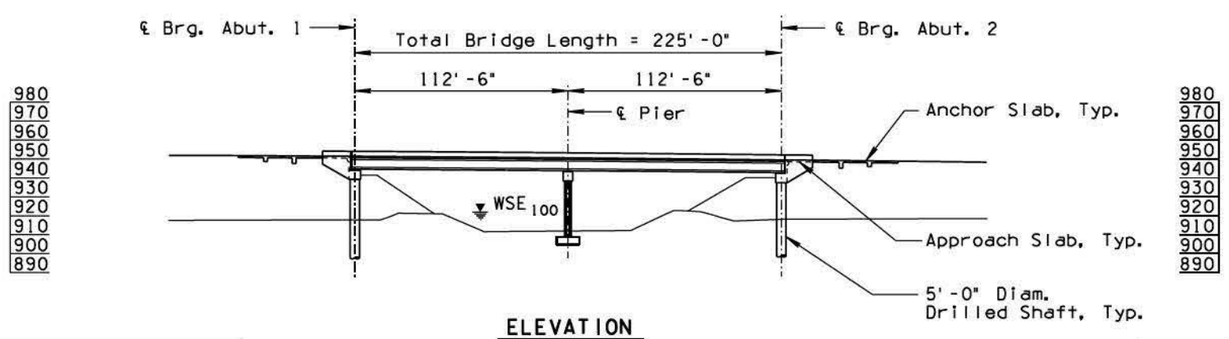
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 01°10'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE SUBSECTION 2A1 AND 2A2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2A1 & 2A2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-03

A122 OF A184

DATE: 8/16/2007 9:03:08 AM

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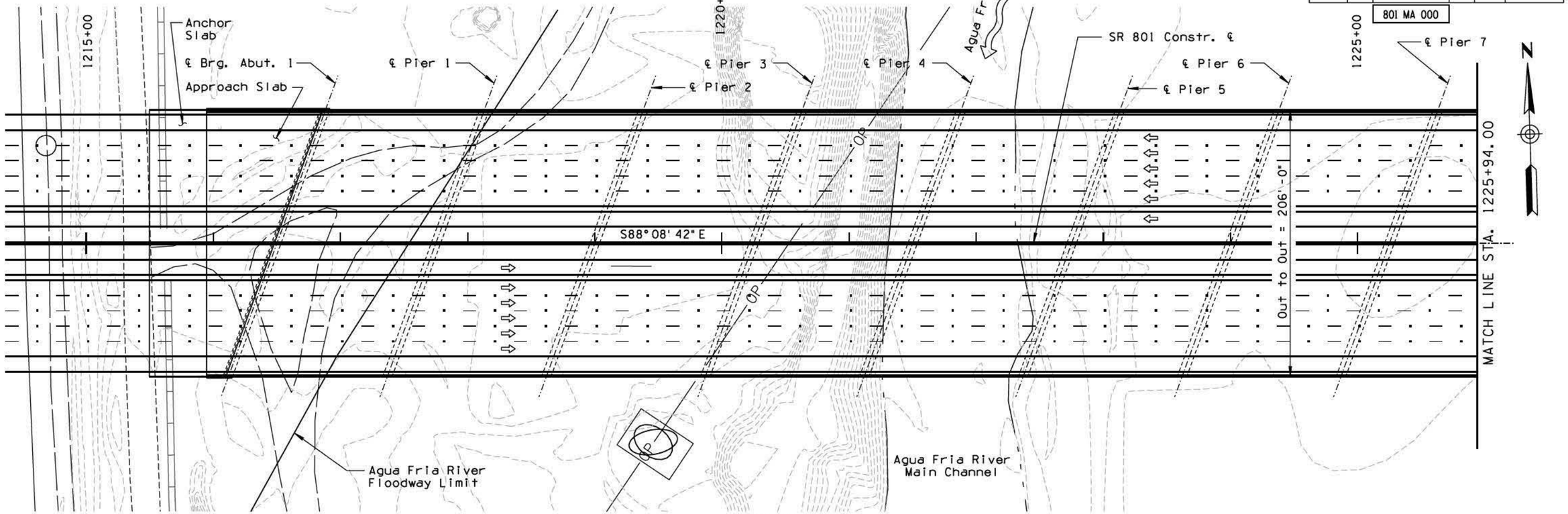
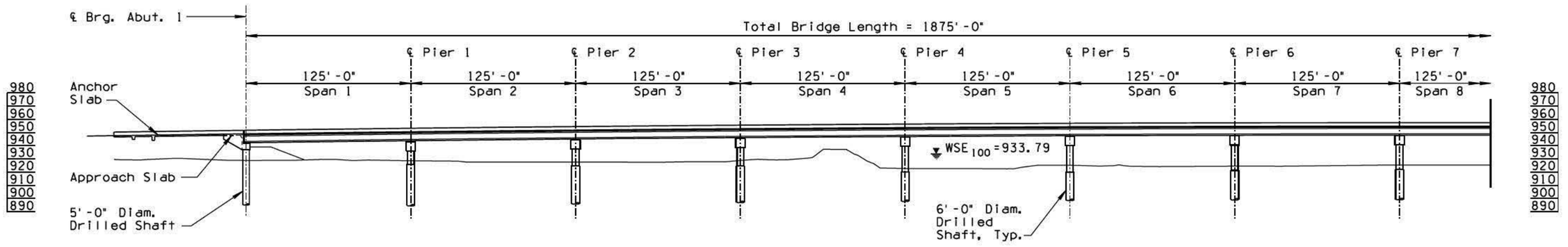
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	801 MA 000			



PLAN
Scale: 1" = 40'
New 15 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20° 00' 00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1" = 40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2A1 AND 2A2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2A1 & 2A2

SR 801 ROUTE	MILEPOST	STRUCTURE NO.
		SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-04

A123 OF A184

DATE: 8/16/2007 9:03:13 AM
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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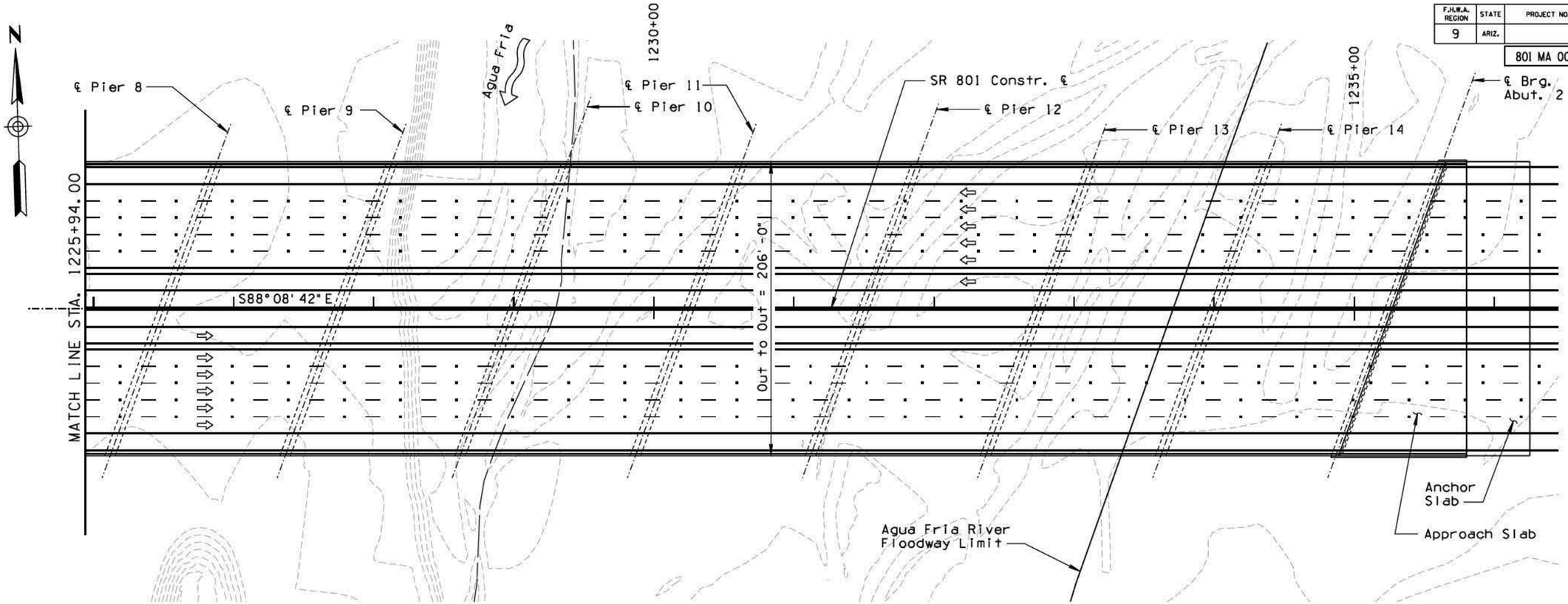
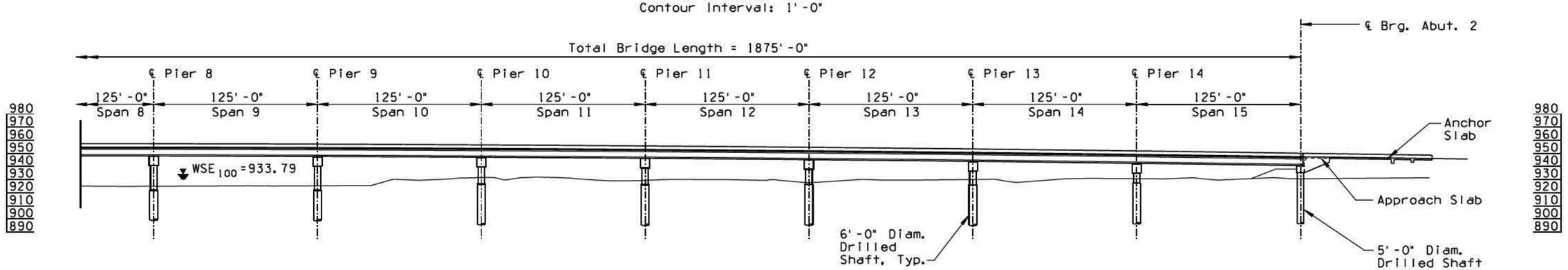
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 40'
New 15 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20° 00' 00" Rt.
Contour Interval: 1' -0"



ELEVATION
Scale: 1" = 40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2A1 AND 2A2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2A1 & 2A2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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DWG. NO. S-05

A124 OF A184

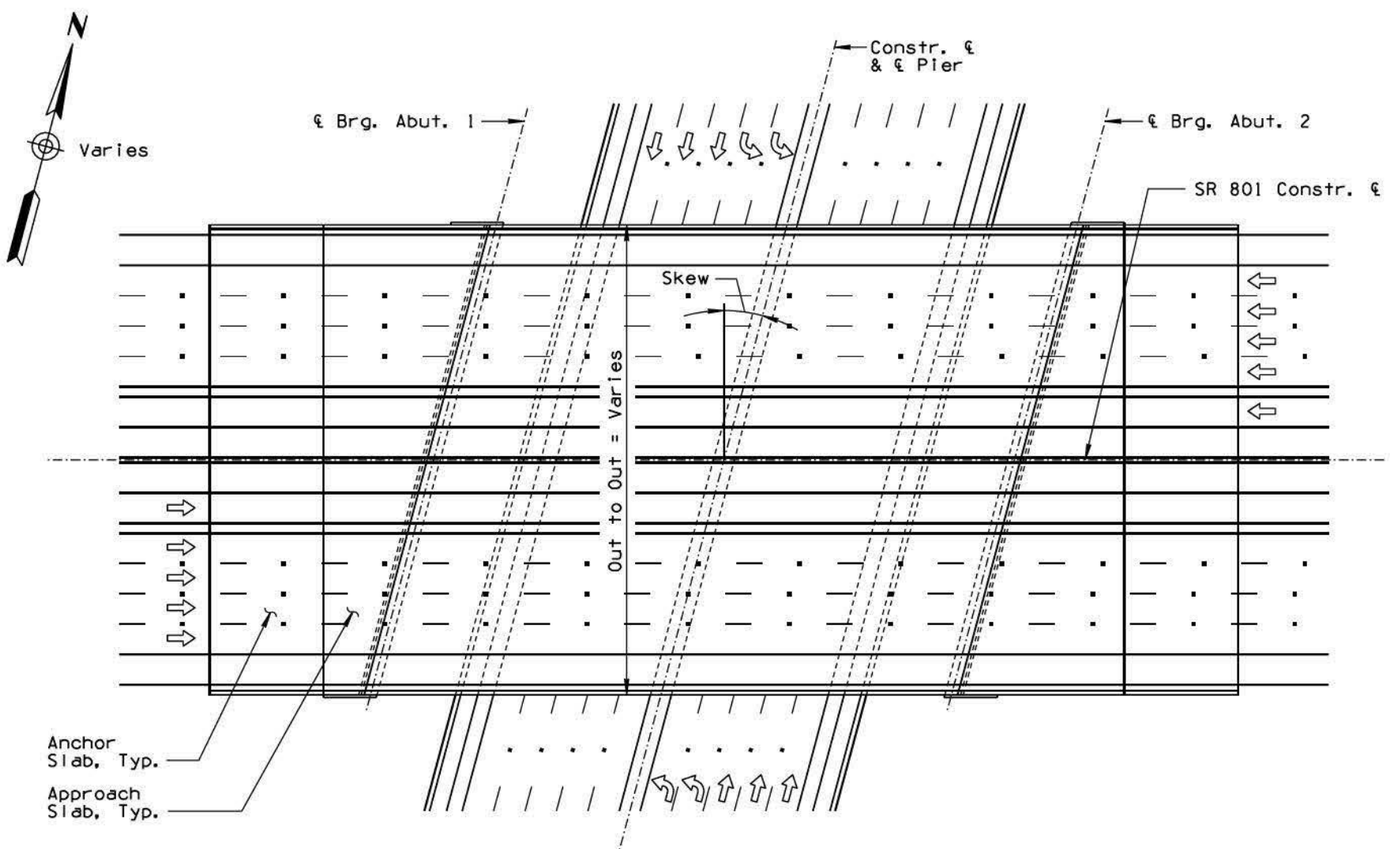
DATE: 8/16/2007 9:03:14 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2A1-2A2_02.DGN

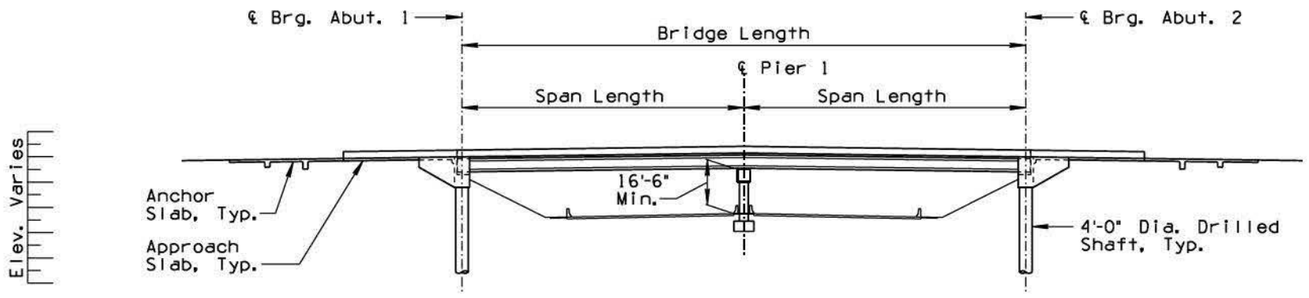
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=30'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1"=30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	1°Rt.	4.75	115	230	182	41860
Bullard Avenue	1°Rt.	4.75	115	230	182	41860
Dysart Road	2°Lt.	4.75	115	230	182	41860
El Mirage Road	2°Lt.	4.75	115	230	182	41860
115th Avenue	2°Lt.	4.75	115	230	182	41860
107th Avenue	2°Lt.	4.75	115	230	182	41860
99th Avenue	1°Lt.	4.75	115	230	182	41860

OVERPASS CROSSINGS SUBSECTION 2A2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2A2

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)
TRACS NO. H6876 01L			

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DWG. NO. S-06

A125 OF A184

DATE: 8/16/2007 9:03:16 AM

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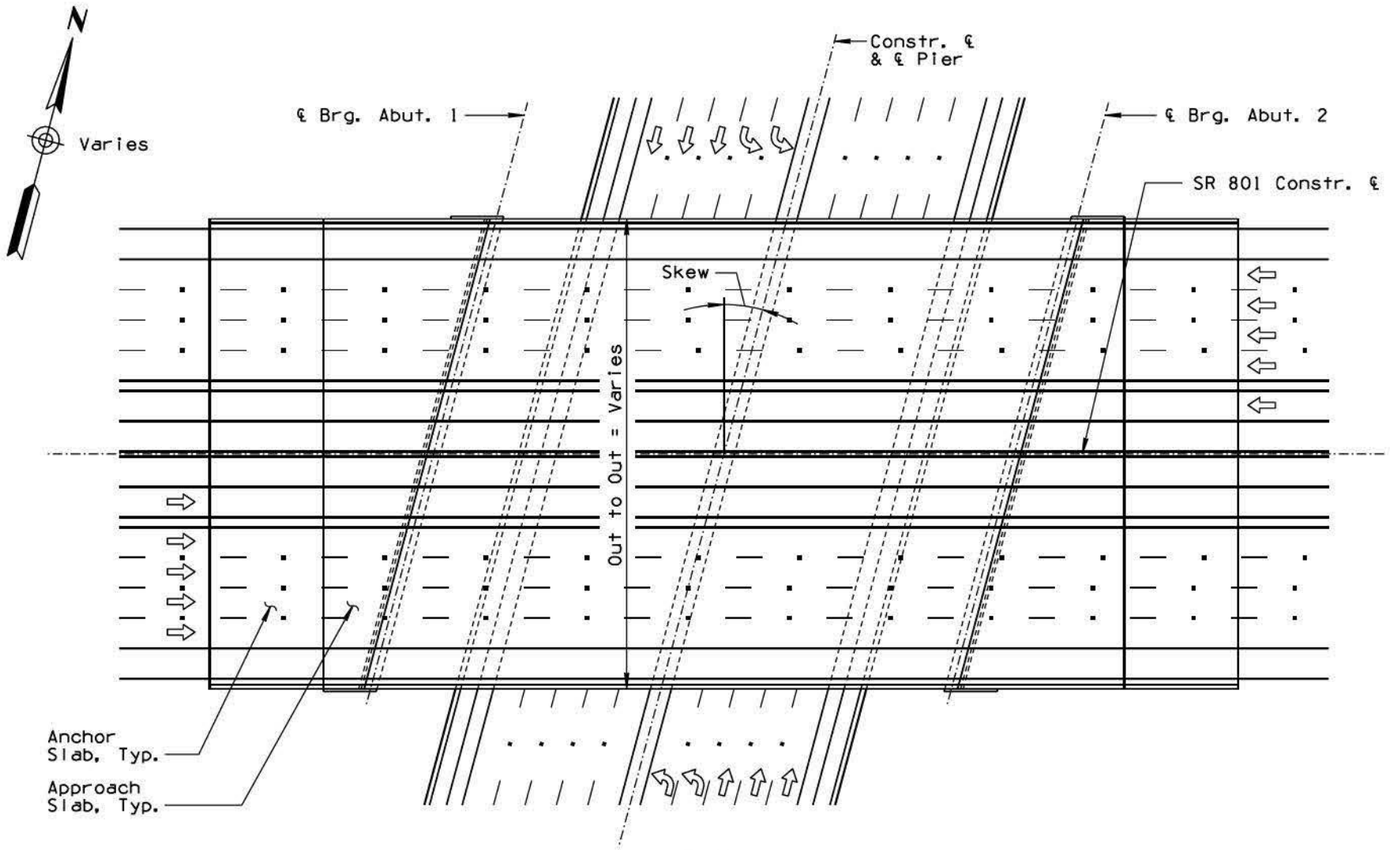
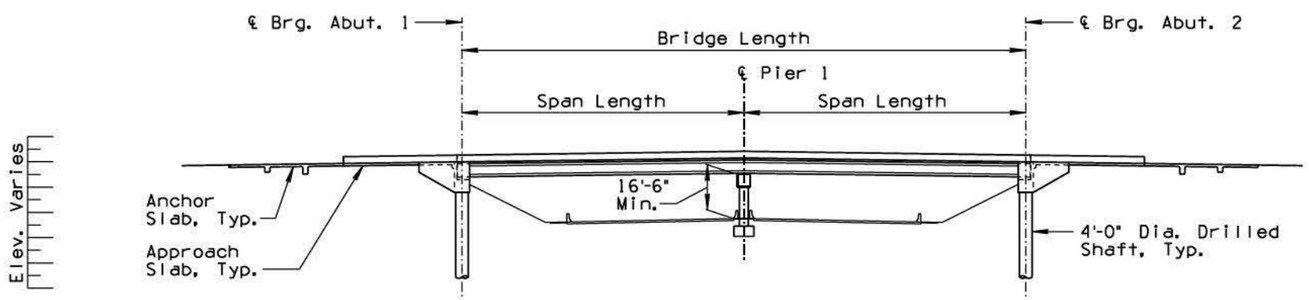
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1" = 30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	3°Lt.	4.75	115	230	182	41860
Bullard Avenue	19°Rt.	5	122	244	182	44408
Dysart Road	2°Rt.	4.75	115	230	182	41860
El Mirage Road	10°Rt.	4.75	117	234	182	42588
115th Avenue	18°Rt.	5	121	242	182	44044
107th Avenue	1°Lt.	4.75	115	230	182	41860
99th Avenue	1°Lt.	4.75	115	230	182	41860

OVERPASS CROSSINGS SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

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SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

DWG. NO. S-07

TRACS NO. H6876 01L

A126 OF A184

DATE: 8/16/2007 9:03:17 AM

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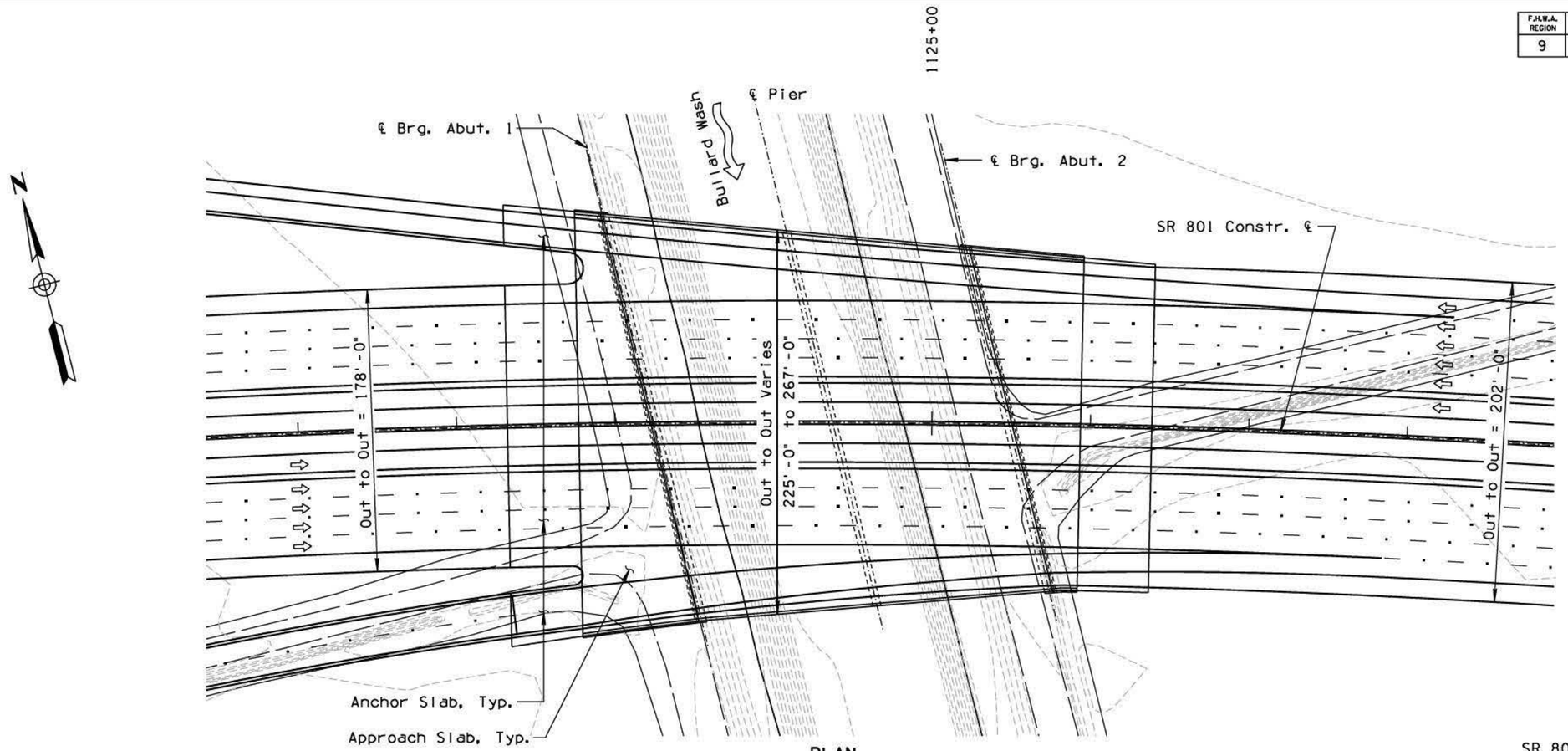
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

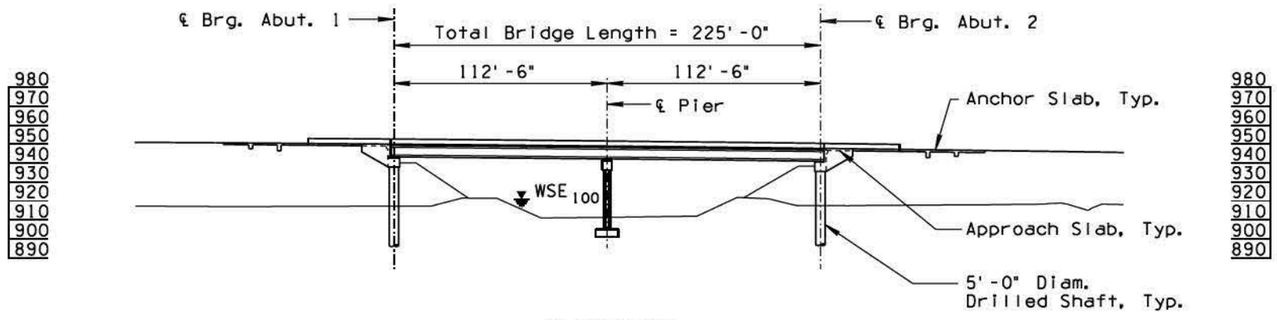
801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 14°30'00" Lt.
Contour Interval: 1'-0"

SR 801 CONSTR. ℄ CURVE DATA

Δ=30°44'34" Rt.
D=00°45'00"
R=7639.44'
L=4099.04'
PI STA.=1126+22.09



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)
TRACS NO.	H6876 01L		

DWG. NO. S-08

A127 OF A184

DATE: 8/16/2007 9:03:19 AM

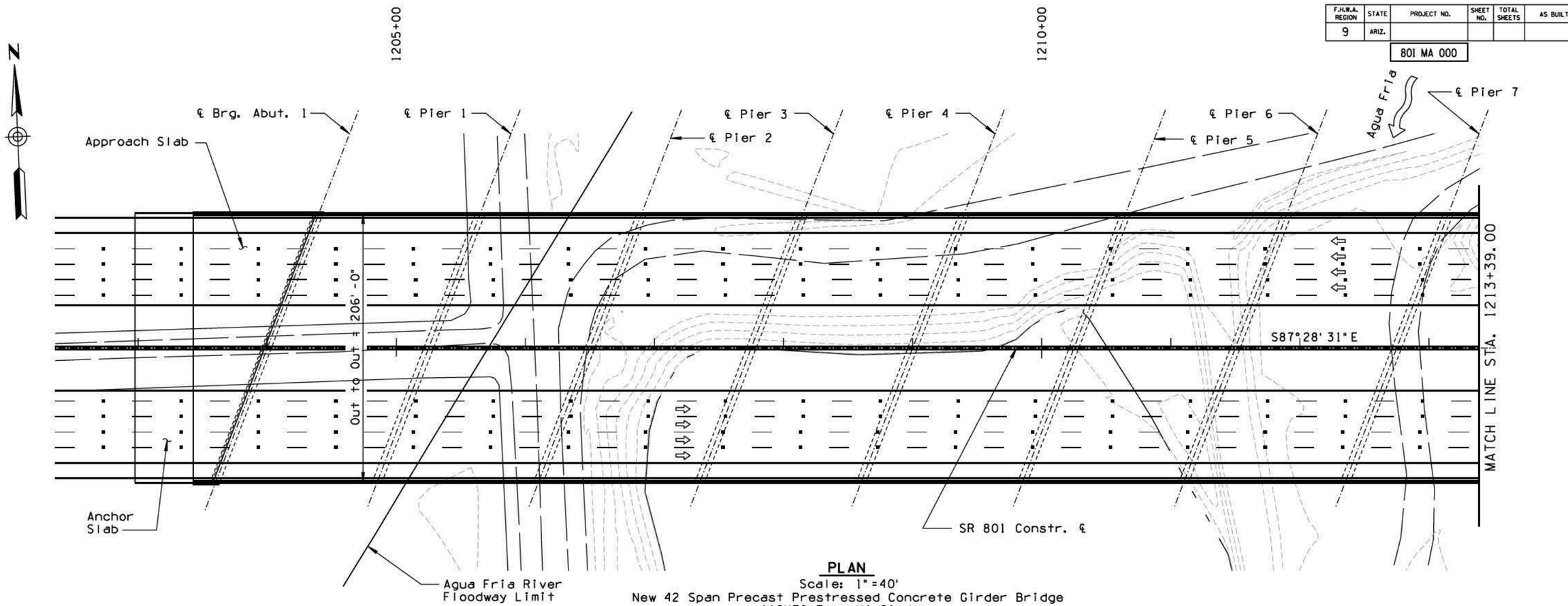
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

FILE C:\PWWORKING\PHX\DMS01543\S_BW_2B1_01.DGN

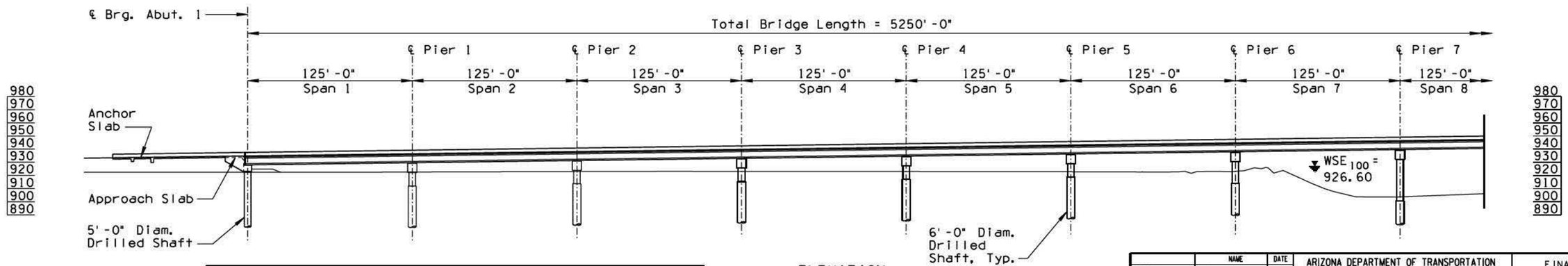
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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DWG. NO. S-09

A128 OF A184

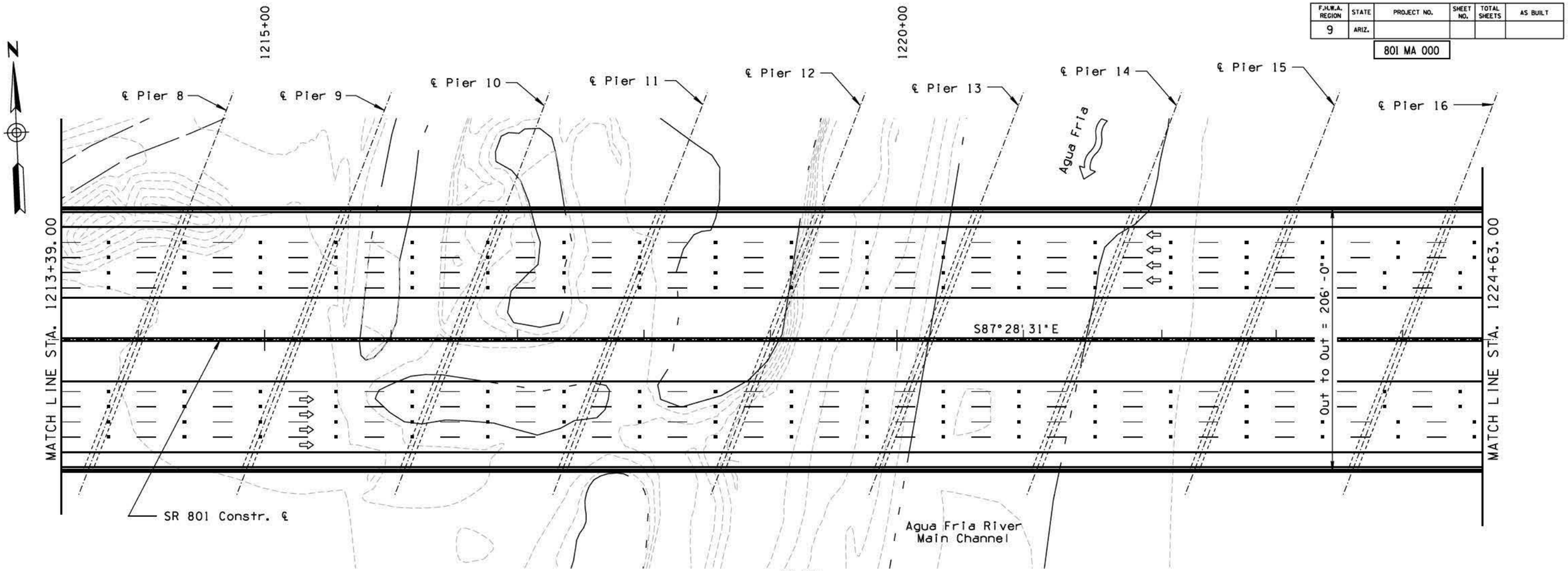
DATE: 8/16/2007 9:03:21 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B1_01.DGN

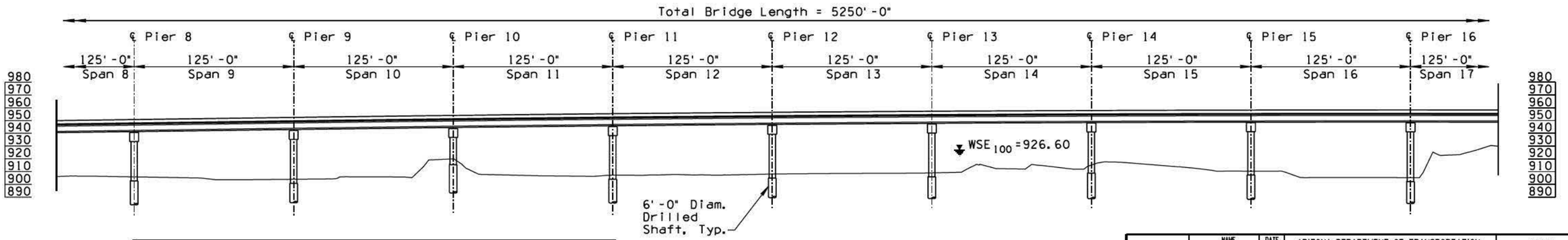
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
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DWG. NO. S-10

A129 OF A184

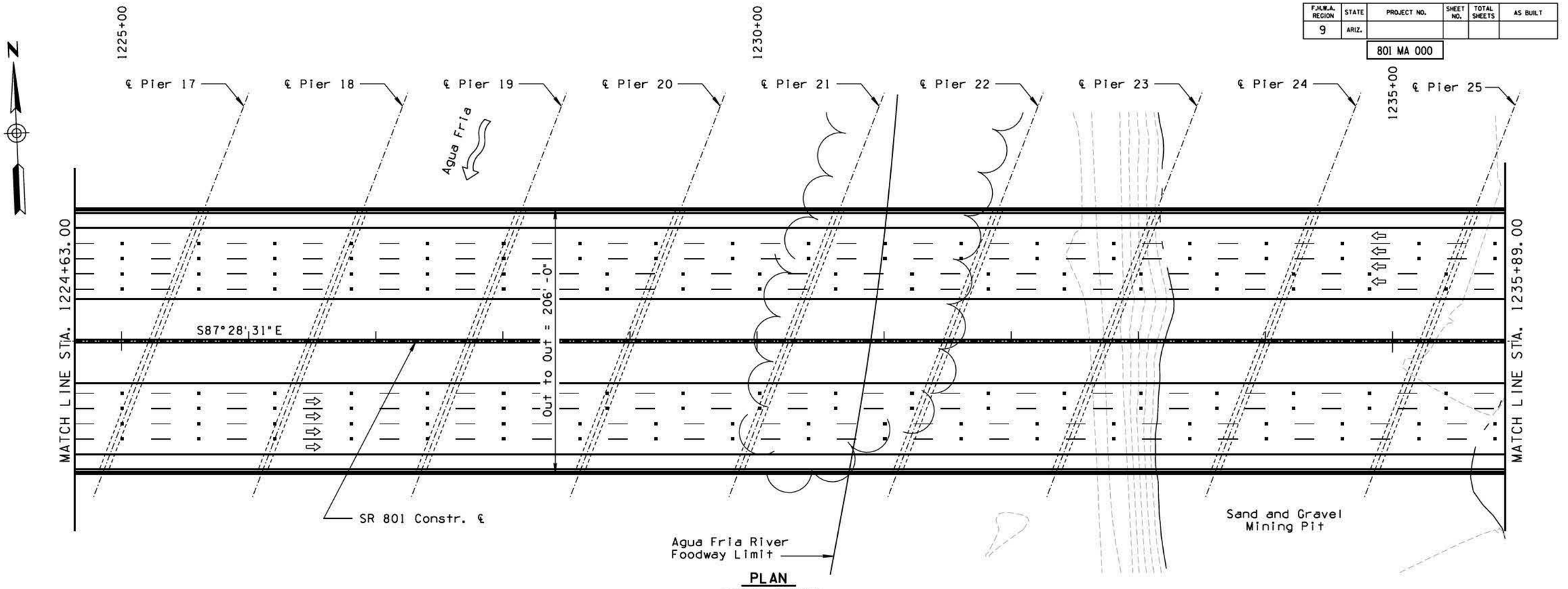
DATE: 8/16/2007 9:03:23 AM

FILE: C:\PWWORKING\PHX\DMS01543\S_AF_2B1_02.DGN

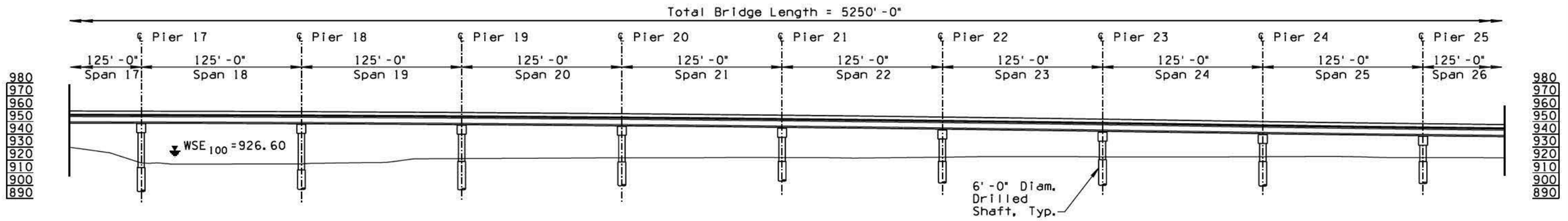
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-11

A130 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

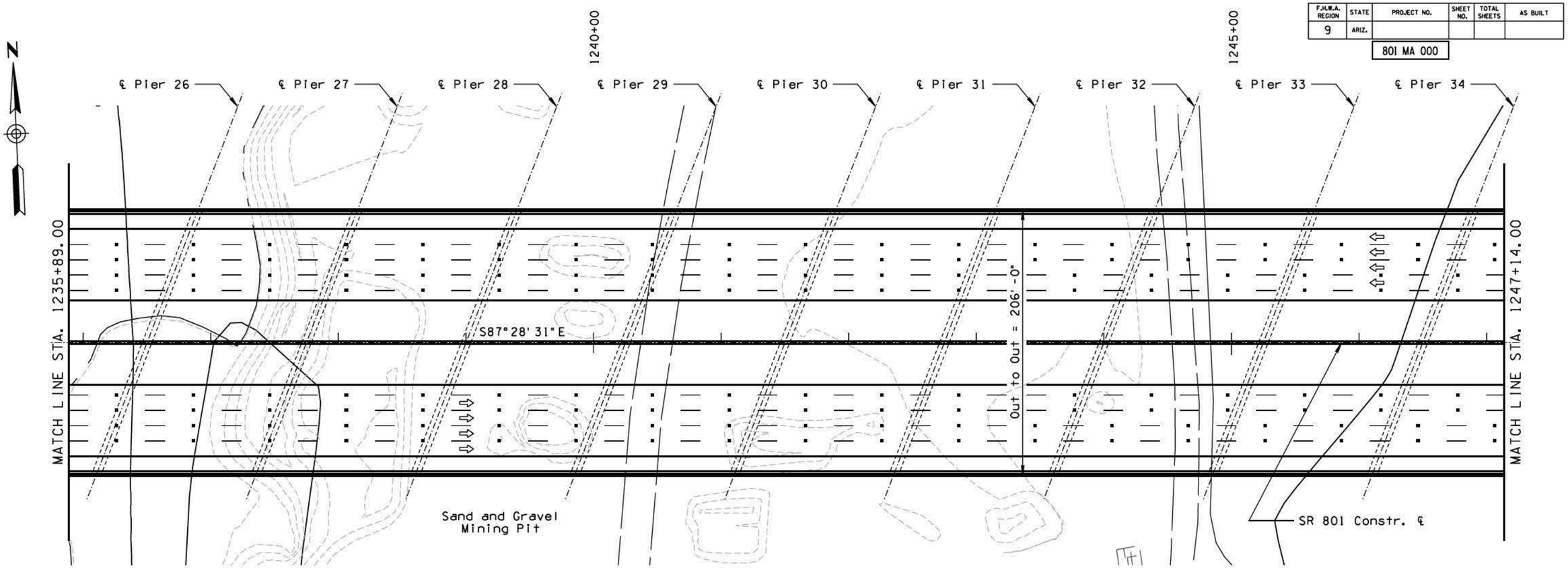
DATE: 8/16/2007 9:03:24 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B1_03.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

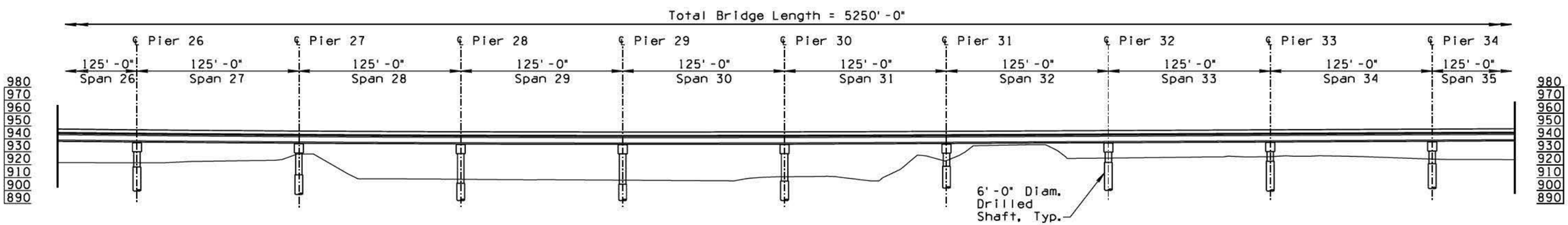
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION

Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
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NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-12

A131 OF A184

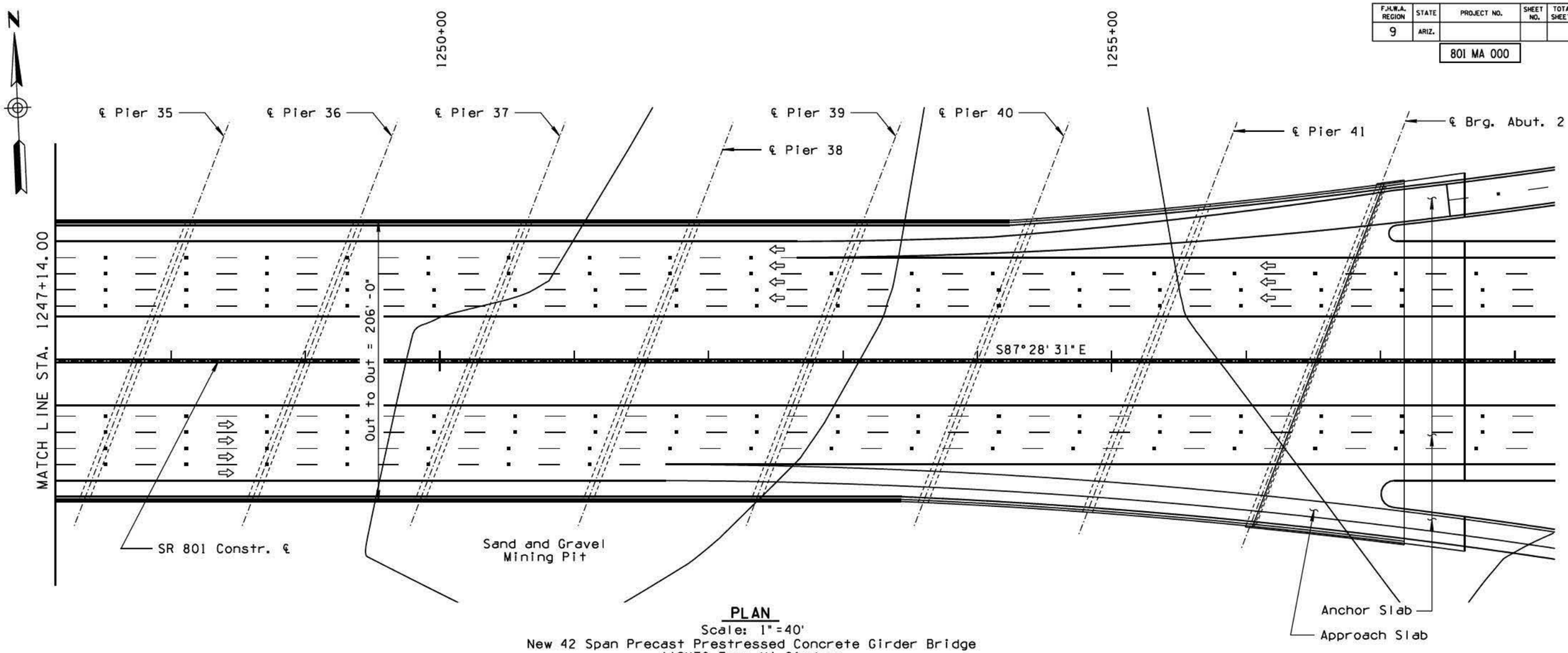
DATE: 8/16/2007 9:03:26 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B1_04.DGN

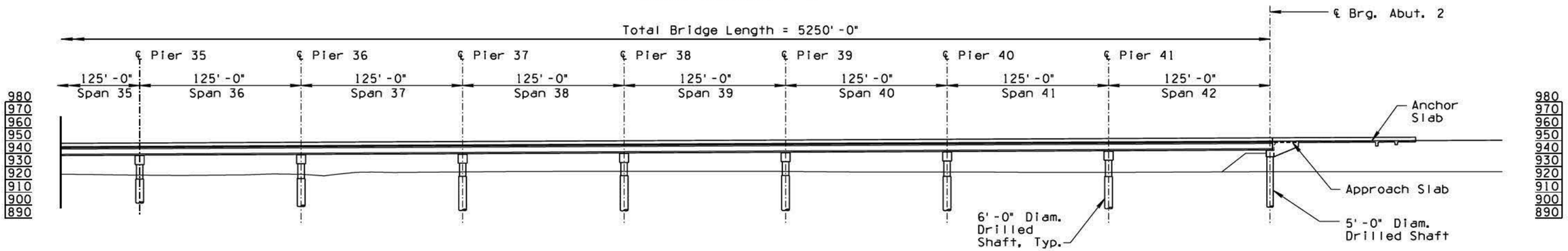
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B1

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SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

DWG. NO. S-13

TRACS NO. H6876 01L

A132 OF A184

DATE: 8/16/2007 9:03:27 AM

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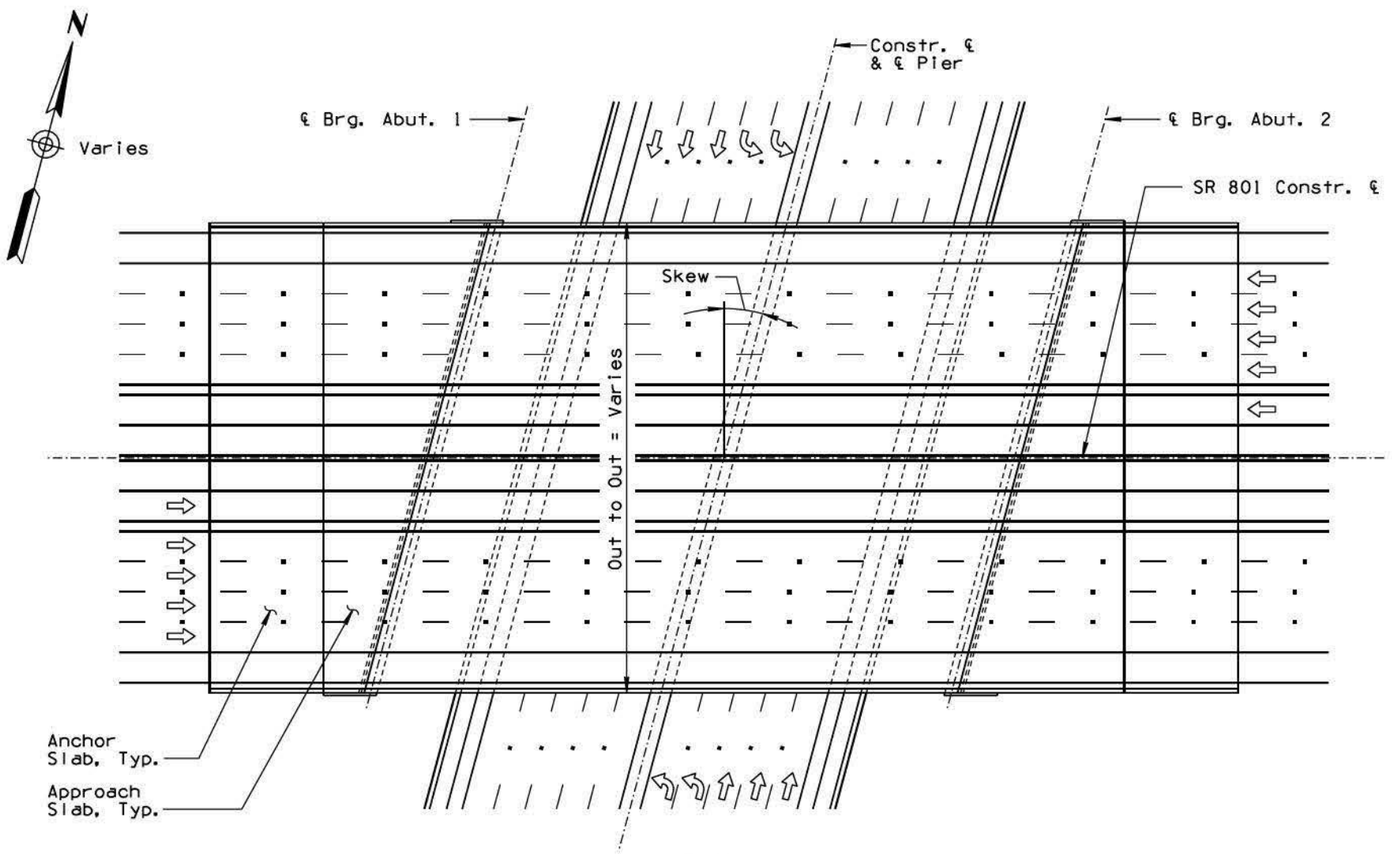
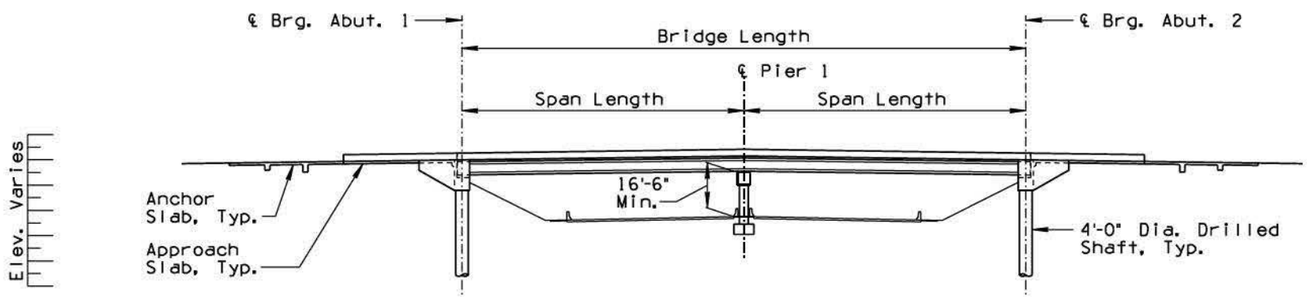
ccccSYSTIMEcccccccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1" = 30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	1°Rt.	4.75	115	230	182	41860
Bullard Avenue	3°Rt.	4.75	115	230	182	41860
Dysart Road	8°Rt.	4.75	116	232	182	42224
El Mirage Road	11°Rt.	4.75	117	234	182	42588
115th Avenue	1°Rt.	4.75	115	230	182	41860
107th Avenue	1°Lt.	4.75	115	230	182	41860
99th Avenue	1°Lt.	4.75	115	230	182	41860

OVERPASS CROSSINGS SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-14

A133 OF A184

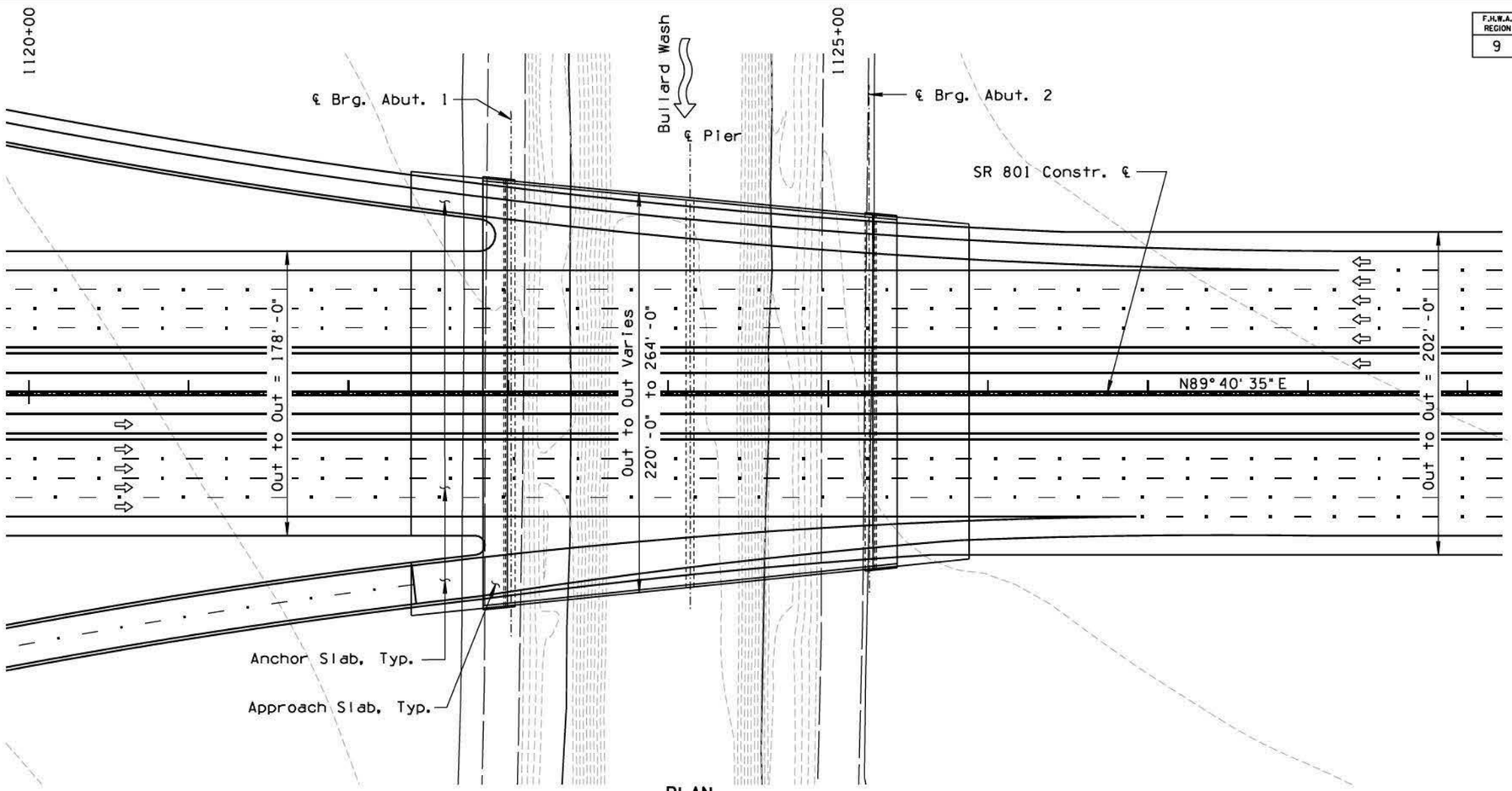
DATE: 8/16/2007 9:03:28 AM

FILE C:\PWWORKING\PHX\DMS01543\S_OP_2B2.DGN

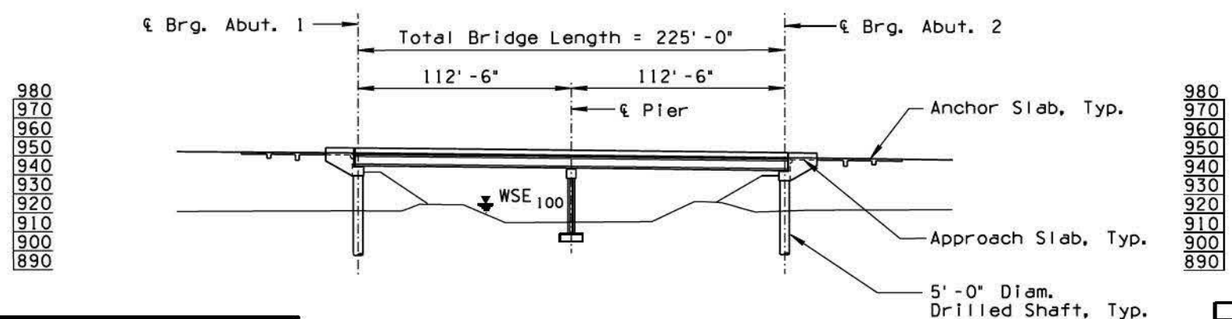
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 00°25'00" Lt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE
SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-15

A134 OF A184

DATE: 8/16/2007 9:03:31 AM

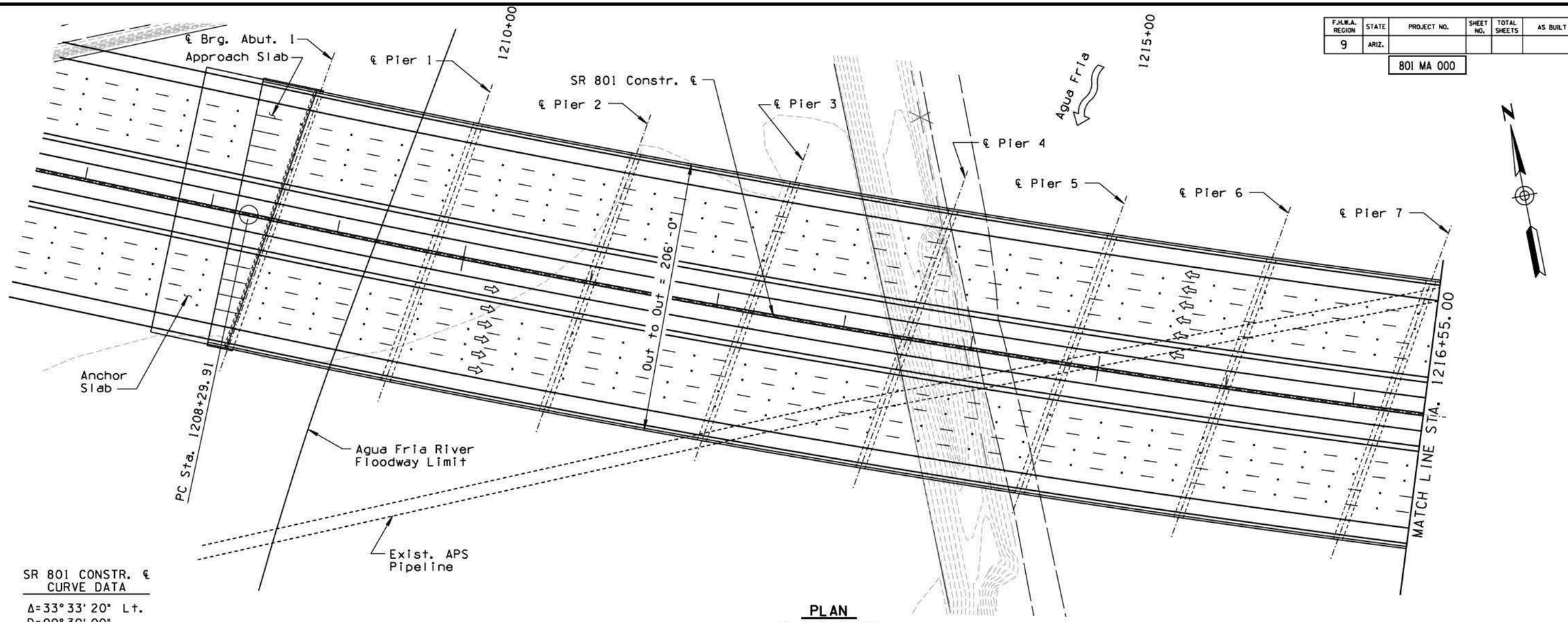
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

FILE C:\PWWORKING\PHX\DMS01543\S_BW_2B2_01.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

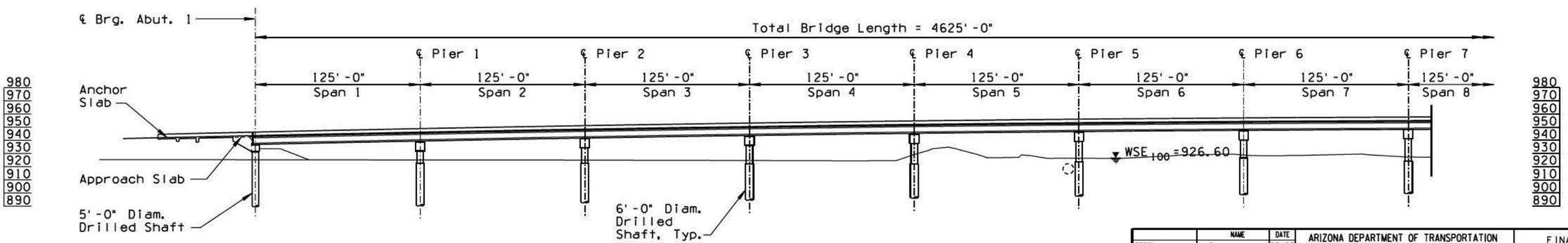
801 MA 000



SR 801 CONSTR. ℄ CURVE DATA

Δ=33°33'20" Lt.
D=00°30'00"
R=11459.16'
L=6711.12'
PI STA.=1242+84.79

PLAN
Scale: 1"=40'
New 37 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 8°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

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NOT FOR CONSTRUCTION OR RECORDING

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	
TRACS NO.	H6876 01L		

DWG. NO. S-16
A135 OF A184

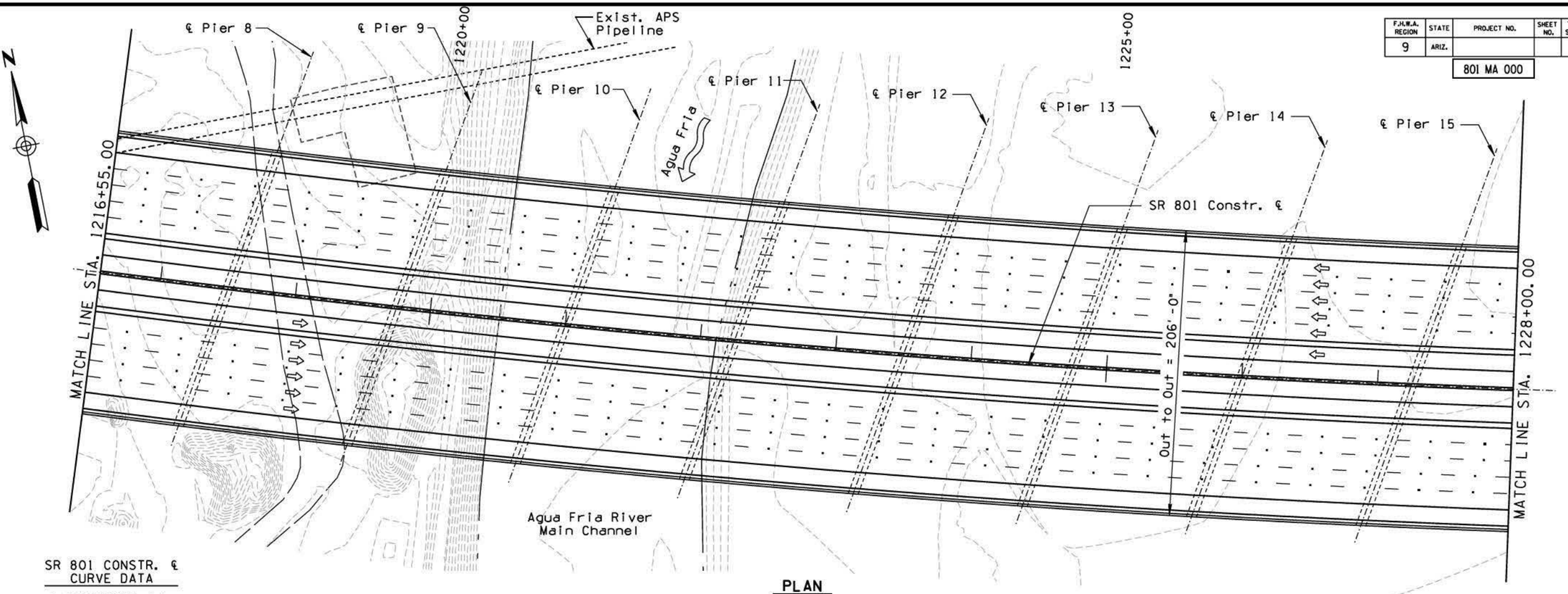
DATE: 8/16/2007 9:03:32 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B2_01.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

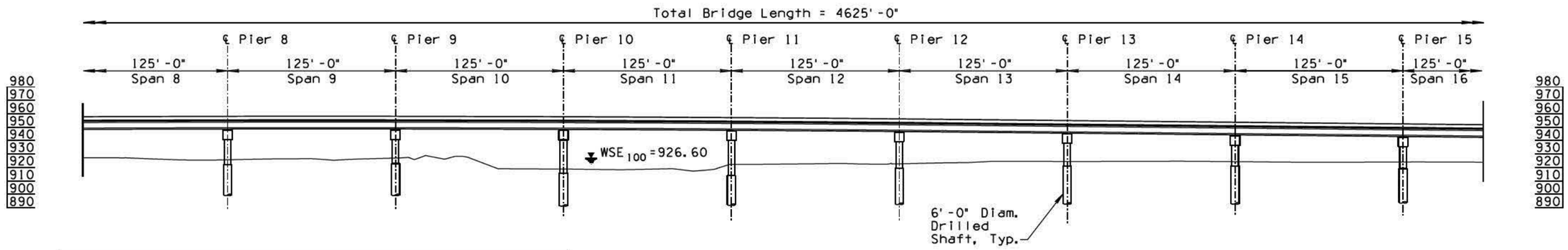
801 MA 000



PLAN
Scale: 1"=40'
New 37 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 8°00'00" Rt.
Contour Interval: 1'-0"

SR 801 CONSTR. ℄ CURVE DATA

Δ=33°33'20" Lt.
D=00°30'00"
R=11459.16'
L=6711.12'
PI STA.=1242+84.79



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

FINAL
ASR
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NOT FOR CONSTRUCTION OR RECORDING

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

DWG. NO. S-17

TRACS NO. H6876 01L

A136 OF A184

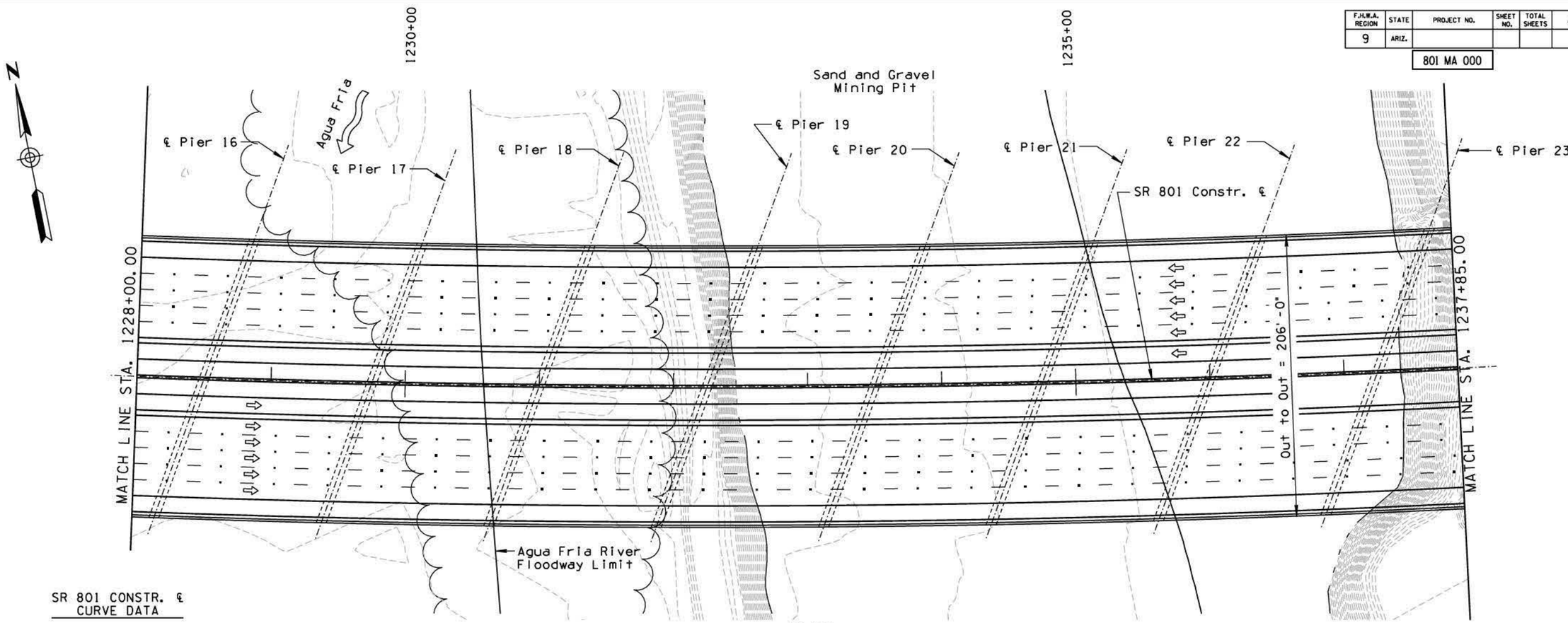
DATE: 8/16/2007 9:03:34 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B2_02.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

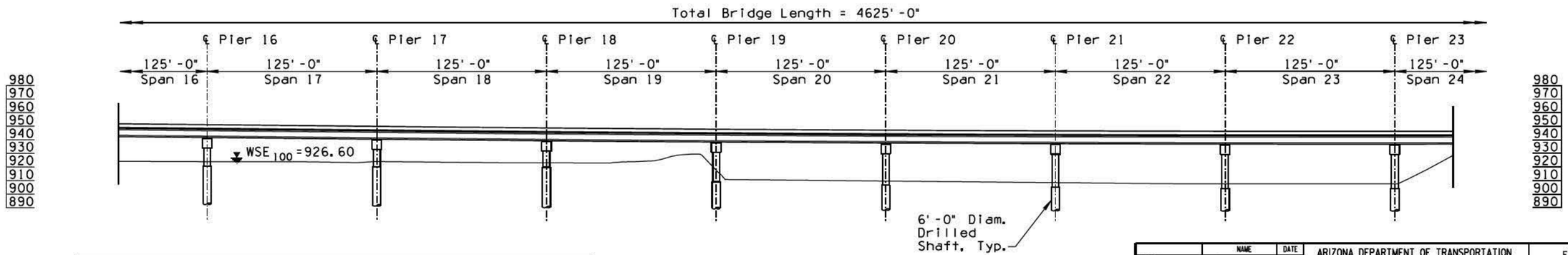
801 MA 000



SR 801 CONSTR. ℄ CURVE DATA

Δ=33° 33' 20" Lt.
D=00° 30' 00"
R=11459.16'
L=6711.12'
PI STA.=1242+84.79

PLAN
Scale: 1"=40'
New 37 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 8° 00' 00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

SR 801 ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-18

A137 OF A184

DATE: 8/16/2007 9:03:35 AM

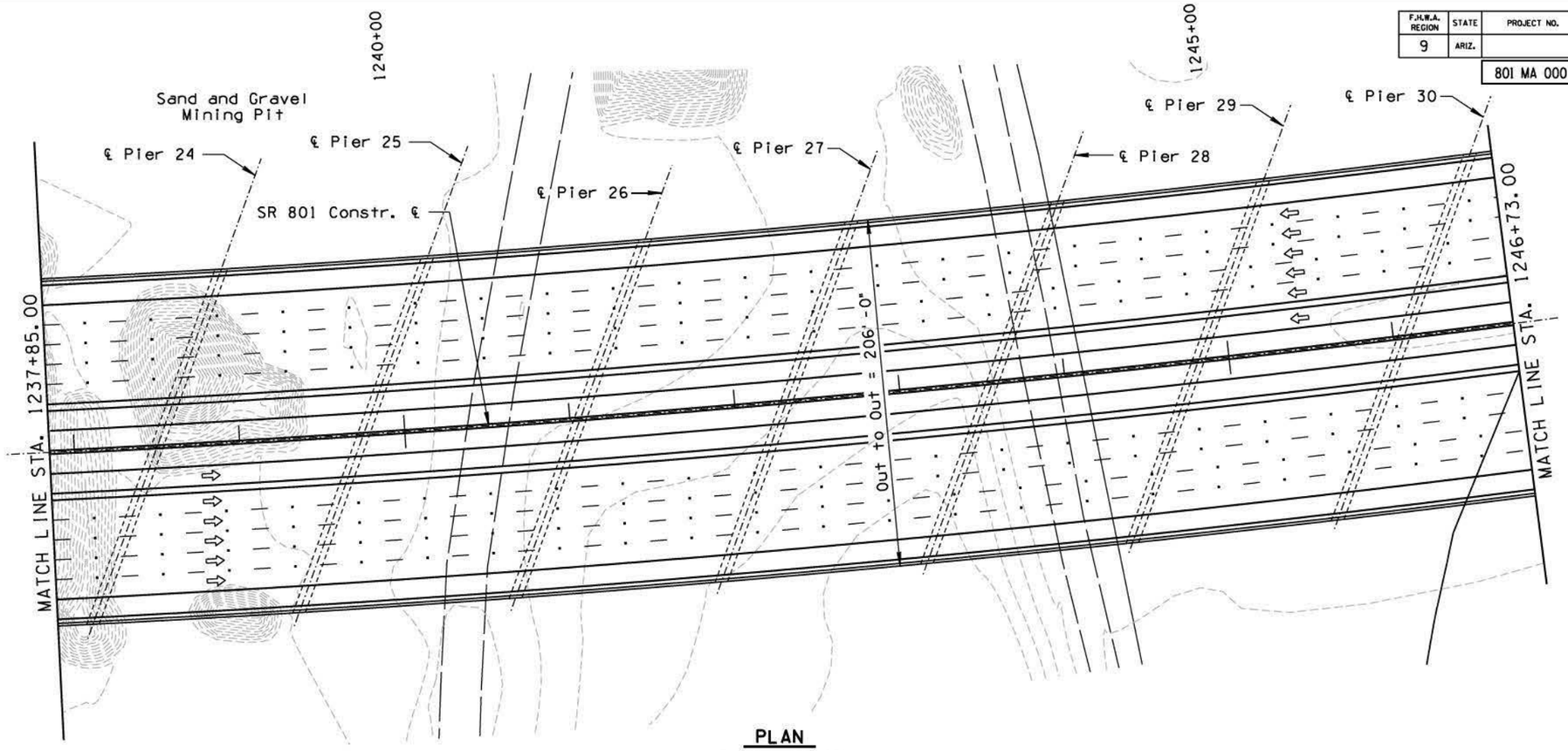
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B2_03.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

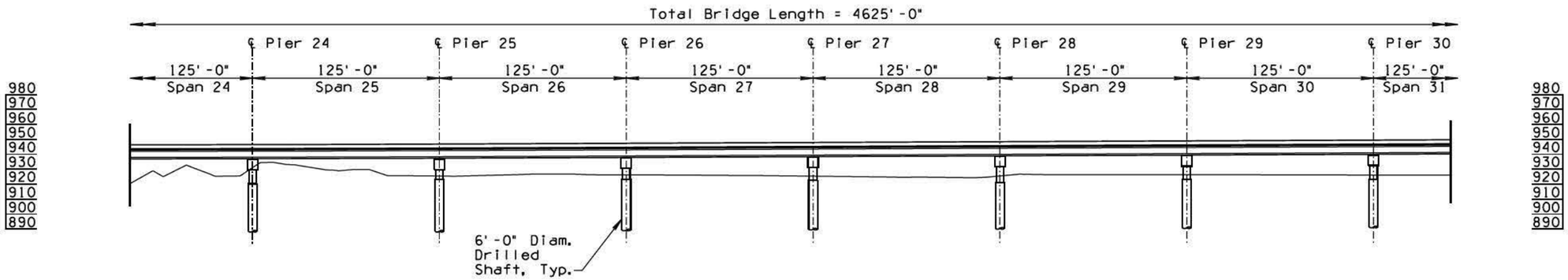
801 MA 000



SR 801 CONSTR. ℄
CURVE DATA

Δ=33°33'20" Lt.
D=00°30'00"
R=11459.16'
L=6711.12'
PI STA.=1242+84.79

PLAN
Scale: 1"=40'
New 37 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 8°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-19

A138 OF A184

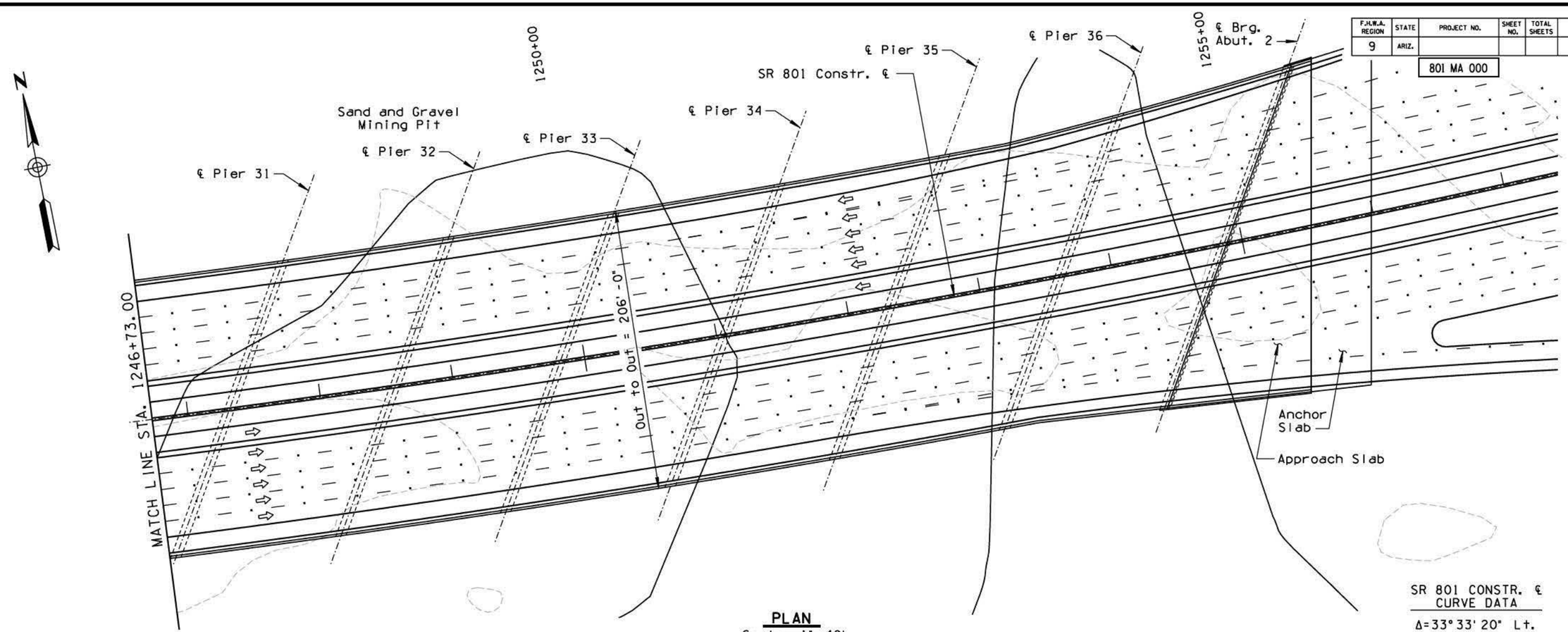
DATE: 8/16/2007 9:03:36 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B2_04.DGN

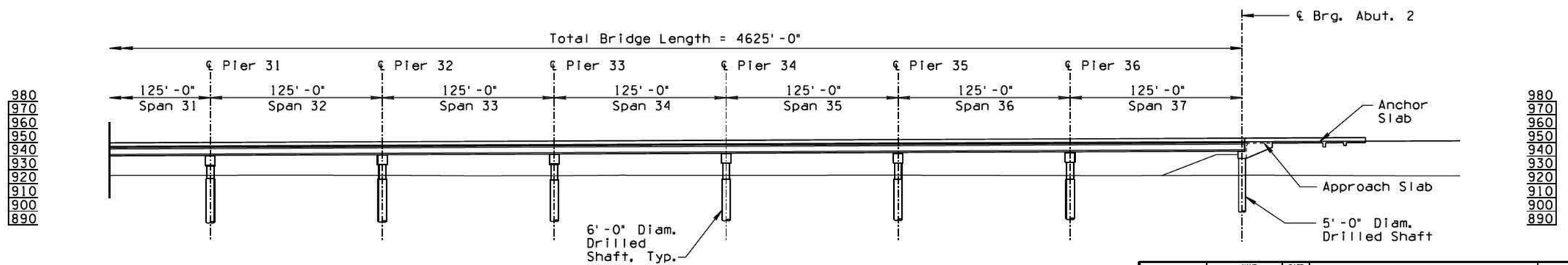
ccccSYSTIMEcccccccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 37 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 8°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2B2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2B2

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-20

A139 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

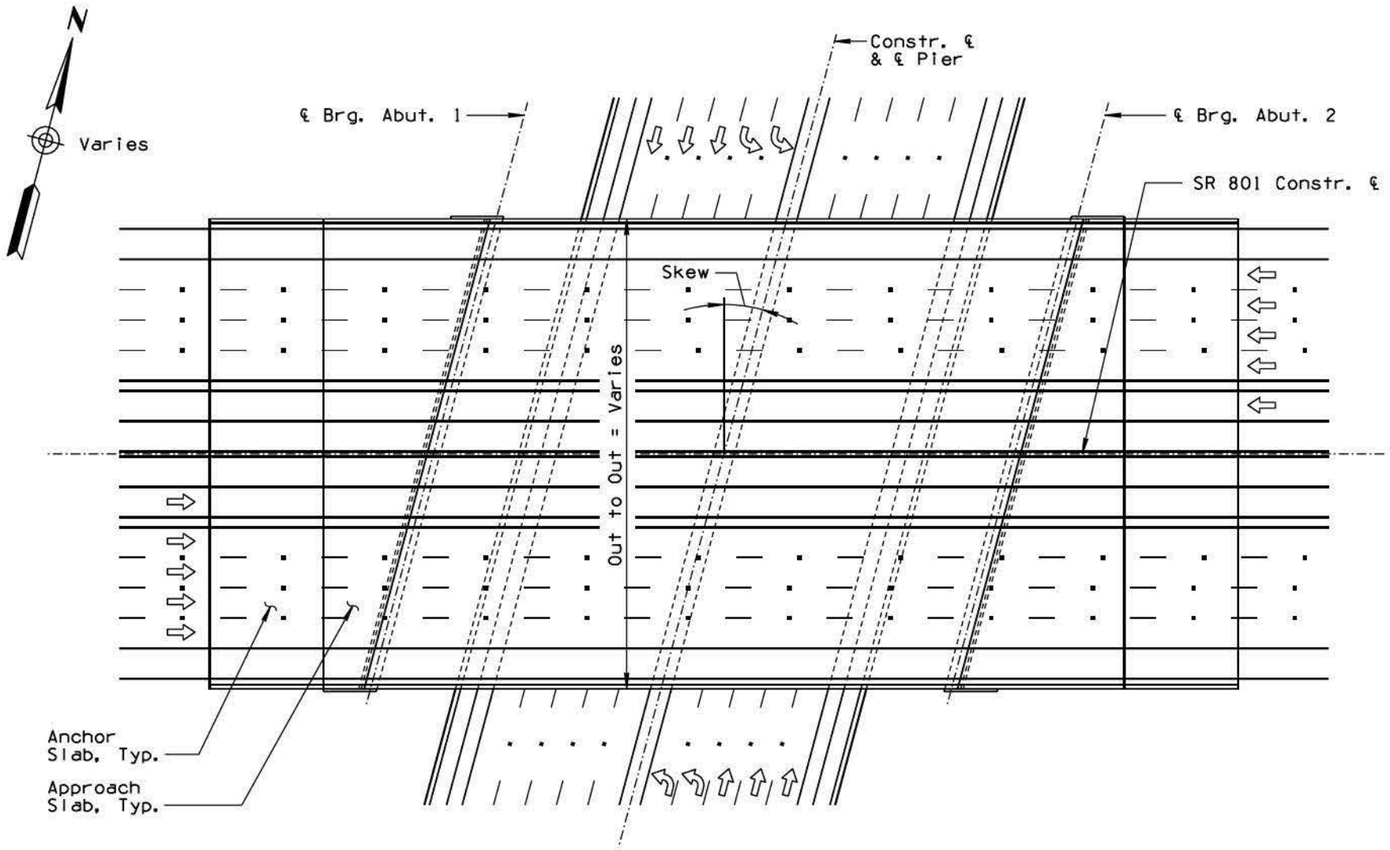
DATE: 8/16/2007 9:03:37 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2B2_05.DGN

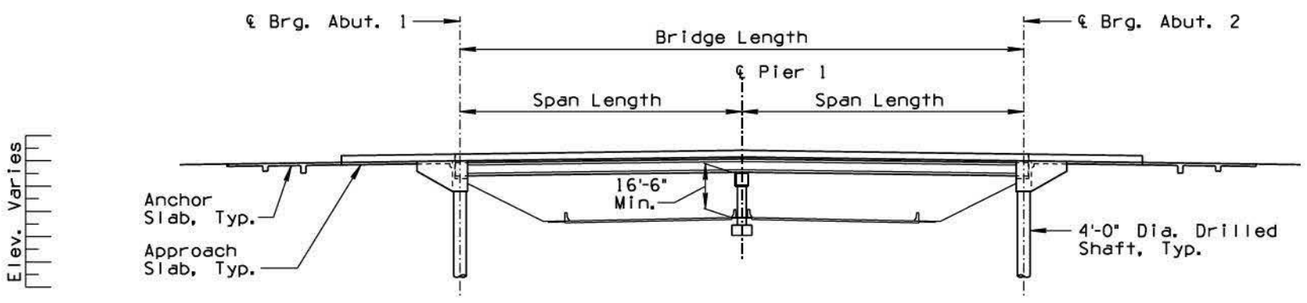
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1"=30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	3°Lt.	4.75	115	230	182	41860
Bullard Avenue	19°Rt.	5	122	244	182	44408
Dysart Road	21°Rt.	5	123	246	182	44772
Southern Avenue, West	59°Rt.	6.25	151	302	206	62212
El Mirage Road	5°Rt.	5	124	248	182	45136
115th Avenue	1°Lt.	4.75	115	230	182	41860
Southern Avenue, East	19°Rt.	3.50	82	164	224 Avg.	36736
107th Avenue	27°Rt.	5.25	129	258	182	46956
99th Avenue	28°Lt.	5.25	130	260	182	47320

OVERPASS CROSSINGS SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

SR 801 (SR 303L TO SR 202L)

ROUTE: SR 801 | MILEPOST: | STRUCTURE NO.:

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-21

A140 OF A184

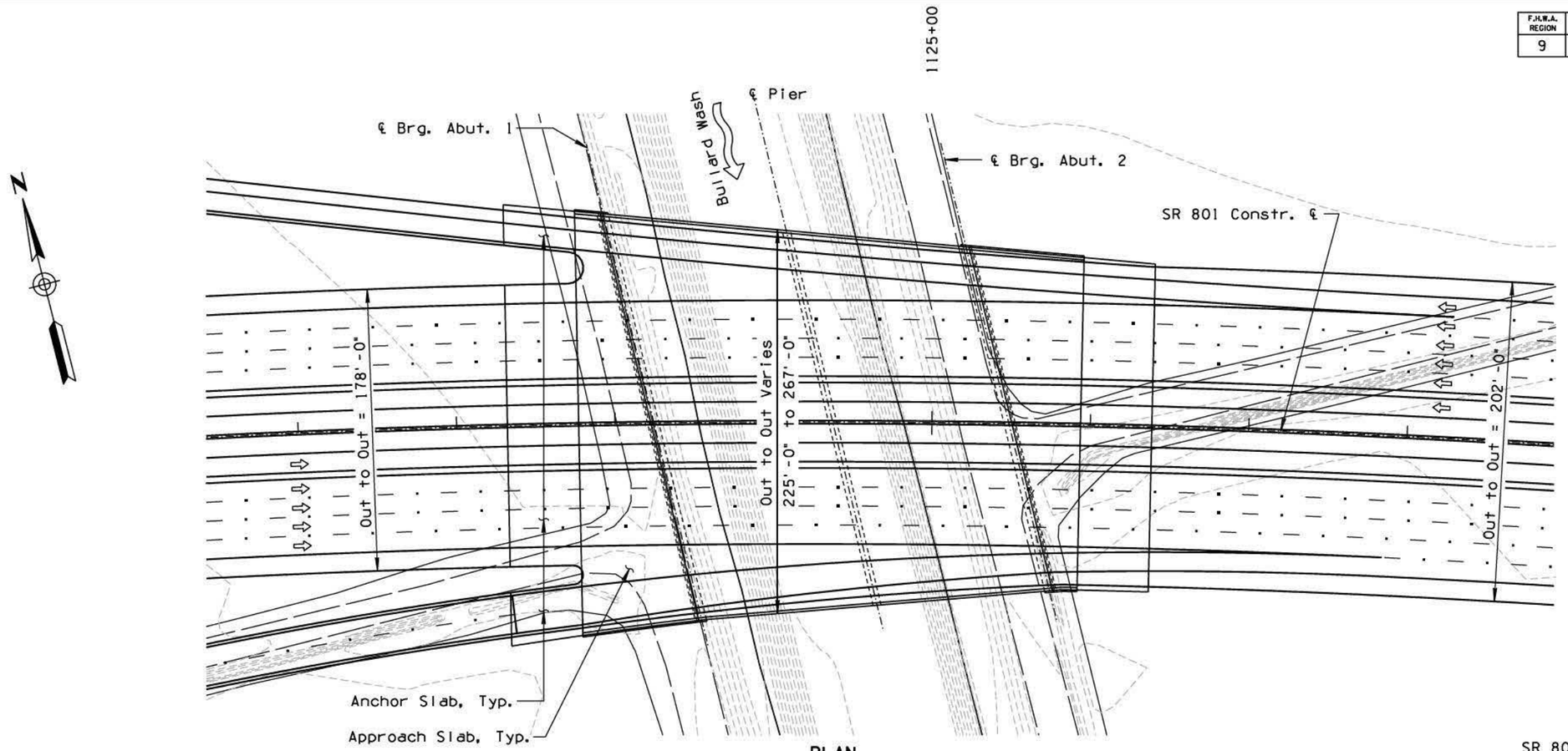
DATE: 8/16/2007 9:03:39 AM

FILE C:\PWWORKING\PHX\DMS01543\S_OP_2C1.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

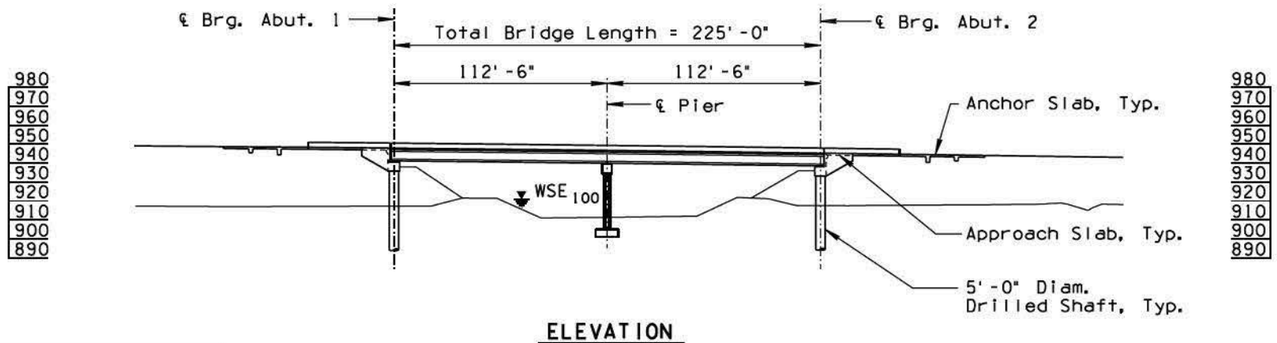
801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 13°25'00" Lt.
Contour Interval: 1'-0"

SR 801 CONSTR. ℄ CURVE DATA

Δ=30°44'34" Rt.
D=00°45'00"
R=7639.44'
L=4099.04'
PI STA.=1126+22.09



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

SR 801 ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-22

A141 OF A184

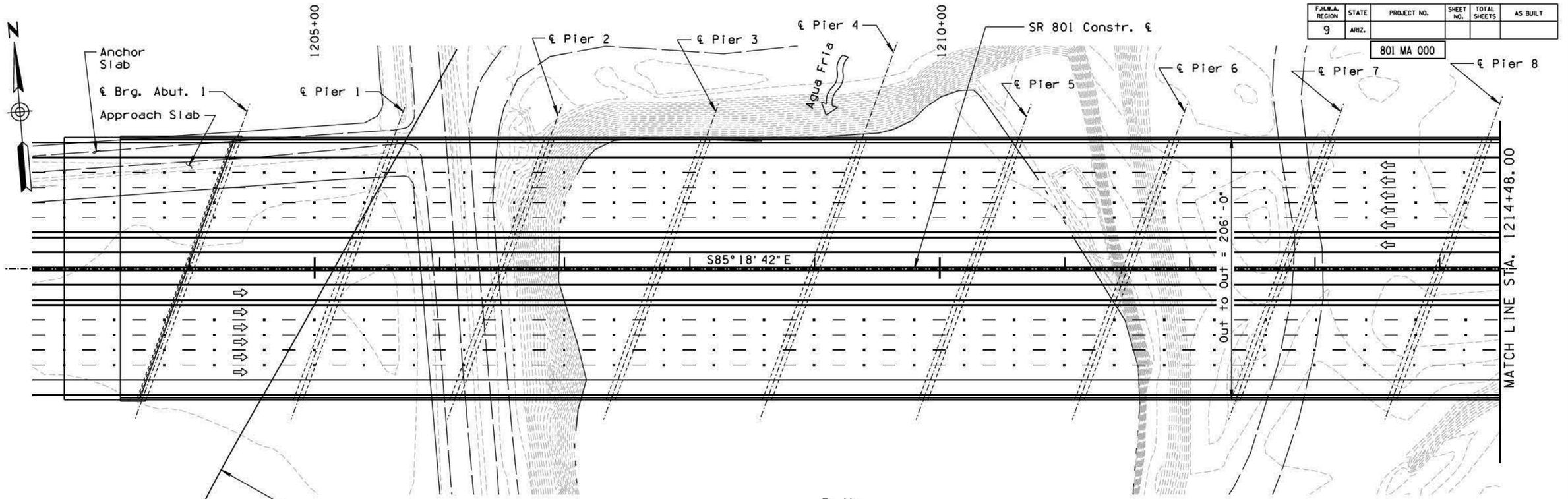
DATE: 8/16/2007 9:03:41 AM

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

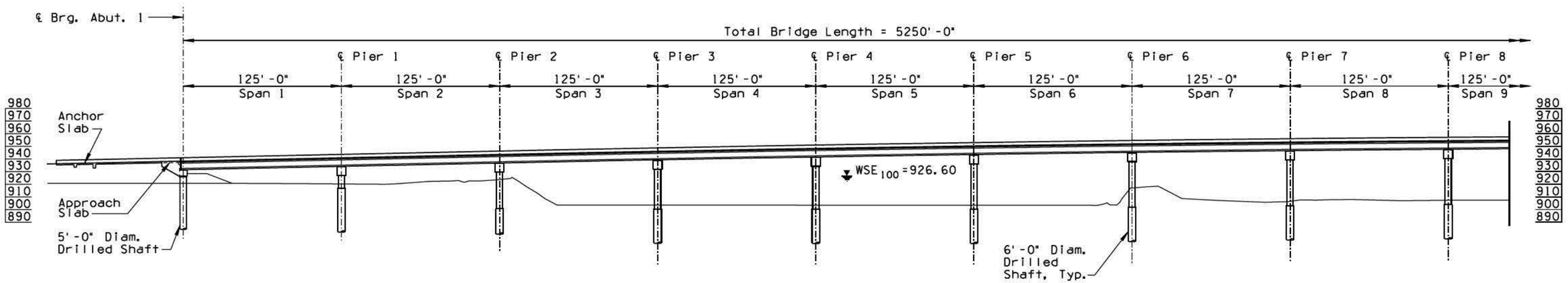
FILE C:\PWWORKING\PHX\DMS01543\S_BW_2C1_01.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	801 MA 000			



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-23

A142 OF A184

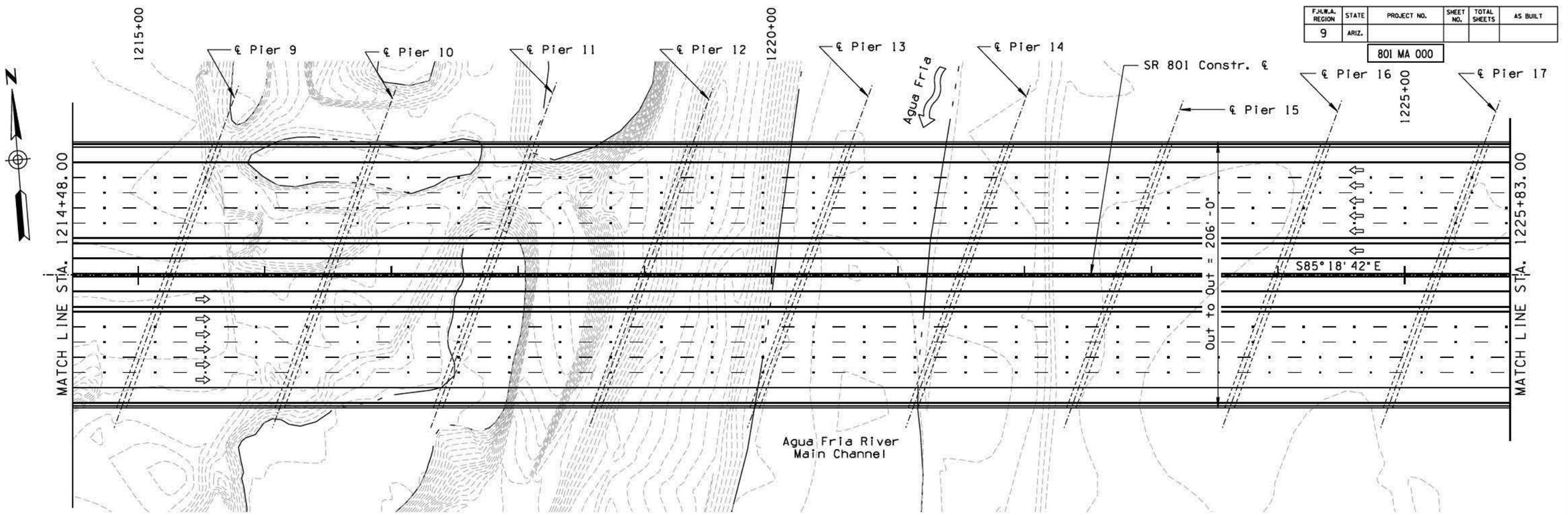
DATE: 8/16/2007 9:03:42 AM

FILEC:\PWWORKING\PHX\DMS01543\S_AF_2C1_01.DGN

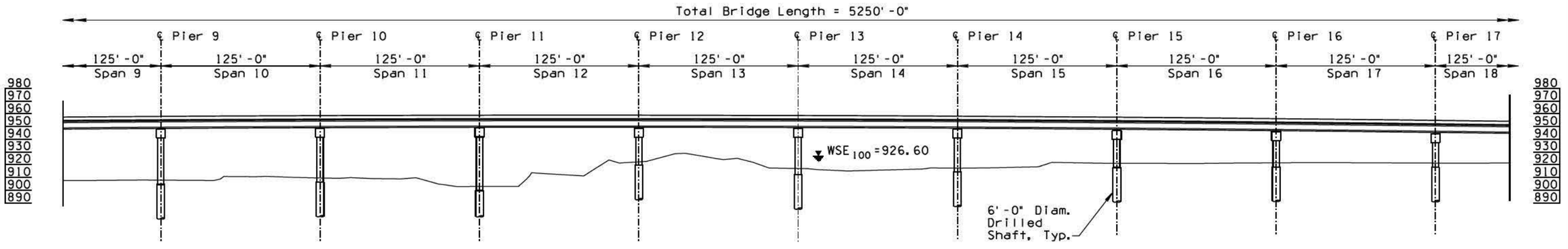
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)
TRACS NO. H6876 01L			

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING
DWG. NO. S-24

A143 OF A184

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

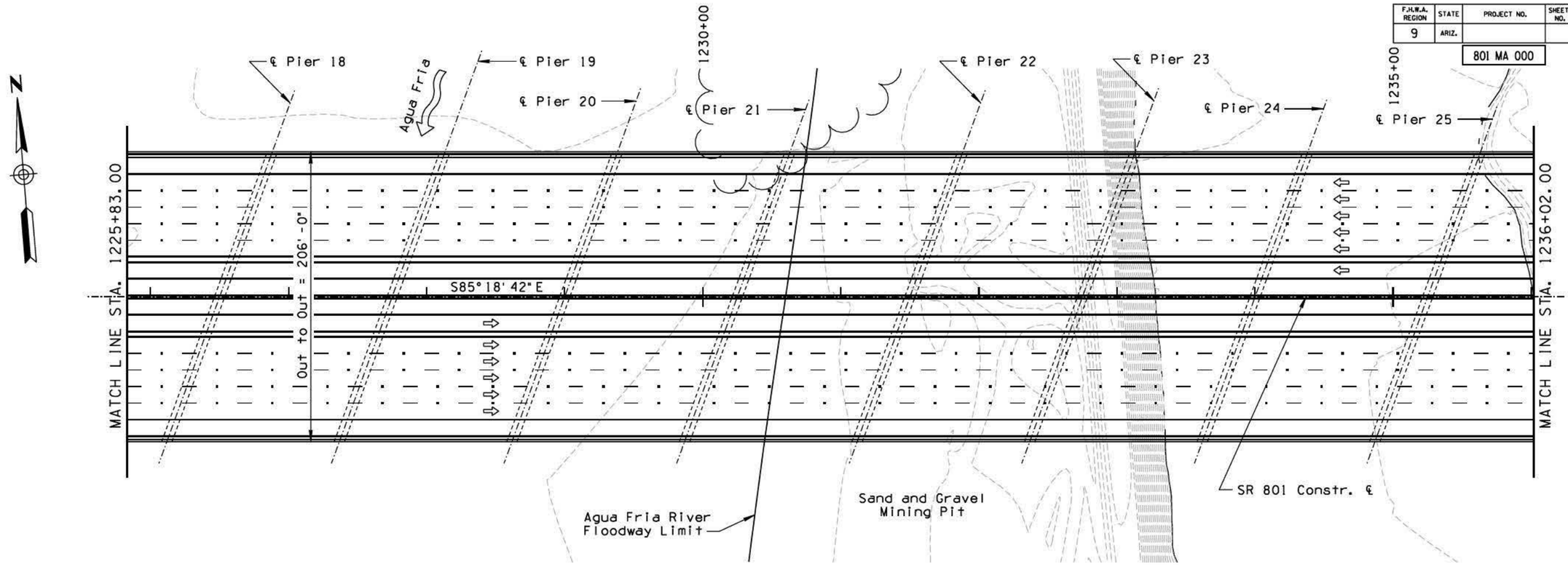
DATE: 8/16/2007 9:03:44 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2C1_02.DGN

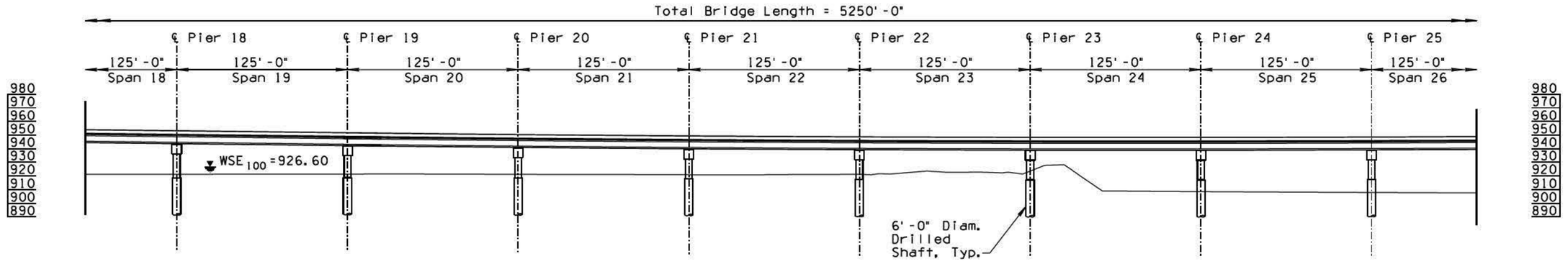
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-25

A144 OF A184

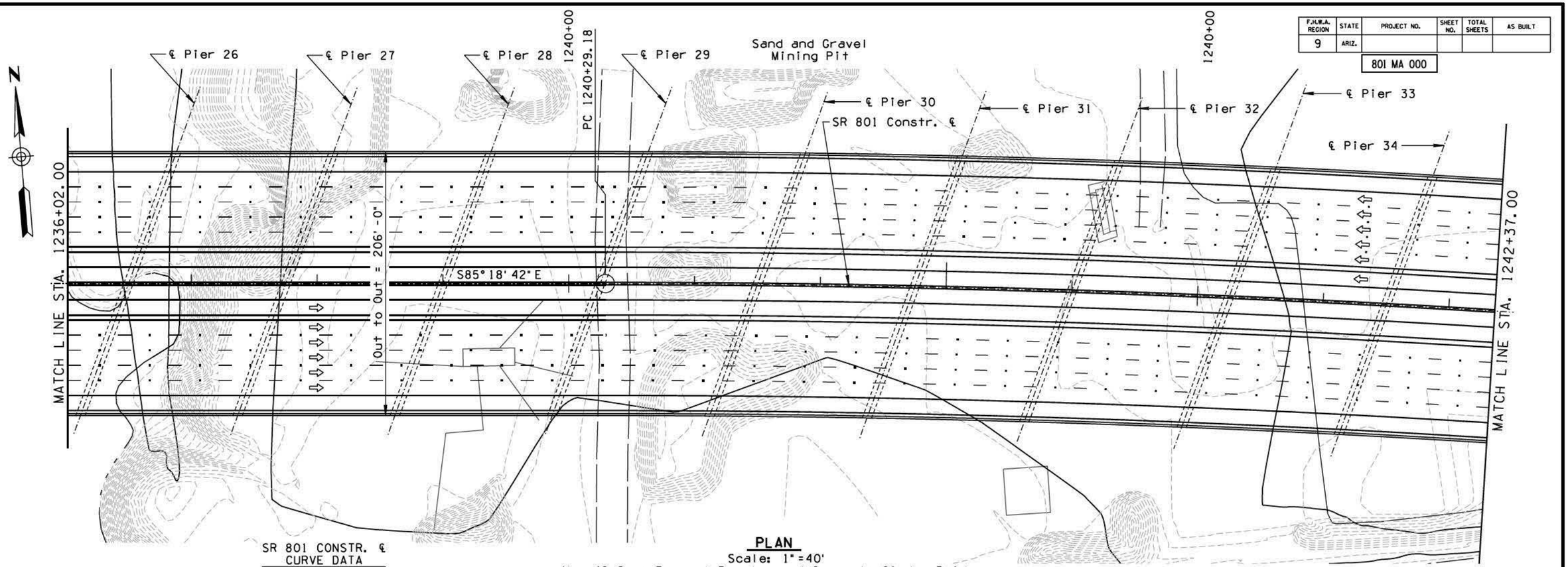
DATE: 8/16/2007 9:03:45 AM

FILEC:\PWWORKING\PHX\DMS01543\S_AF_2C1_03.DGN

ccccSYSTIMEcccccccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

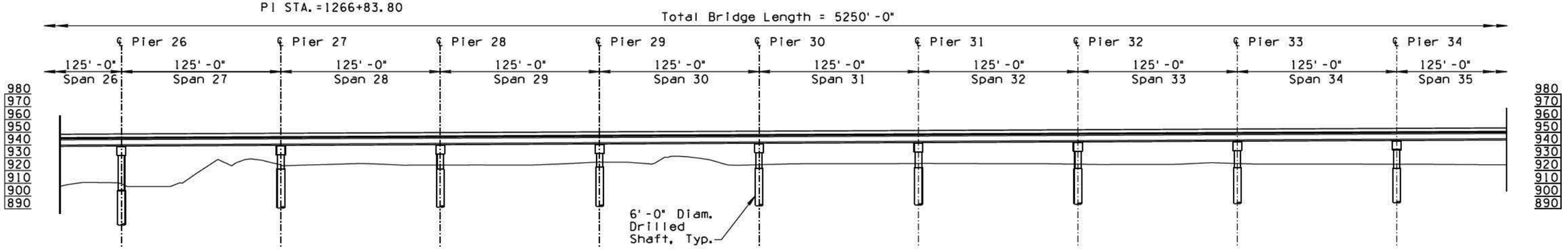


SR 801 CONSTR. ℄
CURVE DATA

Δ=26°05'10" Rt.
D=00°30'00"
R=11459.16'
L=5217.22'
PI STA.=1266+83.80

PLAN
Scale: 1"=40'

New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	
TRACS NO.	H6876 01L		

DWG. NO. S-26
A145 *OF* A184

DATE: 8/16/2007 9:03:47 AM

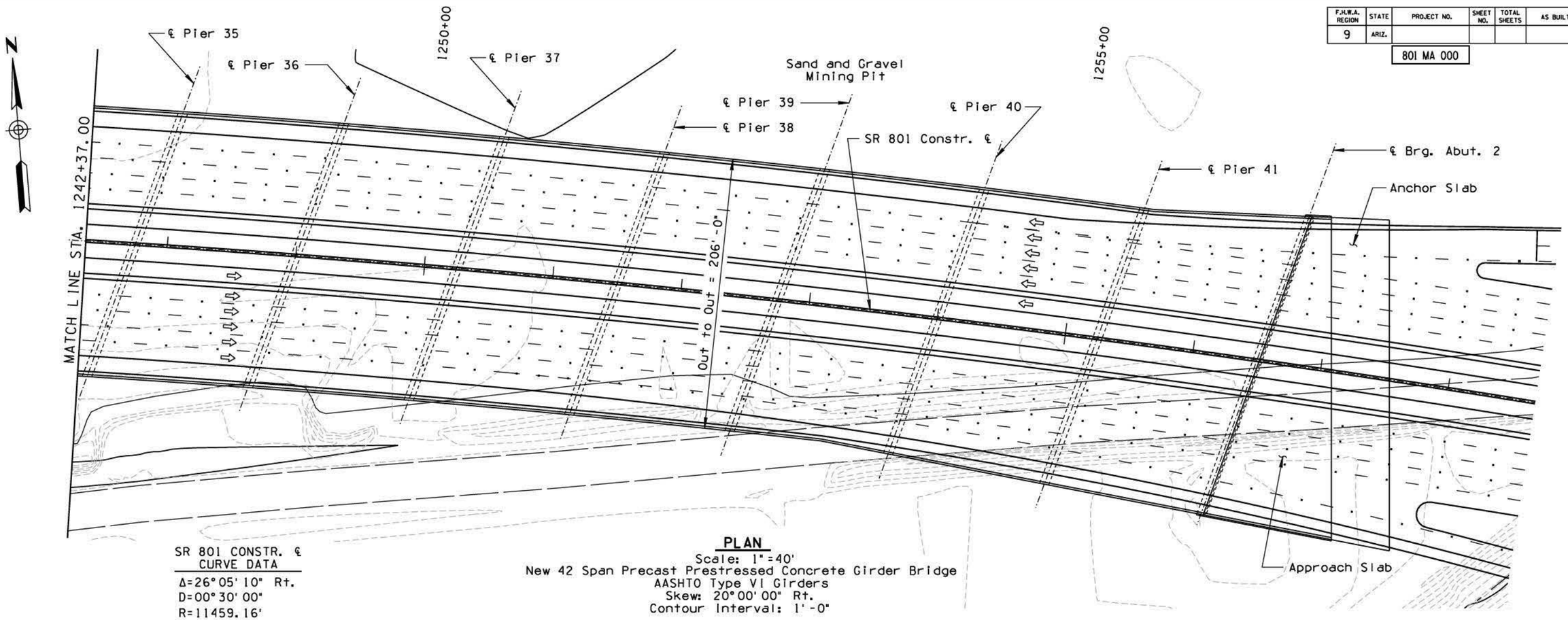
DATE- | LOCATION- | REVISIONS- | FINISHED PLANS- | SURVEY NO.

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2C1_04.DGN

ccccSYSTIMEcccc ccccDGNcSPECIFICATIONcccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

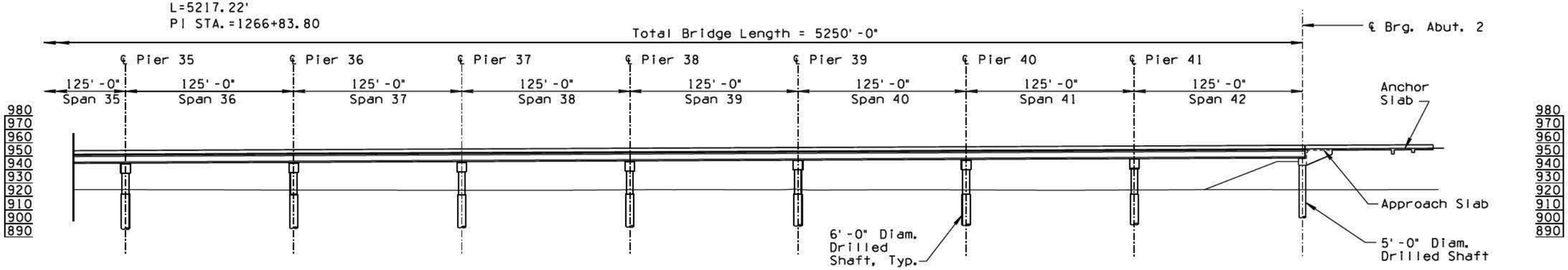
801 MA 000



SR 801 CONSTR. ℄
CURVE DATA

Δ=26°05'10" Rt.
D=00°30'00"
R=11459.16'
L=5217.22'
PI STA.=1266+83.80

PLAN
Scale: 1"=40'
New 42 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 20°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C1

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C1

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-27

A146 OF A184

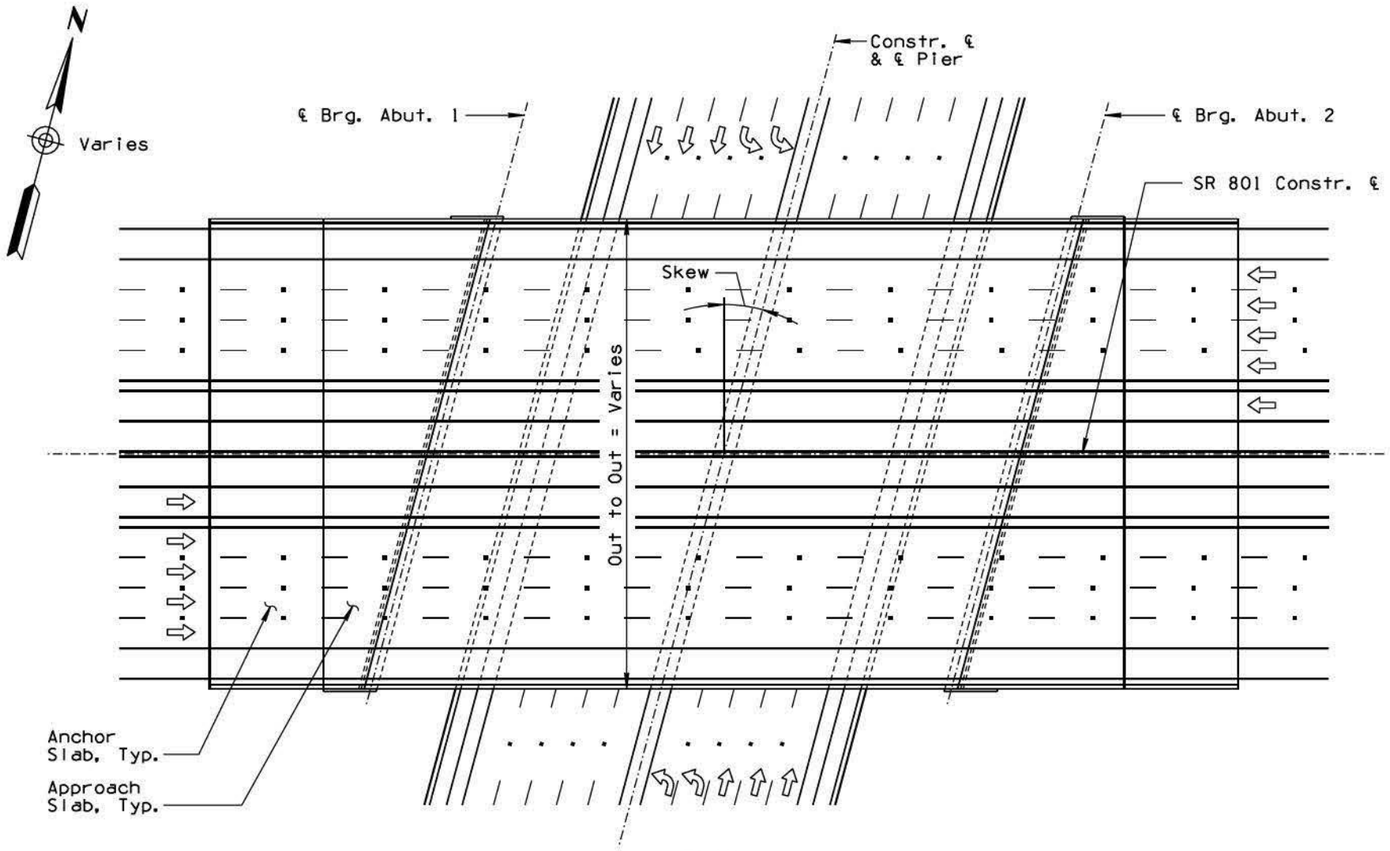
DATE: 8/16/2007 9:03:48 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2C1_05.DGN

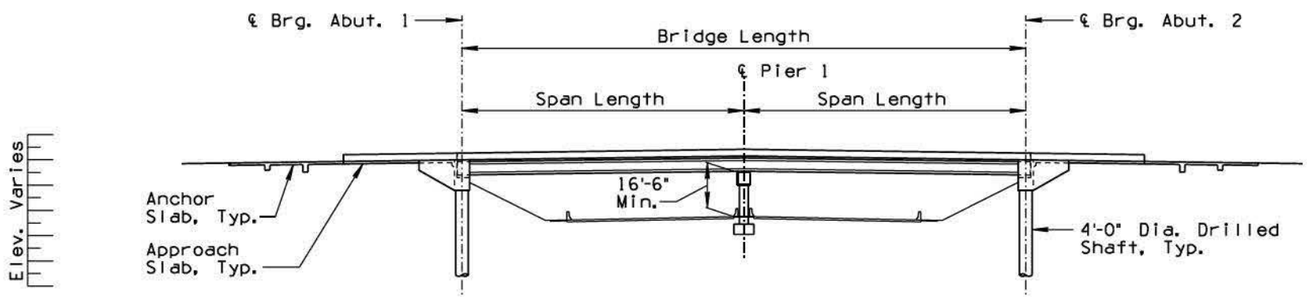
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1"=30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	0°Lt.	4.75	115	230	182	41860
Bullard Avenue	3°Lt.	4.75	115	230	182	41860
Dysart Road	21°Lt.	5	123	246	182	44772
Southern Avenue, West	59°Rt.	6.25	151	302	206	62212
El Mirage Road	5°Lt.	5	124	248	182	45136
115th Avenue	1°Rt.	4.75	115	230	182	41860
Southern Avenue, East	53°Rt.	5.25	127	254	222 Avg.	56388
107th Avenue	32°Rt.	5.50	135	270	182	49140
99th Avenue	1°Lt.	4.75	115	230	182	41860

OVERPASS CROSSINGS SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-28

A147 OF A184

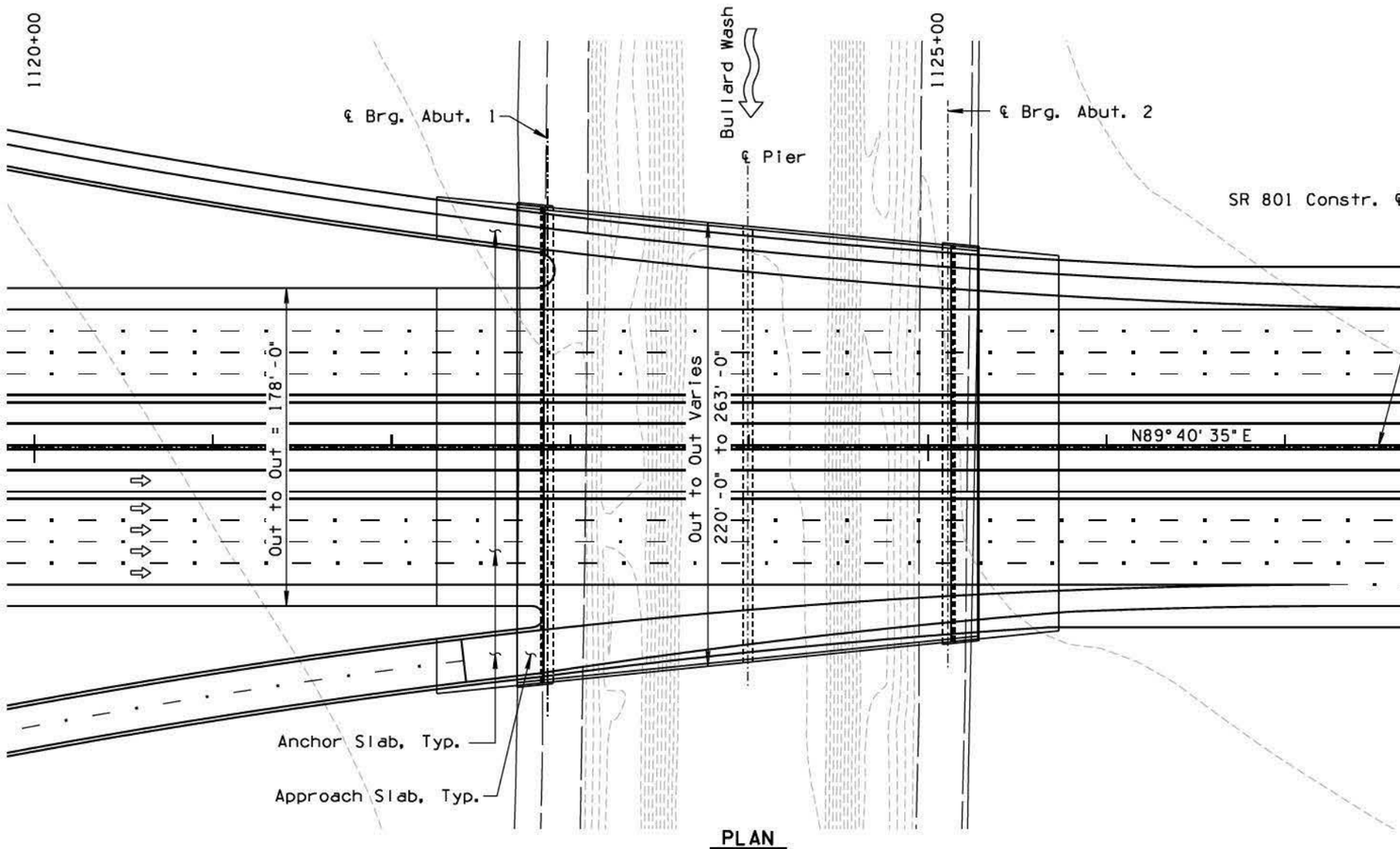
DATE: 8/16/2007 9:03:49 AM

FILE C:\PWWORKING\PHX\DMS01543\S_OP_2C2.DGN

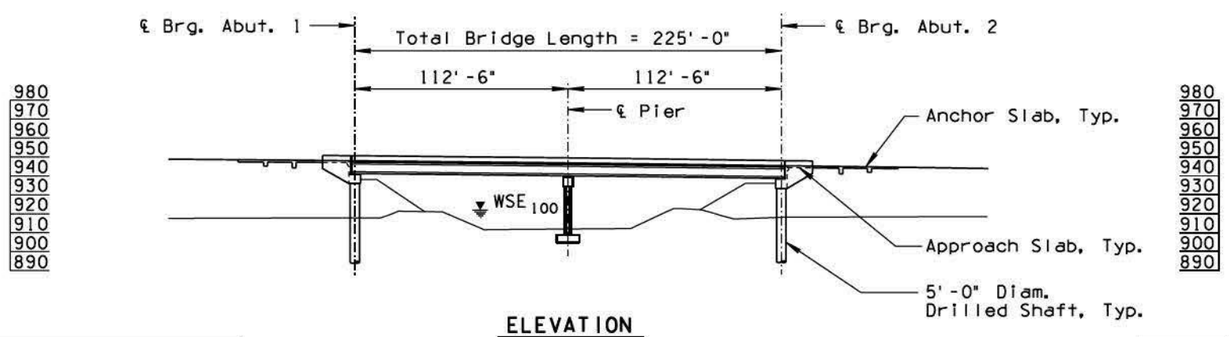
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 00° 00' 00"
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-29

A148 OF A184

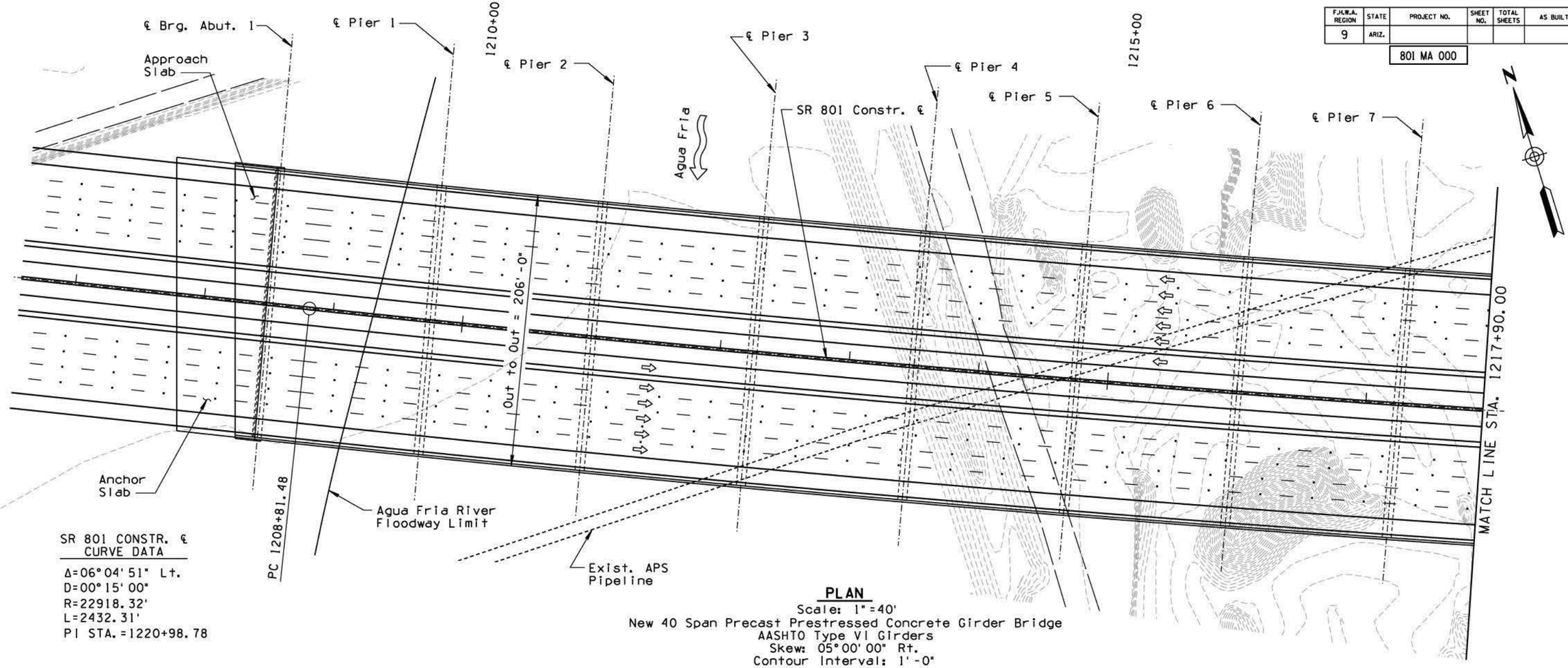
DATE: 8/16/2007 9:03:51 AM

FILE C:\PWWORKING\PHX\DMS01543\S_BW_2C2_01.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

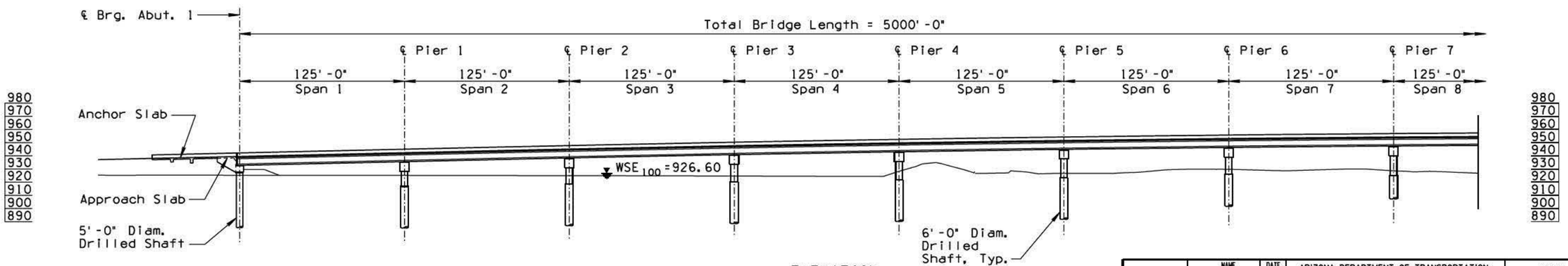
801 MA 000



SR 801 CONSTR. ℄
CURVE DATA

Δ=06°04'51" Lt.
D=00°15'00"
R=22918.32'
L=2432.31'
PI STA.=1220+98.78

PLAN
Scale: 1"=40'
New 40 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 05°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

SR 801 ROUTE	MILEPOST	STRUCTURE NO.
		SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-30

A149 OF A184

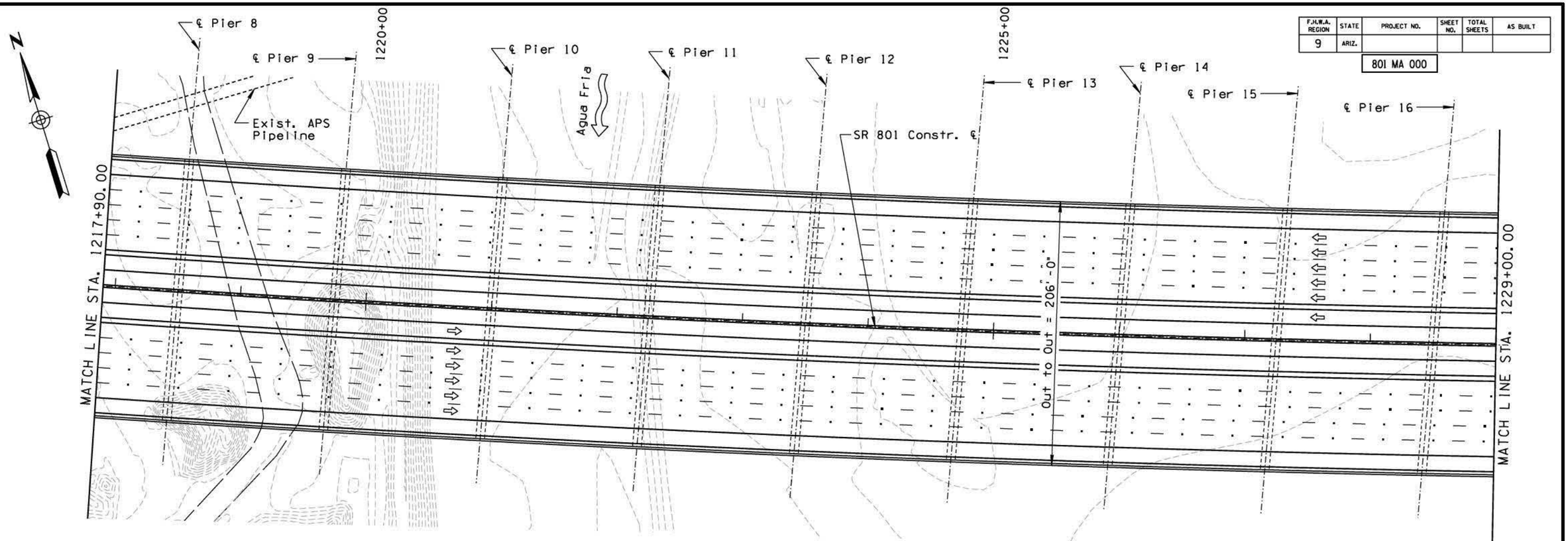
DATE: 8/16/2007 9:03:54 AM

FILE C:\PWWORKING\PHX\DMS01543\S_AF_2C2_01.DGN

ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

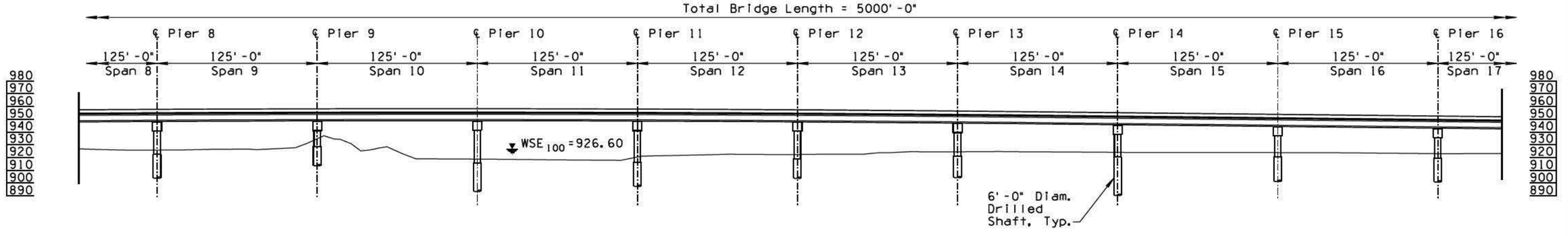
801 MA 000



SR 801 CONSTR. ℄
CURVE DATA

Δ=06°04'51" Lt.
D=00°15'00"
R=22918.32'
L=2432.31'
PI STA.=1220+98.78

PLAN
Scale: 1"=40'
New 40 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 05°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-31

A150 OF A184

DATE: 8/16/2007 9:03:56 AM

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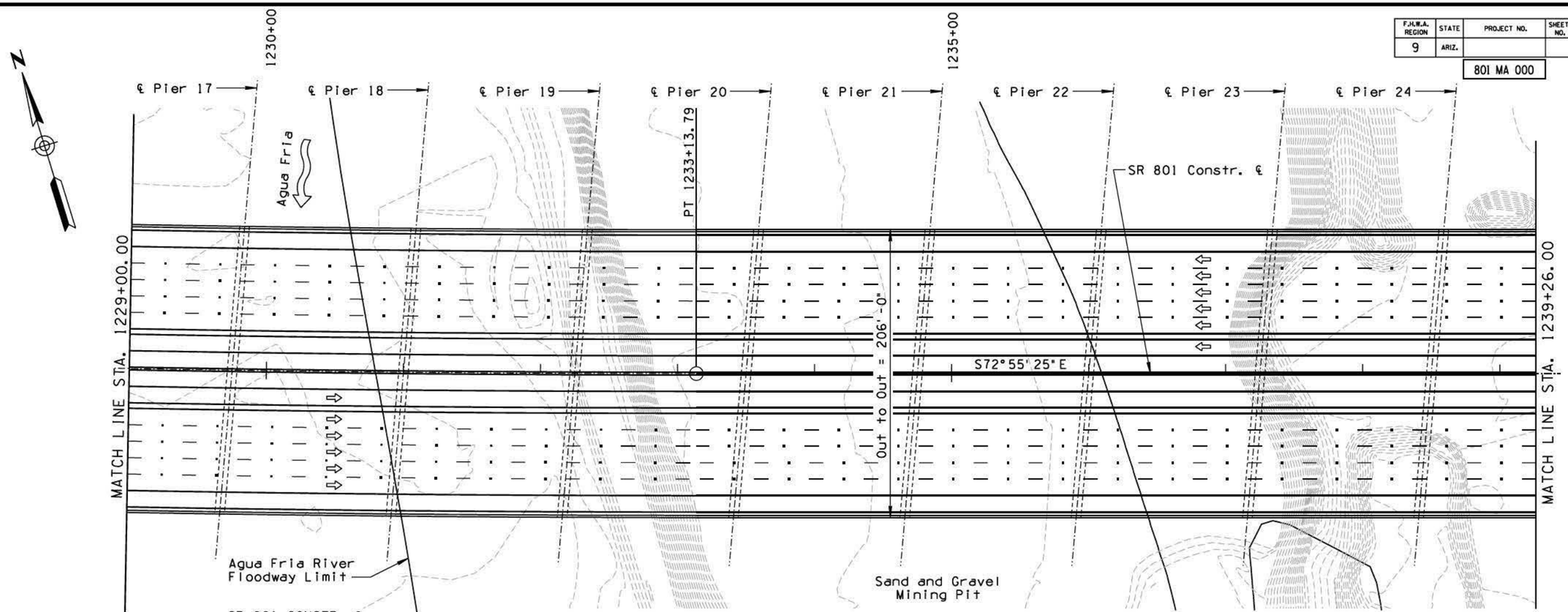
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

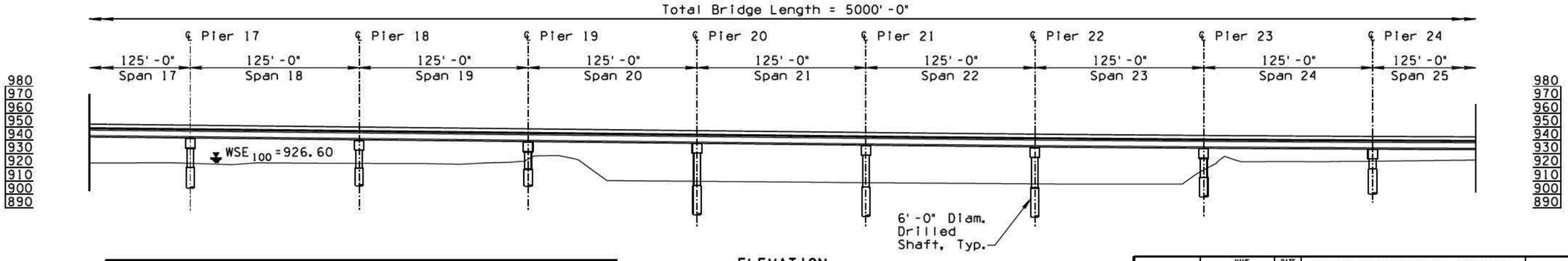
801 MA 000



SR 801 CONSTR. ℄
CURVE DATA

Δ=06°04'50" Lt.
D=00°15'00"
R=22918.32'
L=2432.31'
PI STA.=1220+98.78

PLAN
Scale: 1"=40'
New 40 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 05°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

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NOT FOR CONSTRUCTION OR RECORDING

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	
TRACS NO.	H6876 01L		

DWG. NO. S-32

A151 OF A184

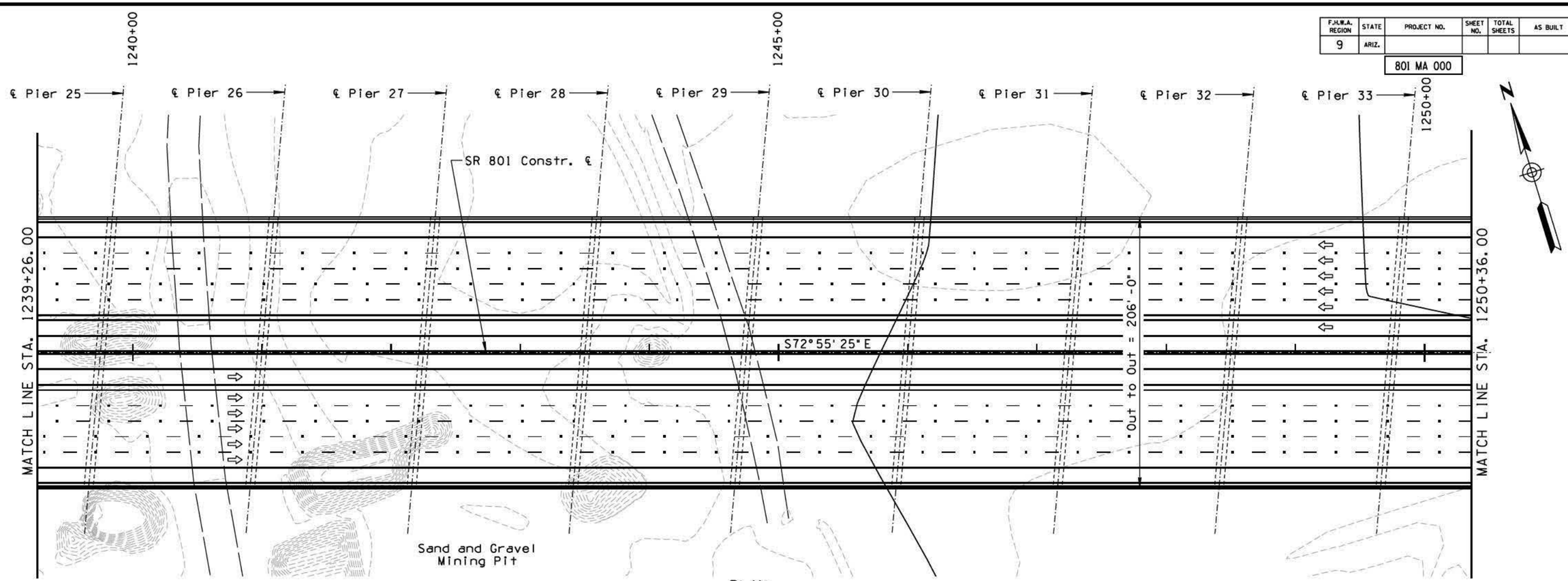
DATE: 8/16/2007 9:03:57 AM

FILE: C:\PWWORKING\PHX\DMS01543\S_AF_2C2_03.DGN

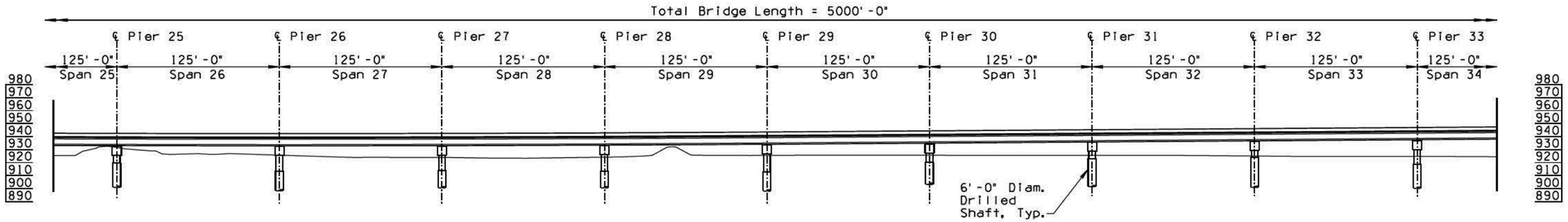
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 40 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 05°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-33

A152 OF A184

DATE: 8/16/2007 9:03:59 AM

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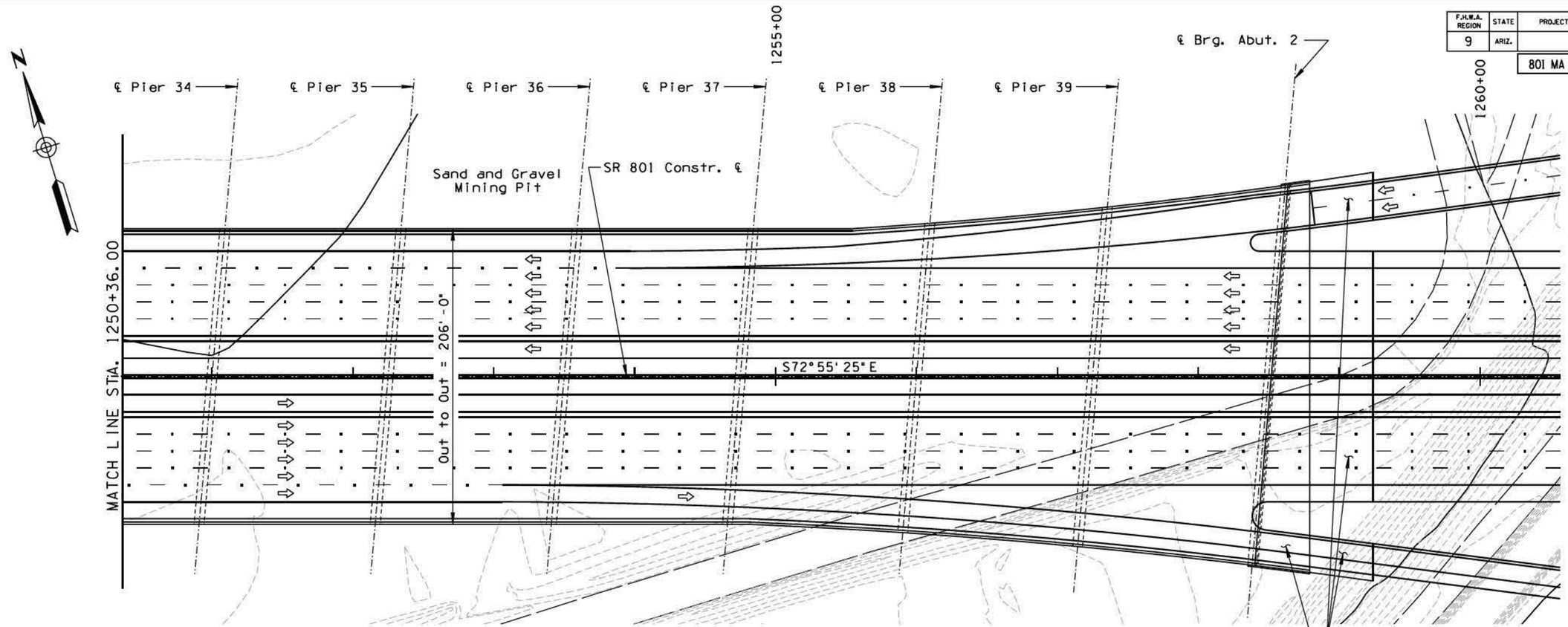
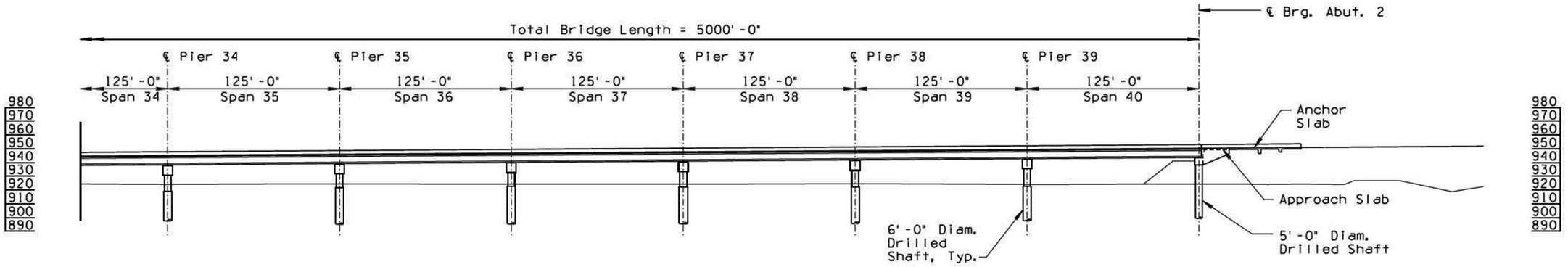
ccccSYSTIMEcccccccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 40 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 05°00'00" Rt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C2

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C2

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	
TRACS NO.	H6876 01L		

DWG. NO. S-34
A153 OF A184

DATE: 8/16/2007 9:04:00 AM
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

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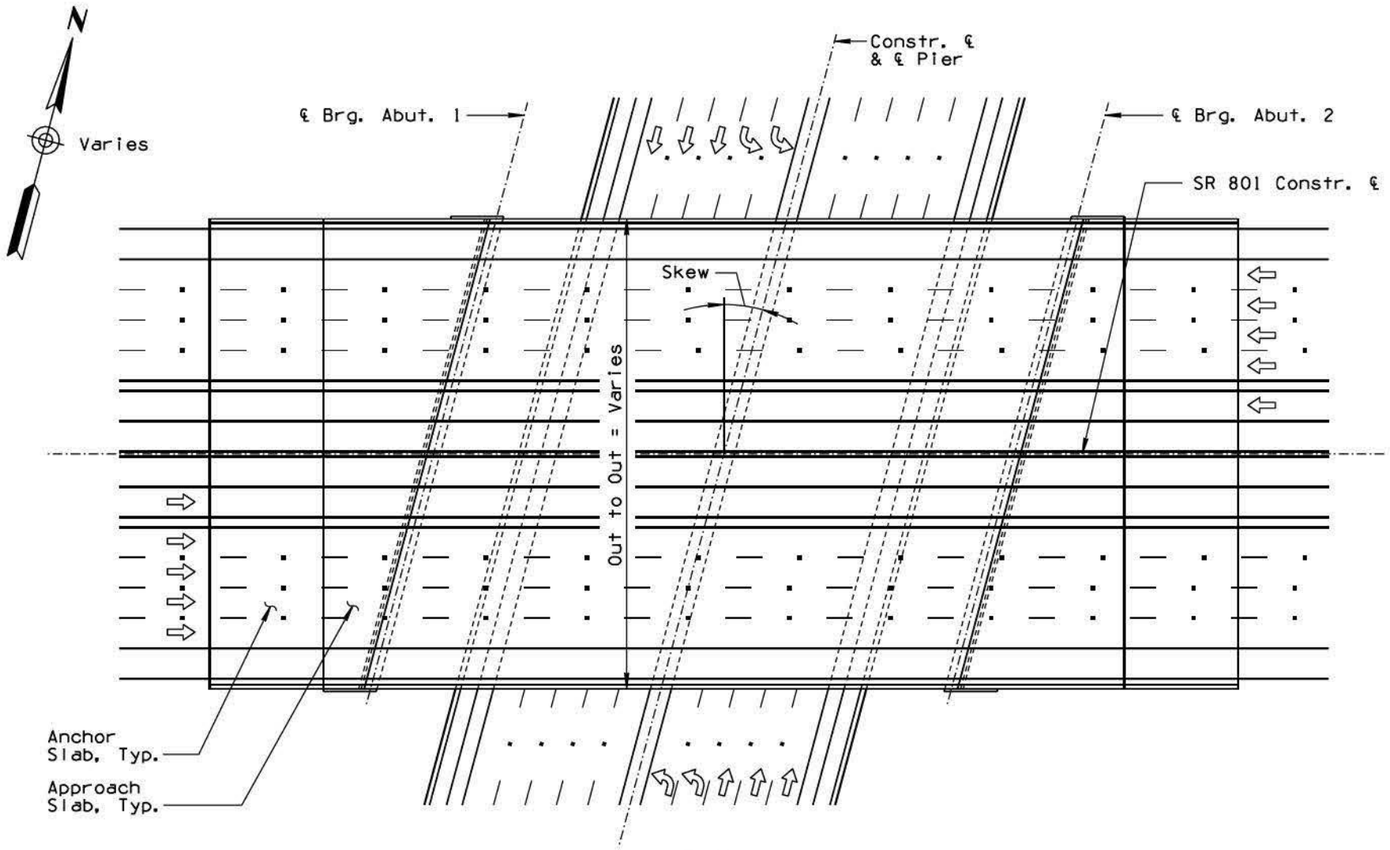
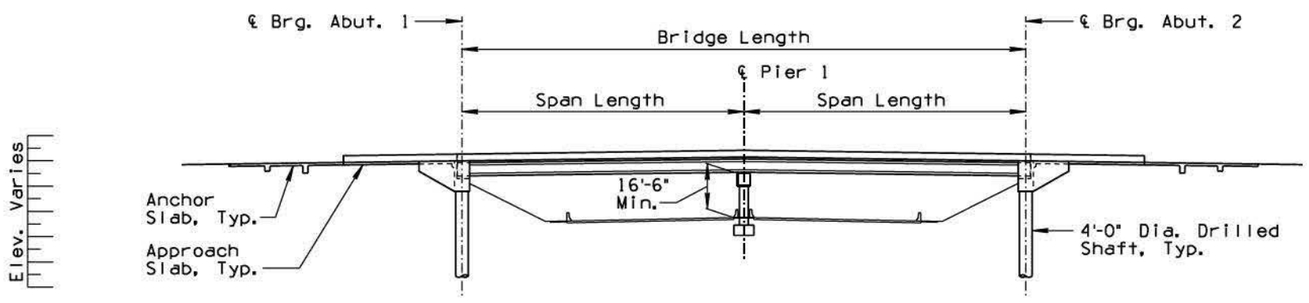
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1" = 30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
Estrella Parkway	0°Lt.	4.75	115	230	182	41860
Bullard Avenue	3°Rt.	4.75	115	230	182	41860
Dysart Road	3°Rt.	4.75	116	232	182	42224
El Mirage Road	11°Lt.	5	124	248	182	45136
115th Avenue	5°Rt.	4.75	115	230	182	41860
Southern Avenue	65°Lt.	7.50	186	372	206	76632
107th Avenue	3°Rt.	4.75	115	230	182	41860
99th Avenue	30°Rt.	5.50	133	266	206	54796

OVERPASS CROSSINGS SUBSECTION 2C3

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

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INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C3

SR 801 ROUTE	MILEPOST	STRUCTURE NO.
		SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-35

A154 OF A184

DATE: 8/16/2007 9:04:01 AM

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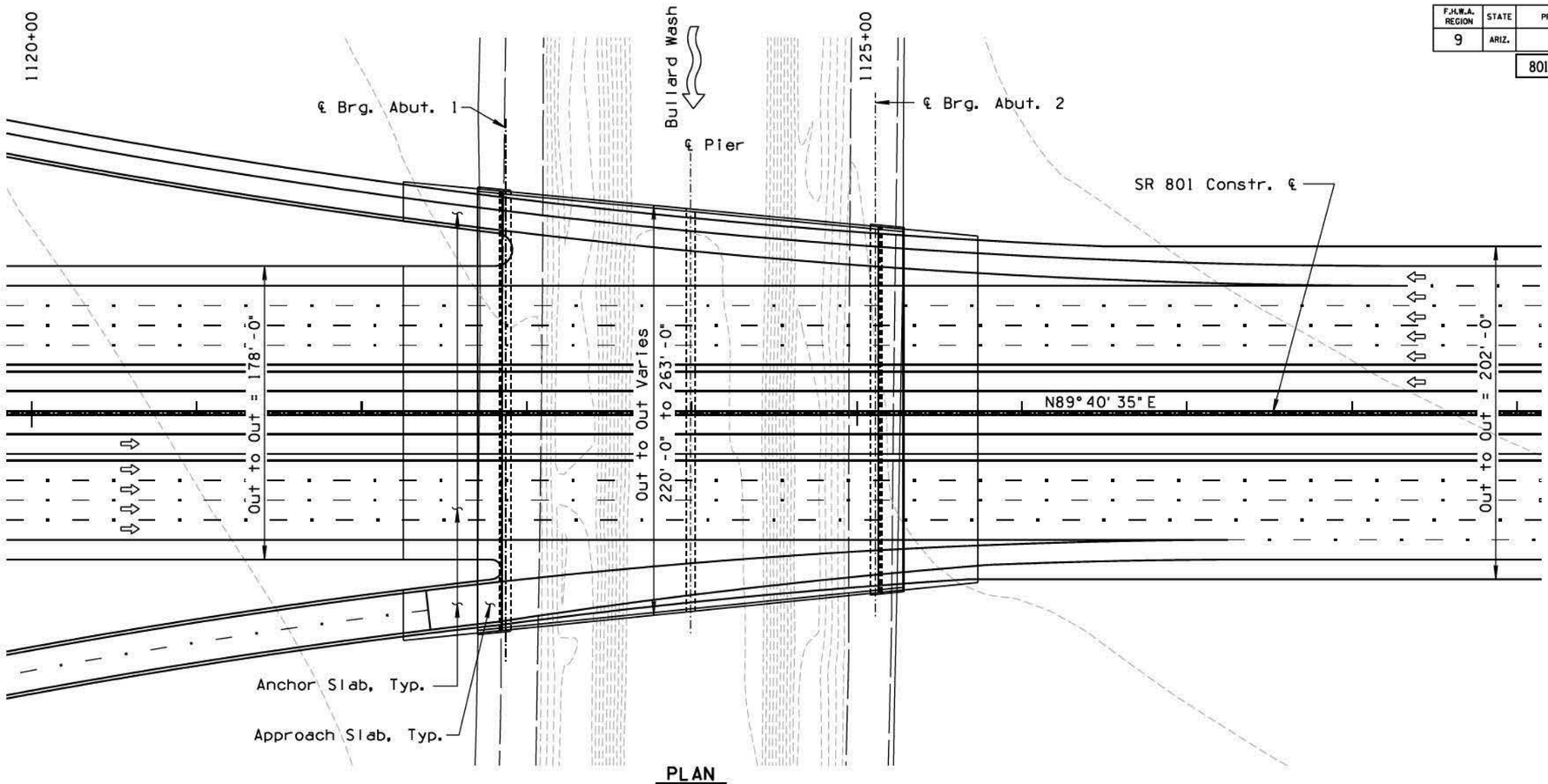
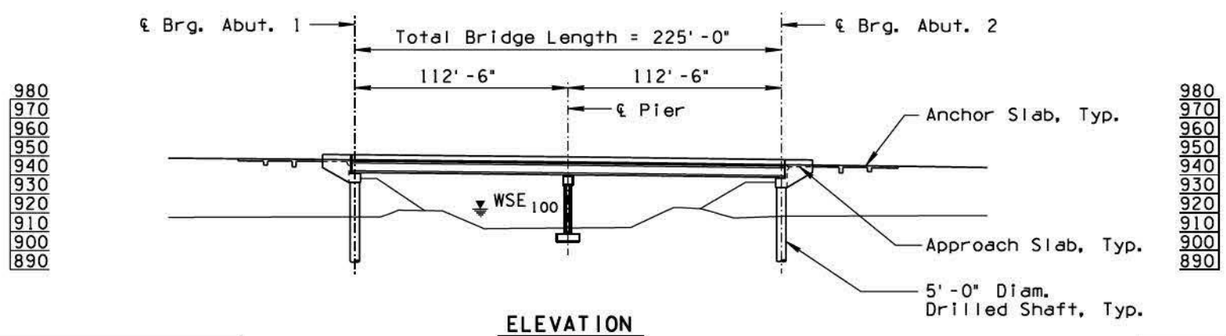
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 00° 00' 00"
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

BULLARD WASH BRIDGE SUBSECTION 2C3

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C3

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-36

A155 OF A184

DATE: 8/16/2007 9:04:04 AM

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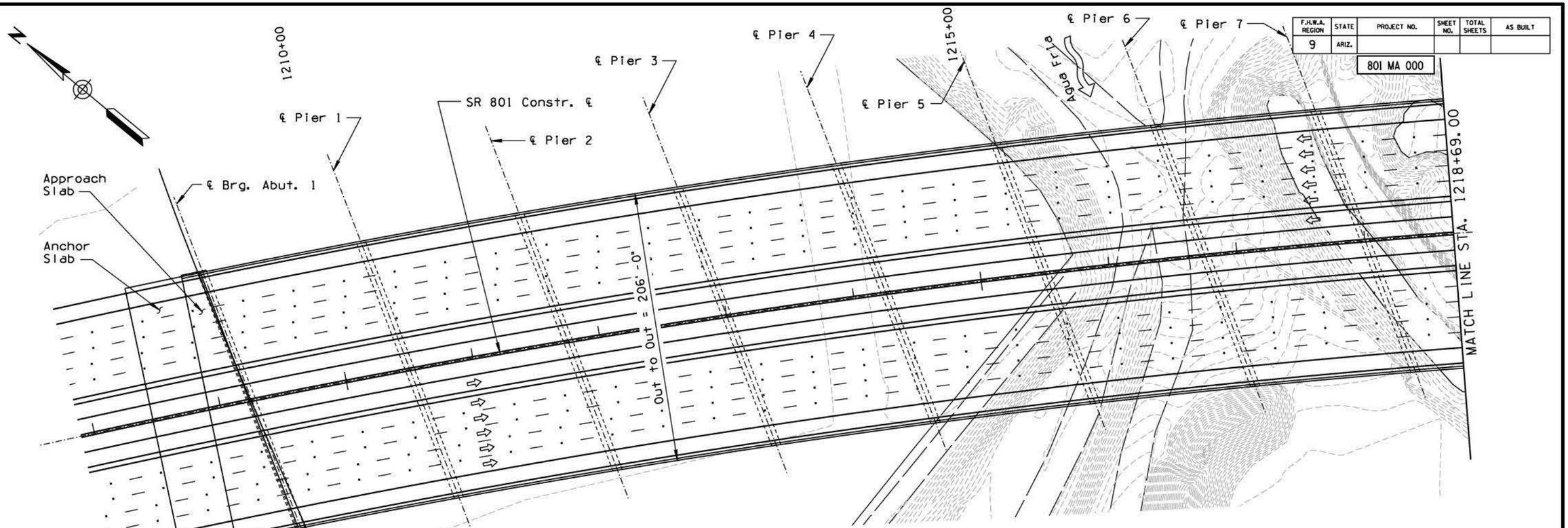
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

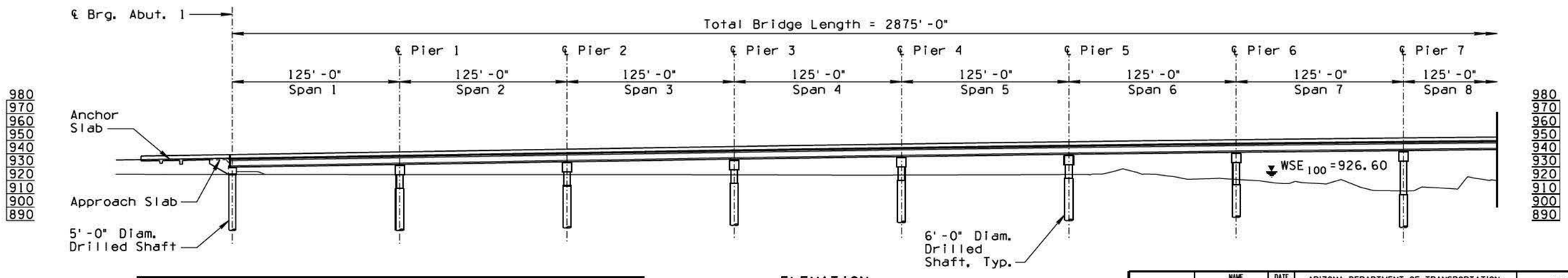
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	801 MA 000			



PLAN
Scale: 1"=40'
New 23 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Lt.
Contour Interval: 1'-0"

SR 801 CONSTR. ℄ CURVE DATA

Δ=50°45'27" Rt.
D=00°45'00"
R=7639.44'
L=6767.66'
PI STA.=1193+05.57



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C3

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C3

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
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DWG. NO. S-37

A156 OF A184

DATE: 8/16/2007 9:04:06 AM

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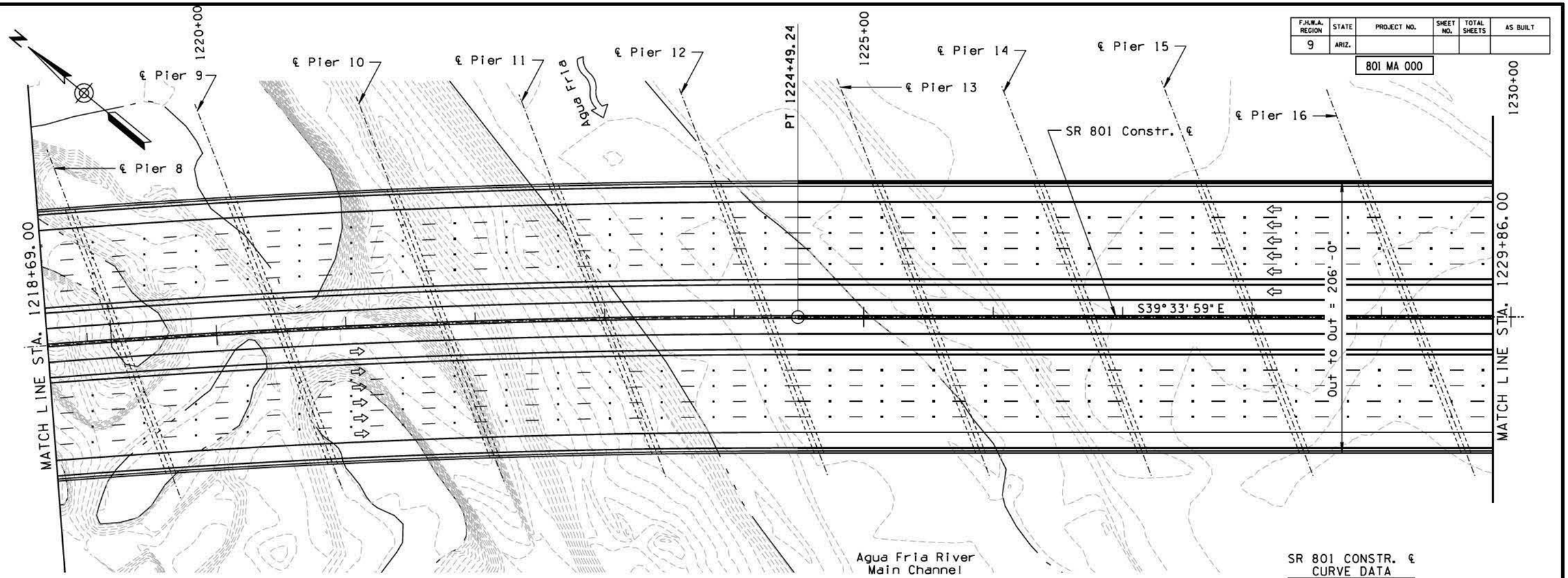
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

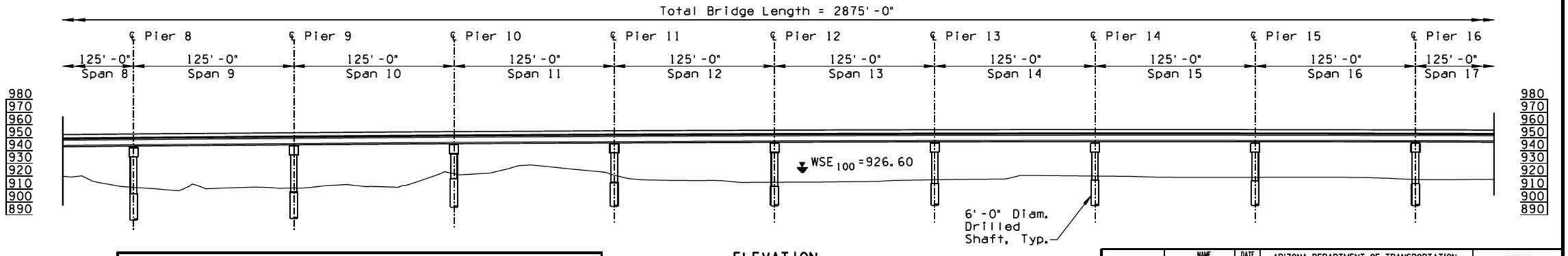
801 MA 000



PLAN
Scale: 1"=40'
New 23 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Lt.
Contour Interval: 1'-0"

SR 801 CONSTR. ℄ CURVE DATA

Δ=50°45'27" Rt.
D=00°45'00"
R=7639.44'
L=6767.66'
PI STA.=1193+05.57



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE
SUBSECTION 2C3

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C3

SR 801 (SR 303L TO SR 202L)

ROUTE SR 801 | MILEPOST | STRUCTURE NO.

TRACS NO. H6876 01L

FINAL
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DWG. NO. S-38

A157 OF A184

DATE: 8/16/2007 9:04:07 AM

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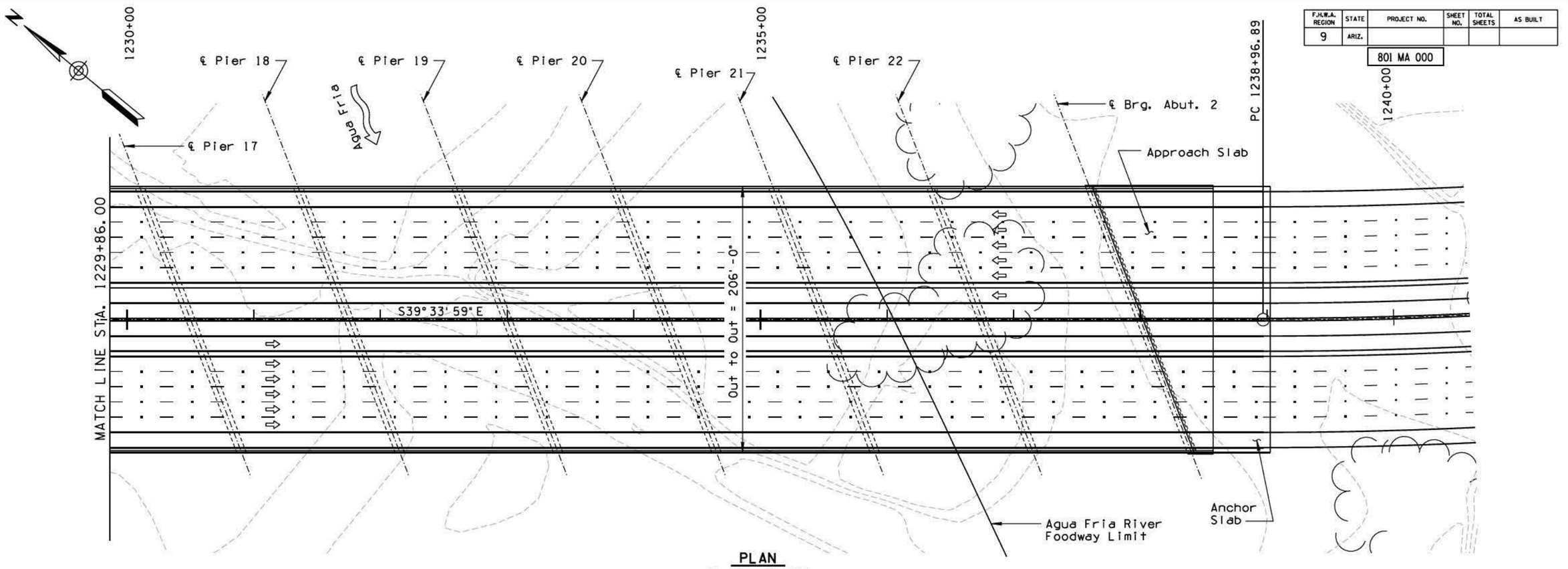
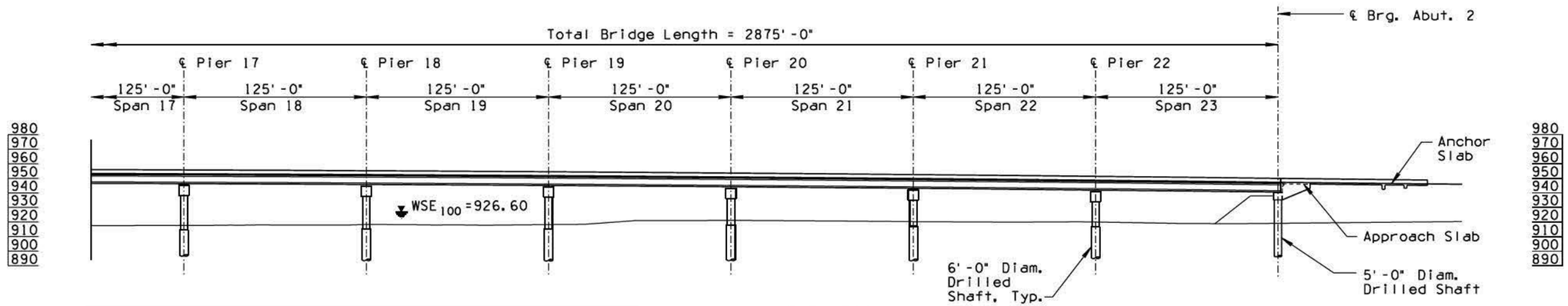
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=40'
New 23 Span Precast Prestressed Concrete Girder Bridge
AASHTO Type VI Girders
Skew: 21°00'00" Lt.
Contour Interval: 1'-0"



ELEVATION
Scale: 1"=40'

AGUA FRIA RIVER BRIDGE SUBSECTION 2C3

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 2C3

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. S-39

A158 *OF* A184

DATE: 8/16/2007 9:04:08 AM

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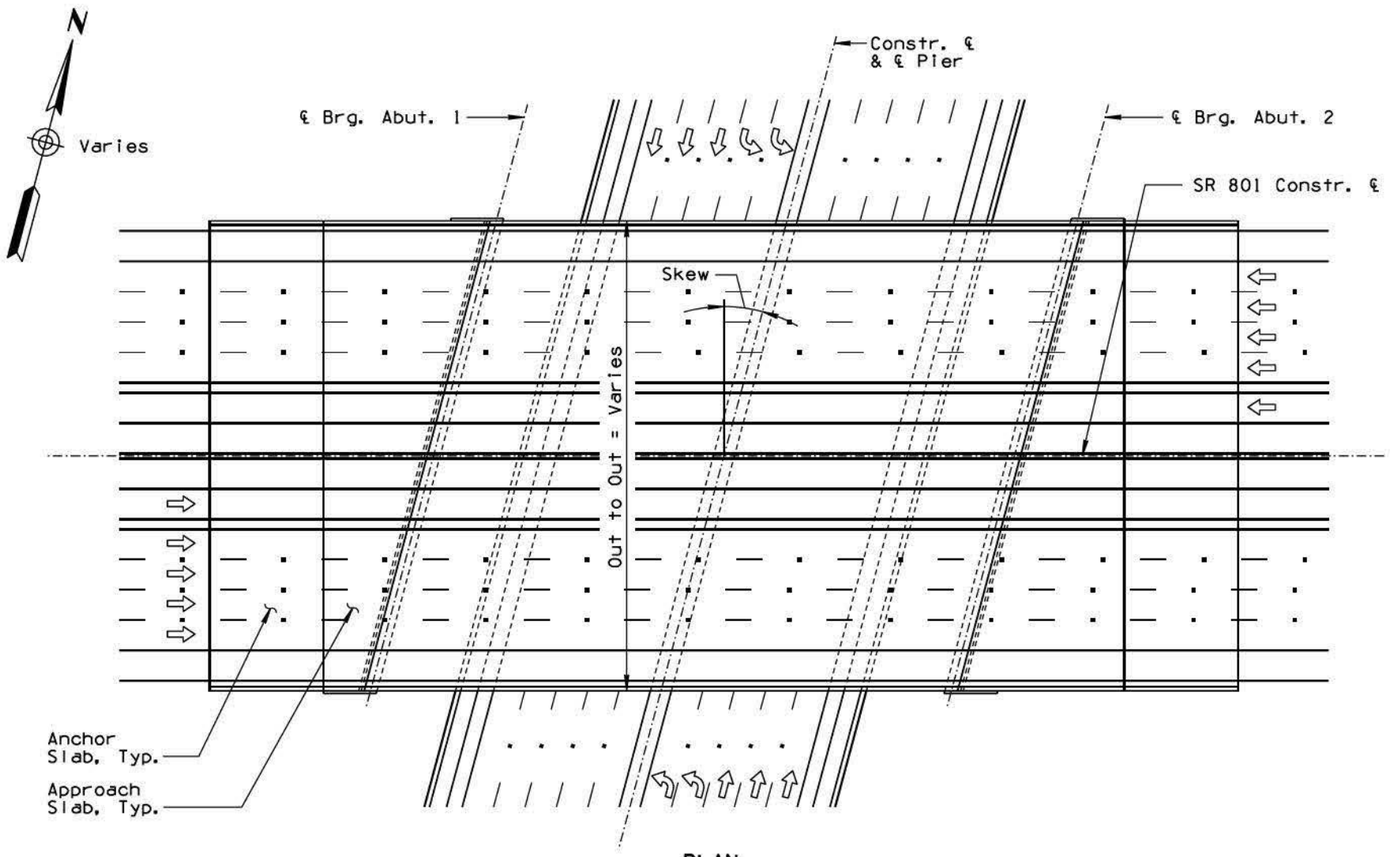
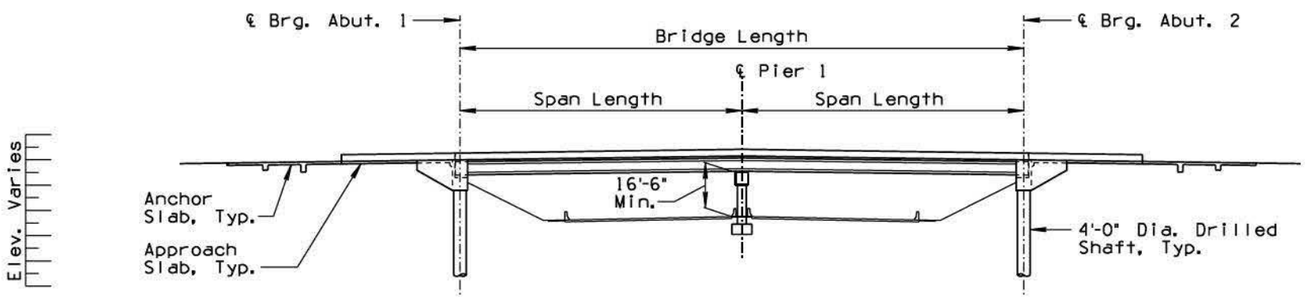
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1"=30'
New 2 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Overpass
Skew: Varies, See Table



ELEVATION
Scale: 1"=30'

Location	Skew	Structure Depth (ft.)	Span Length (ft.)	Bridge Length (ft.)	Bridge Width (ft.)	Deck Area (sq. ft.)
91st Avenue	15°Lt.	5	119	238	182	43316
83rd Avenue	2°Rt.	4.75	115	230	178	40940
75th Avenue	1°Lt.	4.75	115	230	192	44160
67th Avenue	2°Rt.	4.75	115	230	206	47380

OVERPASS CROSSINGS SUBSECTION 3B

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
SUBSECTION 3B

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
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NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. S-40

A159 OF A184

DATE: 8/16/2007 9:04:09 AM

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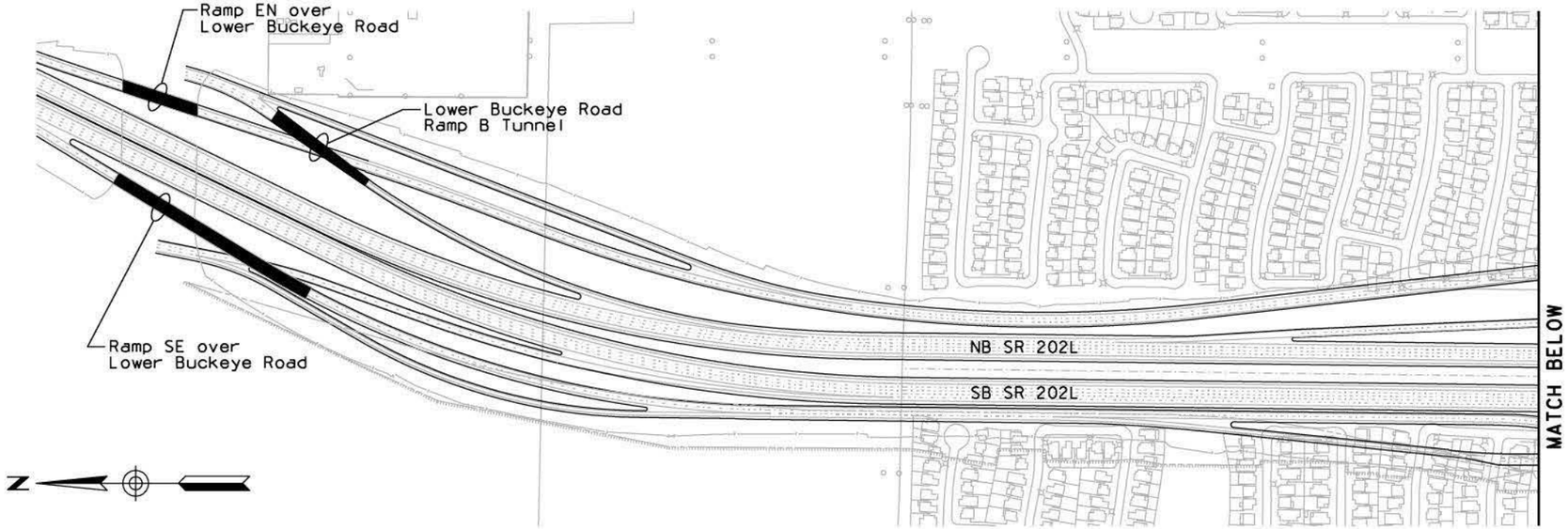
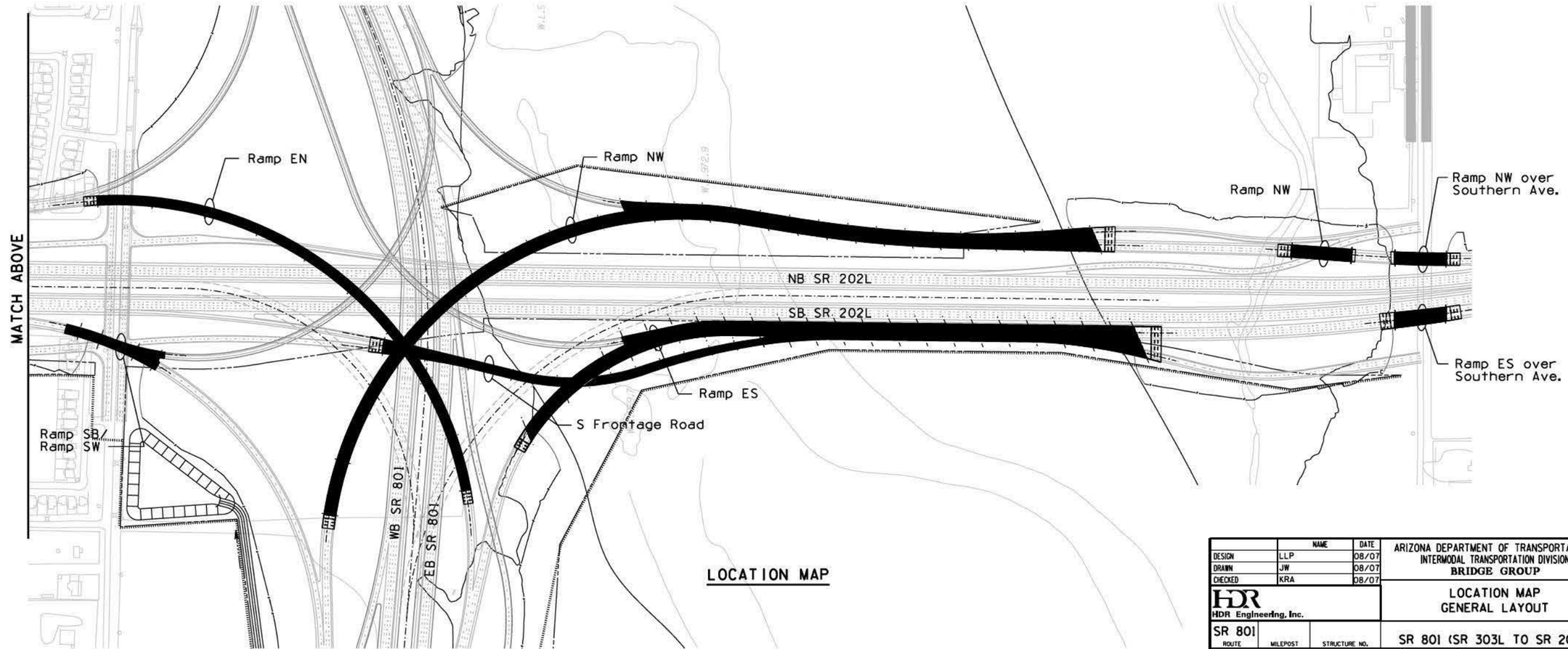
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





LOCATION MAP

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

LOCATION MAP
GENERAL LAYOUT

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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-01

TRACS NO. H6876 01L

A160 OF A184

NO.| DESCRIPTION OF REVISION | DATE | MADE BY | DATE

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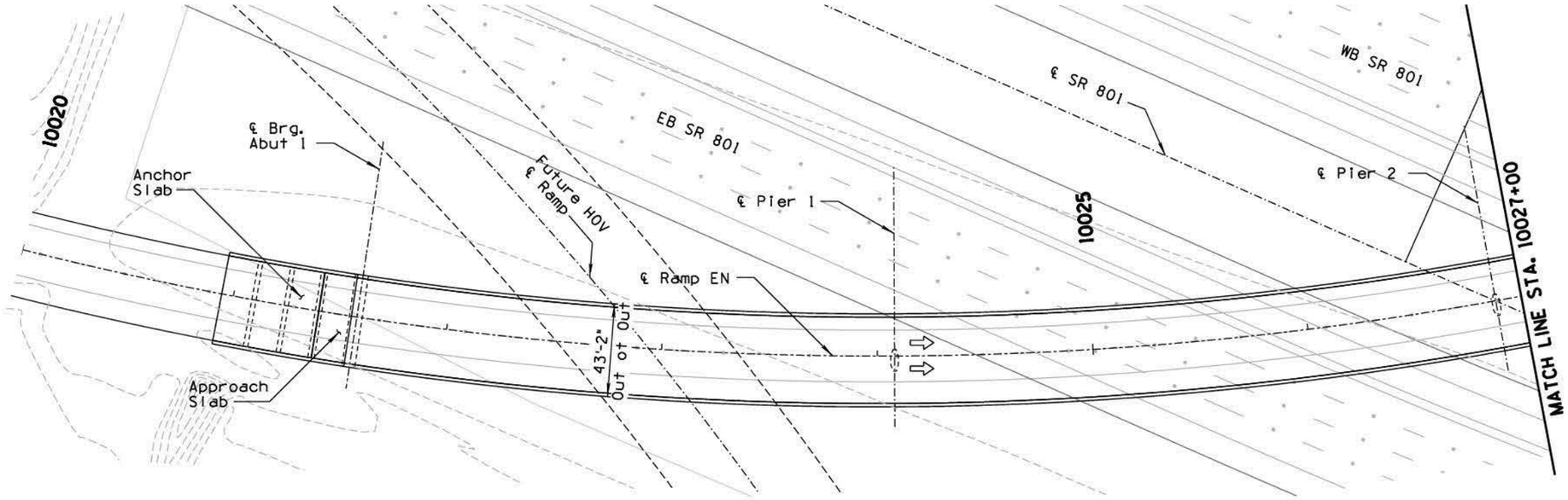
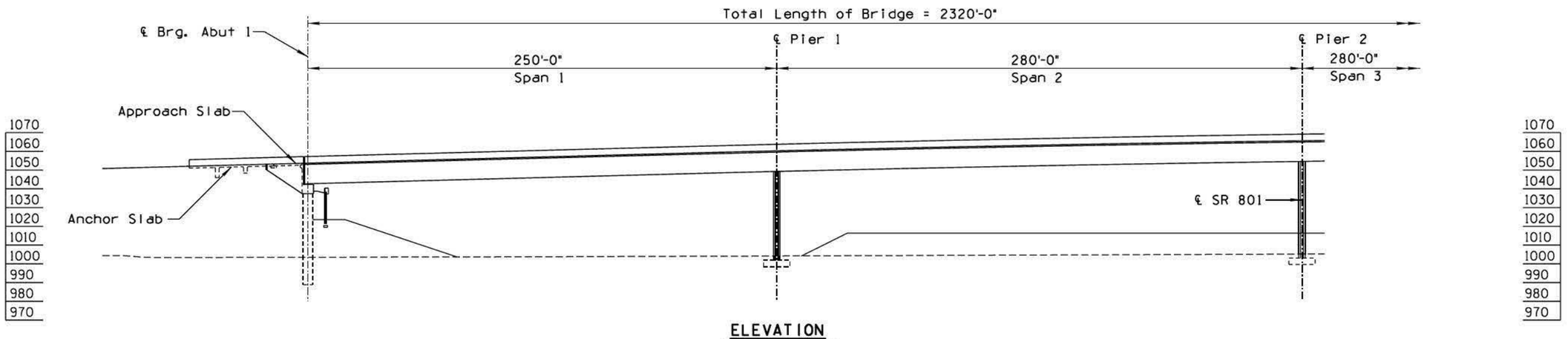
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 9 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP EN

SR 801 (SR 303L TO SR 202L)

SR 801 ROUTE	MILEPOST	STRUCTURE NO.

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-02

A161 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY

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ahoffman 8/16/2007 9:04:19 AM

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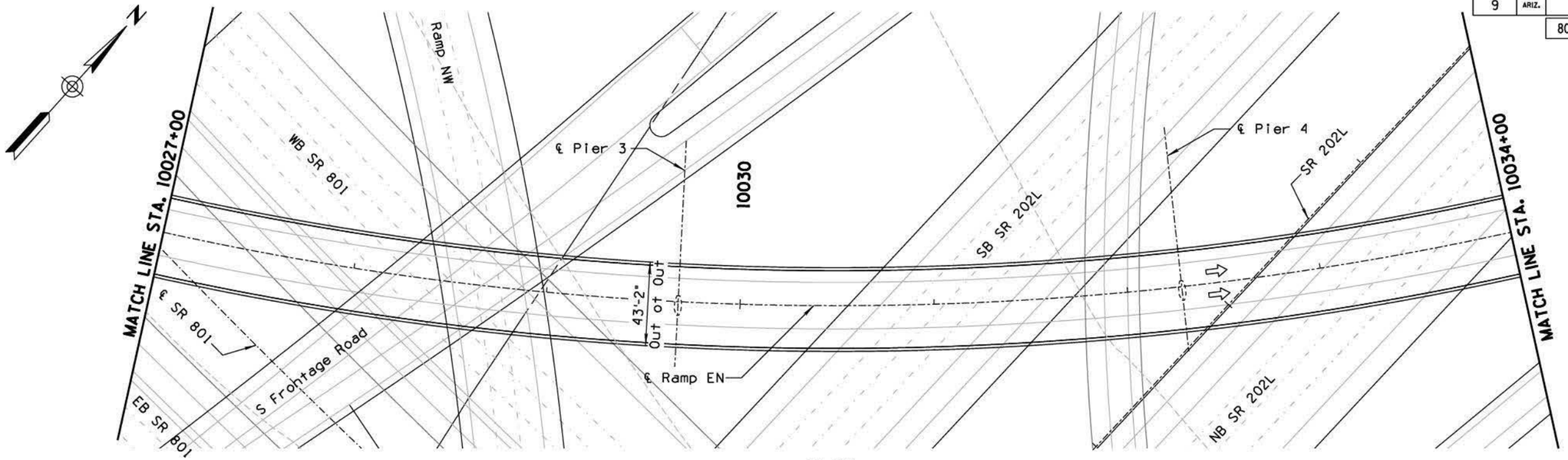
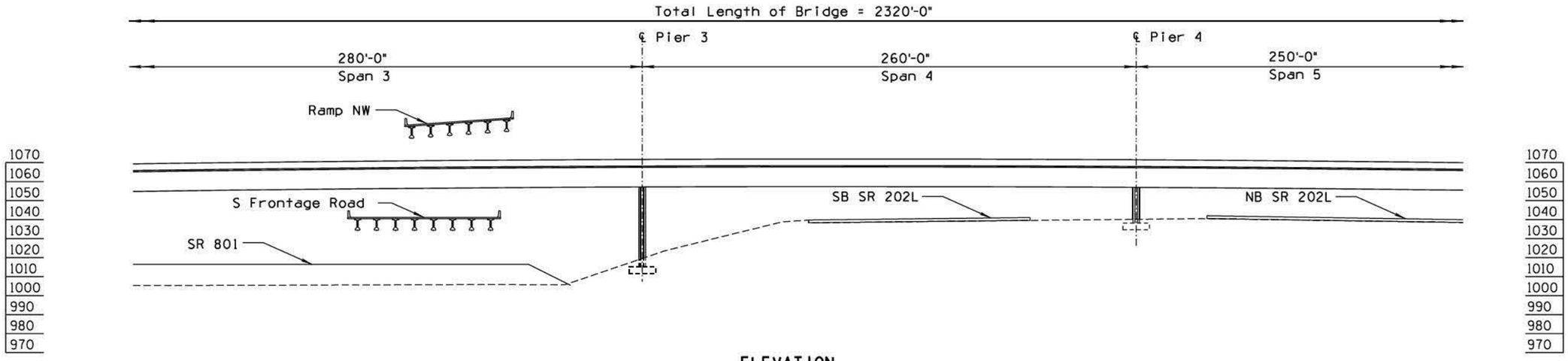
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 9 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP EN

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-03

A162 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY DATE

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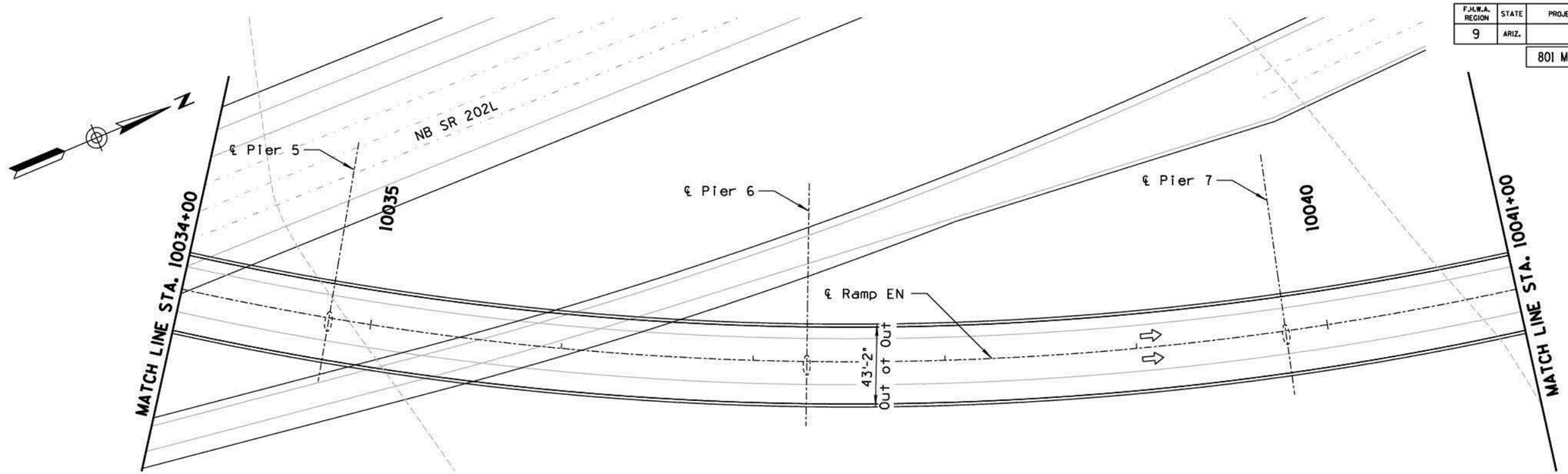
ahoffman 8/16/2007 9:04:20 AM

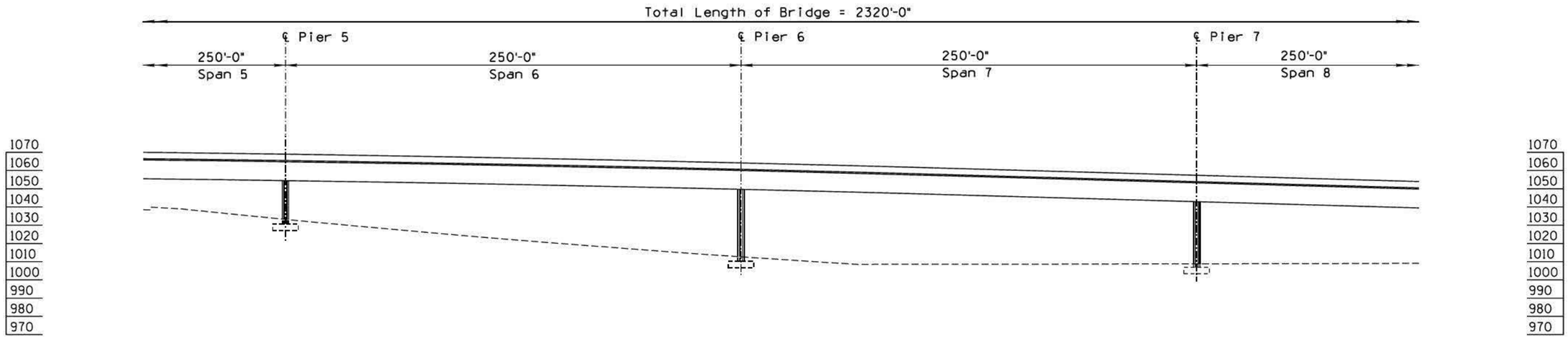
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 9 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-04

TRACS NO. H6876 01L

A163 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY

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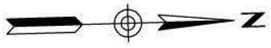
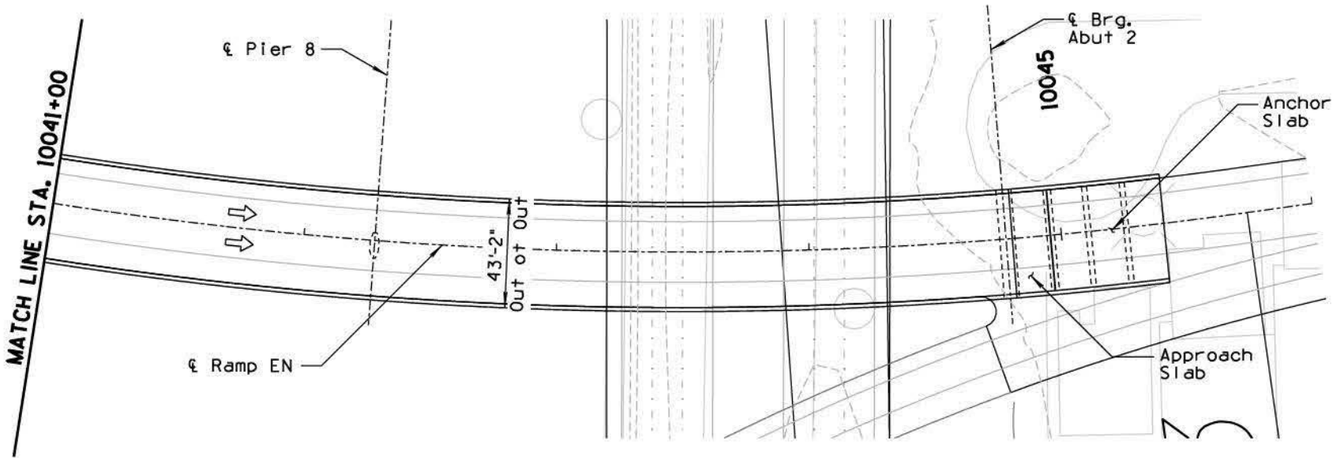
ccccSYSTIMEccccc ccccDGNcSPECIFICATIONccccc

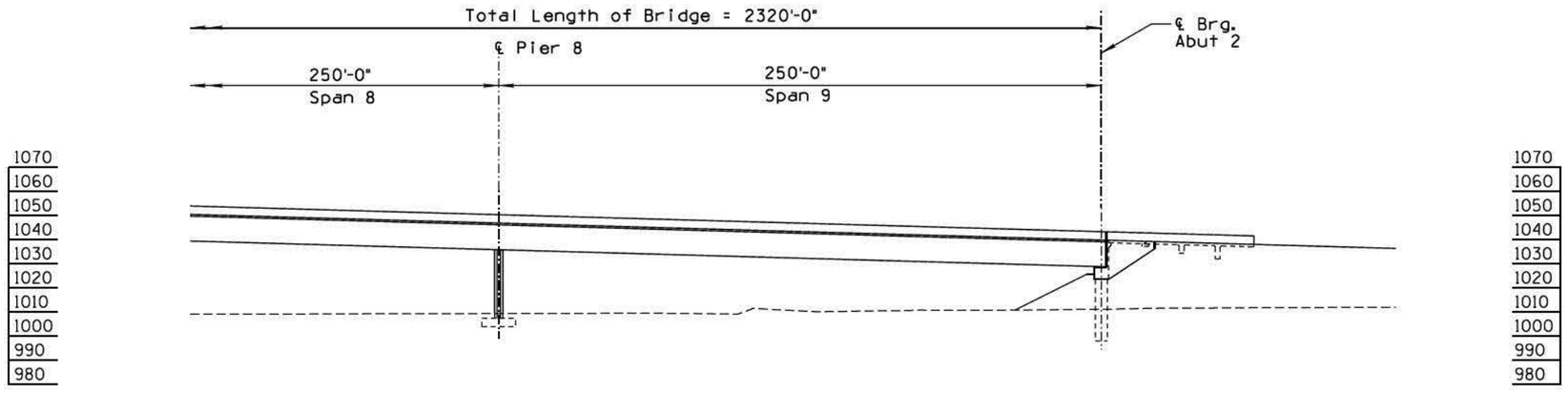
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000





PLAN
Scale: 1" = 30'-0"
New 9 Span Cast-in-Place Post-Tensioned
Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP EN

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

TRACS NO. H6876 01L

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DWG. NO. TIS-05

A164 OF A184

NO.	DESCRIPTION OF REVISION	MADE BY	DATE
NO.1			
NO.2			

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ahoffman 8/16/2007 9:04:23 AM

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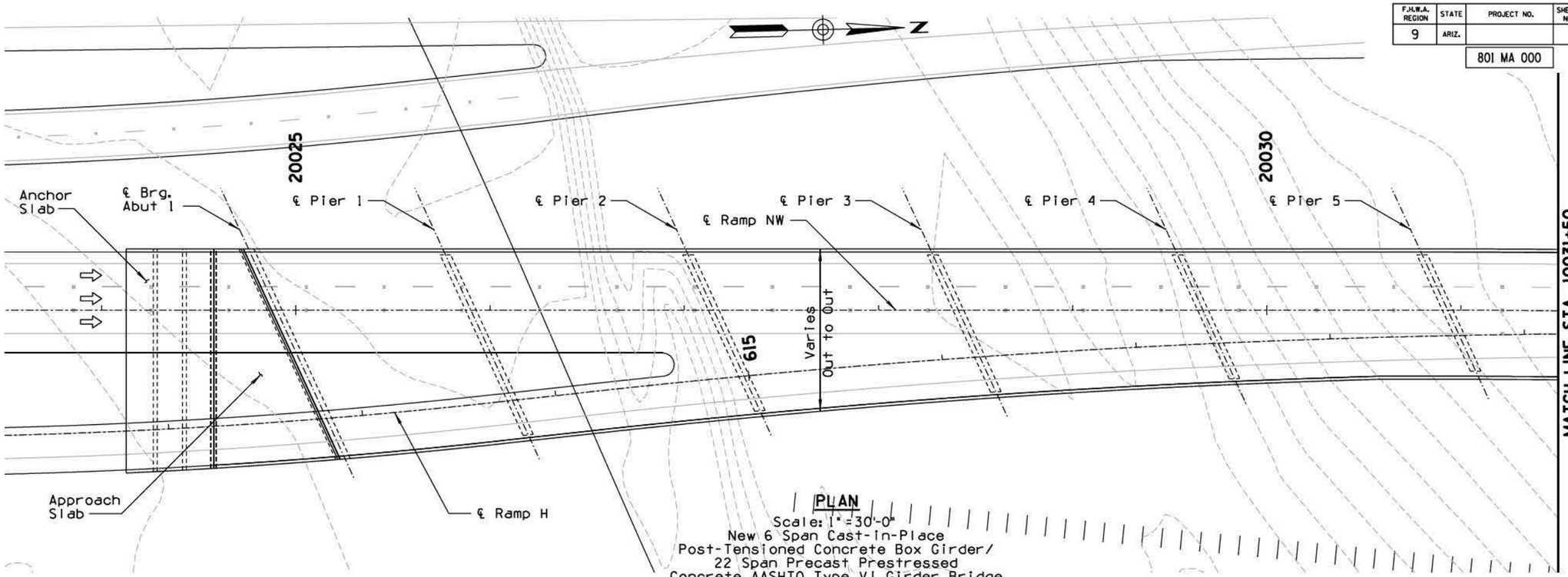
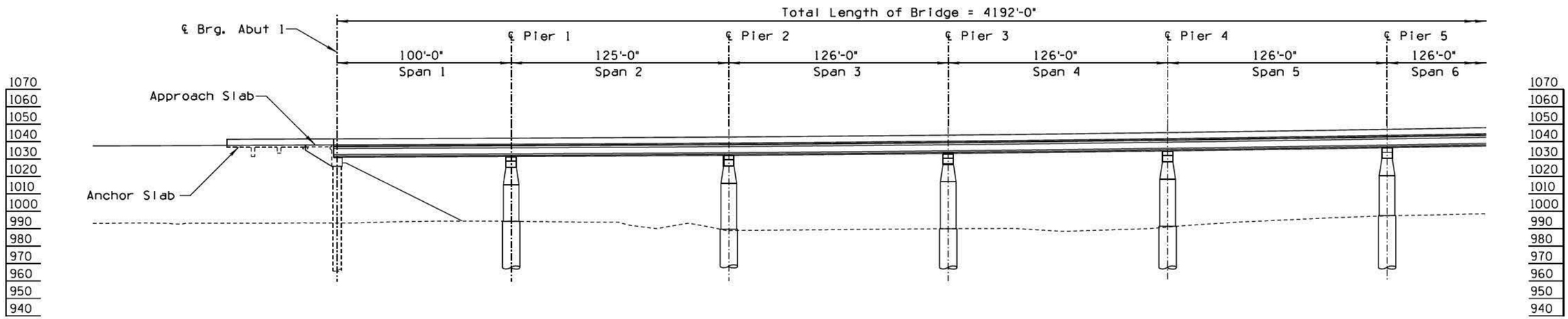
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 6 Span Cast-In-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21°41'19"
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

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INTERMODAL TRANSPORTATION DIVISION
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PLAN & ELEVATION
RAMP NW

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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-06

TRACS NO. H6876 01L

A165 OF A184

NO. | DESCRIPTION OF REVISION | DATE | MADE BY

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ahoffman 8/16/2007 9:04:24 AM

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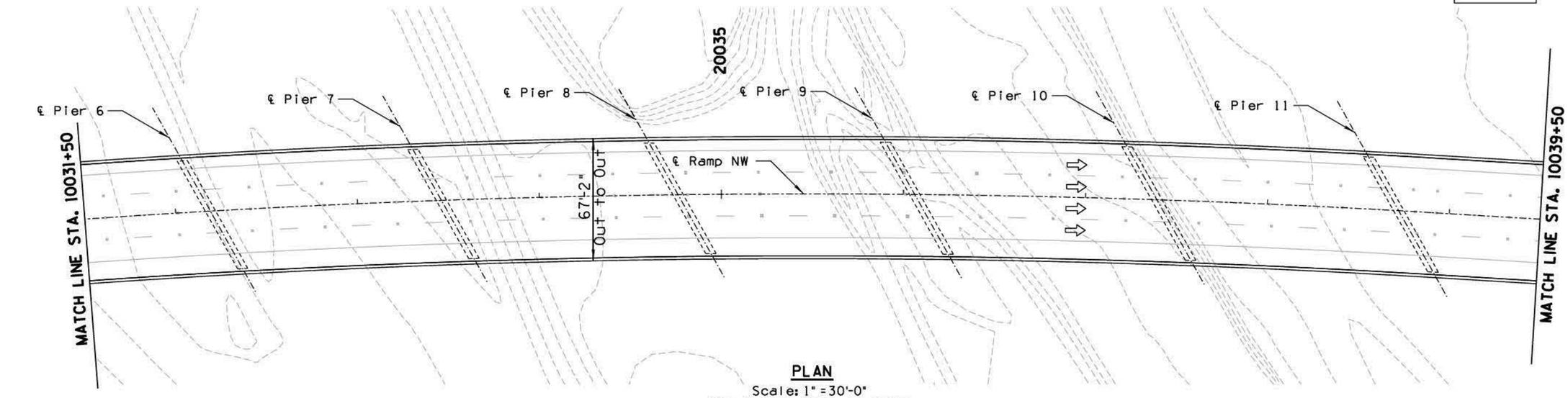
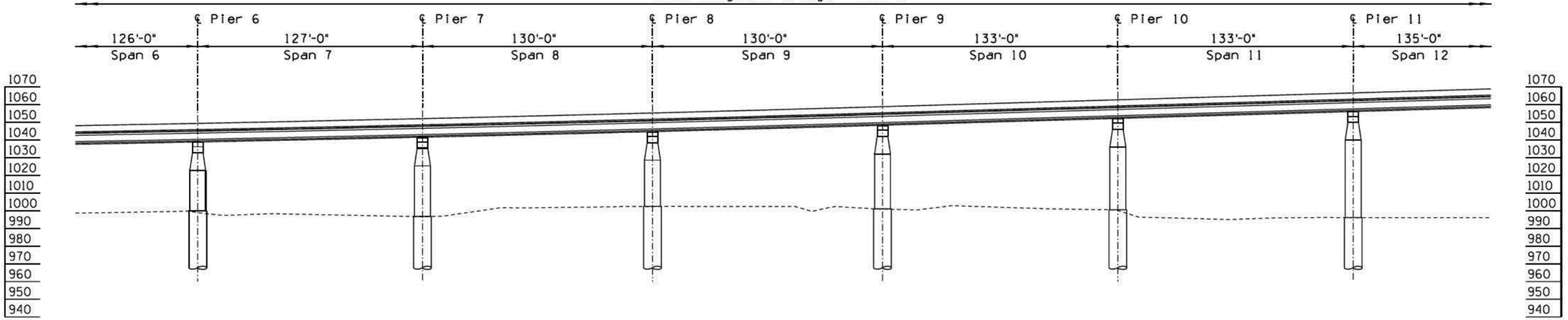
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 6 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21° 41' 19"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
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PLAN & ELEVATION
RAMP NW

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. TIS-07

A166 OF A184

NO. | DESCRIPTION OF REVISION | MADE BY | DATE

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ahoffman 8/16/2007 9:04:25 AM

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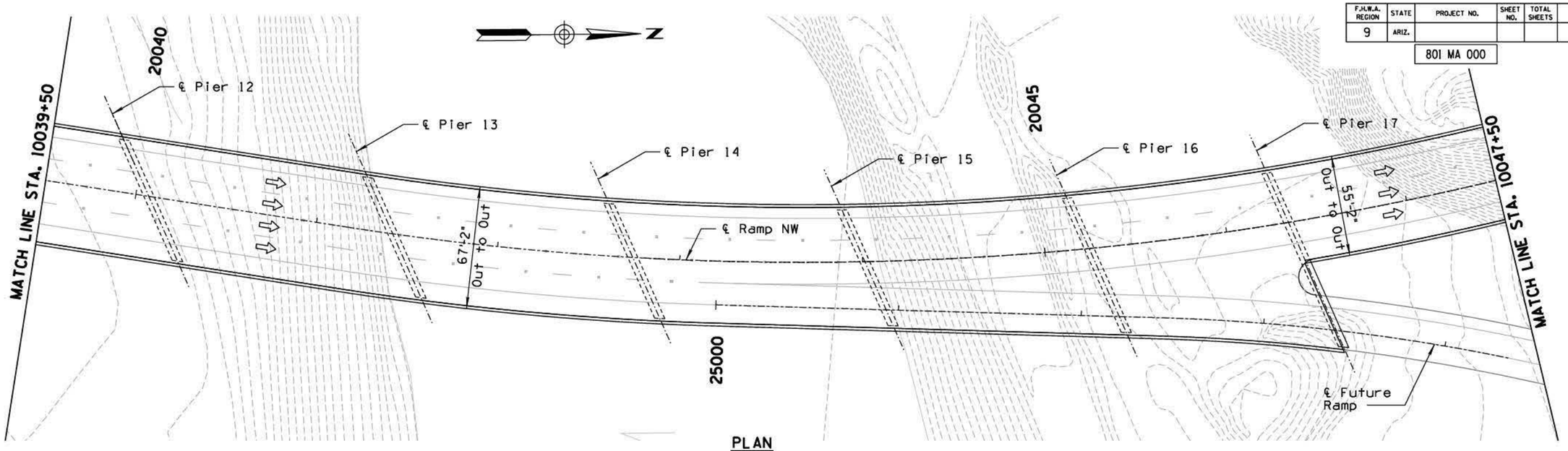
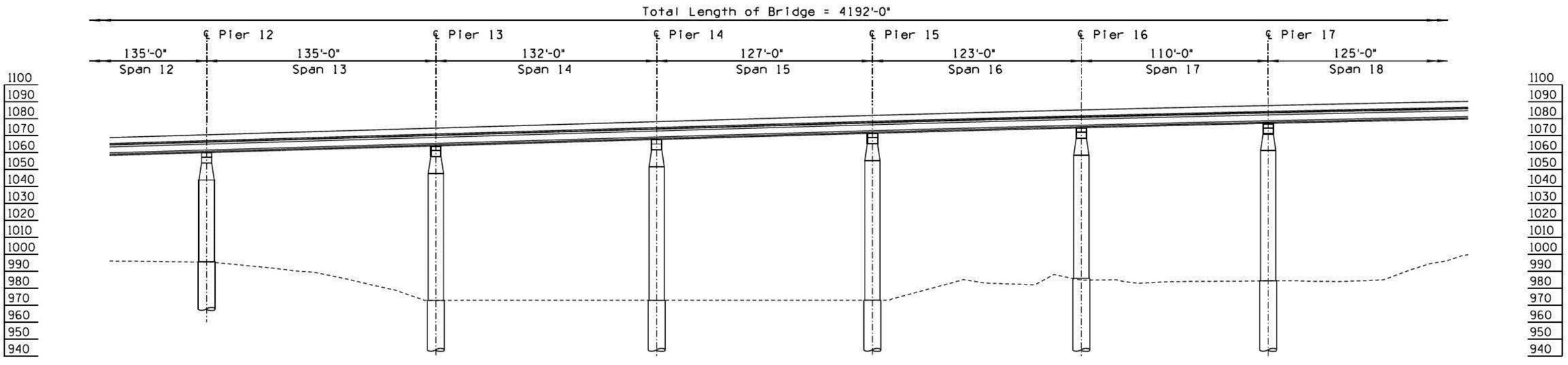
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 6 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21° 41' 19"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW

SR 801 ROUTE	MILEPOST	STRUCTURE NO.	SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. TIS-08

A167 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY
NO.2 DESCRIPTION OF REVISION DATE MADE BY

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ahoffman 8/16/2007 9:04:27 AM

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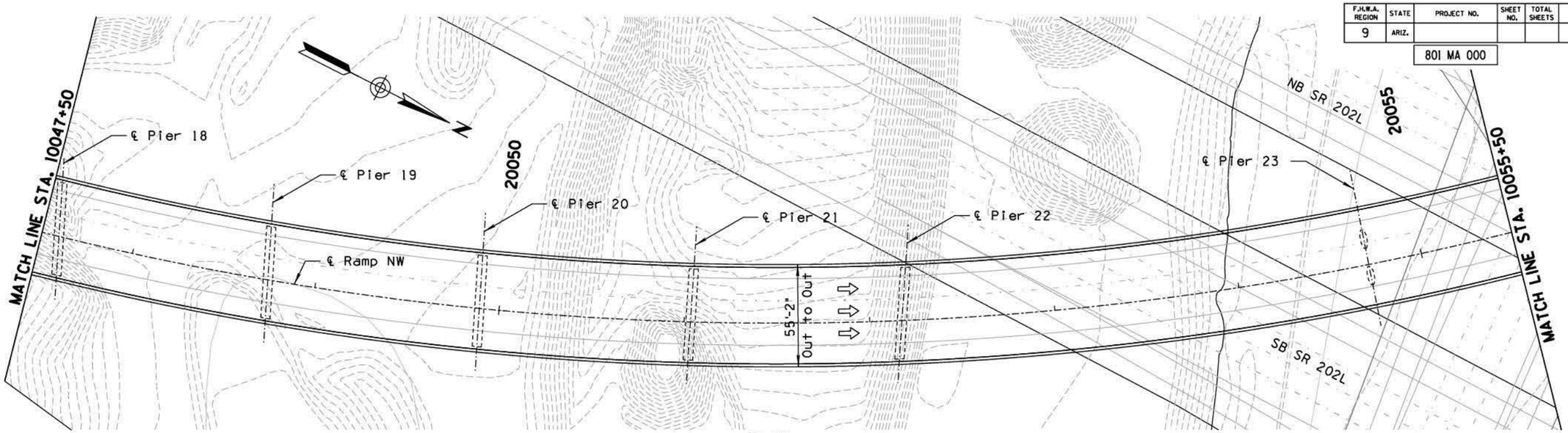
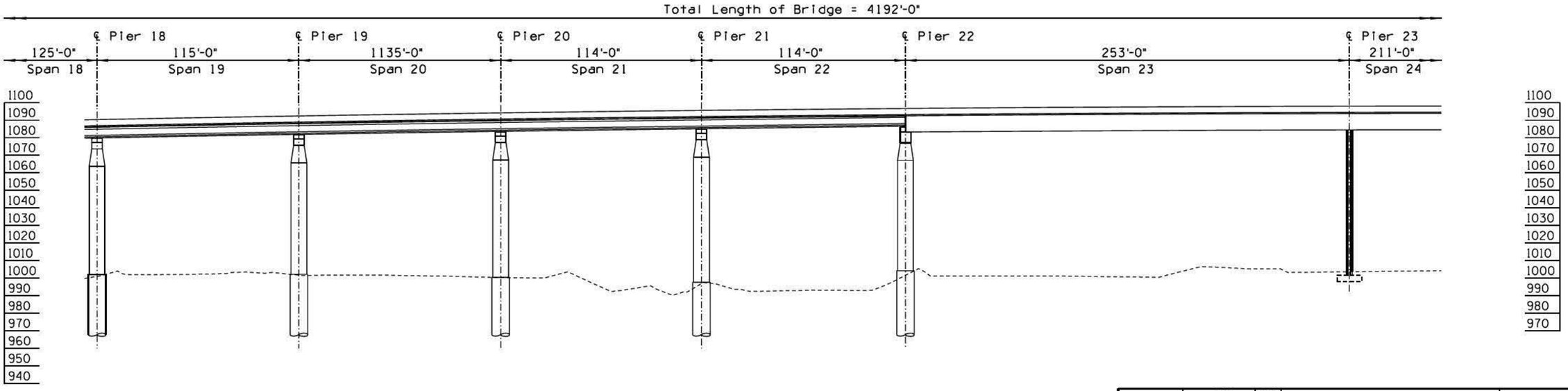
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 6 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21° 41' 19"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. TIS-09

A168 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION MADE BY DATE

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ahoffman 8/16/2007 9:04:28 AM

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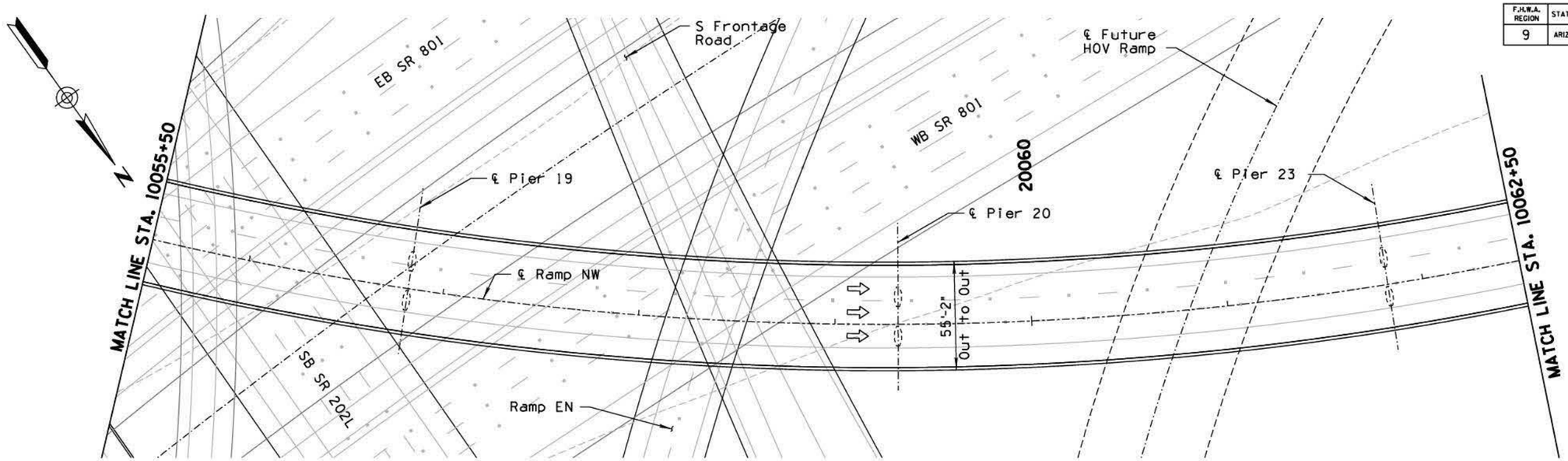
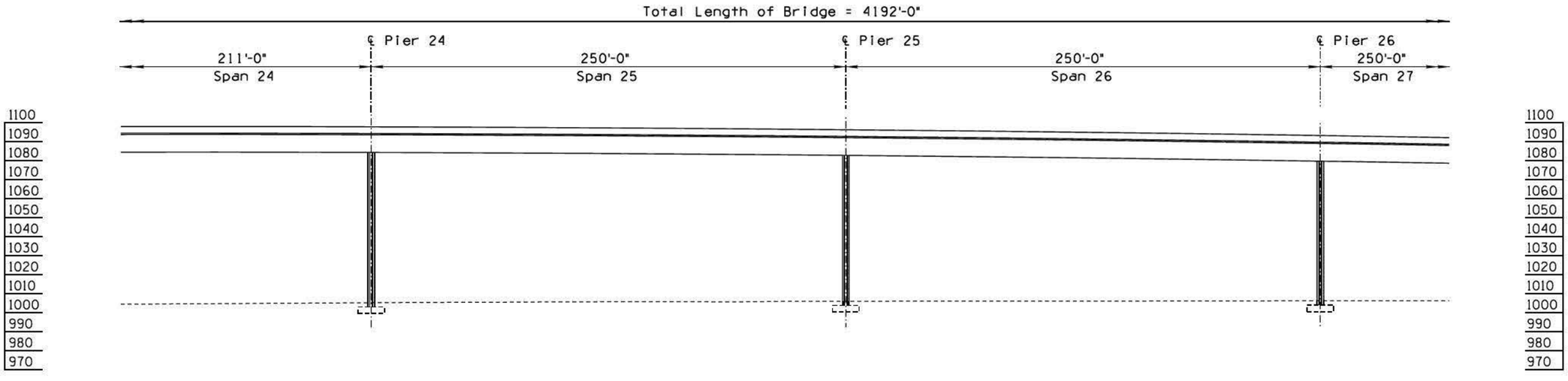
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 6 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21°41'19"
Contour Interval=1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. TIS-10

A169 OF A184

NO.3 | NO.2 | NO.1 | DESCRIPTION OF REVISION | DATE | MADE BY

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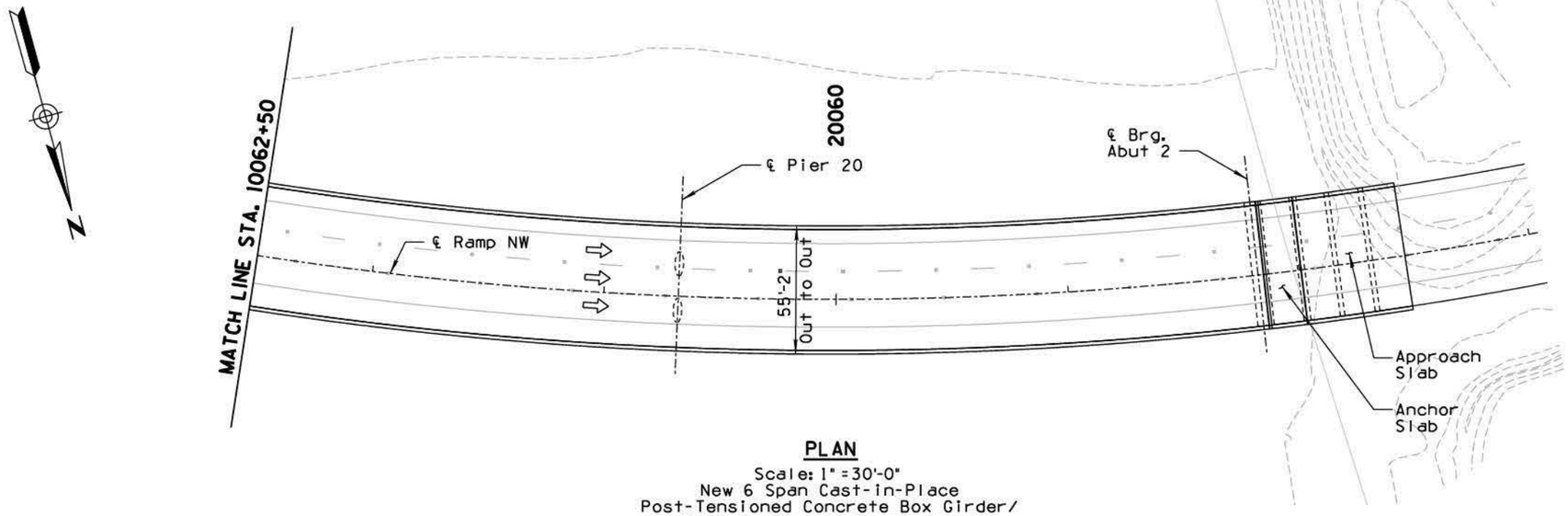
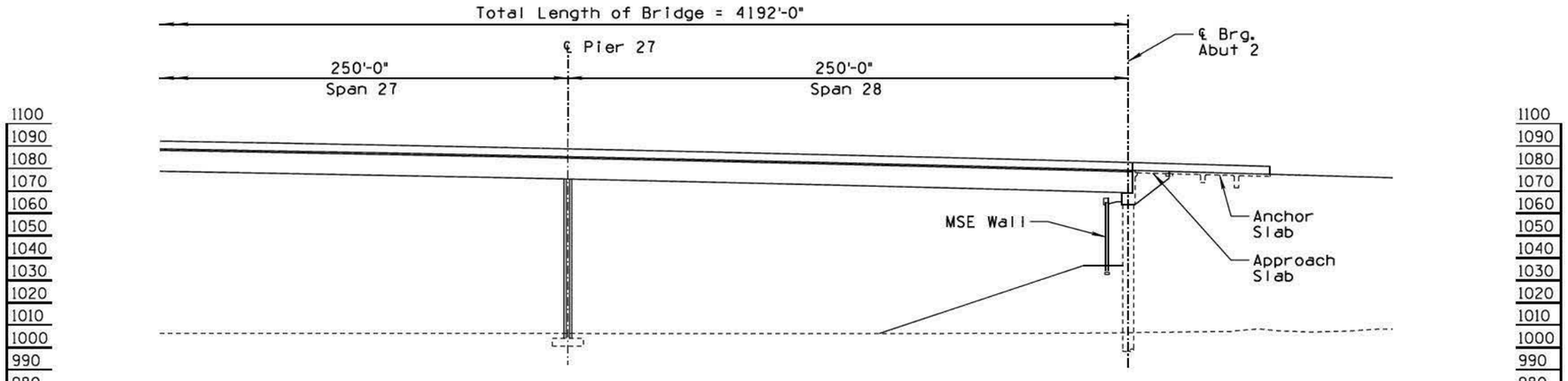
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 6 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
22 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: 21°41'19"
Contour Interval=1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

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DWG. NO. TIS-11

A170 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY DATE

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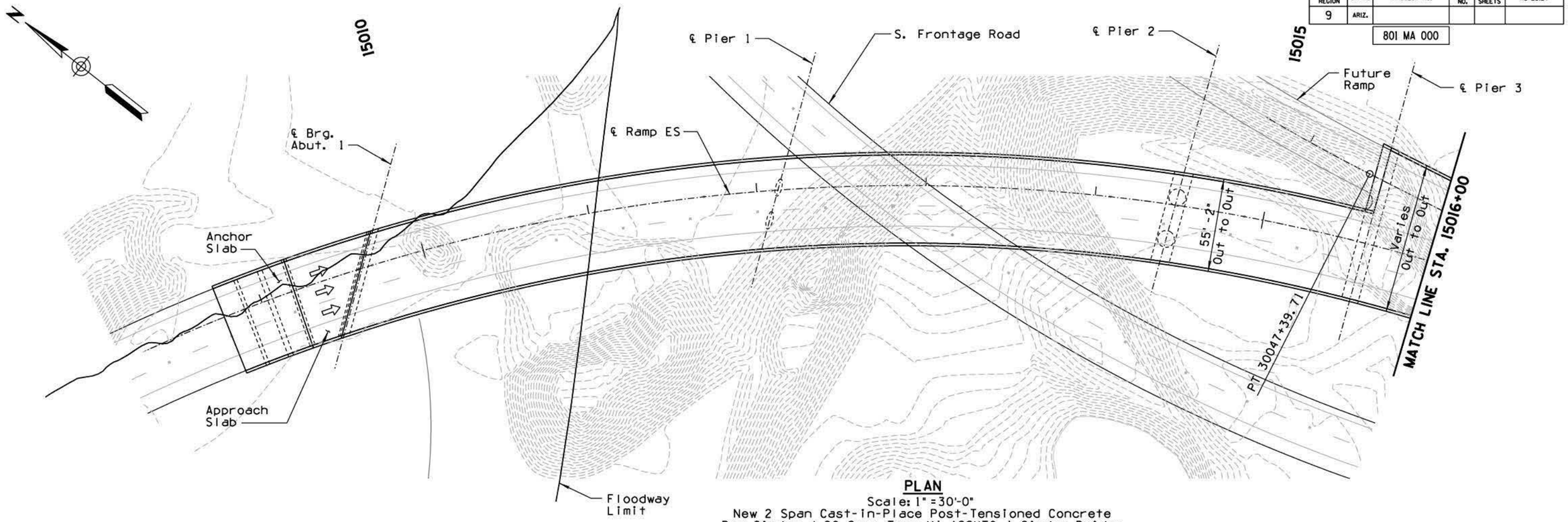
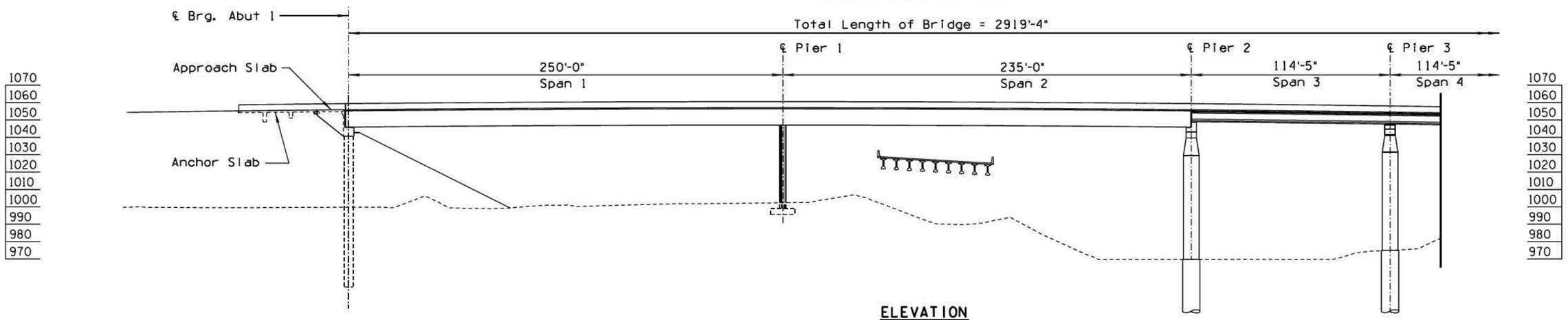
9	ARIZ.				
		801 MA 000			



PLAN
Scale: 1" = 30'-0"
New 2 Span Cast-in-Place Post-Tensioned Concrete
Box Girder / 20 Span Type VI ASSHTO I-Girder Bridge
Skew: 24° 00' 00"
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP ES

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-12

A171 OF A184

NO. | DESCRIPTION OF REVISION | DATE | MADE BY

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ahoffman 8/16/2007 9:04:32 AM

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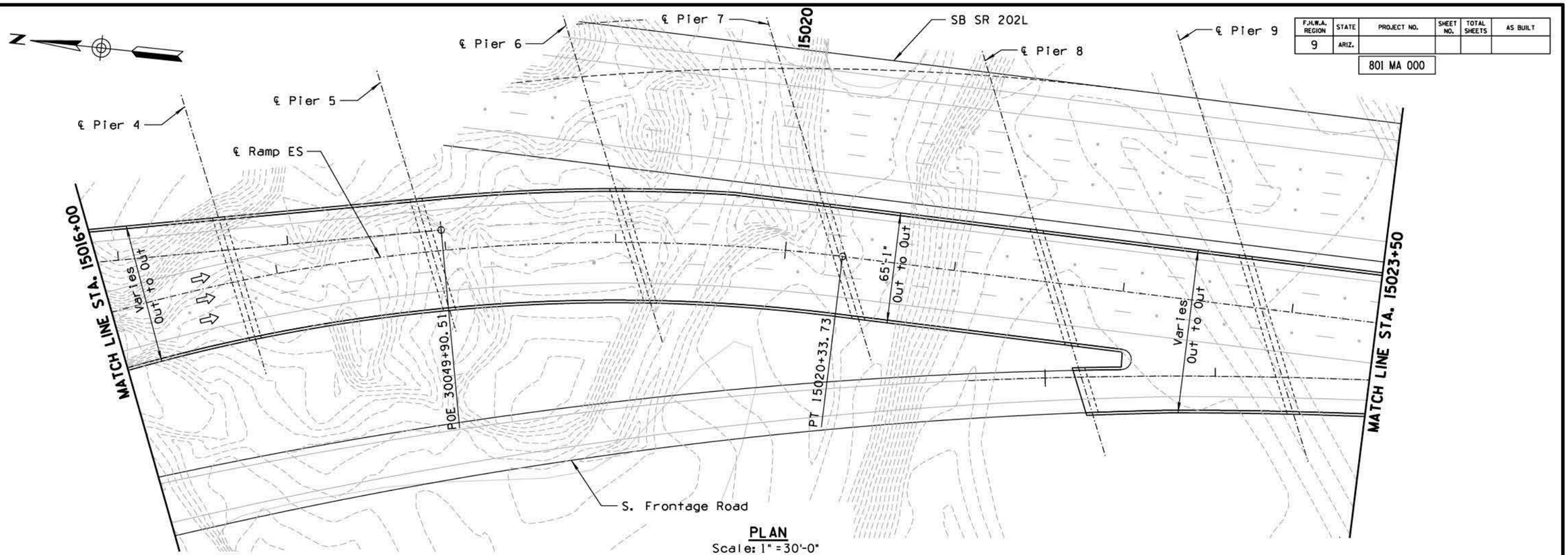
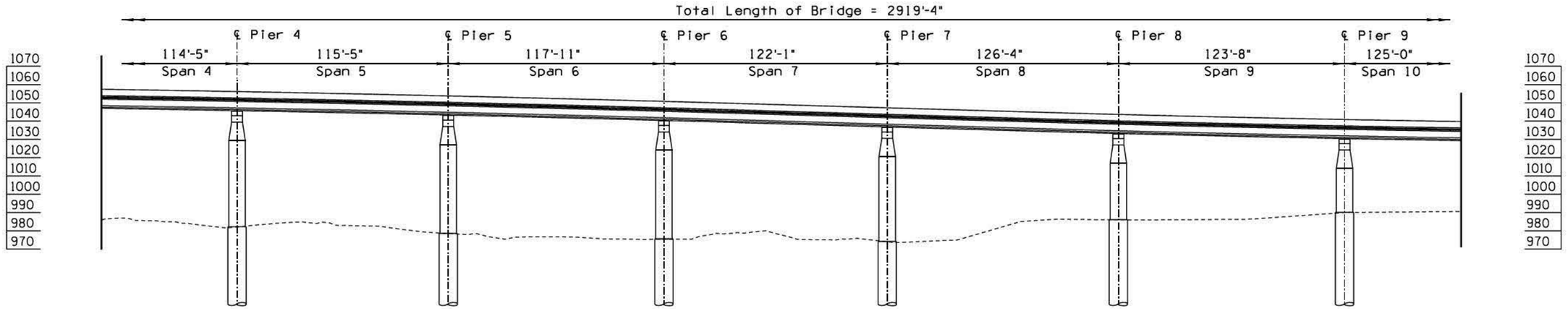


PLAN

Scale: 1" = 30'-0"
New 2 Span Cast-in-Place Post-Tensioned Concrete
Box Girder / 20 Span Type VI ASSHTO I-Girder Bridge
Skew: 24° 00' 00"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

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PLAN & ELEVATION
RAMP ES

SR 801 (SR 303L TO SR 202L)

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DWG. NO. TIS-13

SR 801 | ROUTE | MILEPOST | STRUCTURE NO.

TRACS NO. H6876 01L

A172 OF A184

NO. | DESCRIPTION OF REVISION | DATE | MADE BY | DATE

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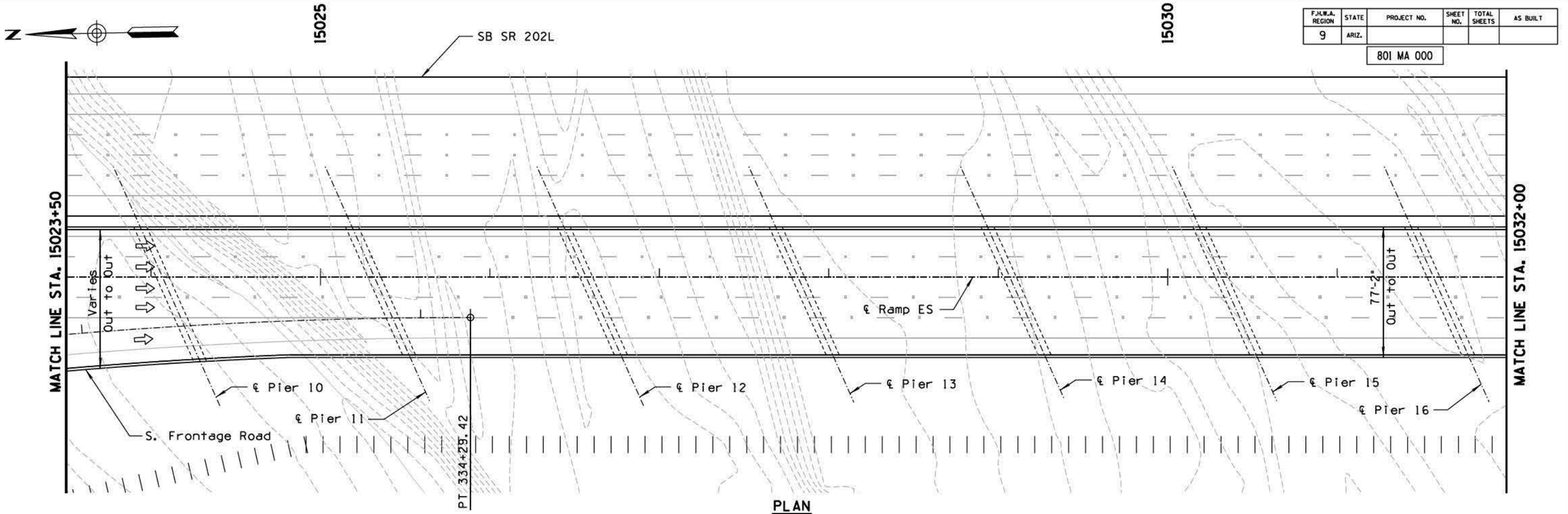
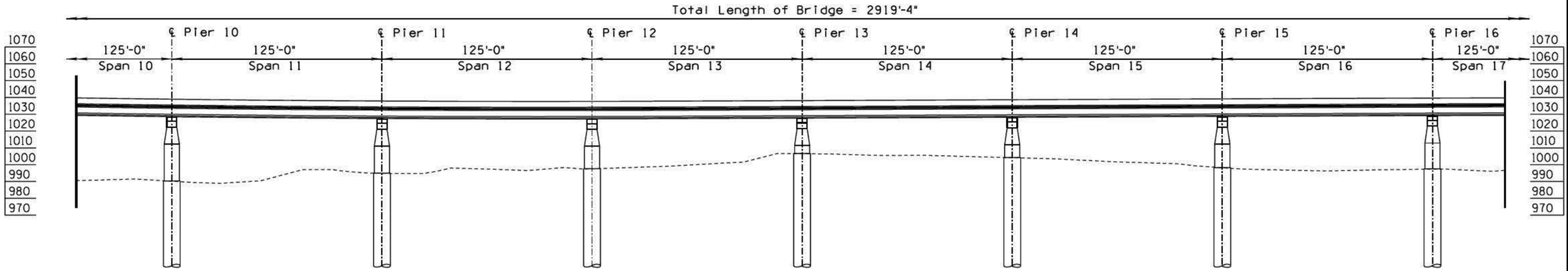
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 2 Span Cast-in-Place Post-Tensioned Concrete
Box Girder / 20 Span Type VI ASSHTO I-Girder Bridge
Skew: 24° 00' 00"
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

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INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP ES

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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-14

TRACS NO. H6876 01L

A173 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY

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ahoffman 8/16/2007 9:04:34 AM

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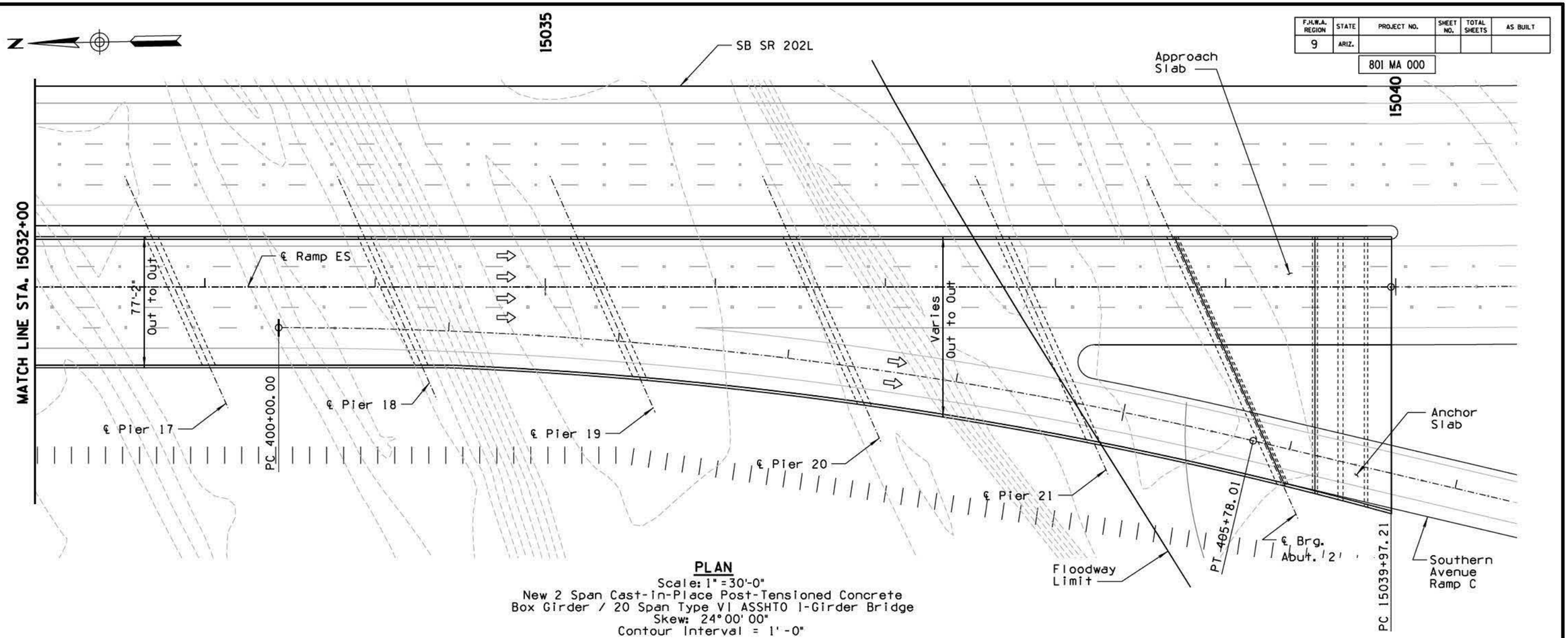
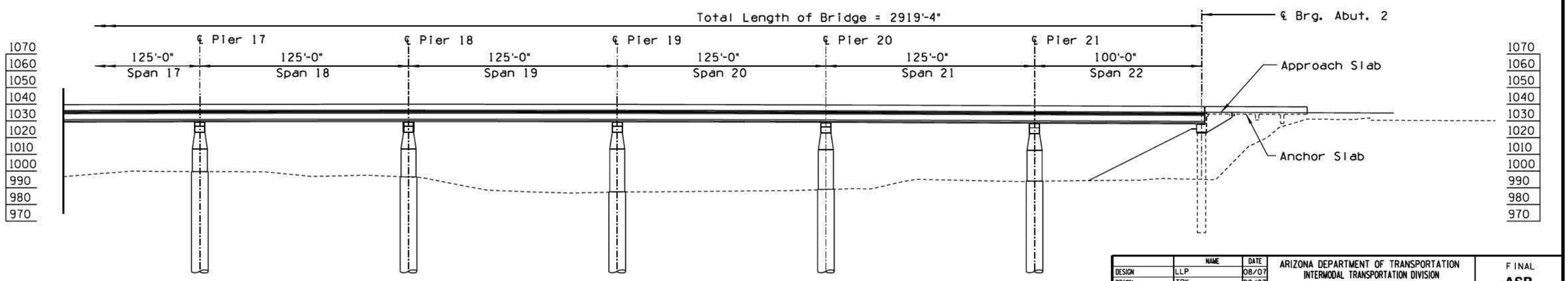
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 2 Span Cast-in-Place Post-Tensioned Concrete
Box Girder / 20 Span Type VI ASSHTO I-Girder Bridge
Skew: 24° 00' 00"
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
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PLAN & ELEVATION
RAMP ES

SR 801	MILEPOST	STRUCTURE NO.
ROUTE		

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-15

A174 OF A184

NO.| DESCRIPTION OF REVISION | MADE BY | DATE

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ahoffman 8/16/2007 9:04:36 AM

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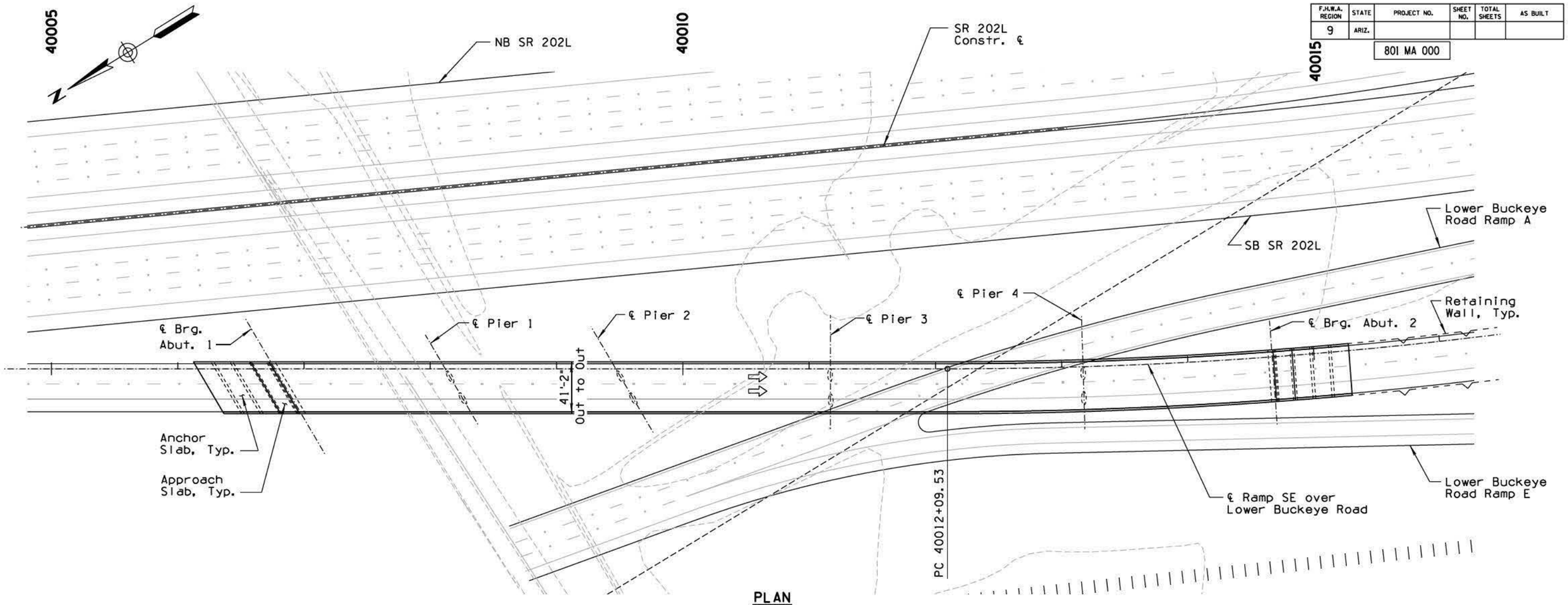
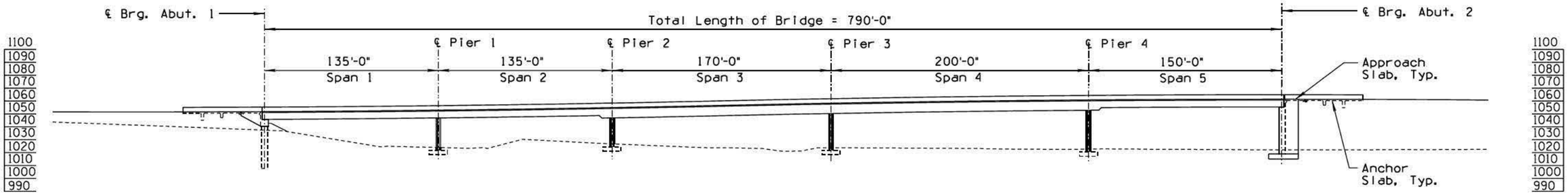
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 40'-0"
New 5 Span Cast-in-Place Post-Tensioned
Concrete Box Girder
Skew: Varies
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 40'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP SE OVER
LOWER BUCKEYE ROAD

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-16

A175 OF A184

NO.1 | DESCRIPTION OF REVISION | DATE | MADE BY | DATE

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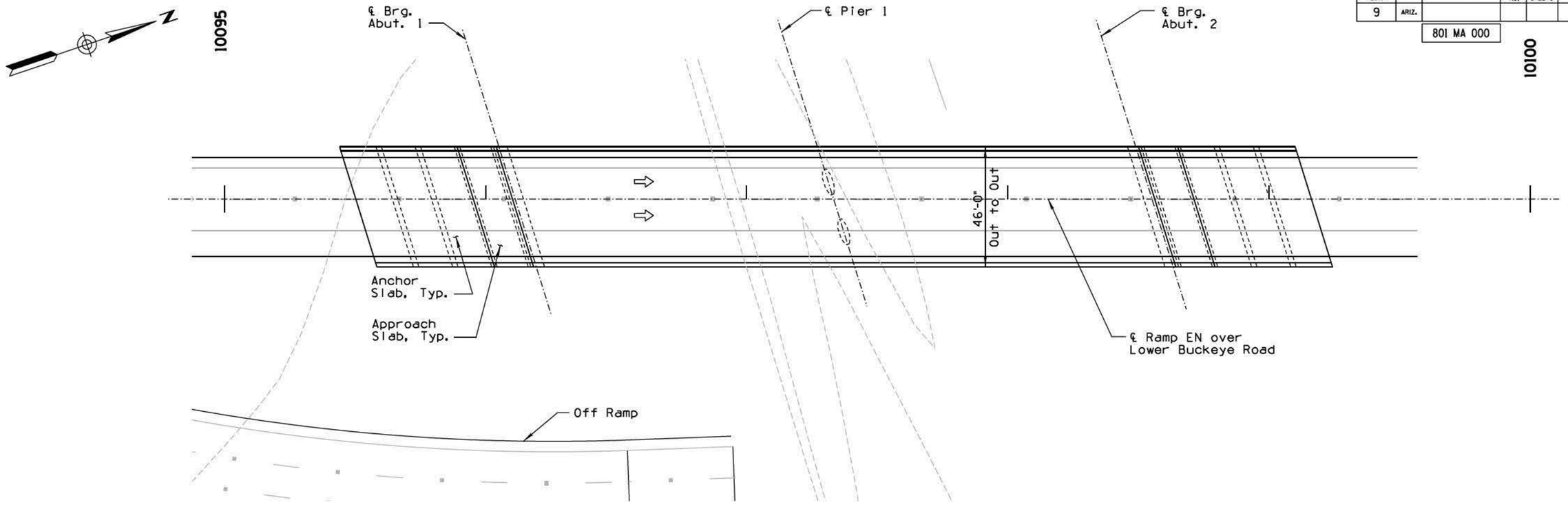
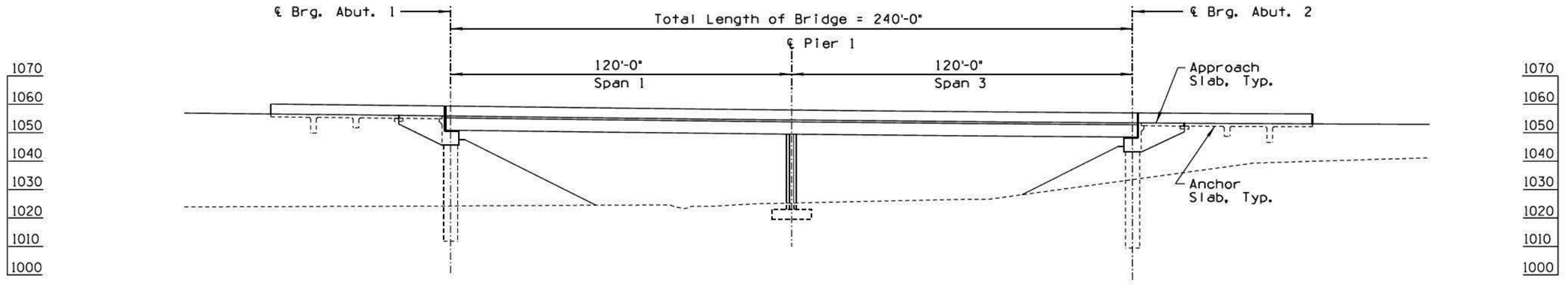
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 20'-0"
New 2 Span Cast-in-Place Post-Tensioned Concrete Box Girder
Skew: 17°16'54"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 20'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP EN OVER
LOWER BUCKEYE ROAD

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING
DWG. NO. TIS-17

A176 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY

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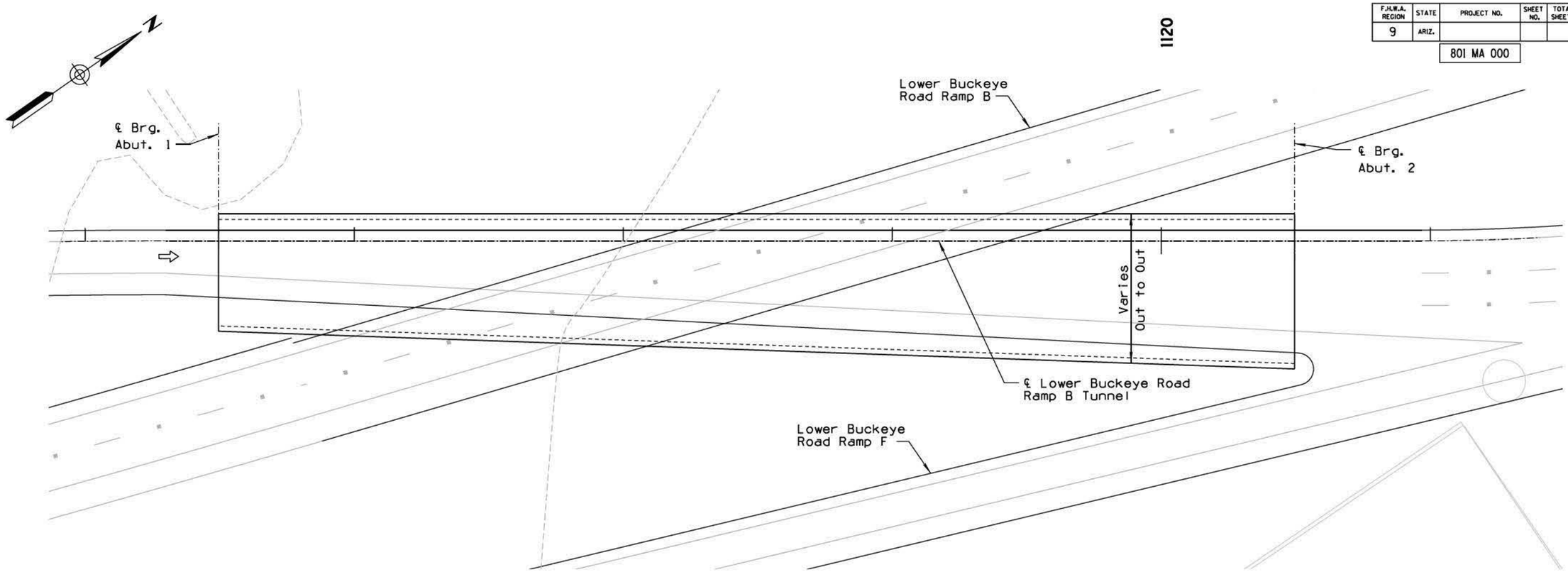
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

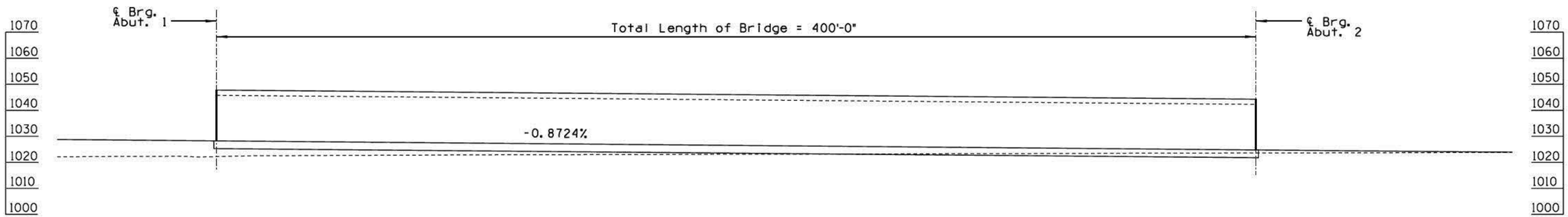
801 MA 000

1120



PLAN

Scale: 1" =20'-0"
New Cast-in-Place Concrete Tunnel
Skew: 00° 00' 00"
Contour Interval = 1'-0"



ELEVATION

Scale: 1" =20'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	TRK	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
LOWER BUCKEYE ROAD
RAMP B TUNNEL

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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-18

TRACS NO. H6876 01L

A177 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY
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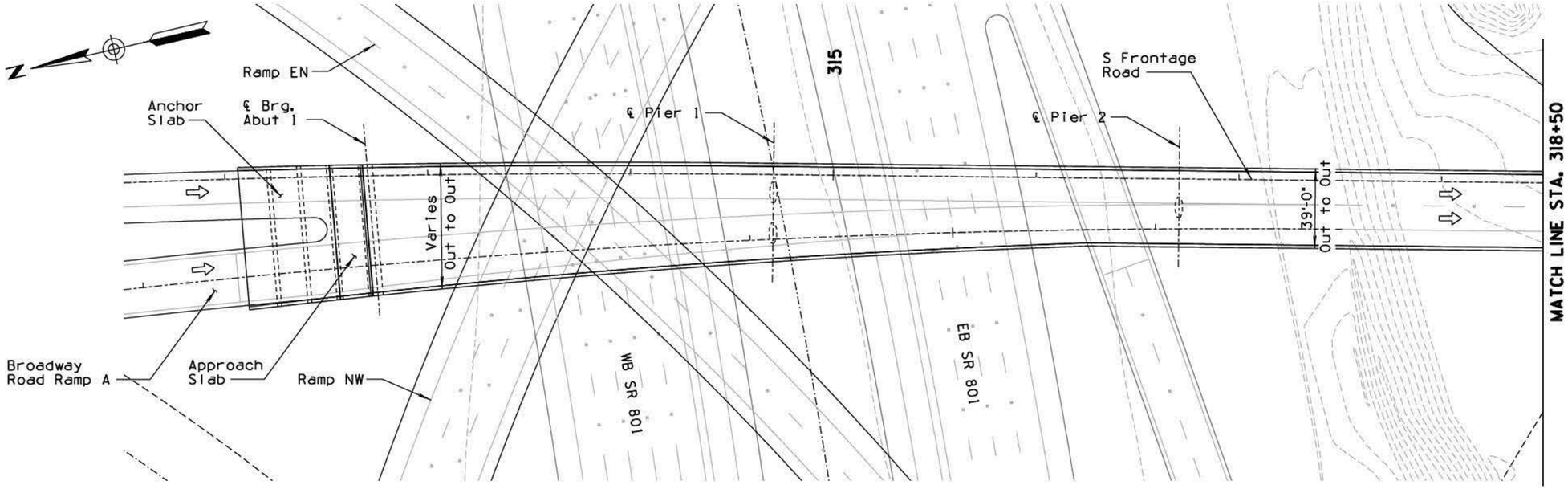
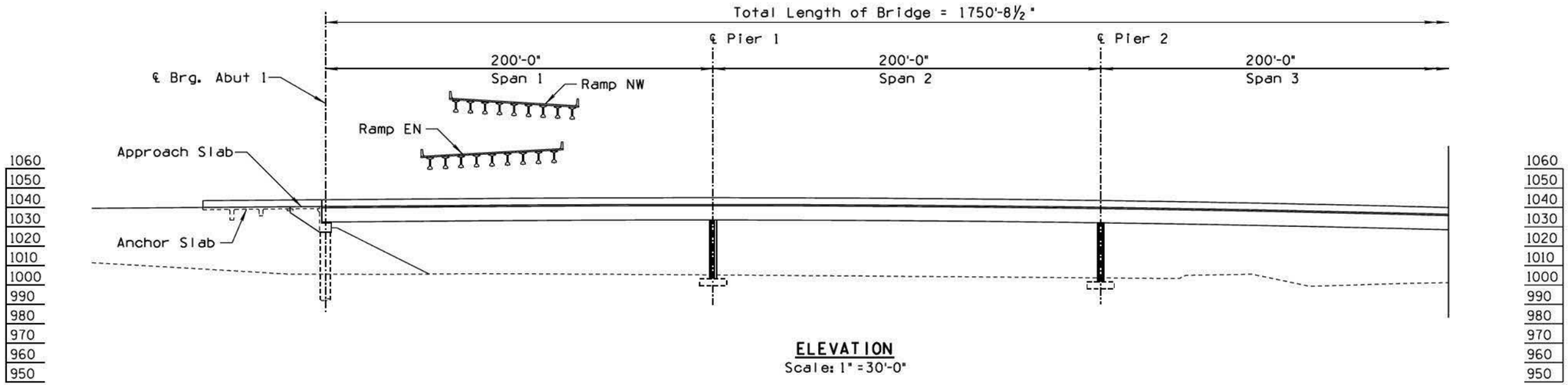
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 4 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
8 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: Varies
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
S FRONTAGE ROAD

SR 801 (SR 303L TO SR 202L)

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-19

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

A178 OF A184

NO. | DESCRIPTION OF REVISION | DATE | MADE BY

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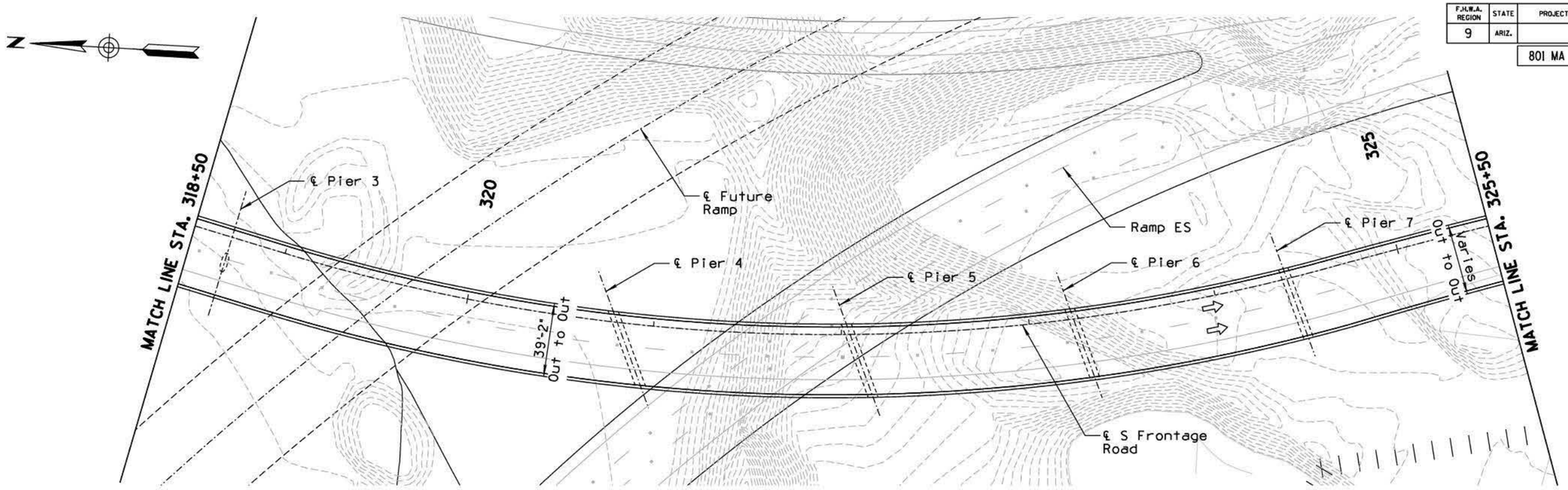
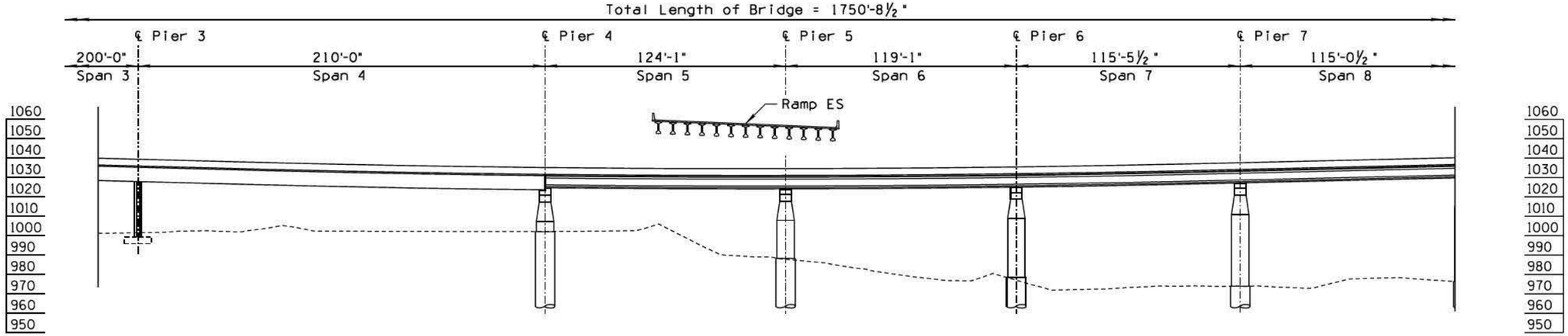
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 4 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
8 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: Varies
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
S FRONTAGE ROAD

SR 801		
ROUTE	MILEPOST	STRUCTURE NO.

SR 801 (SR 303L TO SR 202L)

TRACS NO. H6876 01L

FINAL
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DWG. NO. TIS-20

A179 OF A184

NO.	DESCRIPTION OF REVISION	MADE BY	DATE

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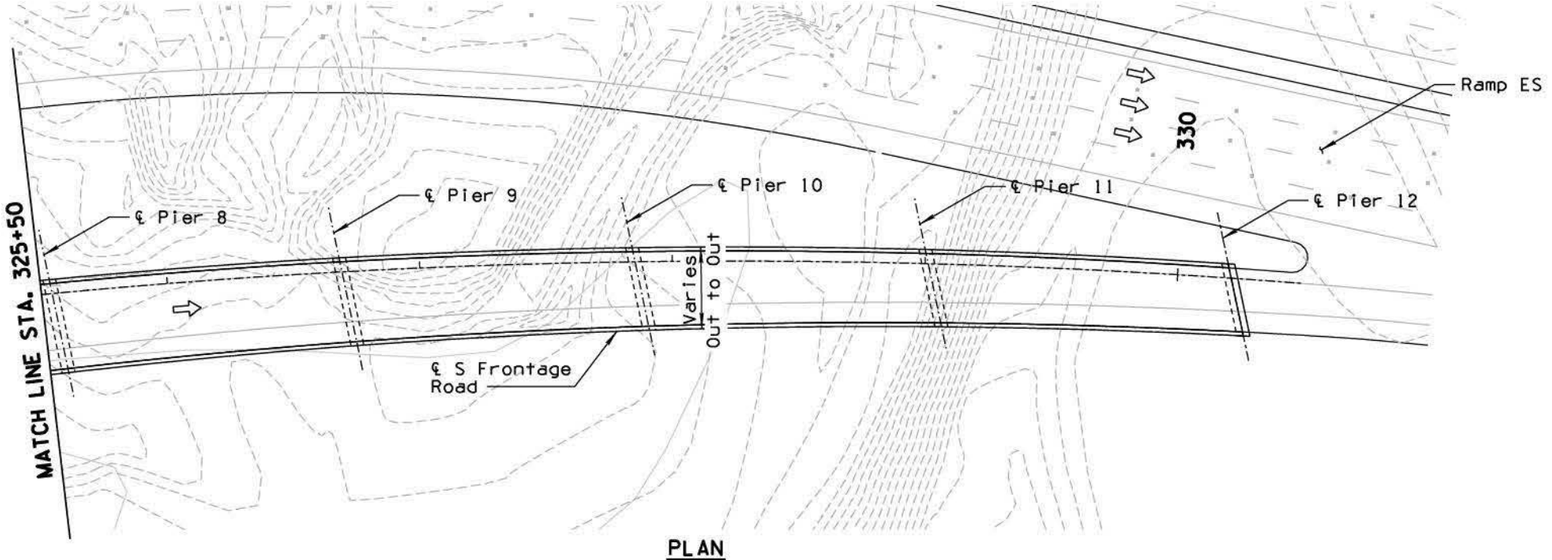
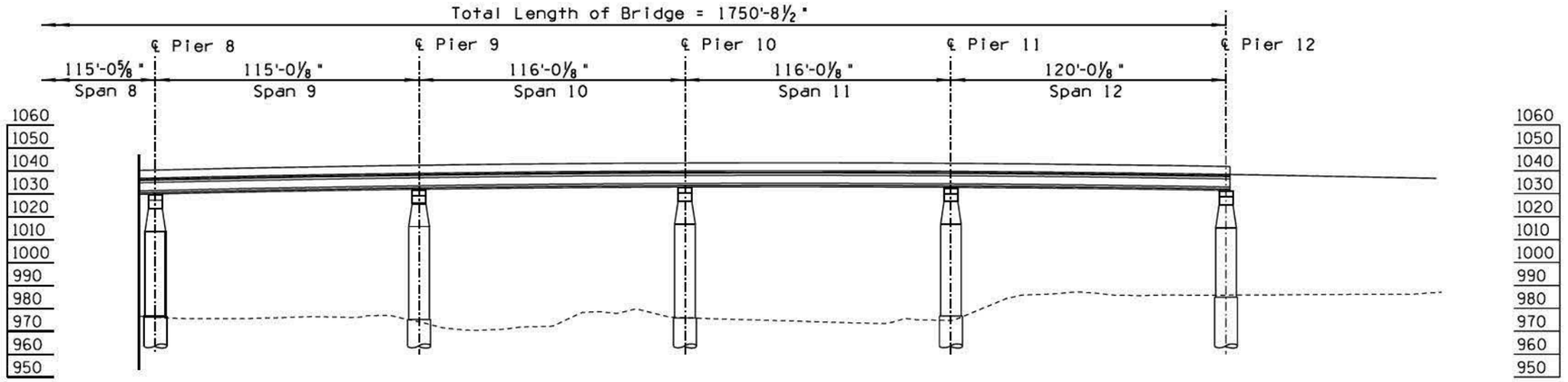
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New 4 Span Cast-in-Place
Post-Tensioned Concrete Box Girder/
8 Span Precast Prestressed
Concrete AASHTO Type VI Girder Bridge
Skew: Varies
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
S FRONTAGE ROAD

SR 801 (SR 303L TO SR 202L)

SR 801 ROUTE	MILEPOST	STRUCTURE NO.

TRACS NO. H6876 01L

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-21

A180 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY
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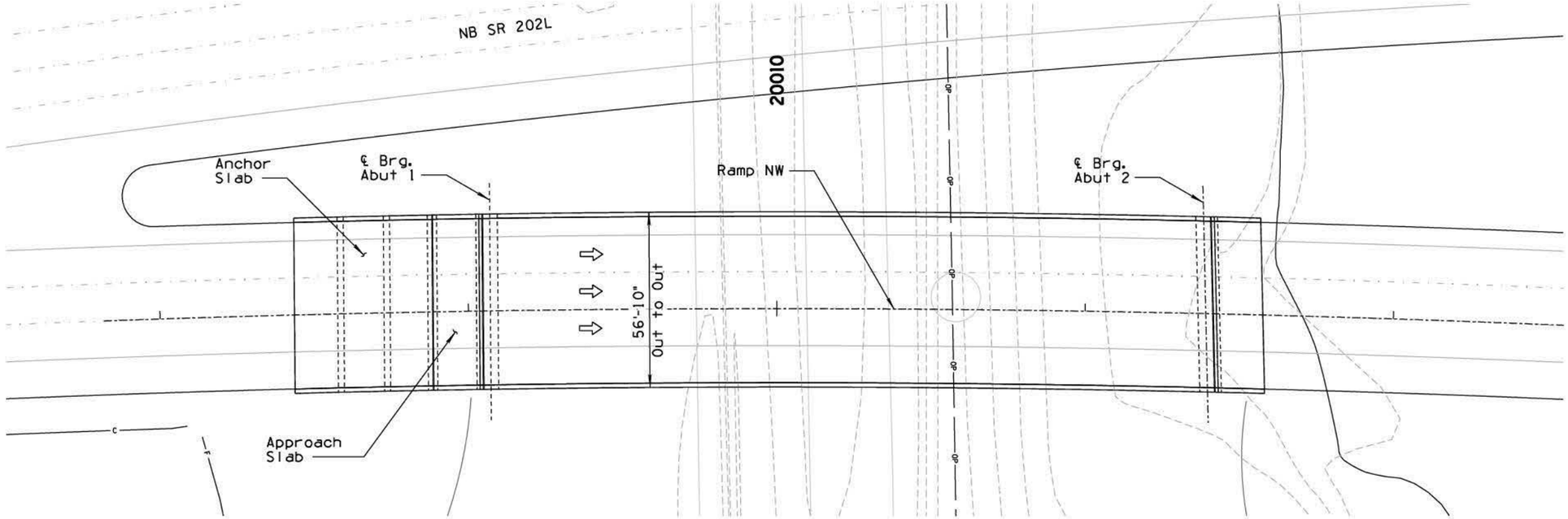
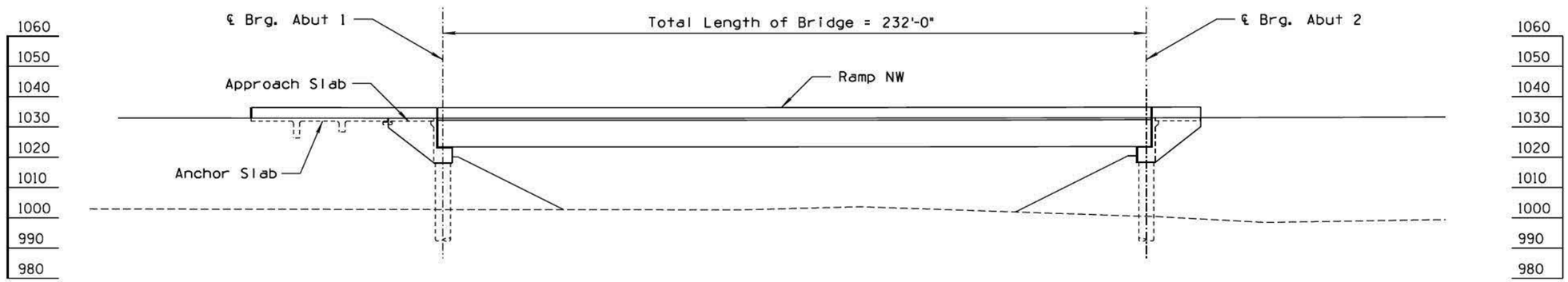
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 20'-0"
New Single Span Cast-in-Place
Post-Tensioned Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION
Scale: 1" = 20'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW OVER SOUTHERN AVE.

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

TRACS NO. H6876 01L

FINAL
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Review
NOT FOR CONSTRUCTION OR RECORDING
DWG. NO. TIS-22

A181 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY

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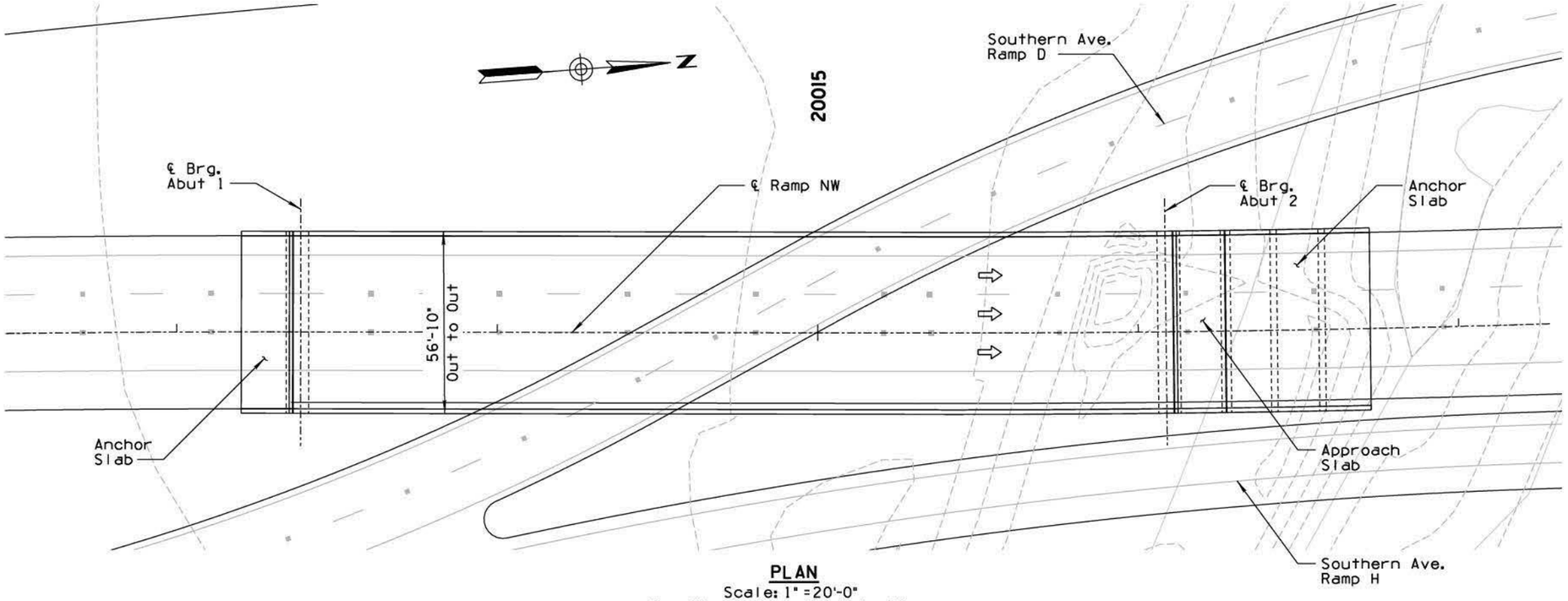
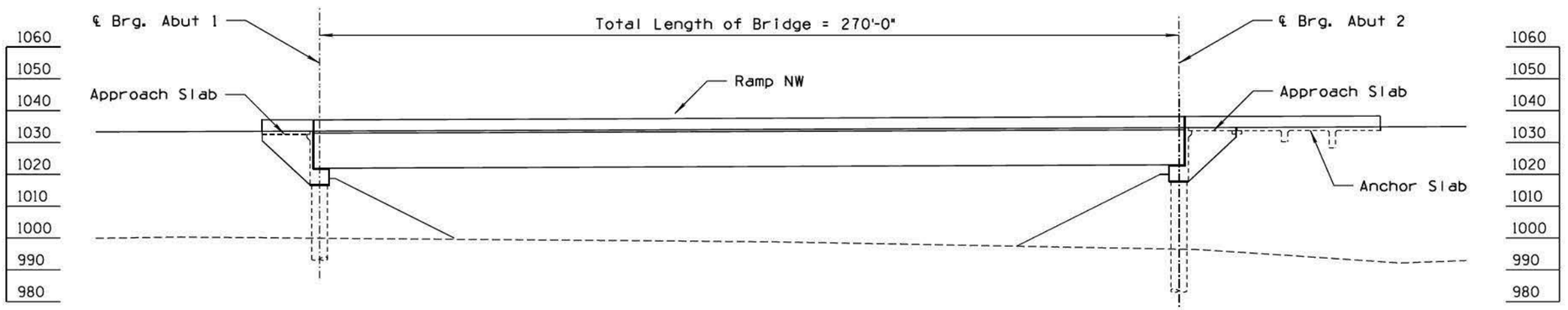
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" =20'-0"
New Single Span Cast-in-Place
Post-Tensioned Concrete Box Girder Bridge
Skew: 0°
Contour Interval=1'-0"



ELEVATION
Scale: 1" =20'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP NW

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-23

TRACS NO. H6876 01L

A182 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY

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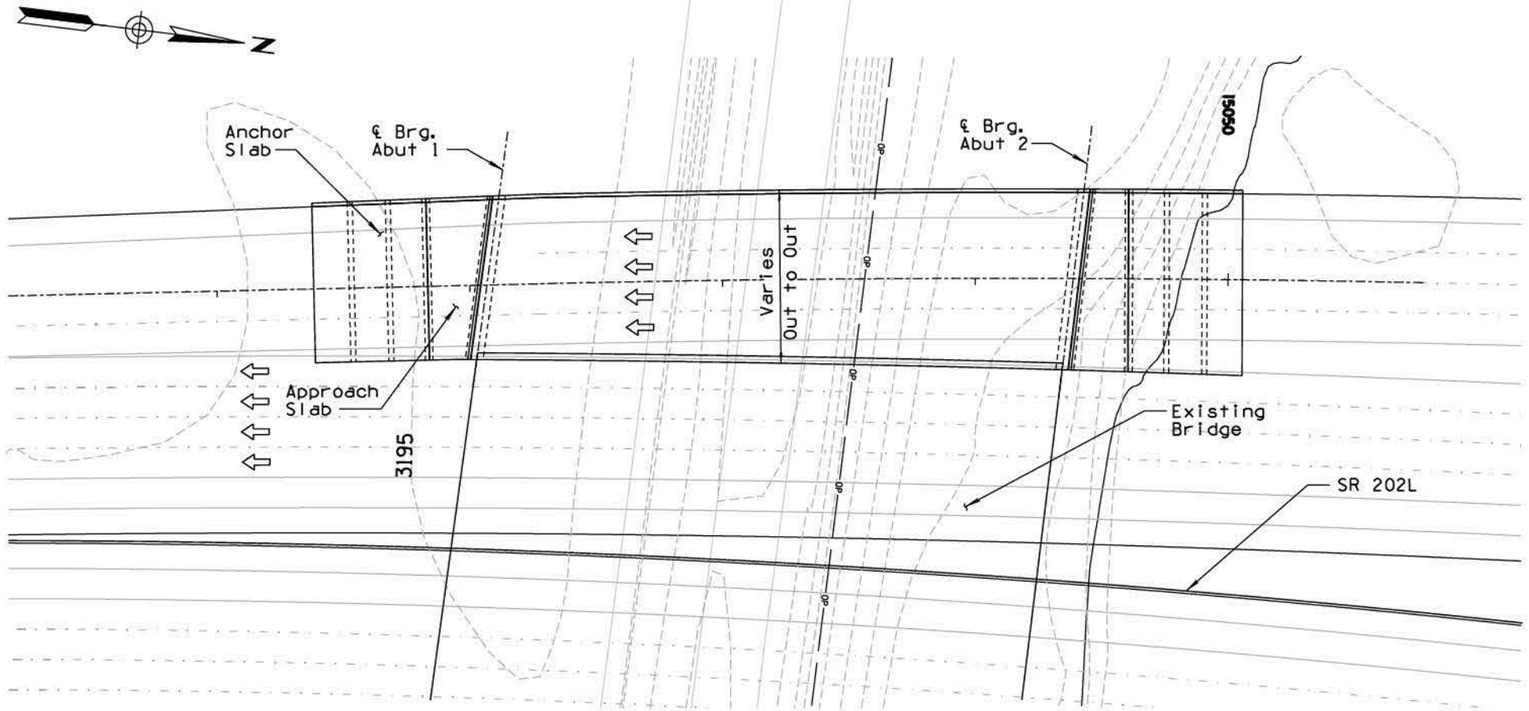
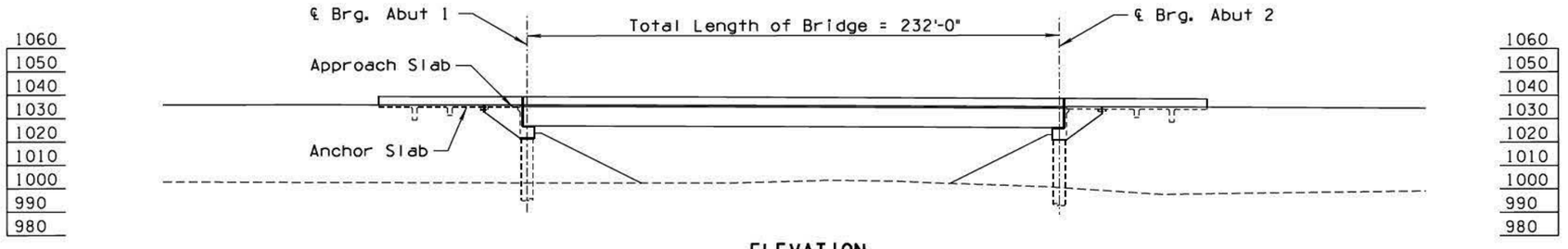
9	ARIZ.				

801 MA 000



PLAN

Scale: 1" = 30'-0"
New Single Span Cast-in-Place
Post-Tensioned Concrete Box Girder Bridge
Skew: 0°
Contour Interval = 1'-0"



ELEVATION

Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP ES OVER SOUTHERN AVE.

SR 801 (SR 303L TO SR 202L)

ROUTE	MILEPOST	STRUCTURE NO.
SR 801		

TRACS NO. H6876 01L

FINAL
ASR
Review
NOT FOR CONSTRUCTION OR RECORDING

DWG. NO. TIS-24

A183 OF A184

NO.1 NO.2 DESCRIPTION OF REVISION DATE MADE BY DATE

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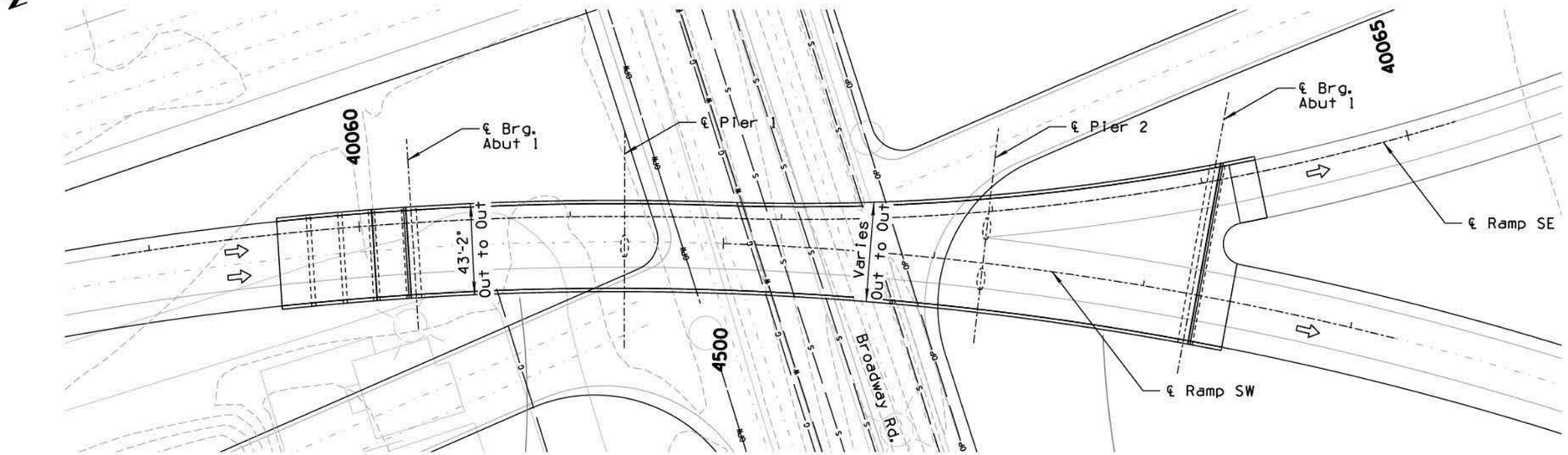
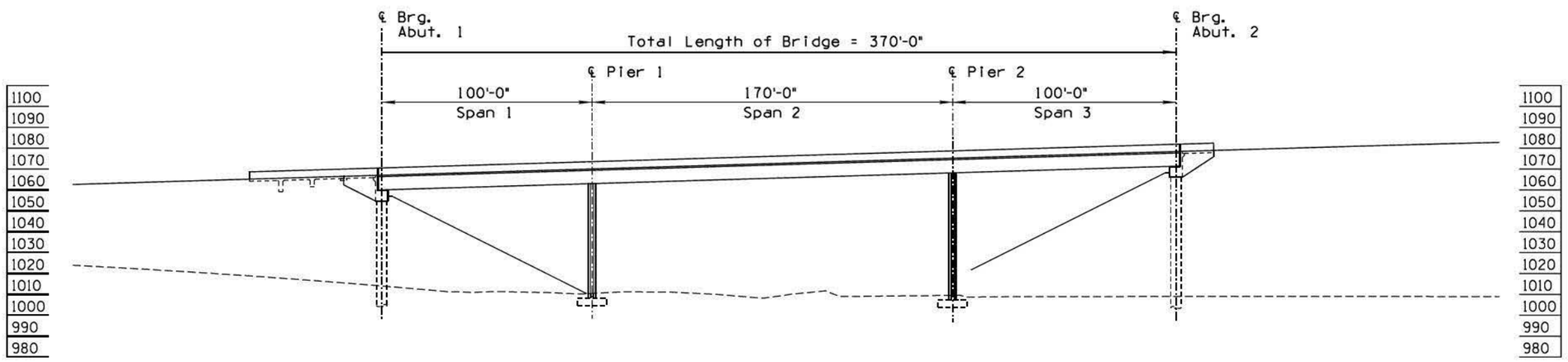
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.				

801 MA 000



PLAN
Scale: 1" = 30'-0"
New 3 Span Cast-in-Place
Post-Tensioned Concrete Box Girder Bridge
Contour Interval=1'-0"



ELEVATION
Scale: 1" = 30'-0"

	NAME	DATE
DESIGN	LLP	08/07
DRAWN	JW	08/07
CHECKED	KRA	08/07

HDR Engineering, Inc.

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

PLAN & ELEVATION
RAMP SE / RAMP SW

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ASR
Review
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SR 801			SR 801 (SR 303L TO SR 202L)
ROUTE	MILEPOST	STRUCTURE NO.	

DWG. NO. TIS-25

TRACS NO. H6876 01L

A184 OF A184

NO.1 DESCRIPTION OF REVISION DATE MADE BY

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Appendix B

Timeline of Events

Date	Event	Significant Decisions/Direction
9/1/2005	Monthly progress meeting	Defined Study Area boundary
9/26/2005	Agency information meeting	
9/27/2005	Public information meeting	
9/29/2005	Public information meeting	
10/6/2005	Monthly progress meeting	
11/3/2005	Monthly progress meeting	
12/1/2005	Monthly progress meeting	Baseline analysis complete; FHWA has determined that EA is the appropriate level environmental document
1/5/2006	Monthly progress meeting	Original 1,000-foot-wide corridors presented
1/9/2006	Avondale City Council presentation	
2/2/2006	Submitted *Draft Baseline Environmental Analysis*	
2/2/2006	Monthly progress meeting	
2/10/2006	Buckeye GIS presentation	
2/13/2006	Avondale GIS presentation	
2/21/2006	Goodyear GIS presentation	
2/22/2006	Phoenix GIS presentation	
3/2/2006	Monthly progress meeting	
3/13/2006	Agency scoping meeting	
3/16/2006	Public meeting flier and newspaper ad sent	
3/21/2006	Public scoping meeting	
3/23/2006	Public scoping meeting	
4/6/2006	*Draft Traffic Report* submitted	
4/6/2006	Monthly progress meeting	
5/4/2006	Monthly progress meeting	
5/26/2006	Right-of-entry letters mailed	
6/1/2006	Monthly progress meeting	
6/14/2006	SR 801 Web site goes live	
6/15/2006	*Roadway Design Criteria Report* completed	
7/12/2006	APS Palo Verde coordination meeting	Met with APS PV to discuss effluent pipeline and the possibility of impacts; conclusion: do not attempt to relocate, but encasements are acceptable
7/15/2006	MCDOT MC 85 corridor study completed by DMJM Harris	
7/18/2006	Overhead power coordination meeting	Met with SRP, WAPA, and TEP to discuss project and potential overhead power line impacts; further coordination would be required depending on which alignment was chosen; estimated relocation and adjustment costs collected from each utility
7/27/2006	Phoenix meeting regarding Avenida Rio Salado	Coordination meeting for Avenida Rio Salado
8/1/2006	FCDMC meeting	Discussed coordination activities
8/2/2006	FHWA meeting	FHWA agreed with approach taken to date on the direction of the study; also agreed that team needed to present the options to the various local agencies to collect input
8/3/2006	Monthly progress meeting	
8/28/2006	Avondale meeting	Voiced support for southernmost Section 2 alignment; suggested another south alignment be developed; Study Team concurred with suggestion
8/28/2006	Goodyear meeting	City indicated preference for 1B over 1A; MC 85 interaction with SR 801 discussed
9/7/2006	Monthly progress meeting	
9/7/2006	Completed *Groundwater Survey and Assessment Report*	Report concluded that depressed profiles would be expensive and problematic
9/14/2006	Phoenix Transportation Executive Oversight Committee meeting	Expressed support for 3B; must send to Council Transportation Subcommittee; coordinate with Phoenix Goodyear Airport - airspace and expansion of airport - ALP underway; coordinate with Avenida Rio Salado and Tres Rios
9/29/2006	Buckeye meeting	Presented map of SR 801 West Study Area; asked for City input regarding knowledge of area including developments, utilities, planned facilities, etc.; Buckeye Town Lake, El Rio coordination, commuter rail, Buckeye *General Plan* update, Hassayampa study, MC 85 study all discussed
10/4/2006	FCDMC meeting	Coordination meeting
10/5/2006	Monthly progress meeting	Phoenix not participating in the Durango Regional Conveyance Channel (DRCC)
10/16/2006	County Supervisor Wilcox meeting	Supervisor Wilcox voiced her support of Phoenix, Avondale, and Goodyear's respective preferred alignments
10/18/2006	Buckeye meeting	Presented map of SR 801 West Study Area; asked for City input regarding knowledge of area including developments, utilities, planned facilities, etc.; Buckeye Town Lake, El Rio coordination, commuter rail, Buckeye *General Plan* update, Hassayampa study, MC 85 study all discussed
11/1/2006	Avondale meeting	Presented Subsection 2C-3 in response to 8/28 meeting comments
11/10/2006	Mailed SR 801 newsletter with expanded corridors	
11/13/2006	Goodyear meeting	Joint SR 303L/SR 801 presentation to Goodyear staff; Goodyear officially adopted a policy to support Avondale in its southern alignment choice
11/14/2006	Tolleson meeting	Coordinate sewer outfalls from Tolleson WWTP to the 91st Avenue WWTP; 99th Avenue is "Road of Regional Significance"
11/29/2006	Phoenix Councilman Lingor meeting	Updated Councilman Lingor on the project, because it falls within his district

Date	Event	Significant Decisions/Direction
11/30/2006	SR 303L public meeting	SR 801 team participated with a table to discuss newsletter and expanded corridors; received numerous comments on project in response to newsletter mailed out a couple weeks earlier
12/7/2006	Monthly progress meeting	
12/19/2006	FCDMC/MCDOT meeting	FCDMC is planning a 99th Avenue outfall in response to Phoenix's decision to not participate in the DRCC; need to explore merging freeway outfall near 99th Avenue with 99th Avenue outfall pipe; explore Tres Rios cost-share opportunities; Agua Fria bridge must be designed to pass a SPF
1/4/2007	Monthly progress meeting	
1/10/2007	Right-of-entry letters mailed to expanded corridor areas	
1/17/2007	Phoenix Councilman Lingor meeting	Met with Lingor and two developers regarding property of interest around 91st Avenue and Broadway Road; also, Phoenix should look at interchanges along Subsection 3B and decide if TI's should be built where no river crossings would occur
1/18/2007	Phoenix Council Transportation Subcommittee presentation	Presented PowerPoint to update council on alignments being considered to date and overview of findings to date; liked 2C-3 and 3B because they provided buffer for WWTP
1/29/2007	Avondale mayor/staff met with ADOT director/staff	Avondale expressed desire to have south alignment
2/1/2007	Monthly progress meeting	
2/7/2007	ADOT meeting regarding schedule approach	Discussed three different approaches to the project schedule and how it affected the preferred alignment decision; ADOT chose approach 2; Alternatives Selection Report will document all decisions to get down to two alignment options; L/DCR and Draft EA will document going from 2 to 1
2/8/2007	Submitted revised schedule to ADOT	Reflected meeting decisions on 2/7/07
2/9/2007	Draft Liberty definition received	
2/12/2007	Avondale meeting with Governor's Office	Avondale expressed desire to have south alignment
2/14/2007	ADOT meeting with VPM, Dan Lance, FHWA, EPG, and CCP	Presented SR 801 East subsections and comparison matrix; concurrence to officially drop depressed profile options from further consideration; also, agreement in dropping subsections 2A-1, 2B-1, 2B-2, 2C-1, 2C-2, and 3A; ADOT directed HDR to study 1A further as it pertains to the SR 303L connection to make sure 1A doesn't warrant further consideration; HDR directed to research sand and gravel operation impacts; ADOT wants to send out a project flier and hold an additional public meeting to collect input before making preferred alignment decision
2/27/2007	ADOT meeting with ADOT Roadway	Presentation of SR 801/SR 303L/Liberty Site alignment options; reviewed numerous options; HDR directed to revisit some alternatives and develop some new ones for further evaluation
3/1/2007	Phoenix Council Transportation Subcommittee presentation	Voted to support 3B and 2C-3 and send recommendation to the full council
3/1/2007	Monthly progress meeting	
3/5/2007	City of Goodyear meeting	Met with Cato Esquevel to discuss implications of supporting Avondale with a south alignment on Goodyear
3/6/2007	ADOT meeting with DR Horton	Reviewed DR Horton's Cascata development in the southeast corner of Broadway Road and 67th Avenue; they are permitted and are breaking ground any day; SR 801 alignment will affect the south side of the development; ADOT will review and establish a take line before lots are built on; ADOT will consider acquiring lots from DR Horton
3/6/2007	ADOT meeting with ADOT Roadway	Presentation of SR 801/SR 303L/Liberty Site alignment options; reviewed 25 options; selected 10 options to carry forward to ADOT management
3/15/2007	ADOT meeting with VPM and Dan Lance	Presentation of SR 801/SR 303L/Liberty Site alignment and interchange concepts; presented 10 of 25 concepts developed; 3 additional concepts dropped, leaving 7 remaining options to present to Buckeye and Goodyear; Subsection 1A officially dropped from further consideration; easternmost SR 303L alignment option dropped
3/19/2007	Phoenix Councilman Simplot meeting	Repeated presentation given to Phoenix Council Subcommittee on January 18, 2007; Simplot is on committee but was unable to attend 1/18 meeting
3/26/2007	Liberty Delineation Justification sent to ADOT	
3/29/2007	City of Avondale meeting - Avondale mayor and ADOT Director Victor Mendez present	Presentation of 2 alignment options to carry forward (north and south alternatives); no depressed profiles will be considered; Avondale will submit letter to ADOT listing public investment made associated with Lakin Ranch and other developments that could be affected; approved Avondale Transportation Plan (dated 10/06) submitted to SR 801 team
4/2/2007	City of Tolleson meeting.	Presentation of 2 alignment options to carry forward (north and south alternatives; no depressed profiles will be considered
4/10/2007	Tres Rios coordination meeting	Identified several issues concerning both Tres Rios and SR 801; more detailed technical meeting will be needed as SR 801 advances
4/10/2007	City of Goodyear meeting	Stated that they agree with the SR 801 alignment recommendations to date; also stated they are opposed to an SR 303L alignment that runs down Cotton Lane or turns east of Cotton Lane; reviewing concepts and will get back to study team
4/12/2007	Phoenix Transportation Executive Oversight Committee meeting	Discussed Cascata Development and Phoenix Sand and Gravel operation in southeast corner of 67th Avenue; Phoenix looking into these issues
4/12/2007	Buckeye meeting	Would like the SR 801/SR 303L TI in Buckeye if possible; reviewing concepts and will get back to study team

Date	Event	Significant Decisions/Direction
4/17/2007	NTP for sand and gravel analysis	
4/18/2007	ADOT meeting to discuss Cascata development take line	Agreed upon take line for assessor's purposes
4/26/2007	Public meeting flier mailed	
4/26/2007	MCDOT/FCDMC coordination meeting	Presentation of 2 alignment options to carry forward (north and south alternatives); no depressed profiles will be considered
4/30/2007	MAG coordination meeting	Presentation of 2 alignment options to carry forward (north and south alternatives); no depressed profiles will be considered; coordination with Hassayampa study discussed
4/30/2007	Liberty Delineation Meeting with ADOT/FHWA	Discussed draft report for Liberty delineation; FHWA agreed to review document and transmit to DC for review
5/3/2007	ADOT management and FHWA presentation of the SR 801/SR 303L Interchange concepts	Repeated presentation given during the March 15, 2007 meeting
5/3/2007	Monthly progress meeting	
5/17/2007	Public information meeting	
5/22/2007	Meeting with City of Phoenix to discuss sand and gravel operation at 67th Avenue and Broadway Road	

Appendix C

Roadway Design Criteria Report

Roadway Design Criteria

in support of the
Technical Studies to the
Environmental Document and Location/Design Concept Report

SR801 Transportation Corridor in Maricopa County, Arizona

Arizona Department of Transportation
Federal Highway Administration
in cooperation with
United States Army Corps of Engineers

June 2006
ADOT TRACS No. 801 MA 000 H6876 01L
FHWA Federal Aid Project No. NH-801-B(ARG)

Abstract: This document addresses the design criteria to be used for all roadway alternatives developed as part of the SR 801 Environmental Document and Location/Design Concept Report process.

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INTRODUCTION

The following information addresses the roadway design criteria to be used during all phases of the Environmental Documentation and Location/Design Concept Report processes for the I-10 Reliever Roadway.

FREEWAY DESIGN CRITERIA

As stated in the Scope of Service, *Section 300: Design Criteria*, the ultimate freeway facility will be designed in accordance with Arizona Department of Transportation (ADOT) through use of their *Roadway Design Guidelines* (1996) (ARDG), *"Interim" Auxiliary Lane Design Guidelines* (1996), and ADOT Standard Drawings (all with current revisions and updates), as well as *A Policy on Geometric Design of Highways and Streets* (Green Book) and *Roadside Design Guide* (RSDG), both published by the American Association of State Highway and Transportation Officials (AASHTO). Crossroads in the project corridor that are currently under the jurisdiction of Maricopa County, the City of Phoenix, the City of Avondale and the City of Goodyear will be designed using local jurisdiction's guidelines.

Any deviations from the policies or criteria mentioned above will be subject to approval by ADOT.

The following design criteria are proposed.

MAINLINE

We recommend the following criteria for determining whether the freeway mainline should go over the major arterials or whether the major arterials should go over the freeway. These criteria apply to both the interim six-lane freeway (Figure 1) and the anticipated ultimate ten-lane freeway (Figure 2).

- In urbanized, developed areas, or areas where plats and building permits have already been approved and issued, the freeway mainline should be carried over the arterial to reduce the cost of restricting access along these routes by allowing the arterial to remain at grade.
- In rural, undeveloped areas, the freeway mainline should remain at grade and the arterial should be carried over.

These criteria apply only in areas where the major arterial will remain continuous. Ultimately several factors, including environmental, political, earthwork, and other factors, will determine the type of grade separation.

While the ultimate freeway criteria presented below allow for high occupancy vehicle lanes, they do not account for auxiliary lanes, frontage roads, or a collector-distributor system. The criteria for these elements are presented in the following sections.

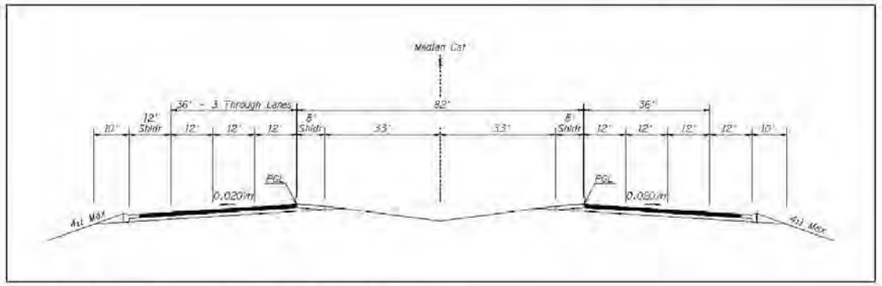

Figure 1 - Six-Lane Interim Freeway (3GP in each directions)

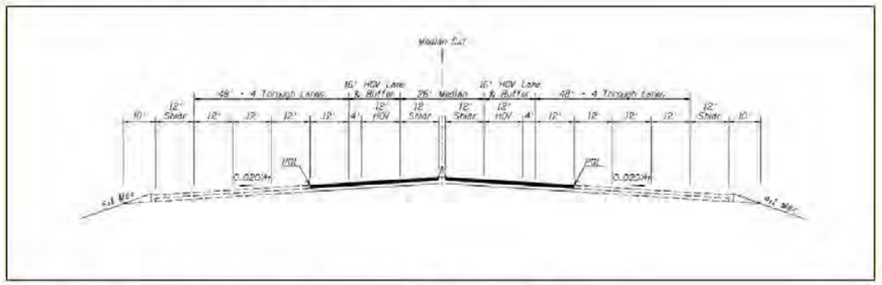

Figure 2 - Ten-Lane Ultimate Freeway (4GP + 1HOV in each direction)

Table 1 - Six-Lane Interim Freeway Characteristics

Item Description	Interim Characteristic
Typical Section	ARDG Figure 306.4B (modified for Wider Median)
Design Year	2040
Design Vehicle	WB-67
Design Speed	65 mph (Minimum)
Superelevation Table	0.06 ft/ft Max
Minimum Vertical Curve	800 ft
Maximum Gradient	3%
Maximum Angle Break	45 Minutes
Horizontal Curve	3° 27' 00" (Maximum Degree of Curvature), R = 1661ft Max per RDG, Min L = 975 ft (See RDG Section 203.5), (Spiral transitions will not be used.)
Median Width	82 ft
Half Roadway Width (Incl. Shldrs)	56 ft
Lane Width	12 ft
Median Shoulder Width	8 ft

Table 1 - Six-Lane Interim Freeway Characteristics

Item Description	Interim Characteristic
Outside Shoulder Width	12 ft (no additional shy distanced added)
Recovery Area	Per ARDG
Cross Slope	0.02 ft/ft
Pavement Design Life	20 years
Barrier Type	Outside: Concrete (Per ADOT Construction Stds) Median: Use of Median Cable Barrier To Be Evaluated By ADOT for Interim
Curb and Gutter Type	Per ARDG if required
Access Control	Full
Right-of-Way	Minimum 10 ft outside toe of slope Desirable 20 ft outside toe of slope
Tapers (See Figures in ARDG)	50:1, To Drop Mainline Lanes Added By On-Ramp Lane (Fig 504.8A) Design Speed:1, To Drop Mainline Thru Lane or Shoulder 25:1, To Add Lane or Shoulder
Utilities	ADOT *Guide for Accommodating Utilities on Highway Rights-of-Way*
Lighting	Full Outside

Table 2 - Ten-Lane Ultimate Freeway Characteristics*

Item Description	Ultimate Characteristic
Ultimate Typical Section	ARDG Figure 306.4B (modified to include HOV and HOV buffer)
Median Width	26 ft
Half Roadway Width	88 ft
Median Shoulder Width	12 ft
Lighting	Median Mounted

*Note: Only criteria different from those in Table 1 are presented.

TRAFFIC INTERCHANGES & RAMPS

As stated in the ARDG, compact diamond interchanges are the most commonly used type of interchange for a freeway-to-arterial connection. Compact diamond interchanges require a minimal amount of right-of-way and function effectively with frontage roads. The following design criteria are proposed for locations where traffic projections indicate the need for an interchange. An illustration of the typical compact diamond interchange is shown in ARDG Figure 502.1 and discussed in Section 502.2. Typical sections for exit and entrance ramps are shown in Figure 3.

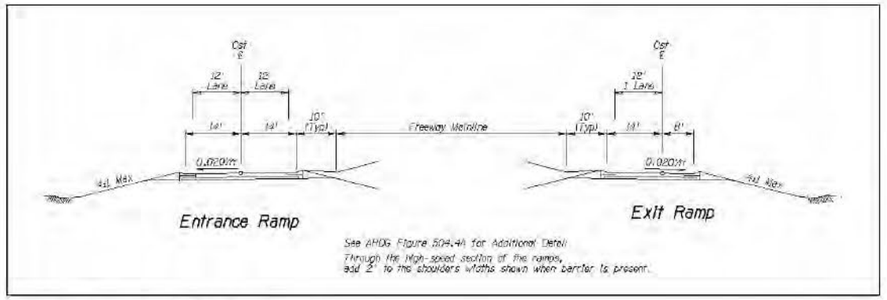

Figure 3 - Entrance and Exit Ramps

Table 3 - Entrance and Exit Ramp Characteristics

Item Description	Entrance Ramp Characteristics	Exit Ramp Characteristics
Design Vehicle	WB-67	WB-67
Design Speed	55 mph (Mainline Gore Area); 50 mph (CD Road Gore Area) 50 mph (Ramp Body) 35 mph (Intersection)	60 mph (Mainline Gore Area); 50 mph (CD Road Gore Area) 50 mph (Ramp Body) 35 mph (Intersection)
Superelevation Table	0.06ft/ft Max	0.06ft/ft Max
Maximum Gradient	4% up / 5% down	4% up / 5% down
Horizontal Curve: Min H Curve L=900'	2° 00' (Max. Dc at Gore, 2% Breakover) 1° 23' (Des. Dc at Gore, 1% Breakover) 0° 50' (Des. Dc at Gore, 0% Breakover) 6° 53' (Max. Dc in Body) 18° 19' (Max. Dc at Intersection)	1° 41' (Max. Dc at Gore, 2% Breakover) 1° 15' (Des. Dc at Gore, 1% Breakover) 0° 43' (Des. Dc at Gore, 0% Breakover) 6° 53' (Max. Dc in Body) 18° 19' (Max. Dc at Intersection)
Roadway Width	28 ft (Ramp Body) w/ Ramp Meter Varies Through and Beyond Gore Per ARDG Fig 504.8b	22 ft Single Lane (Gore/Ramp Body) 34 ft Dual Lane Varies at Intersection per ARDG Fig 504.5
Lane Width	12 ft	12 ft
Number of Left-Turn Lanes at Intersection	—	Based on Traffic Analysis
Number of Right-Turn Lanes at Intersection	—	Based on Traffic Analysis
Recovery Area	Per ARDG	Per ARDG
Pavement Design Life	20 years	20 years
Barrier Type	Concrete (Per ADOT Construction Stds)	Concrete (Per ADOT Construction Stds)
Curb and Gutter Type	Per ARDG if required	Per ARDG if required
Right-of-Way	20' Desirable From Toe of Slope 10' Min From Toe of Slope	20' Desirable From Toe of Slope 10' Min From Toe of Slope
Ramp VC Min L	400' Min, 200' Min at Intersection.	400' Min, 200' Min at Intersection.

Details of ramp geometry for entrance and exit ramps are presented in ARDG (Draft 9/26/05) Figures 504.8A and 504.7, respectively. Sections 504.7 and 504.8A also state that all new or reconstructed exit and entrance ramps within the urban or urban fringe areas of Metropolitan Phoenix or Tucson shall be designed as parallel-type ramps except in the vicinity of a directional interchange where an analysis should be done to determine the preferred type. Two-lane exit and entrance ramps should be provided where indicated by capacity and traffic projections; otherwise standard one-lane ramps are sufficient. The number of dedicated left-turn, right-turn, and through-movement lanes will also be decided based on capacity analysis and traffic projections.

In keeping with ADOT practice on urban freeway systems, service interchanges should be provided along the I-10 Reliever at the major mile crossroads unless prohibited by existing environmental features or lack of traffic need.

AUXILIARY LANES

As stated in the ARDG Section 504.9, auxiliary lanes should be provided between entrance and exit ramps to facilitate the weaving movements of vehicles entering and exiting the freeway mainline. Auxiliary lanes will be assumed between every crossroad less than 1.5 miles apart.

Auxiliary lanes will be designed according to the ARDG and *"Interim" Auxiliary Lane Design Guidelines* (1996) using the same criteria presented for the freeway mainline.

FRONTAGE ROADS

As stated in the Section 104.3 of the ARDG, frontage roads are generally not constructed when the highway is on new alignment. However, frontage roads are sometimes provided along highways to replace local street circulation and property access lost by the construction of the facility. Frontage roads may also be provided if the freeway would cause unreasonably circuitous travel. Frontage roads are typically justified by economic analysis that compares the cost of construction and right-of-way acquisition versus the cost of providing another feasible way to access frontage properties.

Section 309 of the ARDG is to be utilized in the event frontage roads are used. Typical sections are shown in Figures 309A and 309B of the ARDG as well.

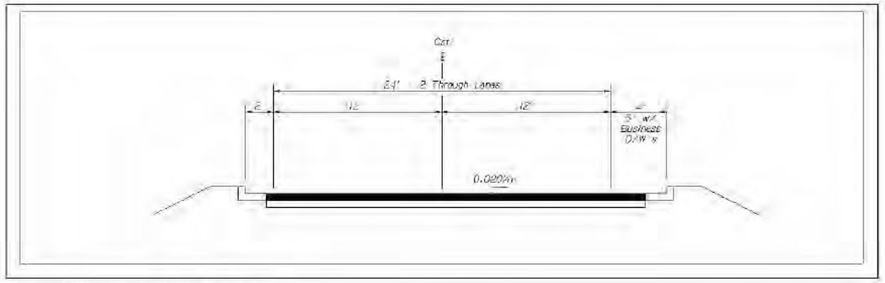

Figure 4 - Frontage Road Roadway

Table 4 - Frontage Road Characteristics

Item Description	Characteristics
Design Vehicle	WB-50
Design Speed	50 mph
Pavement Design Life	20 years
Drainage (Pavement)	Per ARDG or local government as required
Clear Zone Width	Per ARDG

Note: Inclusion of sidewalks, lighting, curb and gutter, and bike lanes are treated similarly to crossroads.

COLLECTOR-DISTRIBUTOR ROADS

The ARDG does not discuss collector-distributor (CD) roads; however, the AASHTO Green Book does provide some minimal guidance. In addition, ADOT has developed some CD road guidelines for the I-10 CD Road project currently under development. Using the guidance developed for the I-10 CD Road project, the following design criteria are presented for locations where CD roads are being considered (Figure 5).

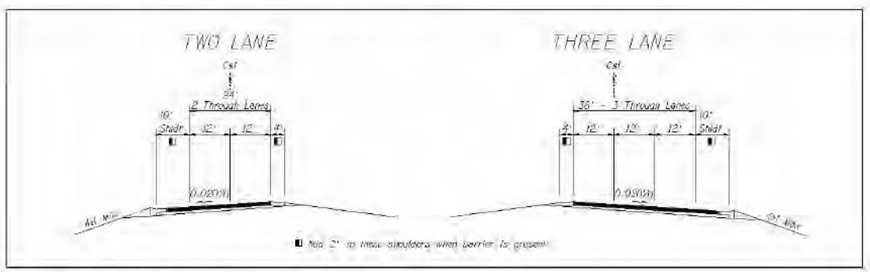

Figure 5 - Collector-Distributor Road

Table 5 - Collector-Distributor Road Characteristics

Item Description	Characteristic
Design Vehicle	WB-67
Design Speed	50 mph
Superelevation Table	0.06 ft/ft Max
Minimum Vertical Curve	800 ft
Maximum Gradient	3%
Horizontal Curve	6° 53' 00" (Maximum Degree of Curvature)
Roadway Width	38 ft (2-Lane); 50 ft (3-Lane)
Lane Width	12 ft
Inside Shoulder Width	4 ft (6' with barrier)
Outside Shoulder Width	10 ft (12' with barrier)
Separation from Mainline	4' min (excluding shoulder widths) using 42" High Median Barrier
Recovery Area	Per ARDG
Cross Slope	0.02 ft/ft
Pavement Design Life	20 years
Barrier Type	Concrete (Per ADOT Construction Stds)
Curb and Gutter Type	Per ARDG if required
Access Control	Full
Right-of-Way	Desirable 20' From Toe of Slope, Min 10' From Toe of Slope
Tapers	50:1 (Drops for Ramp and Mainline Lanes) 25:1 (Add)
Utilities	ADOT *Guide for Accommodating Utilities on Highway Rights-of-Way*
Lighting	Full

HIGH OCCUPANCY VEHICLE (HOV) LANES

As shown on the freeway typical sections, future HOV lanes will be provided for along the I-10 Reliever freeway. These lanes, if constructed, will be constructed as part of the future ultimate build out.

SYSTEM INTERCHANGES

As stated in the ARDG, fully directional four-level interchanges provide maximums in convenience, efficiency, and safety. The following design criteria are proposed for locations where the I-10 Reliever freeway intersects another freeway facility. An illustration of the typical fully directional interchange is shown in ARDG Figure 502.1. A typical section of a directional ramp is shown in Figure 5 – Directional Ramps. As a practical mater for conceptual design, no less than two-lane directional ramps will be assumed when on structures.

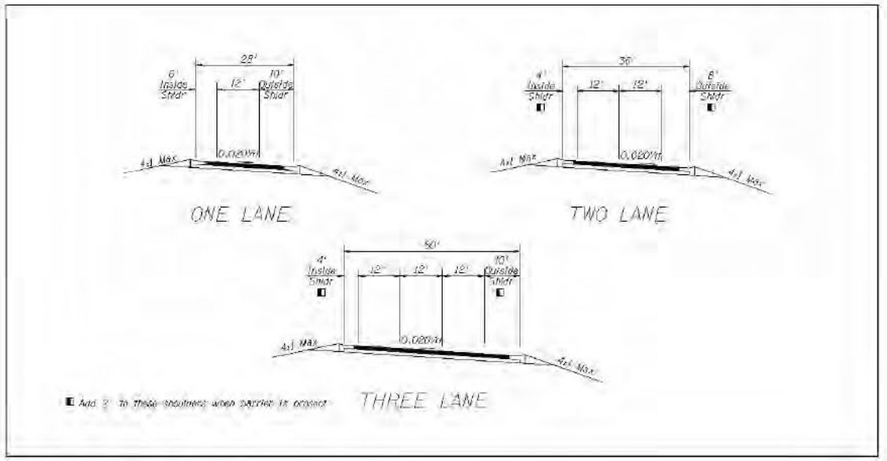

Figure 6 - Directional Ramps

Table 6 - Directional Ramp Characteristics

Item Description	Directional Ramp Characteristics
Design Vehicle	WB-67
Design Speed	55 mph (Mainline Gore Area); 50 mph (CD Road Gore Area) 55 mph (Ramp Body) or 50 mph (if connecting to CD Roads)
Superelevation	0.06ft/ft (Maximum)
Maximum Gradient	4% up / 5% down
Horizontal Curve	5° 24' (Max. Degree of Curvature)
Roadway Width	28 ft (1 lane); 36 ft (2 lane); 50 ft (3 lane); Shy distance applies to 2 and 3 Lane options.
Lane Width	12 ft
Recovery Area	Per ARDG
Pavement Design Life	20 years
Barrier Type	Concrete (Per ADOT Construction Stds)
Curb and Gutter Type	Per ARDG if required

CROSSROADS

Because the I-10 Reliever freeway alignment will affect the continuity and capacity requirements of all major arterials it contacts, we propose the following design criteria for all major arterials.

Table 7 - Major Arterial Characteristics

Item Description	Cross Street – Principal Arterial Characteristics
Crossroad Typical Section	City of Phoenix Detail No. P1010 Section B City of Goodyear G-3120 & G-3122 City of Avondale Major Arterial Section
Design Vehicle	WB-50
Design Speed	50 mph (45 mph at interchanges)
Roadway Width	Varies by Jurisdiction and Classification
Number of Through Lanes	4 or 6 Lanes depending on City's General Plan
Assumed Number of Left-Turn Lanes at Interchange	2 lanes
Assumed Number of Right-Turn Lanes Prior to Interchange	1 lane
Bike Lane	Varies by Jurisdiction
Pavement Design Life	20 years
Drainage (Pavement)	10 years
Right-of-Way	Varies
Lane Width	Varies by Jurisdiction and Type
Clear Zone Width	1.5 ft from face of curb minimum, 6 ft desirable
Roadway Foreslope	3:1
Median	14 ft (4 ft on Interchange)
Curb and Gutter Type	MAG Std Detail 220 & 222 (ADOT curb within access control)

Note: Sidewalks will be replaced in kind but new sidewalks will not be added.

PROJECT AREA EARTHWORK

The discussion of earthwork in ARDG simply states that the profile grade line should fit but not follow the existing topography. The earthwork for a construction project should be balanced unless other design factors take precedence.

VERTICAL CLEARANCES

The ARDG states the following minimum vertical clearances.

- Structures over arterials: 15.5 feet
- Structures over state highways: 16.5 feet
- Pedestrian overpasses: 17.5 feet

- Tunnels: 16 feet on state highways, 15.5 feet on other arterials
- Structures over rail: 23 feet from top of rail

SURFACING

All freeway pavement will be Portland cement concrete pavement (PCCP) except the inside shoulders of the interim freeway, which will be asphaltic concrete. Ramps, auxiliary lanes and CD roads will also be PCCP. The pavement surfaces of crossroads and frontage roads are typically determined by which jurisdiction will be maintaining it (local government or ADOT). Areas that will be maintained by ADOT will be paved with PCCP, and asphaltic concrete will be used for other areas. However, within the interchange, the crossroad will be paved with PCCP.

With the implementation of the Quiet Pavement Program it is assumed that the application of AR-ACFC on the freeway and ramp roadways will occur.

RIGHT-OF-WAY REQUIREMENTS

During the initial screening process used to reduce the number of alternatives considered, the following assumptions are to be used for right-of-way (R/W) widths. For all rights-of-way presented below, it is assumed that the maximum vertical shift in profile from grade would be 5 feet (up or down), not including areas where grade separations are anticipated. All system interchange movements were assumed to function as two-lane ramps. Table 8 presents the rights-of-way that were used in the screening.

Table 8 - Right-of-Way Requirements (Screening)

Roadway Configuration	R/W (Approximate)
Six-Lane/Ten-Lane Freeway	198' (300' without channel and 500' with channel)
Freeway with Interchange	Varies (600')
Freeway with CD Road System	316' (400' without channel)
Freeway with Frontage Roads	308' (400' without channel)

GLOSSARY

AASHTO	American Association of State Highway and Transportation Officials
ADOT	Arizona Department of Transportation
ARDG	ADOT Roadway Design Guidelines
CD	collector-distributor
CST	construction
EA	Environmental Assessment
FHWA	Federal Highway Administration
ft	feet
in.	inches
L/DCR	Location/Design Concept Report
MAG	Maricopa Association of Governments
mph	miles per hour
PCCP	Portland cement concrete pavement
PGL	profile grade line
RSDG	Roadside Design Guidelines (AASHTO)
R/W	right-of-way
ARDG	ADOT Roadway Design Guidelines
SR	State Route

Appendix D

Groundwater Survey and Assessment Report

Groundwater Survey & Assessment Report

in support of the
Technical Studies to the
Environmental Document and Location/Design Concept Report

SR801 Transportation Corridor
SR 85 to 51st Avenue
in Maricopa County, Arizona

Arizona Department of Transportation
Federal Highway Administration
in cooperation with
United States Army Corps of Engineers

May 2007
ADOT TRACS No. 801 MA 000 H6876 01L
ADOT TRACS No. 801 MA 000 H7216 01L
FHWA Federal Aid Project No. NH-801-B(ARG)

Abstract: This document addresses the finding of the groundwater survey and the implications of the depth to groundwater on the roadway alternatives developed as part of the SR 801 Environmental Document and Location/Design Concept Report process.

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APPENDICES

Appendix A – ADWR GWSI Data by Section and Well ID
Appendix B – ADEQ Superfund Site Investigation
Appendix C – Groundwater Dewatering Analysis

INTRODUCTION

The following information was undertaken by the study team and addresses the findings of the depth to groundwater survey and the implications of depth to groundwater on the freeway geometry as it relates to depressed or semi-depressed interchanges or grade separations. In addition, this information will be used to define the preliminary maximum depths of the drainage basins along the corridor.

DATA COLLECTION

The Arizona Department of Water Resources (ADWR) provided three data compact discs (CDs) containing the following data sets:

- ADWR Geographic Information System (GIS) Data
- ADWR "Wells 55 Data" (last updated 4-2005)
- ADWR Groundwater Site Inventory (GWSI) Database (last updated 10-2004)

In addition, a variety of geotechnical investigation reports (generated for other projects in this part of the valley) were reviewed for groundwater depth observations.

The Arizona Department of Environmental Quality (ADEQ) was contacted to obtain groundwater quality information and their on-line database was researched for State and Federal Superfund Sites.

The study team utilized in-house groundwater experts for groundwater dewatering information and contacted John Stepins at Arizona Department of Transportation's (ADOT's) Phoenix Maintenance District (Pump stations) for operations and maintenance information related to operating pumps.

METHODOLOGY

This analysis was prepared in three parts: historical high groundwater levels, review of groundwater quality information near the study area, and a feasibility and cost study for dewatering a typical depressed interchange along the corridor. This document compiles and consolidates the findings of these three analyses.

HISTORICAL HIGH GROUNDWATER LEVEL:

The study area is in close proximity to the Salt, Gila and Agua Fria Rivers and it was necessary to identify the depth to groundwater within the study area. Several of the freeway interchange alternatives being considered required a depressed mainline. Consequently, it was important to identify not only the current groundwater levels, but how shallow it *could* be based on historical data. This would assist the study team in assessing whether or not a particular interchange could be vulnerable to seeping groundwater flooding. To perform this study, the ADWR GWSI statewide database was acquired and the study team extracted all historical well depth data on a

section by section basis for the entire study area between State Route (SR) 85 and 51st Avenue. This data is included in Appendix A – GWSI Data by Section and Well Identification (ID).

Reviewing each section, the shallowest groundwater depths were identified for each well. Depth readings with "Pumping", "Recent Pumping", "Recent Flows", or "Nearby Pumping" Remark Codes were ignored due to the drawdown effects of that well or adjacent wells. The deepest depth readings by section are summarized in the header for each section. A range is provided when depths to groundwater varied, either due to the physical separation of the wells within the one square mile section, or there were multiple reading dates for each well. This data is summarized in Figures 1 and 2.

Included in Figures 1 and 2 are the ADWR well sites shown as orange dots. Please note that not all wells shown in Figures 1 and 2 are included in Appendix A since some wells have been abandoned or have no recorded depth measurements.

As these two figures show, the data indicates that we could expect groundwater less than 10 feet below the ground surface within and immediately adjacent to the Gila and Salt Rivers. North of the Gila and Salt Rivers, the depth to groundwater is 50 to 60 feet near the north study area boundary. Along the freeway corridors being evaluated, the depth to groundwater ranges between 15 and 25 feet for the SR 85 to SR 303L segment, 15 to 20 feet between SR 303L and Avondale Boulevard (115th Avenue), and 20 to 45 feet between Avondale Boulevard and 51st Avenue.

The following groundwater depths were observed at the potential depressed interchange sites:

- Bullard Avenue – depth to groundwater ~17'
- El Mirage Road – depth to groundwater ~20'
- 99th Avenue – depth to groundwater ~18'

A typical fully depressed interchange is about 25 feet below ground surface (to the depressed roadway pavement). Ideally, the roadway sub grade and the utilities under the roadway (such as storm drain pipes) should remain dry to avoid pavement failure and pipeline seepage and deterioration. Groundwater depths shallower than 30 feet would likely be problematic.

Figure 1

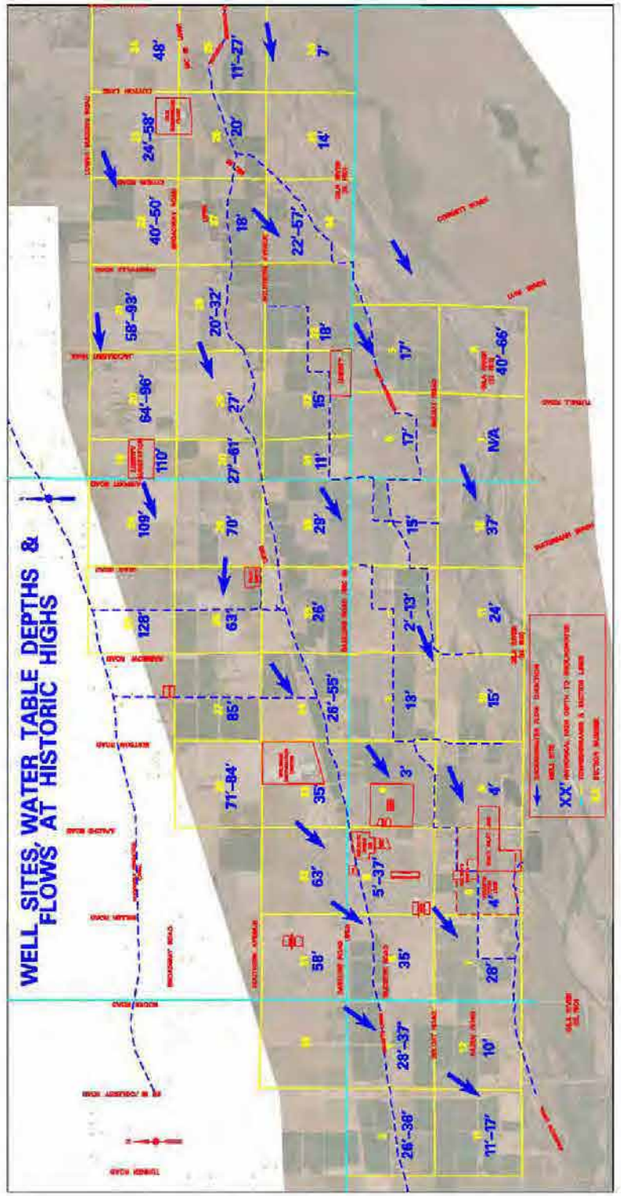
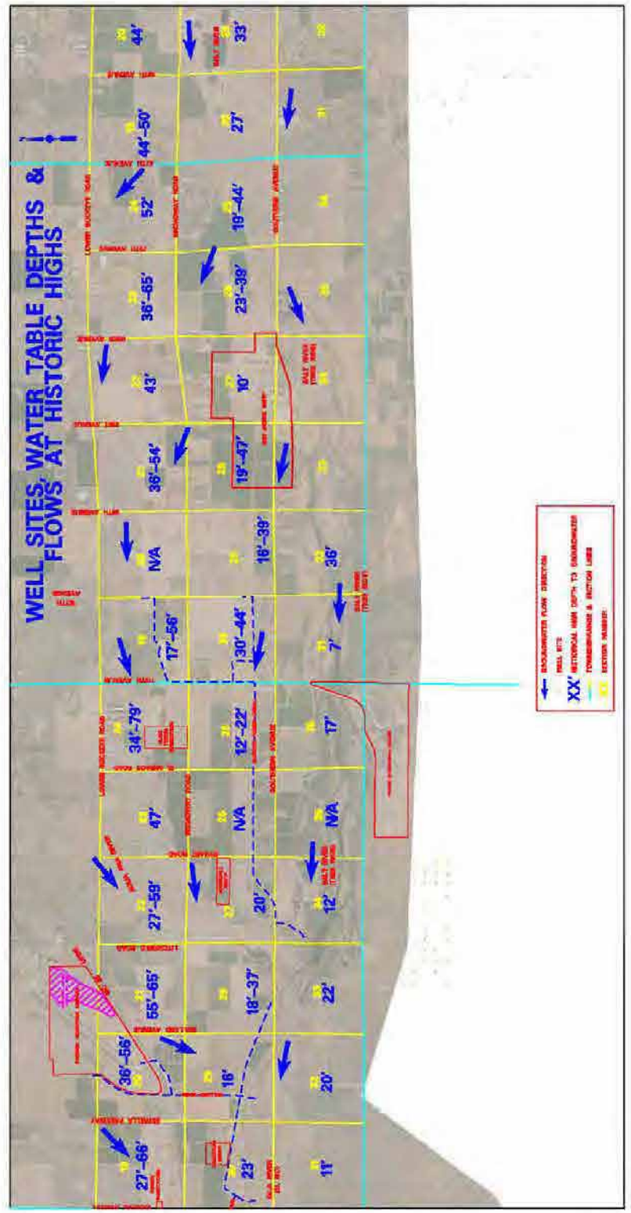


Figure 2



CONTAMINATED GROUNDWATER PLUMES:

The results of the groundwater depth study indicated that dewatering could be utilized at the depressed interchanges if those options were carried forward. Since the quality of the water being pumped would be a concern, the study team researched the ADEQ State and Federal Superfund database to determine if there were any known contaminated areas in or around the study area. Two sites were identified: the West Van Buren Site (State) and the Phoenix-Goodyear Airport South Site (Federal). The specific details of each of these two sites are summarized in Appendix B – ADEQ Superfund Site Investigation.

The West Van Buren Site is located approximately 1.5 miles north of the study area between 75th Avenue and 51st Avenue. The nearest potential depressed interchange to this site would be located at 99th Avenue south of Broadway, about five miles southwest of the contaminated groundwater plume. The distance between the West Van Buren site and the depressed interchange is large enough that a dewatering activity at the interchange should not impact the plume.

The south end of the Phoenix-Goodyear Airport South Site is located at approximately Lower Buckeye Road and Maricopa County (MC) 85, or about 1.5 miles north of the depressed Bullard Avenue interchange location. The groundwater contamination plume is shown in Figure 2 and is depicted by the purple shape within the airport boundary. This groundwater contamination plume is currently stable and is being contained with injection wells at the south end of the plume. Any groundwater dewatering activities in the area could impact the stability of the plume. Since the Bullard interchange site is located only 1.5 miles south and downgradient of this site, a more detailed and comprehensive hydrogeologic analysis would need to be performed to determine if the Superfund groundwater plume stability would be compromised with dewatering the Bullard Avenue interchange.

INTERCHANGE DEWATERING FEASIBLITY STUDY:

The study team explored the technical feasibility of dewatering a depressed interchange. The findings of this analysis are documented in Appendix C. In summary, four groundwater dewatering wells would be required per interchange (one in each quadrant). Depending on the hydraulic conductivity and transmissivity of the aquifer, the study team established pumping rates ranging from 1,200 gallons per minute (gpm) to 4,000 gpm per interchange (total for all four wells). This would have the net effect of lowering the groundwater table by about 20 feet per interchange.

Other dewatering issues were identified and need to be analyzed further should a dewatering solution be pursued. These issues include:

- Nitrate levels in the groundwater in the area are anticipated to be too high to directly discharge back into the river environment. Consequently, treatment may be required to improve water quality prior to discharge.
- Impacts to the known contaminated groundwater plumes.
- Impacts to adjacent property owners' wells resulting from the effects of the groundwater table drawdown at the depressed interchange. This could result in additional compensation, well replacements, or the full acquisition of properties and water rights affected by the drawdown.
- A pump discharge outfall conveyance facility will be required. This study did not attempt to design such a system, though this would represent a significant cost to the project, especially if water quality treatment were required.
- Urbanization of this part of the valley will impact the groundwater levels within the study area. It is unknown how the groundwater levels will change as a result of urban development replacing irrigated farmland.

In summary, this analysis concludes that dewatering a depressed interchange is feasible, but will be challenging to design given the variables associated with this scope of work.

INTERCHANGE DEWATERING COST ANALYSIS:

Appendix C includes a cost analysis of installing dewatering wells at the interchanges, and quantified the expected annual operations and maintenance (O&M) costs of these wells. To summarize, the cost to install the four wells ranges from $2M to $4M per interchange (the range is dependent on the size of the wells and the geologic conditions at the site). Annual O&M costs are expected to be $25,000 to $65,000 per interchange.

Additional costs can be expected for the outfall conveyance facility, water quality treatment systems, right of way impacts, system redundancy costs, etc. While not quantified, these items could add substantial cost to the project. Consequently, it would be advisable to add a 100% contingency to the dewatering construction cost above to account for these items.

This study recommends that a construction cost of $6M ($3M average construction cost + 100% contingency) be used for planning efforts and $50,000 per year for O&M costs. Assuming a 30 year life and a 3% rate of inflation, this equates to a present value of about $1M.

The SR 801 alternatives study should assume an additional $7M per depressed interchange that requires dewatering.

CONCLUSION:

Groundwater depths range between 17 and 20 feet below ground surface at the depressed interchange sites and groundwater dewatering would be required to keep these interchanges dry. However, with the possibility of disturbing existing contaminated groundwater plumes and the $7M cost to implement a dewatering solution, the dewatering solution may not be a preferred solution.

ACRONYMS

ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
CD	Compact disk
GIS	Geographical Information System
GPM	Gallons per minute
GWSI	Groundwater Site Inventory
ID	Identification
M	Million
MC	Maricopa County
O&M	Operations and Maintenance
SR	State Route

Appendix E

Construction Cost Estimates for Subsections

Subsection 1a

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 1a
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 2.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	192	$750	$144,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$165,000	$165,000
	REMOVAL OF MISC. STRUCT. & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	31,000	$12	$372,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	633,208	$2	$1,266,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	111,399	$4	$446,000
	BASIN EXCAVATION	CU YD	142,182	$4	$569,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	1,502,256	$5	$7,510,000
	BORROW (TIT)	CU YD	1,707,109		$0
	FURNISH WATER SUPPLY	MILE	3.00	$1,000,000	$3,000,000
	TOTAL ITEM 200				$13,673,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	155,632		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	137,945	$90	$12,415,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	53,688	$75	$4,026,600
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	27,574	$45	$1,241,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	8880	$100	$888,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	80	$90	$7,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	864	$280	$241,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	68	$325	$22,000
	ASPHALT PAVEMENT	SQ YD	35,378		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	8,150	$45	$367,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	11,777	$45	$530,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	77	$90	$7,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	407	$350	$142,000
	TACK COAT	TON	15	$325	$5,000
	TOTAL ITEM 300 & 400				$20,191,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	165	$3,500	$578,000
	MANHOLE / JUNCTION STRUCTURE	EACH	27	$4,500	$122,000
	PIPE (24" TO 36")	LIN FT	15,940	$85	$1,355,000
	PIPE (42" TO 60")	LIN FT	1,160	$155	$180,000
	PIPE (OVER 60")	LIN FT	320	$285	$94,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	49	$1,000	$49,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	45,929	$75	$3,446,000
	CONCRETE BOX CULVERT	LIN FT	2,160	$2,450	$5,292,000
	OUTFALL STRUCTURE / WEIRS / ETC.	EACH	1	$25,000	$25,000
	BANK PROTECTION	L SUM	1	$0	$0
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER:	L SUM	1	$0	$0
	TOTAL ITEM 500				$11,080,000
600	STRUCTURES				
	NUMBER OF STRUCTURES:				
	Dolfen Lane	SQ FT	42,364	$121	$5,126,000
	UPRR	SQ FT	220,000	$160	$35,200,000
	Sarival Avenue	SQ FT	42,364	$110	$4,660,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$0	$0
	TOTAL ITEM 600				$44,986,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 1a
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 2.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSSROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	3	$100,000	$300,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	0.50	$180,000	$90,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	2.00	$250,000	$500,000
	SIGNING OF SYSTEM TI	EACH	0	$3,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	2.50	$105,000	$263,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	2.50	$665,000	$1,663,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	4	$200,000	$800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	2.50	$32,000	$80,000
	TOTAL ITEM 700				$3,896,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	2.50	$1,000,000	$2,500,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (3 PER MILE)	EACH	3	$30,000	$90,000
	TOPSOIL	CU YD	343,198	$10	$3,431,000
	EROSION CONTROL	MILE	2.50	$30,000	$75,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$500,000	$500,000
	TOTAL ITEM 800				$6,596,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$8,233,760	$8,233,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	0	$30	$0
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	0	$25,000	$0
	SAND BARREL CRASH CUSHIONS	EACH	20	$5,000	$100,000
	GUARDRAIL END TERMINAL	EACH	10	$3,300	$33,000
	FENCE / GATES	LIN FT	35908	$10	$359,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	12609	$50	$630,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	13392	$13	$174,000
	CURB AND GUTTER	LIN FT	42574	$13	$553,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	40000	$2	$80,000
	R/W & SURVEY MARKERS	EACH	76	$300	$23,000
	SPECIAL RAILROAD COORDINATION	L SUM	1	$750,000	$750,000
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$2,058,440	$2,058,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$4,116,880	$4,117,000
	TOTAL ITEM 900				$17,109,000
	SUBTOTAL A (ITEMS 200 THRU 900)				$117,331,000
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				23,466,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				$140,797,200
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				12,671,748
	TOTAL ESTIMATED CONSTRUCTION COST				$153,468,948
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				500,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				$500,000
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				7,039,860
	TOTAL ESTIMATED PROJECT COST (*)				$161,108,808

(*) Total includes costs associated with other funding sources. See Sheet 3.01.3 for additional information

Subsection 1b

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 1b
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 2.8 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	326	$750	$245,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$20,000	$20,000
	REMOVAL OF MISC. STRUCT & OBSTRUCTIONS	L SUM	1	$50,000	$50,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	22,000	$12	$264,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	669,128	$2	$1,339,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	75,128	$4	$301,000
	BASIN EXCAVATION	CU YD	246,926	$4	$988,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	1,129,350	$5	$5,647,000
	BORROW (FIT)	CU YD	12,832,352		$0
	FURNISH WATER SUPPLY	MILE	3.00	$1,000,000	$3,000,000
	TOTAL ITEM 200				$11,853,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	380,227		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	164,423	$90	$14,798,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	95,804	$75	$7,185,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	36,596	$45	$1,647,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	3 INCH AR-ACFC OVERLAY (OVER PCCP)	TON	11,380	$100	$1,138,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	103	$90	$9,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	1,081	$285	$308,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	87	$325	$28,000
	ASPHALT PAVEMENT	SQ YD	46,734		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	11,087	$45	$499,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	14,969	$45	$674,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	105	$90	$9,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	554	$350	$194,000
	TACK COAT	TON	19	$325	$6,000
	TOTAL ITEM 300 & 400				$26,495,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	179	$3,500	$618,000
	MANHOLE / JUNCTION STRUCTURE	EACH	28	$4,500	$126,000
	PIPE (24" TO 36")	LIN FT.	16,780	$85	$1,426,000
	PIPE (42" TO 60")	LIN FT.	1,210	$155	$188,000
	PIPE (OVER 60")	LIN FT.	720	$285	$84,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	52	$1,000	$52,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$2,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	56,527	$75	$4,240,000
	CONCRETE BOX CULVERT	LIN FT	885	$2,450	$2,168,000
	OUTFALL STRUCTURE / WEIRS / ETC	EACH	1	$25,000	$25,000
	BANK PROTECTION	L SUM	1	$225,000	$225,000
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	1	$2,000,000	$2,000,000
	OTHER:	L SUM	1	$0	$0
	TOTAL ITEM 500				$11,097,000
600	STRUCTURES				
	NUMBER OF STRUCTURES:				
	Cotton Lane	SQ FT	42,364	$121	$5,126,000
	Buckeye Irrigation Canal	SQ FT	41,200	$121	$4,985,000
	Sarival Avenue	SQ FT	42,364	$110	$4,660,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENTS/SCOUR PROTECTION*	L SUM	1	$0	$0
	TOTAL ITEM 600				$14,771,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 1b
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 2.8 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SEMI-FLY (EXCLUDES PAVEMENT)	EACH	2	$100,000	$200,000
	FREEWAY WIDENING TC (202L/TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	0.80	$180,000	$144,000
	SIGNING (MAINLINE MILE WITH SIGNS OF SYSTEM TI)	MILE	2.00	$250,000	$500,000
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	2.80	$105,000	$294,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	2.80	$665,000	$1,862,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	4	$200,000	$800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	2.80	$32,000	$90,000
	TOTAL ITEM 700				$3,890,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	2.80	$1,000,000	$2,800,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	3	$30,000	$90,000
	TOPSOIL	CU YD	416,747	$10	$4,167,000
	EROSION CONTROL	MILE	2.80	$30,000	$84,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$400,000	$400,000
	TOTAL ITEM 800				$7,541,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$6,219,760	$6,220,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	0	$30	$0
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	1	$25,000	$25,000
	SAND BARREL CRASH CUSHION	EACH	22	$5,000	$110,000
	GUARD RAIL END TERMINAL	EACH	11	$3,500	$39,000
	FENCE / GATES	LIN FT.	38792	$10	$388,000
	GUARDRAIL	LIN FT.	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT.	13313	$50	$666,000
	CONCRETE MEDIAN BARRIER	LIN FT.	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT.	14620	$13	$190,000
	CURB AND GUTTER	LIN FT.	44348	$13	$577,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	40000	$2	$80,000
	R/W & SURVEY MARKERS	EACH	33	$300	$25,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$1,554,540	$1,555,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$3,109,080	$3,110,000
	TOTAL ITEM 900				$12,985,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$88,632,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				17,726,400
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$106,358,400**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				9,572,256
	TOTAL ESTIMATED CONSTRUCTION COST				**$115,930,656**
	OTHER PROJECT COSTS				
	DBS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				2,600,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$2,600,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				5,317,920
	TOTAL ESTIMATED PROJECT COST (*)				**$123,848,576**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 2a-1

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2a-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8 Miles — TRACS NO.: H6876 01L — DATE: May 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	739	$750	$554,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC)	L SUM	1	$145,000	$145,000
	REMOVAL OF MISC. STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	65,000	$12	$780,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,172,300	$2	$4,345,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	256,178	$4	$1,025,000
	BASIN EXCAVATION	CU YD	1,386,437	$4	$5,545,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	2,144,811	$5	$10,724,000
	BORROW (PIT)	CU YD	2,437,285		$0
	FURNISH WATER SUPPLY	MILE	8.00	$1,000,000	$8,000,000
			TOTAL ITEM 200		$31,514,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	676,837		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	456,813	$90	$41,068,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	219,924	$75	$16,494,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	95,091	$45	$4,279,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	3-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	30,544	$100	$3,054,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	276	$90	$25,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,502	$285	$887,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	233	$325	$76,000
	ASPHALT PAVEMENT	SQ YD	118,918		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	27,654	$45	$1,244,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	39,155	$45	$1,762,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	263	$90	$24,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,383	$350	$484,000
	TACK COAT	TON	49	$325	$16,000
			TOTAL ITEM 300 & 400		$69,353,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	533	$3,500	$1,865,000
	MANHOLE / JUNCTION STRUCTURE	EACH	89	$4,500	$401,000
	PIPE (24" TO 36")	LIN FT	52,440	$85	$4,457,000
	PIPE (42" TO 60")	LIN FT	3,870	$155	$600,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	155	$1,000	$155,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	143,575	$75	$10,768,000
	CONCRETE BOX CULVERT	LIN FT	1,205	$2,450	$2,952,000
	OUTFALL STRUCTURES / WEIRS / ETC.	EACH	4	$25,000	$100,000
	BANK PROTECTION	L SUM	1	$225,000	$225,000
	RIP RAP	CU YD	0	$90	$0
	FLUME STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$35,000	$35,000
			TOTAL ITEM 500		$21,679,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Sillard Wash	SQ FT	56,125	$120	$6,735,000
	Sillard Avenue	SQ FT	41,860	$110	$4,605,000
	Agua Fria River	SQ FT	386,250	$120	$46,350,000
	Dysart Road	SQ FT	41,860	$110	$4,605,000
	El Mirage Road	SQ FT	41,860	$110	$4,605,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	107th Avenue	SQ FT	41,860	$110	$4,605,000
	99th Avenue	SQ FT	41,860	$110	$4,605,000
	OTHER				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
			TOTAL ITEM 600		$86,591,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2a-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8 Miles — TRACS NO.: H6876 01L — DATE: May 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHOFLY (EXCLUDES PAVEMENT)	EACH	7	$100,000	$700,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$300,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.00	$180,000	$1,440,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.00	$105,000	$840,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.00	$665,000	$5,320,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	14	$200,000	$2,800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.00	$32,000	$256,000
			TOTAL ITEM 700		$11,356,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.00	$1,000,000	$8,000,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	8	$30,000	$240,000
	TOPSOIL	CU YD	1,122,160	$10	$11,223,000
	EROSION CONTROL	MILE	8.00	$30,000	$240,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$2,500,000	$2,500,000
			TOTAL ITEM 800		$22,203,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$20,911,840	$20,912,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	417,667	$30	$12,530,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSSIONS	EACH	64	$5,000	$320,000
	GUARDRAIL/END TERMINAL	EACH	82	$3,500	$312,000
	FENCE / GATES	LIN FT	111358	$10	$1,114,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	41362	$50	$2,068,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	41997	$13	$546,000
	CURB AND GUTTER	LIN FT	142032	$13	$1,846,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	239	$300	$72,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$5,227,960	$5,228,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$10,455,920	$10,456,000
			TOTAL ITEM 900		$59,579,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$297,984,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				59,598,800
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$357,592,800**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				32,183,352
	TOTAL ESTIMATED CONSTRUCTION COST				**$389,776,152**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				3,300,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$3,300,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				17,879,640
	TOTAL ESTIMATED PROJECT COST (*)				**$410,955,792**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 2a-2

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2a-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	880	$750	$660,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$145,000	$145,000
	REMOVAL OF MISC. STRUCT. & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	65,000	$12	$780,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,387,747	$2	$4,795,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	257,000	$4	$948,000
	BASIN EXCAVATION	CU YD	1,356,324	$4	$5,425,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	1,795,131	$5	$8,976,000
	BORROW (PIT)	CU YD	2,039,921		$0
	FURNISH WATER SUPPLY	MILE	8.00	$1,000,000	$8,000,000
	TOTAL ITEM 200				$29,929,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	877,214		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	457,587	$90	$41,183,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	219,628	$75	$16,472,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	95,218	$45	$4,285,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$63	$0
	3-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	30,096	$100	$3,000,000
	MINERAL ADMIXTURE FOR AR-ACFC/ AC BASE	TON	277	$90	$25,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,807	$285	$808,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	233	$325	$76,000
	ASPHALT PAVEMENT	SQ YD	118,698		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	27,684	$45	$1,246,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	39,225	$45	$1,765,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	263	$90	$24,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,384	$350	$484,000
	TACK COAT	TON	49	$325	$16,000
	TOTAL ITEM 300 & 400				$69,464,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	534	$3,500	$1,869,000
	MANHOLE / JUNCTION STRUCTURE	EACH	89	$4,500	$401,000
	PIPE (24" TO 36")	LIN FT	52,470	$85	$4,460,000
	PIPE (42" TO 60")	LIN FT	3,870	$155	$600,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEAD WALLS, FLARED END SECTIONS, ETC.)	EACH	155	$1,000	$155,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	146,060	$75	$10,953,000
	CONCRETE BOX CULVERT	LIN FT	1,295	$2,150	$2,784,000
	OUTFALL STRUCTURE / WEIRS / ETC.	EACH	4	$25,000	$100,000
	BANK PROTECTION	L SUM	1	$225,000	$225,000
	RIP RAP	CU YD	0	$30	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$35,000	$35,000
	TOTAL ITEM 500				$21,872,000
600	STRUCTURES				
	NUMBER OF STRUCTURES:				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Ballard Wash	SQ FT	53,145	$120	$6,377,000
	Ballard Avenue	SQ FT	41,860	$110	$4,605,000
	Agua Fria River	SQ FT	386,250	$120	$46,350,000
	Dysart Road	SQ FT	41,860	$110	$4,605,000
	El Mirage Road	SQ FT	41,860	$110	$4,605,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	107th Avenue	SQ FT	41,860	$110	$4,605,000
	99th Avenue	SQ FT	41,860	$110	$4,605,000
	OTHER				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$86,537,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2a-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	7	$100,000	$700,000
	FREEWAY WIDENING TO (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.00	$180,000	$1,440,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.00	$105,000	$840,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.00	$665,000	$5,320,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	14	$200,000	$2,800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.00	$34,000	$256,000
	TOTAL ITEM 700				$13,356,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.00	$1,000,000	$8,000,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	8	$30,000	$240,000
	TOPSOIL	CU YD	1262.116	$10	$12,621,000
	EROSION CONTROL	MILE	8.00	$30,000	$240,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$2,500,000	$2,500,000
	TOTAL ITEM 800				$23,601,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$20,617,840	$20,618,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	284,391	$30	$8,532,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	64	$5,000	$320,000
	GUARDRAIL END TERMINAL	EACH	72	$3,500	$112,000
	FENCE / GATES	LIN FT	111484	$10	$1,115,000
	GUARDRAIL	LIN FT	0	$25	$0
	CONCRETE HALF BARRIER	LIN FT	41380	$50	$2,070,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	42046	$13	$547,000
	CURB AND GUTTER	LIN FT	142102	$13	$1,847,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	239	$300	$72,000
	SPECIAL RAILROAD COORDINATION	L SUM	1	$0	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$5,154,460	$5,154,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$10,308,920	$10,309,000
	TOTAL ITEM 900				$51,031,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$293,804,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				58,760,800
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$352,564,800**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				31,730,832
	TOTAL ESTIMATED CONSTRUCTION COST				**$384,295,632**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				3,300,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$3,300,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				17,625,240
	TOTAL ESTIMATED PROJECT COST (*)				**$405,223,872**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 2b-1

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2b-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.1 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	774	$750	$581,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$145,000	$145,000
	REMOVAL OF MISC. STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	65,000	$12	$780,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,201,493	$2	$4,403,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	303,056	$4	$1,212,000
	BASIN EXCAVATION	CU YD	863,100	$4	$3,453,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	2,039,647	$5	$10,198,000
	BORROW (FIT)	CU YD	2,317,781		$0
	FURNISH WATER SUPPLY	MILE	8.10	$1,000,000	$8,000,000
	TOTAL ITEM 200				$29,059,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	843,692		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	421,043	$90	$37,893,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	222,449	$75	$16,684,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	90,734	$45	$4,083,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	28,681	$100	$2,868,000
	MINERAL ADMIXTURE FOR AR-ACFC/ AC BASE	TON	250	$90	$23,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,725	$285	$777,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	619	$325	$71,000
	ASPHALT PAVEMENT	SQ YD	1,133,819		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	26,888	$45	$1,210,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	37,328	$45	$1,680,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	255	$90	$23,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,344	$350	$470,000
	TACK COAT	TON	47	$325	$15,000
	TOTAL ITEM 300 & 400				$63,816,000
500	DRAINAGE				
	ONSITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	540	$3,500	$1,890,000
	MANHOLE / JUNCTION STRUCTURE	EACH	90	$4,500	$405,000
	PIPE (24" TO 36")	LIN FT	53,000	$85	$4,505,000
	PIPE (42" TO 60")	LIN FT	8,900	$355	$805,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	157	$1,000	$157,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	9	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	172,118	$75	$12,908,000
	CONCRETE BOX CULVERT	LIN FT	800	$3,100	$2,480,000
	OUTFALL STRUCTURES / WEIRS / ETC.	EACH	3	$25,000	$75,000
	BANK PROTECTION	L SUM	1	$200,000	$200,000
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$150,000	$150,000
	TOTAL ITEM 500				$23,495,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Bullard Wash	SQ FT	55,350	$126	$6,974,000
	Bullard Avenue	SQ FT	44,408	$110	$4,885,000
	Agua Fria River	SQ FT	1,097,250	$121	$132,767,000
	Dysart Road	SQ FT	41,860	$110	$4,605,000
	El Mirage Road	SQ FT	42,588	$110	$4,685,000
	Avondale Boulevard	SQ FT	44,044	$110	$4,845,000
	107th Avenue	SQ FT	41,860	$110	$4,605,000
	99th Avenue	SQ FT	41,860	$110	$4,605,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$173,578,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2b-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.1 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHOFLY (EXCLUDES PAVEMENT)	EACH	7	$100,000	$700,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.10	$180,000	$1,458,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.10	$105,000	$851,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$800,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.10	$665,000	$5,387,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	0	$800,000	$2,800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.10	$32,000	$259,000
	TOTAL ITEM 700				$11,455,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.10	$1,000,000	$8,100,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	9	$30,000	$270,000
	TOPSOIL	CU YD	1,121,352	$10	$11,214,000
	EROSION CONTROL	MILE	8.10	$30,000	$243,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$2,400,000	$2,400,000
	TOTAL ITEM 800				$22,227,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$27,760,480	$27,760,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	495,290	$30	$14,858,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	65	$5,000	$325,000
	GUARDRAIL END TERMINAL	EACH	32	$3,500	$112,000
	FENCE / GATES	LIN FT	113549	$10	$1,135,000
	GUARDRAIL	LIN FT	0	$33	$0
	CONCRETE HALF BARRIER	LIN FT	41832	$50	$2,092,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	42824	$13	$557,000
	CURB AND GUTTER	LIN FT	143216	$13	$1,862,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	243	$300	$73,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$0	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$8,840,120	$8,840,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$13,880,240	$13,880,000
	TOTAL ITEM 900				$69,965,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$395,586,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				79,117,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$474,703,200**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				42,723,288
	TOTAL ESTIMATED CONSTRUCTION COST				**$517,426,488**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				21,700,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$21,700,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				23,735,160
	TOTAL ESTIMATED PROJECT COST (*)				**$562,861,648**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information

Subsection 2b-2

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2b-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.1 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	593	$750	$520,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC)	L SUM	1	$145,000	$145,000
	REMOVAL OF MISC STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	65,000	$12	$780,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,117,749	$2	$4,235,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	289,542	$4	$1,152,000
	BASIN EXCAVATION	CU YD	478,109	$4	$1,912,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	4,856,483	$5	$14,282,000
	BORROW (FIT)	CU YD	3,246,003		$0
	FURNISH WATER SUPPLY	MILE	8.00	$1,000,000	$8,000,000
	TOTAL ITEM 200				$31,233,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	547,364		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	426,342	$90	$38,371,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	221,022	$75	$16,577,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	91,113	$45	$4,100,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	88,889	$100	$2,889,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	361	$90	$33,000
	RUBBER, CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,744	$285	$782,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	220	$325	$72,000
	ASPHALT PAVEMENT	SQ YD	714,451		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	26,498	$45	$1,214,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	37,578	$45	$1,691,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	256	$90	$23,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,849	$255	$472,000
	TACK COAT	TON	49	$325	$16,000
	TOTAL ITEM 300 & 400				$66,239,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	538	$3,500	$1,883,000
	MANHOLE / JUNCTION STRUCTURE	EACH	90	$4,500	$405,000
	PIPE (24" TO 36")	LIN FT	52,930	$85	$4,491,000
	PIPE (42" TO 60")	LIN FT	5,890	$155	$603,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEAD WALLS, FLARED END SECTIONS, ETC.)	EACH	156	$1,000	$156,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	169,368	$75	$12,705,000
	CONCRETE BOX CULVERT	LIN FT	800	$3,050	$2,440,000
	OUTFALL STRUCTURE / WEIRS / ETC	EACH	3	$25,000	$75,000
	BANK PROTECTION	L SUM	1	$200,000	$200,000
	RIPRAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER:	L SUM	1	$110,000	$110,000
	TOTAL ITEM 500				$23,186,000
600	STRUCTURES				
	NUMBER OF STRUCTURES:				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Bullard Wash	SQ FT	54,450	$126	$6,861,000
	Bullard Avenue	SQ FT	41,860	$110	$4,605,000
	Agua Fria River	SQ FT	968,125	$122	$118,086,000
	Dysart Road	SQ FT	42,224	$110	$4,645,000
	El Mirage Road	SQ FT	42,388	$110	$4,663,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	107th Avenue	SQ FT	41,860	$110	$4,605,000
	99th Avenue	SQ FT	41,860	$110	$4,605,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$156,077,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2b-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.1 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHOFLY (EXCLUDES PAVEMENT)	EACH	7	$100,000	$700,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.10	$180,000	$1,458,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.10	$165,000	$861,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.10	$665,000	$5,387,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	14	$200,000	$2,800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.10	$32,000	$259,000
	TOTAL ITEM 700				$11,455,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.10	$1,900,000	$15,100,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	9	$30,000	$270,000
	TOPSOIL	CU YD	1,121,948	$10	$11,219,000
	EROSION CONTROL	MILE	8.10	$30,000	$248,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$2,400,000	$2,400,000
	TOTAL ITEM 800				$29,252,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$26,084,640	$26,085,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	284,391	$30	$8,532,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	65	$5,000	$325,000
	GUARDRAIL END TERMINAL	EACH	32	$3,500	$112,000
	FENCE / GATES	LIN FT	112800	$10	$1,129,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	41601	$50	$2,085,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	92576	$13	$563,000
	CURB AND GUTTER	LIN FT	140861	$13	$1,837,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	242	$300	$73,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$6,508,650	$6,509,000
	CONSTRUCTION SURVEYING (0%)	L SUM	1	$13,017,320	$13,017,000
	TOTAL ITEM 900				$60,582,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$370,994,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				74,198,800
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$445,192,800**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				40,067,352
	TOTAL ESTIMATED CONSTRUCTION COST				**$485,260,152**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				7,500,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$9,500,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL A+B)				22,259,640
	TOTAL ESTIMATED PROJECT COST (*)				**$517,019,792**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 2c-1

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.4 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	914	$750	$686,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC)	L SUM	1	$125,000	$125,000
	REMOVAL OF MISC STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	83,000	$12	$996,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,014,033	$2	$4,028,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	202,973	$4	$812,000
	BASIN EXCAVATION	CU YD	991,575	$4	$3,966,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	3,252,476	$5	$16,262,000
	BORROW (FIT)	CU YD	3,895,595		$0
	FURNISH WATER SUPPLY	MILE	8.00	$1,000,000	$8,000,000
	TOTAL ITEM 200				$33,075,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	857,097		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	433,774	$90	$39,040,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	223,322	$75	$16,749,000
	AB CLASS 3 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	92,341	$45	$4,155,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	29,087	$100	$2,909,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	265	$90	$24,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,782	$225	$793,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	223	$325	$73,000
	ASPHALT PAVEMENT	SQ YD	175,509		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	27,160	$45	$1,222,000
	AB CLASS 3 (UNDER AC PAVEMENT)	CU YD	37,985	$45	$1,709,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	258	$90	$23,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,358	$350	$475,000
	TACK COAT	TON	48	$325	$16,000
	TOTAL ITEM 300 & 400				$67,207,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	553	$3,500	$1,936,000
	MANHOLE / JUNCTION STRUCTURE	EACH	91	$4,500	$410,000
	PIPE (24" TO 36")	LIN FT	53,880	$85	$4,580,000
	PIPE (42" TO 60")	LIN FT	3,960	$155	$614,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	161	$1,000	$161,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	122,611	$75	$9,196,000
	CONCRETE BOX CULVERT	LIN FT	1,865	$2,400	$4,476,000
	OUTFALL STRUCTURE (WEIRS) ETC	EACH	9	$25,000	$125,000
	BANK PROTECTION	L SUM	1	$300,000	$300,000
	RIPRAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$130,000	$130,000
	TOTAL ITEM 500				$22,056,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Bullard Wash	SQ FT	55,350	$126	$6,974,000
	Bullard Avenue	SQ FT	44,808	$110	$4,885,000
	Agua Fria River	SQ FT	1,092,000	$121	$132,132,000
	Dysart Road	SQ FT	44,772	$110	$4,925,000
	Southern Avenue (West)	SQ FT	62,312	$110	$6,843,000
	El Mirage Road	SQ FT	45,138	$110	$4,965,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	Southern Avenue (East)	SQ FT	36,736	$110	$4,041,000
	107th Avenue	SQ FT	46,956	$110	$5,165,000
	99th Avenue	SQ FT	43,520	$121	$5,268,000
	OTHER				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$185,868,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-1
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.4 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD STIC-FLY (EXCLUDES PAVEMENT)	EACH	0	$100,000	$900,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.40	$180,000	$1,512,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.40	$105,000	$882,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.40	$665,000	$5,586,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,700,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	14	$200,000	$2,800,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.40	$33,000	$269,000
	TOTAL ITEM 700				$11,949,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.40	$1,000,000	$8,400,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	9	$30,000	$270,000
	TOPSOIL	CU YD	1,112,532	$10	$11,125,000
	EROSION CONTROL	MILE	8.40	$30,000	$252,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$4,000,000	$4,000,000
	TOTAL ITEM 800				$24,047,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$29,559,360	$29,559,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	524,677	$30	$15,740,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	67	$5,000	$335,000
	GUARDRAIL END TERMINAL	EACH	34	$3,500	$119,000
	FENCE / GATES	LIN FT	117345	$10	$1,173,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	42645	$50	$2,132,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	44256	$15	$677,000
	CURB AND GUTTER	LIN FT	145267	$13	$1,888,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	149000	$2	$289,000
	R/W & SURVEY MARKERS	EACH	251	$300	$75,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$75,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$7,389,840	$7,390,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$14,779,680	$14,780,000
	TOTAL ITEM 900				$75,021,000
	SUBTOTAL A (ITEMS 200 THRU 900)				$421,221,000
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				84,244,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				$505,465,200
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				45,491,868
	TOTAL ESTIMATED CONSTRUCTION COST				$550,957,068
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				24,350,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				$24,350,000
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				25,273,260
	TOTAL ESTIMATED PROJECT COST (*)				$600,580,328

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 2c-2

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASE)
LENGTH: 8.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	849	$750	$637,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC)	L SUM	1	$125,000	$125,000
	REMOVAL OF MISC STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	76,000	$12	$912,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,197,794	$2	$4,396,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	309,586	$4	$838,000
	BASIN EXCAVATION	CU YD	932,622	$4	$3,730,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	3,373,785	$5	$16,868,000
	BORROW (BF)	CU YD	3,833,930		$0
	FURNISH WATER SUPPLY	MLG	8.00	$1,000,000	$8,000,000
	TOTAL ITEM 200				$35,706,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	669,212		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	442,985	$90	$39,869,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	226,778	$75	$17,008,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	94,251	$45	$4,241,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1.0INCH AR-ACFC OVERLAY (OVER PCCP)	TON	29,979	$100	$2,998,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	271	$90	$24,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR ACFC	TON	4,848	$285	$813,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	228	$325	$74,000
	ASPHALT PAVEMENT	SQ YD	116,756		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	27,362	$45	$1,231,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	38,470	$45	$1,731,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	260	$90	$23,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,368	$350	$479,000
	TACK COAT	TON	49	$325	$16,000
	TOTAL ITEM 300 & 400				$68,456,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	556	$3,500	$1,946,000
	MANHOLE / JUNCTION STRUCTURE	EACH	92	$4,500	$414,000
	PIPE (24" TO 36")	LIN FT	54,270	$85	$4,613,000
	PIPE (42" TO 60")	LIN FT	5,970	$155	$615,000
	PIPE (OVER 60")	LIN FT	420	$285	$120,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEAD WALLS, FLARED END SECTIONS, ETC.)	EACH	162	$1,000	$162,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	193,800	$75	$9,291,000
	CONCRETE BOX CULVERT	LIN FT	1,865	$2,525	$4,709,000
	OUTFALL STRUCTURE / WEIRS / ETC	EACH	5	$25,000	$125,000
	BANK PROTECTION	L SUM	1	$300,000	$300,000
	RIP RAP	CU YD	0	$50	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER:	L SUM	1	$90,000	$90,000
	TOTAL ITEM 500				$22,395,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Bullard Wash	SQ FT	54,450	$126	$6,861,000
	Bullard Avenue	SQ FT	41,860	$110	$4,605,000
	Agua Fria River	SQ FT	1,045,000	$122	$127,699,000
	Dysart Road	SQ FT	44,772	$110	$4,925,000
	Southern Avenue (West)	SQ FT	62,212	$110	$6,843,000
	El Mirage Road	SQ FT	45,136	$110	$4,965,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	Southern Avenue (East)	SQ FT	56,398	$116	$6,543,000
	107th Avenue	SQ FT	49,140	$110	$5,405,000
	99th Avenue	SQ FT	41,860	$110	$4,605,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$183,631,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-2
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASE)
LENGTH: 8.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	9	$100,000	$900,000
	FREEWAY WIDENING TC (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.50	$180,000	$1,530,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.50	$105,000	$893,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.50	$665,000	$5,653,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	10	$200,000	$2,000,000
	FREEWAY MANAGEMENT SYSTEM				$0
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.50	$32,000	$272,000
	TOTAL ITEM 700				$12,048,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.50	$1,000,000	$8,500,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	9	$30,000	$270,000
	TOPSOIL	CU YD	1,176,551	$10	$11,766,000
	EROSION CONTROL	MILE	8.50	$30,000	$255,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$4,350,000	$4,350,000
	TOTAL ITEM 800				$25,141,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$29,734,480	$29,734,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	620,528	$30	$18,616,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	68	$5,000	$340,000
	GUARDRAIL END TERMINAL	EACH	34	$3,500	$119,000
	FENCE / GATES	LIN FT	118491	$10	$1,185,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	42891	$50	$2,145,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	44688	$13	$581,000
	CURB AND GUTTER	LIN FT	185885	$13	$1,897,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	254	$300	$76,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (3%)	L SUM	1	$7,433,620	$7,434,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$14,867,240	$14,867,000
	TOTAL ITEM 900				$77,369,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$423,716,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				84,743,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$508,459,200**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				45,761,328
	TOTAL ESTIMATED CONSTRUCTION COST				**$554,220,528**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				3,130,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$3,150,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				25,422,960
	TOTAL ESTIMATED PROJECT COST (*)				**$582,793,488**

(*) Total includes costs associated with other funding sources - See Sheet 3 of 3 for additional information

Subsection 2c-3

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-3
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.6 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	799	$750	$599,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC)	L SUM	1	$2,105,000	$2,105,000
	REMOVAL OF MISC. STRUCT & OBSTRUCTIONS	L SUM	1	$200,000	$200,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	78,000	$12	$912,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	2,042,746	$2	$4,085,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	202,059	$4	$808,000
	BASIN EXCAVATION	CU YD	793,240	$4	$3,173,000
	BORROW				
	BORROW (IN-PLACE)	CU YD	3,591,344	$5	$17,956,000
	BORROW (PIT)	CU YD	1,080,846		$0
	FURNISH WATER SUPPLY	MILE	9.00	$1,000,000	$9,000,000
	TOTAL ITEM 200				$38,888,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	675,584		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	487,248	$90	$43,852,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	188,336	$75	$14,125,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	94,059	$45	$4,233,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1-INCH AR-ACFC OVERLAY (OVER PCCP)	TON	31,446	$100	$3,144,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	285	$90	$26,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	2,909	$285	$851,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	240	$325	$78,000
	ASPHALT PAVEMENT	SQ YD	113,412		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	25,492	$45	$1,147,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	38,499	$45	$1,732,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	242	$90	$22,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,275	$350	$446,000
	TACK COAT	TON	47	$325	$15,000
	TOTAL ITEM 300 & 400				$69,682,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	559	$2,500	$1,897,000
	MANHOLE / JUNCTION STRUCTURE	EACH	86	$4,500	$387,000
	PIPE (24" TO 36")	LIN FT	51,480	$85	$4,376,000
	PIPE (42" TO 60")	LIN FT	3,600	$155	$570,000
	PIPE (OVER 60")	LIN FT	360	$285	$103,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	160	$1,000	$160,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	2		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	135,308	$75	$10,148,000
	CONCRETE BOX CULVERT	LIN FT	1,865	$2,575	$4,802,000
	OUTFALL STRUCTURE / WEIRS / ETC	EACH	5	$25,000	$125,000
	BANK PROTECTION	L SUM	1	$300,000	$300,000
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$90,000	$90,000
	TOTAL ITEM 500				$22,948,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	Estrella Parkway	SQ FT	41,860	$110	$4,605,000
	Bullard Wash	SQ FT	54,450	$126	$6,861,000
	Bullard Avenue	SQ FT	41,860	$110	$4,605,000
	Agua Fria River	SQ FT	592,250	$122	$72,136,000
	Dysart Road	SQ FT	42,224	$110	$4,645,000
	El Mirage Road	SQ FT	45,136	$110	$4,965,000
	Avondale Boulevard	SQ FT	41,860	$110	$4,605,000
	107th Avenue	SQ FT	41,860	$110	$4,605,000
	Southern Avenue (East)	SQ FT	76,632	$110	$8,430,000
	99th Avenue	SQ FT	54,796	$110	$6,028,000
	OTHER:				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$122,485,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 2c-3
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 8.6 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	8	$100,000	$800,000
	FREEWAY WIDENING TO (202L TI)	EACH	0	$500,000	$0
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	8.60	$180,000	$1,548,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	0.00	$250,000	$0
	SIGNING OF SYSTEM TI	EACH	0	$2,000,000	$0
	PAVEMENT MARKINGS (MAINLINE)	MILE	8.60	$105,000	$903,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	0	$500,000	$0
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	8.60	$665,000	$5,719,000
	SYSTEM TI LIGHTING SYSTEM	EACH	0	$2,100,000	$0
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	12	$200,000	$2,400,000
	FREEWAY MANAGEMENT SYSTEM				
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	8.60	$32,000	$275,000
	TOTAL ITEM 700				$11,645,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	8.60	$1,000,000	$8,600,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	0	$1,750,000	$0
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	9	$30,000	$270,000
	TOPSOIL	CU YD	1,218,898	$10	$12,189,000
	EROSION CONTROL	MILE	8.60	$30,000	$258,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$1,850,000	$1,850,000
	TOTAL ITEM 800				$23,167,000
900	INCIDENTALS				
	MOBILIZATION (8%)	L SUM	1	$24,578,640	$24,578,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	390,058	$30	$11,702,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	3	$25,000	$75,000
	SAND BARREL CRASH CUSHIONS	EACH	69	$5,000	$345,000
	GUARDRAIL END TERMINAL	EACH	35	$5,500	$193,000
	FENCE / GATES	LIN FT	120850	$10	$1,209,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	43396	$50	$2,170,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	45578	$13	$593,000
	CURB AND GUTTER	LIN FT	147149	$13	$1,913,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	140000	$2	$280,000
	R/W & SURVEY MARKERS	EACH	259	$300	$78,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$6,144,660	$6,145,000
	CONSTRUCTION SURVEYING (6%)	L SUM	1	$12,289,320	$12,289,000
	TOTAL ITEM 900				$61,500,000
	SUBTOTAL A (ITEMS 200 THRU 900)				$350,246,000
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				70,049,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				$420,295,200
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				37,826,568
	TOTAL ESTIMATED CONSTRUCTION COST				$458,121,768
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				3,900,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				$3,900,000
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				21,014,760
	TOTAL ESTIMATED PROJECT COST (*)				$483,036,528

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information

Subsection 3a

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 303 — PROJECT DESCRIPTION: SUBSECTION 3a
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 5.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	423	$750	$317,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$0	$0
	REMOVAL OF MISC. STRUCT. & OBSTRUCTIONS	L SUM	1	$50,000	$50,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	4,000	$12	$54,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	1,765,542	$2	$3,531,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	183,655	$4	$735,000
	BASIN EXCAVATION	CU YD	0	$4	$0
	BORROW				
	BORROW (IN-PLACE)	CU YD	5,713,912	$5	$28,570,000
	BORROW (PIT)	CU YD	6,449,900		$0
	FURNISH WATER SUPPLY	MILE	3.00	$1,000,000	$3,000,000
	TOTAL ITEM 200				$36,881,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	870,895		
	MAINLINE CONCRETE (13" DEPTH)	SQ YD	545,590	$90	$49,103,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	321,306	$75	$24,098,000
	AB CLASS 3 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	118,050	$45	$5,312,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1 INCH AR-ACFC OVERLAY (OVER PCCP)	TON	41,660	$100	$4,166,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	377	$70	$26,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	4,958	$226	$1,120,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	317	$325	$104,000
	ASPHALT PAVEMENT	SQ YD	190,966		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	24,272	$45	$1,092,000
	AB CLASS 3 (UNDER AC PAVEMENT)	CU YD	32,753	$45	$1,474,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	231	$90	$21,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,214	$350	$425,000
	TACK COAT	TON	42	$325	$14,000
	TOTAL ITEM 300 & 400				$87,330,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	238	$3,500	$833,000
	MANHOLE / JUNCTION STRUCTURE	EACH	42	$4,500	$189,000
	PIPE (24" TO 36")	LIN FT	12,930	$85	$1,094,000
	PIPE (42" TO 60")	LIN FT	1,810	$155	$281,000
	PIPE (OVER 60")	LIN FT	230	$225	$60,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	66	$1,000	$63,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$2,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	149,764	$75	$11,232,000
	CONCRETE BOX CULVERT	LIN FT	1,190	$2,575	$3,064,000
	OUTFALL STRUCTURE / WEIRS / ETC.	EACH	0	$25,000	$0
	BANK PROTECTION	L SUM	1	$300,000	$300,000
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$0	$0
	TOTAL ITEM 500				$18,061,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	91st Avenue	SQ FT	43,316	$110	$4,765,000
	Broadway Road	SQ FT	70,698	$121	$8,554,000
	83rd Avenue	SQ FT	40,940	$110	$4,503,000
	75th Avenue	SQ FT	44,160	$110	$4,858,000
	67th Avenue	SQ FT	47,380	$110	$5,212,000
	Ramp SW	SQ FT	12,452	$110	$1,370,000
	Ramp EN	SQ FT	46,640	$121	$5,643,000
	Ramp NW	SQ FT	81,312	$121	$9,839,000
	Ramp ES	SQ FT	59,920	$121	$7,250,000
	NB Broadway	SQ FT	19,092	$110	$2,100,000
	SB Broadway	SQ FT	19,092	$110	$2,100,000
	NB Frontage Road	SQ FT	6,660	$110	$733,000
	SB Frontage Road	SQ FT	6,660	$110	$733,000
	NB Salt River Bridge	SQ FT	246,804	$126	$31,097,000
	SB Salt River Bridge	SQ FT	229,550	$126	$28,923,000
	Ramp NW over Southern Avenue	SQ FT	12,224	$110	$1,345,000
	Ramp NW	SQ FT	12,390	$110	$1,363,000
	Ramp ES over Southern Avenue	SQ FT	16,100	$110	$1,771,000
	Ramp SE over Lower Buckeye Road	SQ FT	32,180	$110	$3,540,000
	Ramp EN over Lower Buckeye Road	SQ FT	11,040	$110	$1,214,000
	Lower Buckeye Road Tunnel	SQ FT	20,241	$150	$3,036,000
	OTHER				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$121,499,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 303 — PROJECT DESCRIPTION: SUBSECTION 3a
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 5.5 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	5	$100,000	$500,000
	FREEWAY WIDENING TO (202L TI)	EACH	1	$500,000	$500,000
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	1.80	$160,000	$284,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	2.00	$250,000	$500,000
	SIGNING OF S YSTEM TI	EACH	1	$2,000,000	$2,000,000
	PAVEMENT MARKINGS (MAINLINE)	MILE	5.80	$105,000	$147,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	1	$500,000	$500,000
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	3.30	$665,000	$2,195,000
	SYSTEM TI LIGHTING SYSTEM	EACH	1	$2,100,000	$2,100,000
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	8	$200,000	$1,600,000
	FREEWAY MANAGEMENT SYSTEM				
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	5.50	$320,000	$106,000
	TOTAL ITEM 700				$10,582,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	3.30	$1,000,000	$3,300,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	1	$1,750,000	$1,750,000
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	4	$30,000	$120,000
	TOPSOIL	CU YD	510,890	$10	$5,109,000
	EROSION CONTROL	MILE	3.30	$30,000	$99,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$500,000	$500,000
	TOTAL ITEM 800				$10,878,000
900	INCIDENTALS				
	MOBILIZATION (6%)	L SUM	1	$24,392,000	$24,392,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	223,470	$30	$6,821,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	0	$25,000	$0
	SAND BARREL CRASH CUSHIONS	EACH	37	$5,000	$185,000
	GUARDRAIL END TERMINAL	EACH	11	$3,500	$46,000
	FENCE / GATES	LIN FT	46767	$10	$466,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	18771	$50	$939,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	17638	$13	$229,000
	CURB AND GUTTER	LIN FT	66204	$13	$861,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	70000	$2	$140,000
	ROW & SURVEY MARKERS	EACH	100	$300	$30,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$6,098,000	$6,098,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$12,196,000	$12,196,000
	TOTAL ITEM 900				$52,555,000
	SUBTOTAL A (ITEMS 200 THRU 900)				**$347,585,000**
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				69,517,200
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				**$417,105,200**
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				37,539,288
	TOTAL ESTIMATED CONSTRUCTION COST				**$454,642,488**
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				300,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				**$300,000**
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				20,855,160
	TOTAL ESTIMATED PROJECT COST (*)				**$475,797,648**

(*) Total includes costs associated with other funding sources. See Sheet 3 of 3 for additional information.

Subsection 3b

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 3b
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 3.0 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
200	EARTHWORK				
	CLEARING & REMOVALS				
	CLEARING AND GRUBBING	ACRE	594	$750	$446,000
	REMOVAL OF MAJOR STRUCTURE (BUILDING, BRIDGE, ETC.)	L SUM	1	$0	$0
	REMOVAL OF MISC. STRUCT & OBSTRUCTIONS	L SUM	1	$50,000	$50,000
	REMOVAL OF PAVEMENT (EXISTING AND DETOURS)	SQ YD	36,000	$12	$432,000
	ROADWAY EXCAVATION INCL. OVEREXCAVATION	CU YD	1,520,608	$2	$3,041,000
	DRAINAGE EXCAVATION				
	CHANNEL EXCAVATION	CU YD	269,300	$4	$1,077,000
	BASIN EXCAVATION	CU YD	0	$4	$0
	BORROW				
	BORROW (IN-PLACE)	CU YD	5,254,192	$5	$26,271,000
	BORROW (PIT)	CU YD	(3,816,127)		$0
	FURNISH WATER SUPPLY	MILE	3.00	$1,000,000	$3,000,000
	TOTAL ITEM 200				$34,817,000
300 & 400	BASE AND SURFACE TREATMENT				
	CONCRETE PAVEMENT	SQ YD	861,456		
	MAINLINE CONCRETE (12" DEPTH)	SQ YD	540,327	$90	$48,629,000
	RAMP & CROSSROAD CONCRETE (10" DEPTH)	SQ YD	321,130	$75	$24,085,000
	AB CLASS 2 (AT GRADE & ELEVATED SECTIONS UNDER PCCP)	CU YD	116,562	$45	$5,245,000
	AC BASE (DEPRESSED SECTIONS UNDER PCCP)	TON	0	$65	$0
	1.0INCH AR-ACFC OVERLAY (OVER PCCP)	TON	41,085	$100	$4,109,000
	MINERAL ADMIXTURE FOR AR-ACFC / AC BASE	TON	372	$90	$33,000
	RUBBER CRUMB AND ASPHALT BINDER FOR AR-ACFC	TON	3,903	$285	$1,112,000
	ASPHALT BINDER FOR AC BASE	TON	0	$350	$0
	TACK COAT	TON	313	$323	$102,000
	ASPHALT PAVEMENT	SQ YD	100,372		
	AC PAVEMENT (CROSSROADS, SHOULDERS, DETOURS)	TON	24,283	$45	$1,093,000
	AB CLASS 2 (UNDER AC PAVEMENT)	CU YD	32,429	$45	$1,459,000
	MINERAL ADMIXTURE FOR AC PAVEMENT	TON	231	$90	$21,000
	ASPHALT BINDER FOR AC PAVEMENT	TON	1,214	$350	$425,000
	TACK COAT	TON	42	$325	$14,000
	TOTAL ITEM 300 & 400				$86,327,000
500	DRAINAGE				
	ON-SITE DRAINAGE				
	CATCH BASIN / AREA INLET	EACH	221	$3,500	$774,000
	MANHOLE / JUNCTION STRUCTURE	EACH	40	$4,500	$180,000
	PIPE (24" TO 36")	LIN FT	22,550	$85	$1,917,000
	PIPE (42" TO 60")	LIN FT	1,730	$155	$268,000
	PIPE (OVER 60")	LIN FT	210	$285	$60,000
	JACK AND BORE PIPE	LIN FT	0		$0
	PIPE END SECTIONS (HEADWALLS, FLARED END SECTIONS, ETC.)	EACH	62	$1,000	$62,000
	EMBANKMENT SPILLWAY / DOWNDRAIN	EACH	0		$0
	DEWATERING WELLS	EACH	0	$7,000,000	$0
	OFF-SITE DRAINAGE				
	CONCRETE CHANNEL LINING	SQ YD	169,848	$75	$12,739,000
	CONCRETE BOX CULVERT	LIN. FT	990	$2,575	$2,549,000
	OUTFALL STRUCTURE / WEIRS / ETC.	EACH	0	$25,000	$0
	BANK PROTECTION	L SUM	1	$100,000	$100,000
	RIP RAP	CU YD	0	$90	$0
	PUMP STATION	EACH	0	$2,000,000	$0
	OTHER	L SUM	1	$0	$0
	TOTAL ITEM 500				$18,949,000
600	STRUCTURES				
	NUMBER OF STRUCTURES				
	91st Avenue	SQ FT	43,316	$110	$4,765,000
	83rd Avenue	SQ FT	40,940	$110	$4,503,000
	75th Avenue	SQ FT	44,160	$110	$4,858,000
	67th Avenue	SQ FT	47,380	$110	$5,212,000
	Ramp EM	SQ FT	100,920	$116	$11,858,000
	Ramp NW	SQ FT	274,576	$135	$37,068,000
	Ramp ES	SQ FT	221,920	$130	$28,850,000
	Ramp SE over Lower Buckeye Road	SQ FT	33,180	$110	$3,650,000
	Ramp EM over Lower Buckeye Road	SQ FT	11,040	$110	$1,214,000
	Lower Buckeye Road Tunnel	SQ FT	30,241	$150	$5,036,000
	South Frontage Road	SQ FT	69,165	$128	$8,853,000
	Ramp NW over Southern Avenue	SQ FT	13,224	$110	$1,455,000
	Ramp NW	SQ FT	15,390	$110	$1,693,000
	Ramp ES over Southern Avenue	SQ FT	16,100	$110	$1,771,000
	Ramp SE / Ramp SW	SQ FT	18,500	$110	$2,035,000
	OTHER				
	EQUIPMENT CROSSINGS	EACH			$0
	PEDESTRIAN CROSSINGS	EACH			$0
	BRIDGE ABUTMENT SCOUR PROTECTION	L SUM	1	$1,000,000	$1,000,000
	TOTAL ITEM 600				$121,619,000

ARIZONA DEPARTMENT OF TRANSPORTATION
VALLEY PROJECT MANAGEMENT
DESIGN CONCEPT REPORT
CONSTRUCTION COST ESTIMATE

ROUTE: SR 801 — PROJECT DESCRIPTION: SUBSECTION 3b
SEGMENT: SR 202L TO SR 303L — ESTIMATE SUMMARY LEVEL: 0 (ASR)
LENGTH: 3.0 Miles — TRACS NO.: H6876 01L — DATE: May, 2007

ITEM	MAJOR ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
700	TRAFFIC ENGINEERING				
	TRAFFIC CONTROL				
	CROSS ROAD SHO-FLY (EXCLUDES PAVEMENT)	EACH	4	$100,000	$400,000
	FREEWAY WIDENING TC (202L TI)	EACH	1	$500,000	$500,000
	SIGNING & PAVEMENT MARKING				
	SIGNING (TYPICAL MAINLINE MILE)	MILE	1.00	$180,000	$180,000
	SIGNING (MAINLINE MILE WITHIN 2 MILES OF SYSTEM TI)	MILE	2.00	$250,000	$500,000
	SIGNING OF SYSTEM TI	EACH	1	$2,000,000	$2,000,000
	PAVEMENT MARKINGS (MAINLINE)	MILE	2.00	$105,000	$215,000
	PAVEMENT MARKINGS (SYSTEM TI)	EACH	1	$500,000	$500,000
	LIGHTING				
	FULL FREEWAY LIGHTING SYSTEM (OFFSET TYPE)	MILE	3.00	$665,000	$1,995,000
	SYSTEM TI LIGHTING SYSTEM	EACH	1	$2,100,000	$2,100,000
	TRAFFIC SIGNAL (EACH INTERSECTION)	EACH	3	$200,000	$1,800,000
	FREEWAY MANAGEMENT SYSTEM				
	LOOP DETECTORS / CONDUIT / PULL BOXES	MILE	7.00	$13,000	$90,000
	TOTAL ITEM 700				$10,186,000
800	ROADSIDE DEVELOPMENT				
	LANDSCAPING				
	FULL FREEWAY LANDSCAPING & IRRIGATION	MILE	5.00	$1,000,000	$5,000,000
	SYSTEM TI LANDSCAPING & IRRIGATION	EACH	1	$1,750,000	$1,750,000
	PROVIDE WATER & ELECTRIC SERVICE (1 PER MILE)	EACH	3	$30,000	$90,000
	TOPSOIL	CU YD	438,336	$10	$4,382,000
	EROSION CONTROL	MILE	3.00	$30,000	$90,000
	UTILITY RELOCATION				
	ADOT UTILITY RELOCATIONS	L SUM	1.00	$440,000	$440,000
	TOTAL ITEM 800				$9,762,000
900	INCIDENTALS				
	MOBILIZATION (6%)	L SUM	1	$23,268,480	$23,268,000
	RETAINING WALLS	SQ FT	0	$35	$0
	SOUND WALLS	SQ FT	227,370	$30	$6,821,000
	ROADWAY APPURTENANCES				
	IMPACT ATTENUATOR SYSTEM	EACH	0	$25,000	$0
	SAND BARREL CRASH CUSHIONS	EACH	20	$5,000	$120,000
	GUARDRAIL END TERMINAL	EACH	8.0	$5,500	$42,000
	FENCE / GATES	LIN FT	41407	$10	$414,000
	GUARDRAIL	LIN FT	0	$35	$0
	CONCRETE HALF BARRIER	LIN FT	17823	$50	$891,000
	CONCRETE MEDIAN BARRIER	LIN FT	0	$70	$0
	MEDIAN CABLE BARRIER	LIN FT	15614	$13	$203,000
	CURB AND GUTTER	LIN FT	67310	$13	$823,000
	SIDEWALK / SIDEWALK RAMPS / ISLAND PAVING	SQ FT	70000	$2	$140,000
	R/W & SURVEY MARKERS	EACH	83	$500	$27,000
	SPECIAL RAILROAD COORDINATION	L SUM	0	$750,000	$0
	CONTRACTOR QUALITY CONTROL (2%)	L SUM	1	$5,814,620	$5,815,000
	CONSTRUCTION SURVEYING (4%)	L SUM	1	$11,629,240	$11,629,000
	TOTAL ITEM 900				$150,173,000
	SUBTOTAL A (ITEMS 200 THRU 900)				$331,433,000
	UNIDENTIFIED ITEMS (20% OF SUBTOTAL A)				66,286,600
	SUBTOTAL B (SUBTOTAL A + UNIDENTIFIED ITEMS)				$397,719,600
	CONSTRUCTION ENGINEERING (9% OF SUBTOTAL B)				35,794,764
	TOTAL ESTIMATED CONSTRUCTION COST				$433,514,364
	OTHER PROJECT COSTS				
	DPS TRAFFIC CONTROL				$0
	PRIOR RIGHT UTILITY RELOCATIONS AND SERVICE AGREEMENTS				300,000
	JOINT PROJECT AGREEMENT ITEMS				0
	BID ITEM PRICE ESCALATION				0
	CONTRACTOR INCENTIVES				0
	SUBTOTAL OTHER PROJECT COSTS (*)				$300,000
	CONSTRUCTION CONTINGENCIES (5% OF SUBTOTAL B)				19,885,980
	TOTAL ESTIMATED PROJECT COST (*)				$453,700,344

(*) Total project costs associated with other funding sources. See Sheets 2 of 2 for additional information.

Appendix F

SR 801/SR 303L Interchange Concepts Study

SR 801/SR 303L Interchange Concepts Study

Background: Section 1 of the proposed SR 801 freeway (between SR 303L and SR 202L) presented some unique challenges during the evaluation process with regard to providing a logical terminus for the project. Section 1 would connect to the proposed SR 303L freeway to the north (which has not yet been defined), the future SR 801 extension to the west to SR 85 (which also has not been defined), and the future SR 303L extension to the south over the Gila River (see next paragraph). It became difficult to conclude whether Subsection 1a or 1b could be removed from further consideration because it was not clear how SR 801 and SR 303L would ultimately interconnect. As a result, an engineering study was conducted to develop and evaluate concept configurations for this connection and determine whether Subsection 1a or 1b could be removed from further consideration.

Regarding the future SR 303L extension to the south, MCDOT conducted an *SR 303L Corridor Improvement Study* between Riggs Road and MC 85 in March of 2004. While the results of this study are not sufficient for the purposes of the FHWA National Environmental Policy Act (NEPA) documentation, this document provided the best information available for predicting how the SR 303L corridor would extend south across the Gila River. This document recommended that the best route would be the "Rainbow Alignment," a north-south alignment that was an extension of Perryville Road south across the Gila River. For the purposes of this SR 801/SR 303L concept study, it was assumed that the SR 303L extension to the south would follow the "Rainbow Alignment."

At about the same time this interchange study was initiated, preliminary results of another activity, the Liberty Historic District Boundary Assessment, were received. This assessment was undertaken as an advance activity for the SR 801, SR 85 to SR 303L, study; however, it indicated a historic district boundary that was far larger than what the Study Team had initially anticipated. This historic district had the potential to qualify as a Section 4(f) site that would require an extensive alternatives analysis, should it be affected by the proposed action. This larger-than-expected boundary began to infringe on the possible SR 801/SR 303L interchange concepts. Consequently, the Study Team expanded the scope of the study to include the implications that a particular interchange concept may have on the Liberty Historic District.

SR 801/SR 303L Concept Study Details: The Study Team developed 24 concepts for the area encompassing the SR 303L/SR 801 interchange and Liberty Historic District. These concepts were presented to ADOT Valley Project Management, ADOT Roadway Design Group, and Parsons Brinkerhoff Quade & Douglas (PBQ&D) on February 27 and March 6, 2007; both meetings occurred at ADOT's offices. As a result of these two meetings, the Study Team eliminated many of the concepts from further consideration for reasons including excessive out-of-direction travel, undesirable system TI configurations, or unacceptable project schedule impacts.

These 24 concepts are shown in Figures F.1 to F.24 and are presented below and summarized in the accompanying comparison matrix, Table F.1. (Please note that Option 9 was not used.) The concepts are grouped into three distinct groups categorized by the system interchange configurations, including a conventional four-way system interchange ("X" concepts), offsetting three-way system interchanges (Split "T" concepts), and an unconventional three-point system interchange configuration (Tri "Y" concepts).

All concepts evaluated the possible arterial street network connectivity. Table F.1 summarizes which interchange locations can be accommodated and which ones would likely not be possible. It should be noted, however, that the arterial street network connectivity was not thoroughly evaluated. Additional study and consultation with the cities would be required as the options move forward to evaluate connectivity options.

The "X" concepts were developed with the goal of keeping the SR 801/SR 303L system interchange as a conventional and desirable four-way design, with the southern fourth leg being the future SR 303L extension across the Gila River. Operationally, these concepts are the most desirable because they are conventional, driver expectant, easy to sign, and easy to expand if necessary. Two versions of the "X" concepts were developed including four X1 concepts that placed the system TI south of the UPRR at approximately Citrus Road and four X2 concepts that placed the system TI at Cotton Lane and Elwood Road north of the UPRR.

Twelve "T" concepts were developed that combine the three possible SR 801 alignments with three different SR 303L alignments north of SR 801. Various "T" concepts separate the two three-way interchanges by distances ranging between 0.5 and 3 miles. It was envisioned that the two interchanges would be connected with connector roadways to keep the SR 303L through traffic separate from the SR 801 through traffic.

The four "Y" concepts were initially developed to solve the recognized problem of out-of-direction travel for both 2030 traffic and beyond. Prior to the "Y" concepts, all the options developed either solved the out-of-direction travel for 2030 traffic (thus inducing possible out-of-direction travel in the future) or solved the future out-of-direction travel but created out-of-direction travel for the 2030 traffic. The "Y" concepts provided for the shortest routes for all directions of travel. In doing so, the system interchange was essentially broken into three smaller split-movement interchanges as shown in options Y1 and Y2. As the "Y" concepts evolved, versions Y3 and Y4 were created that morphed the "Y" concept with the X1 concept to separate out the SE and WN movements in a way that avoided the highly sensitive development in the northeast quadrant of MC 85 and Cotton Lane.

Concept Screening: Of the 24 concepts developed, the Study Team decided to drop all but 10 of the options from further consideration on March 6, 2007. The following discussion explains the rationale behind these decisions:

- *Eliminated "X" Concepts*: All but Options 1 and 2 were removed from further consideration.

  In the X2 concepts (Options 5, 6, 7, and 8), the Study Team felt that the system TI location on Cotton Lane at Elwood Road was undesirable because it contained some of the worst out-of-direction travel lengths. In addition, the Study Team decided that this option would not be acceptable to Goodyear and it would likely result in a schedule delay for the SR 801 project because it required an expansion of the Subsection 1a corridor. These factors contributed to the Study Team's decision to drop the X2 concepts (Options 5, 6, 7, and 8) from further consideration.

  X1 Options 3 and 4 were removed from further consideration because the western leg of SR 801 and the southern leg of SR 303L seemed redundant and inefficient. Consequently, the Study Team recognized that if an "X" concept were selected, it would essentially rule out the possibility of a southern alignment of SR 801 through Buckeye.

  The biggest concern with the remaining X1 concepts (Options 1 and 2) was that they do not provide the most direct access for the WN and SE movements at the interchange, which, according to the traffic studies, are the heavy movements in 2030. The Study Team did acknowledge, however, that with the growth expected both west and south of the interchange, the other movements within the interchange could easily become just as significant beyond 2030. Therefore, the Study Team saw Options 1 and 2 as the most desirable options for accommodating future growth.

Table F.1 – SR 801/SR 303L Interchange Concepts Evaluation Matrix

SR 801 / 303L / LIBERTY SITE
CONCEPTUAL INTERCHANGE OPTION COMPARISON

OPTION	SR 801 / 303L 4-WAY INTERCHANGE CONFIGURATION								SPLIT "T" INTERCHANGE CONFIGURATION													TRI "Y" INTERCHANGE			
	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
SUBOPTION	X1 w/ 801 NORTH OF UPRR	X1 w/ 801 SOUTH OF UPRR	X1 w/ 801 SOUTH OF SOUTHERN	X1 w/ 801 AT BELOAT	X2 w/ 801 NORTH OF UPRR	X2 w/ 801 SOUTH OF UPRR	X2 w/ 801 SOUTH OF SOUTHERN	X2 w/ 801 AT BELOAT	T1	T2	T3	T11 w/ 801 SOUTH OF UPRR	T11 w/ 801 SOUTH OF SOUTHERN	T11 w/ 801 AT BELOAT	T12 w/ 801 SOUTH OF UPRR	T12 w/ 801 SOUTH OF SOUTHERN	T12 w/ 801 AT BELOAT	T13 w/ 801 SOUTH OF UPRR	T13 w/ 801 SOUTH OF SOUTHERN	T13 w/ 801 AT BELOAT	Y1	Y2	Y3 w/ 801 NORTH OF UPRR	Y3 w/ 801 SOUTH OF UPRR
COMPARATIVE LENGTHS (Miles)																								
SR 801 Thru Movements (Rainbow to Estrella)	10.6	9.9	9.8	9.8	10.9	10.5	10.5	10.4	9.4	9.4	9.4	10.0	9.8	9.7	10.0	9.8	9.7	10.0	9.8	9.7	9.4	9.9	10.6	9.9
303L Thru Movements (Elliot Road to Lower Buckeye Road)	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	7.2	6.7	6.4	7.3	7.0	7.0	6.7	6.4	6.4	6.5	6.2	6.2	6.1	5.6	5.7	5.7
SR 801 (Estrella) to 303L (Lower Buckeye)	4.3	4.3	4.3	4.3	2.6	2.6	2.6	2.6	3.1	3.8	4.5	3.1	3.1	3.1	3.8	3.8	3.8	4.5	4.5	4.5	2.6	2.6	3.8	3.8
SR 801 (Estrella) to 303L (Elliot)	6.6	6.6	6.6	6.6	7.4	7.4	7.4	7.4	7.2	7.2	7.2	7.2	6.8	6.9	7.2	6.8	6.9	7.2	6.8	6.9	7.2	6.8	6.6	6.6
SR 801 (Rainbow) to 303L (Elliot)	11.4	10.9	10.8	10.7	13.8	13.4	13.4	13.4	6.5	5.5	6.5	9.6	8.7	8.6	9.6	8.7	8.6	9.6	8.7	8.6	6.5	10.5	11.4	10.9
SR 801 (Rainbow) to 303L (Lower Buckeye)	9.5	8.8	8.8	8.8	9.0	8.7	8.6	8.6	9.4	8.9	8.6	10.0	9.8	9.7	9.5	9.3	9.2	9.2	9.0	8.9	8.3	8.8	9.5	8.8
EXPECTED COMMUNITY SUPPORT																								
Goodyear Community Support	Possible	Likely	Likely	Likely	Unlikely	Unlikely	Unlikely	Unlikely	Unlikely	Possible	Likely	Unlikely	Unlikely	Unlikely	Possible	Possible	Possible	Likely	Likely	Likely	Unlikely	Unlikely	Possible	Possible
Buckeye Community Support	Unlikely	Possible	Unlikely	Likely	Unlikely	Possible	Unlikely	Likely	Likely	Likely	Likely	Possible	Unlikely	Likely	Possible	Unlikely	Likely	Possible	Unlikely	Likely	Likely	Possible	Unlikely	Possible
ARTERIAL CONNECTIVITY	Excellent	Excellent	Excellent	Excellent	Undesirable	Undesirable	Undesirable	Poor	Poor	Poor	Poor	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Poor	Excellent	Moderate	Moderate
Cotton Lane at 303L	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Elwood Road at 303L	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial?	Partial?
Cotton Lane at SR 801	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MC 85 near Citrus	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes w/ FR	Possible	Yes	Yes	Possible	Yes	Yes	Possible	Yes	Yes	Yes	Yes	Yes	Yes
Perryville Road at SR 801	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Perryville Road to 303L	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Possible	Yes	Yes	Possible	Yes	Yes	Possible	Yes	Yes	No	Yes	Yes	Yes
Jackrabbit Trail	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Airport Road	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dean Road	Yes	Yes w/ FR	Yes w/ FR	Yes	Yes	Yes w/ FR	Yes w/ FR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes w/ FR	Yes	Yes w/ FR
MC 85 near Dean Road	Yes	Yes w/ FR	Yes w/ FR	No	Yes	Yes w/ FR	Yes w/ FR	No	No	No	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No	Yes w/ FR	Yes	Yes w/ FR
Rainbow Road	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ENVIRONMENTAL																								
Liberty Historic District Impacts	No	Minor	Yes	Yes	No	Minor	Yes	Yes	Yes	Yes	Yes	Minor	Yes	Yes	Minor	Yes	Yes	Minor	Yes	Yes	Yes	Minor	No	Minor
Probability for River Proximity Impacts (Habitat, Wildlife, Vegetation, Floodplain, Etc.)	Minimal	Minimal	Minimal	High	Minimal	Minimal	Minimal	High	High	High	High	Minimal	Minimal	High	Minimal	Minimal	High	Minimal	Minimal	High	High	Minimal	Minimal	Minimal
OTHER VARIABLES																								
System Interchange Type	Single 4-Way	Single 4-Way	Single 4-Way	Single 4-Way	Single 4-Way	Single 4-Way	Single 4-Way	Single 4-Way	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Split T Config	Hybrid - T with Try Y	Triangulated Y Config	Triangulated Y Config	Triangulated Y Config
303L Continuity	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
Signing Challenges	No	No	No	No	No	No	No	No	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Yes	Yes	Yes	Yes
Number of UPRR Crossings	3	4 (Incl Arterials)	1	1	3	4 (Incl Arterials)	3	3	1	1	1	4 (Incl Arterials)	1	1	4 (Incl Arterials)	1	1	4 (Incl Arterials)	1	1	2	5 (Incl Arterials)	4	5 (Incl Arterials)
Probability of Sand and Gravel Operation Impact Risk	Minimal	Minimal	Minimal	High	Minimal	Minimal	Minimal	High	High	High	High	Minimal	Minimal	High	Minimal	Minimal	High	Minimal	Minimal	High	High	Minimal	Minimal	Minimal
SR 303L Project Schedule Impact	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Possible	Possible	No	No
SR 801 East Project Schedule Impact	Likely ~6 Months	Likely ~6 Months	Likely ~6 Months	Likely ~6 Months	~6 Months	~6 Months	~6 Months	~6 Months	No	No	No	No	No	No	No	No	No	No	No	No	~6 Months	~6 Months	No	No
	★	★							★	★					★	★		★	★				★	★

★ = ALIGNMENT SELECTED TO CARRY FORWARD TO NEXT LEVEL OF ANALYSIS

- *Eliminated "T" Concepts*: All but Options 11, 12, 16, 17, 19, and 20 were removed from further consideration.

  The T1 and T11 concepts (Options 10, 13, 14, and 15) were removed from further consideration because the Study Team felt that the out-of-direction travel lengths for the SR 303L through movements and the EN/SW movements were a significant concession in order to keep the WN/SE movements as short as possible. In addition, the Study Team felt that Goodyear would not accept the SR 303L alignment north of SR 801 because it significantly affected the property northeast of MC 85 and Cotton Lane. Furthermore, it did not use the El Cidro right-of-way corridor (east of the old Rubbermaid plant) that Goodyear has purchased (or will purchase) for the purpose of locating SR 303L. The decision to drop these four "T" options (10, 13, 14, and 15) from further consideration has the implication of dropping the easternmost SR 303L alignments from further consideration.

  The T12 and T13 concepts that use the SR 801 alignment along Beloat Road were also removed from further consideration because, like the X1 Options 3 and 4, the western leg of SR 801 and the southern leg of SR 303L seemed redundant and inefficient and induced too much out-of-direction traffic.

- *Eliminated "Y" Concepts*: All but Options 24 and 25 were removed from further consideration.

  While concepts 22 and 23 provided some of the shortest length movements, they were removed from further consideration because of the unlikely acceptance from Goodyear (due to their impact on the property on the northeast corner of MC 85 and Cotton Lane), their unconventional design, the confusion they could cause for drivers, and the likelihood of delays to the SR 801 schedule.

Concepts to Carry Forward: On March 15, 2007, the Study Team presented the 10 remaining options to ADOT management for concurrence. Options 1, 2, 11, 12, 16, 17, 19, 20, 24, and 25 were presented to the attendees at that meeting. Figure F.25 summarizes the alignments for both SR 801 and SR 303L used in these 10 surviving options. The Study Team suggested that Option 19 be removed from further consideration because after further review, the team decided that Option 19 was really just a subtle and less desirable variation of Option 2.

During the meeting, the Study Team decided that Options 17 and 20 should also be removed from further consideration. These concepts use an SR 801 corridor that literally bisects the Liberty Historic District and two significant planned developments. Because options were developed that avoid Liberty to the north and alignments that skirt the northern and southern edges of the Liberty boundary, the team agreed that Options 17 and 20 would not survive an "avoid-minimize" Section 4(f) alternatives analysis because they clearly do not minimize impacts to the historic district. If, however, the Liberty Historic District boundary is ultimately eliminated or reduced in a manner that keeps Options 17 and 20 out of Liberty, the Study Team may need to reevaluate this decision.

Conclusions: The Study Team, ADOT, and FHWA have concluded that this interchange study has demonstrated that no feasible concepts using the Subsection 1a layout exist. When combined with the findings documented in Chapter 4 of the *Alternatives Selection Report*, it was agreed that Subsection 1a should be removed from further consideration for the SR 801 (SR 303L to SR 202L) project.

Some additional observations were noted for the remaining alignment concepts:

- If an SR 801 corridor for the SR 85 to SR 303L study located north of the UPRR or immediately south of the UPRR is chosen, then the X1 interchange configuration is implied.
- If an SR 801 corridor for the SR 85 to SR 303L study located south of Southern Avenue is chosen, then a split "T" interchange configuration is implied.

The Study Team presented these remaining seven concepts to Goodyear and Buckeye officials to collect their thoughts on the interchange concepts.

Figure F.1 – SR 801/SR 303L Interchange Concept Option 1

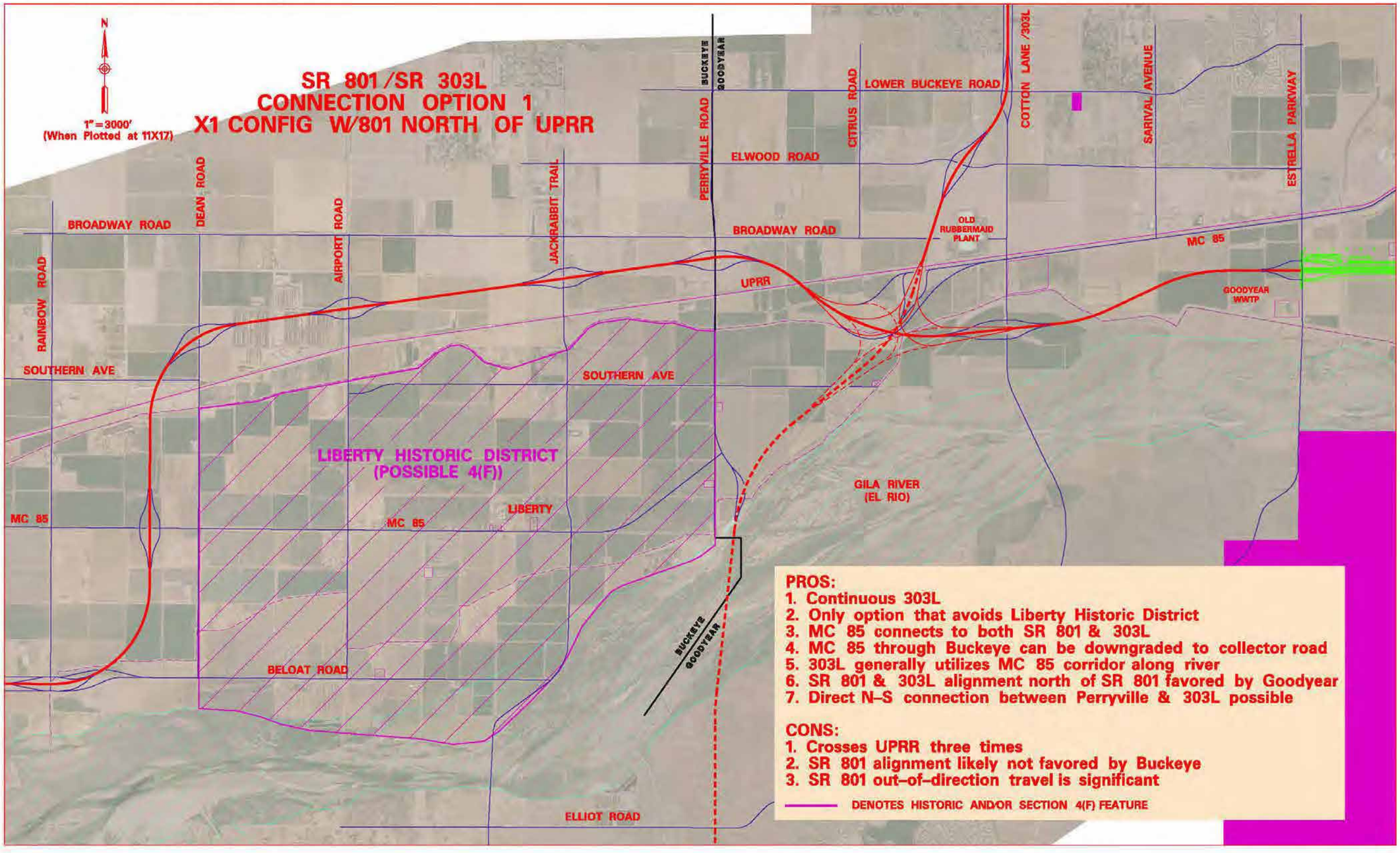


Figure F.2 – SR 801/SR 303L Interchange Concept Option 2

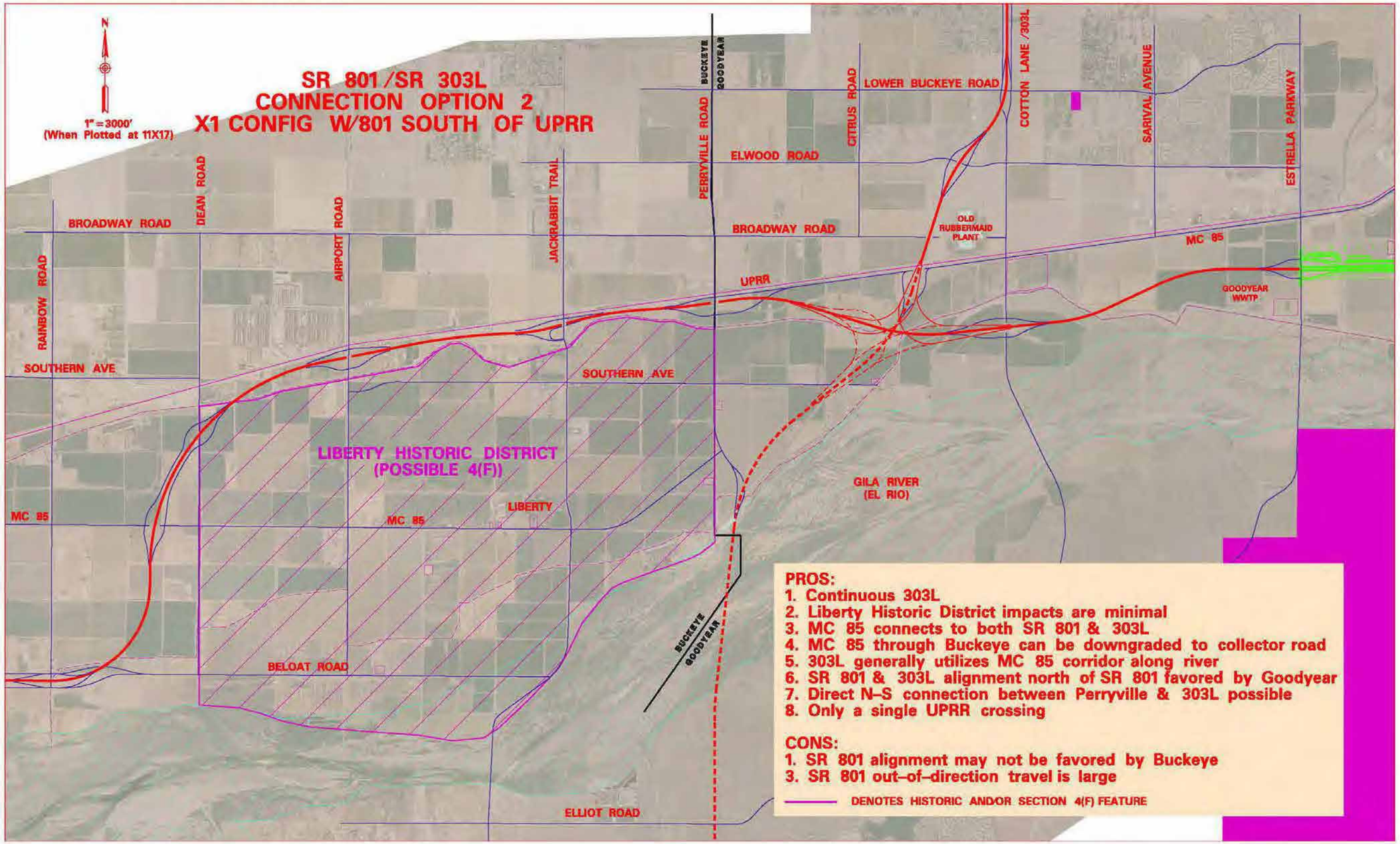


Figure F.3 – SR 801/SR 303L Interchange Concept Option 3

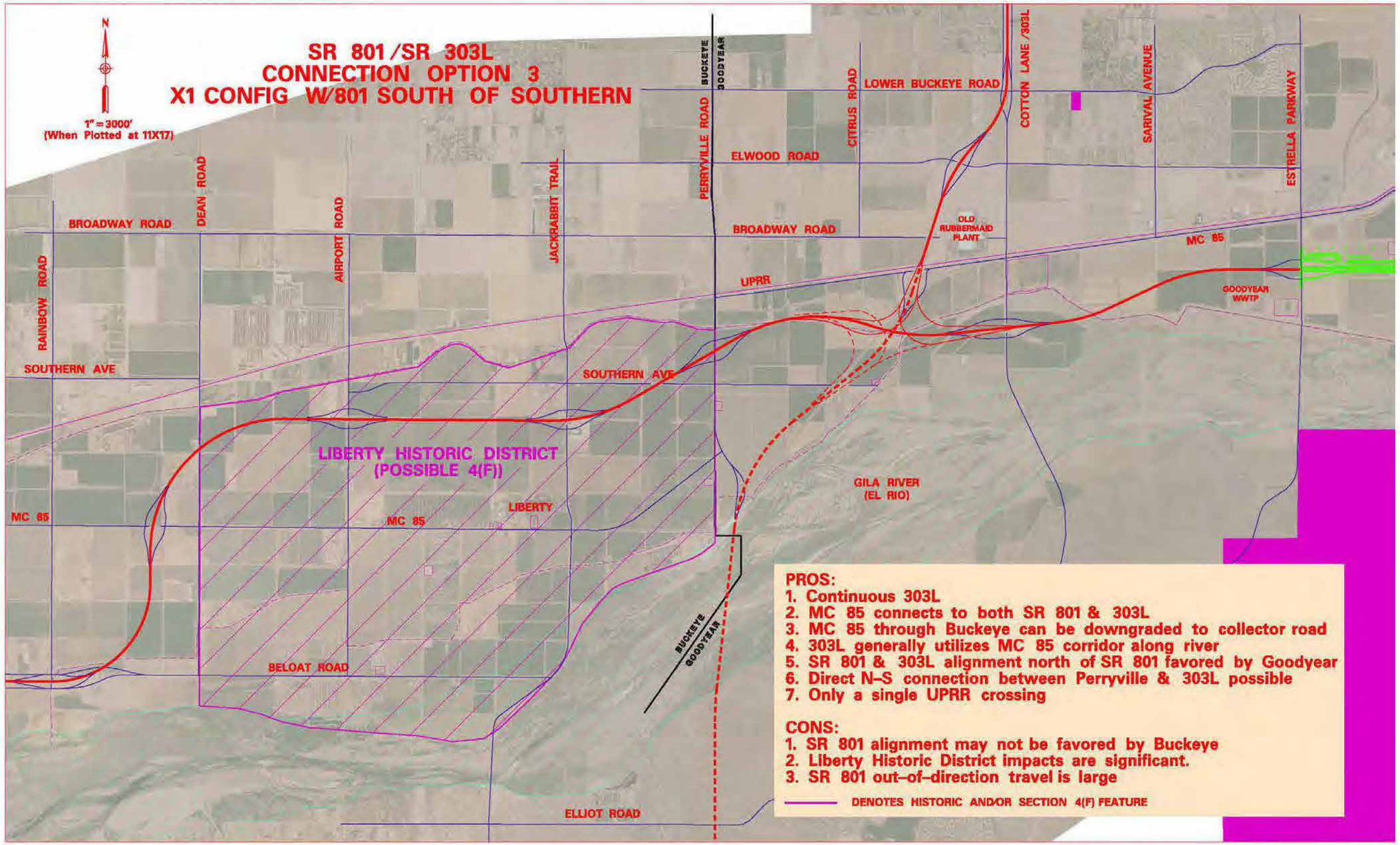


Figure F.4 – SR 801/SR 303L Interchange Concept Option 4

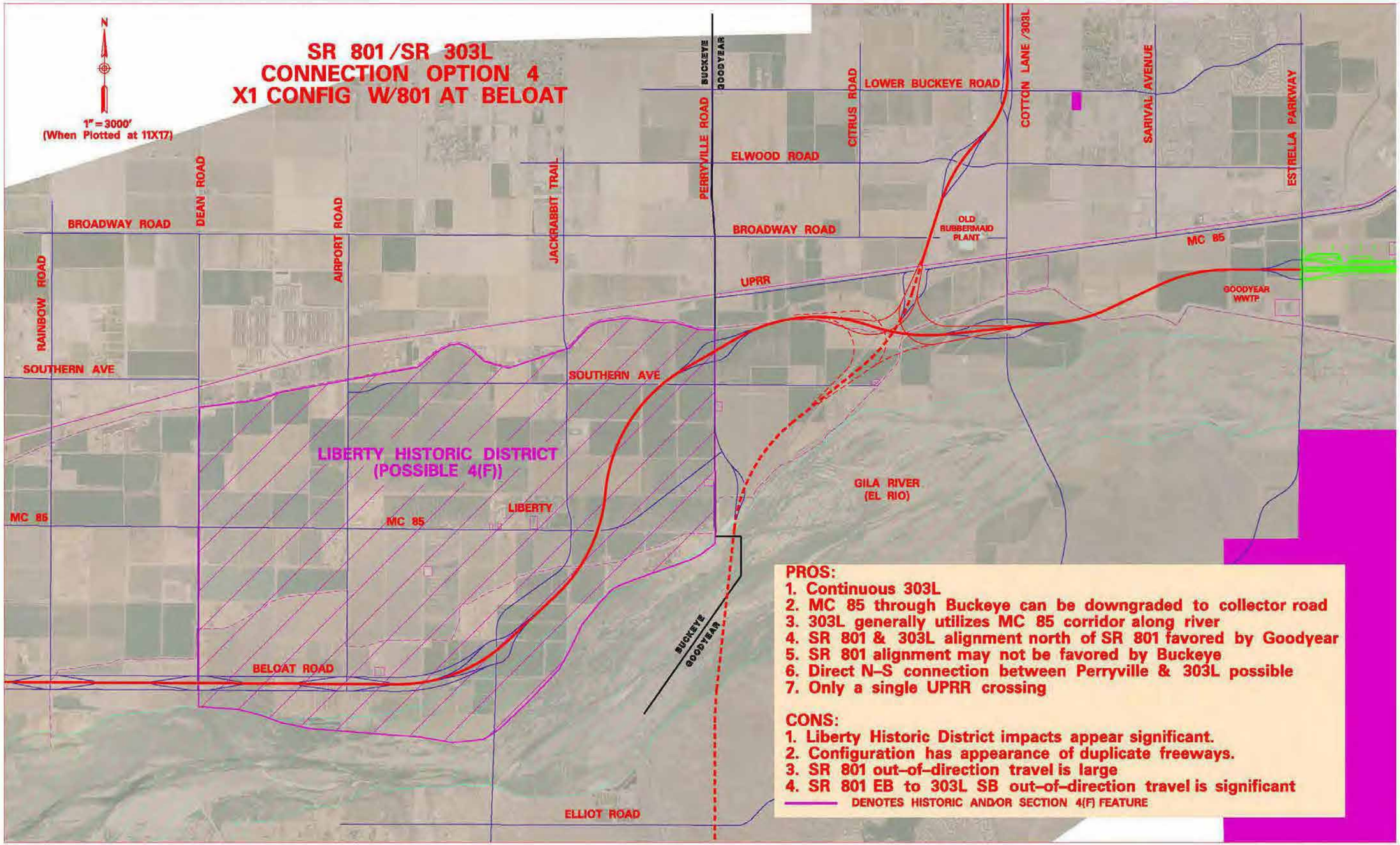


Figure F.5 – SR 801/SR 303L Interchange Concept Option 5

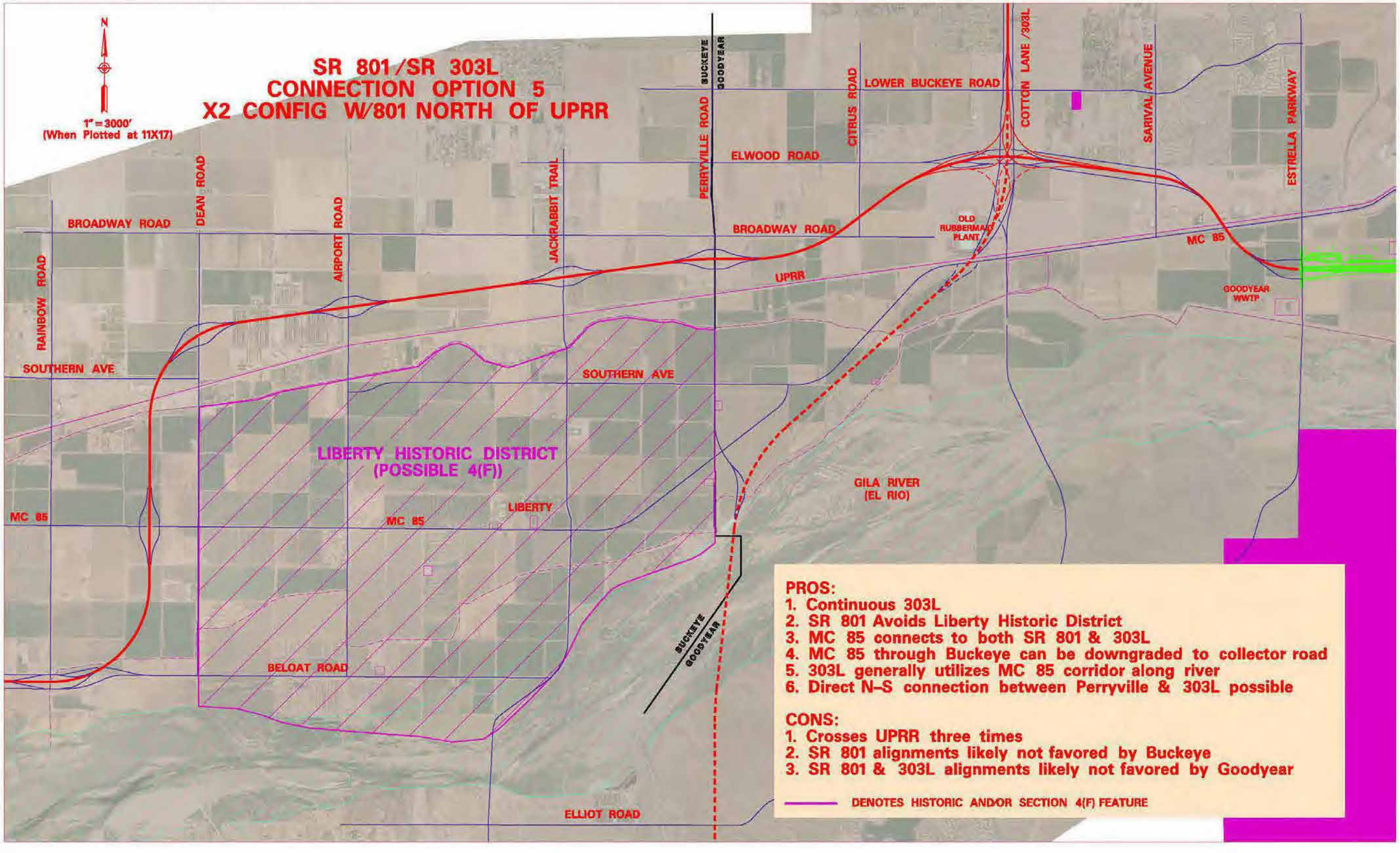


Figure F.6 – SR 801/SR 303L Interchange Concept Option 6

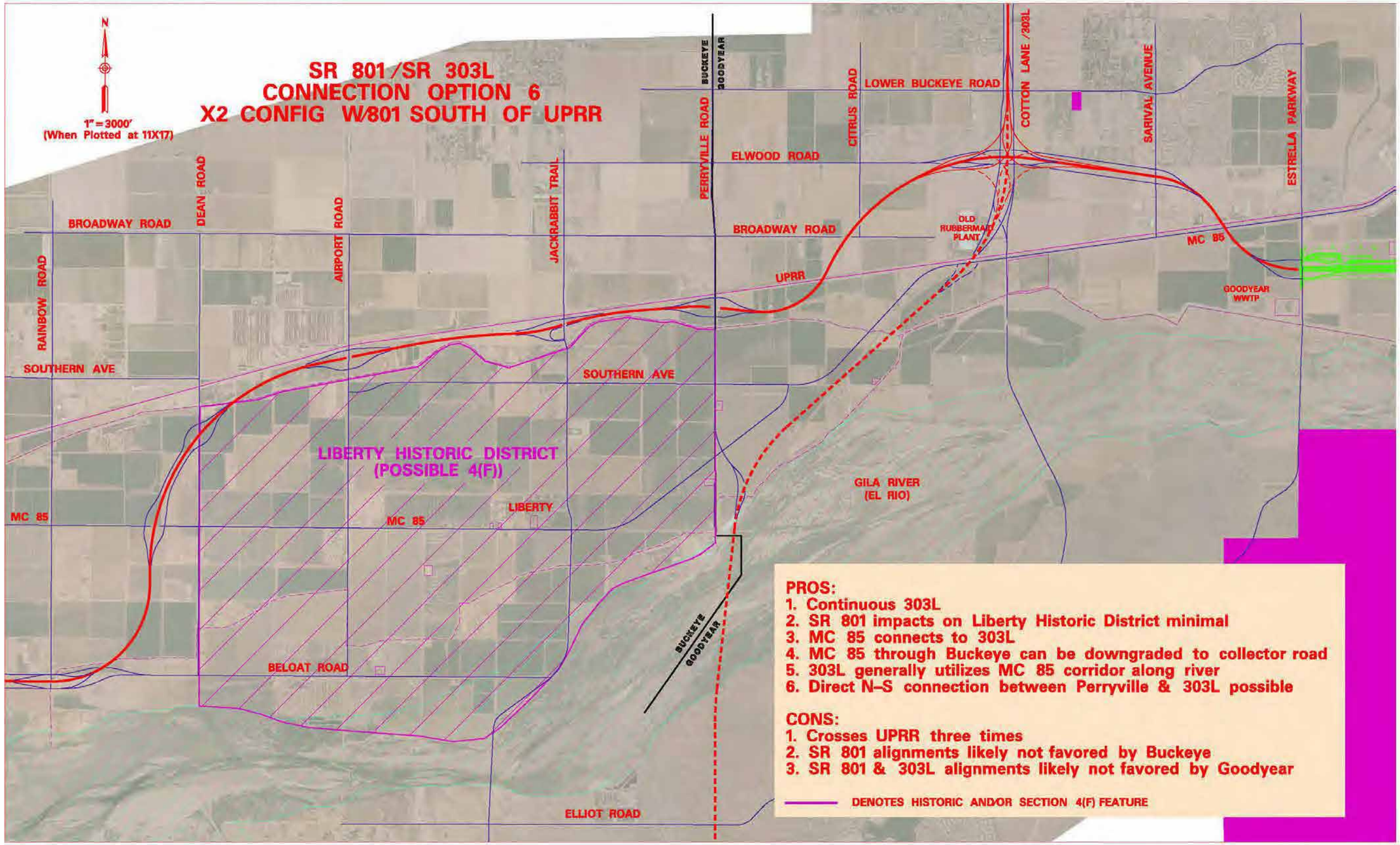


Figure F.7 – SR 801/SR 303L Interchange Concept Option 7

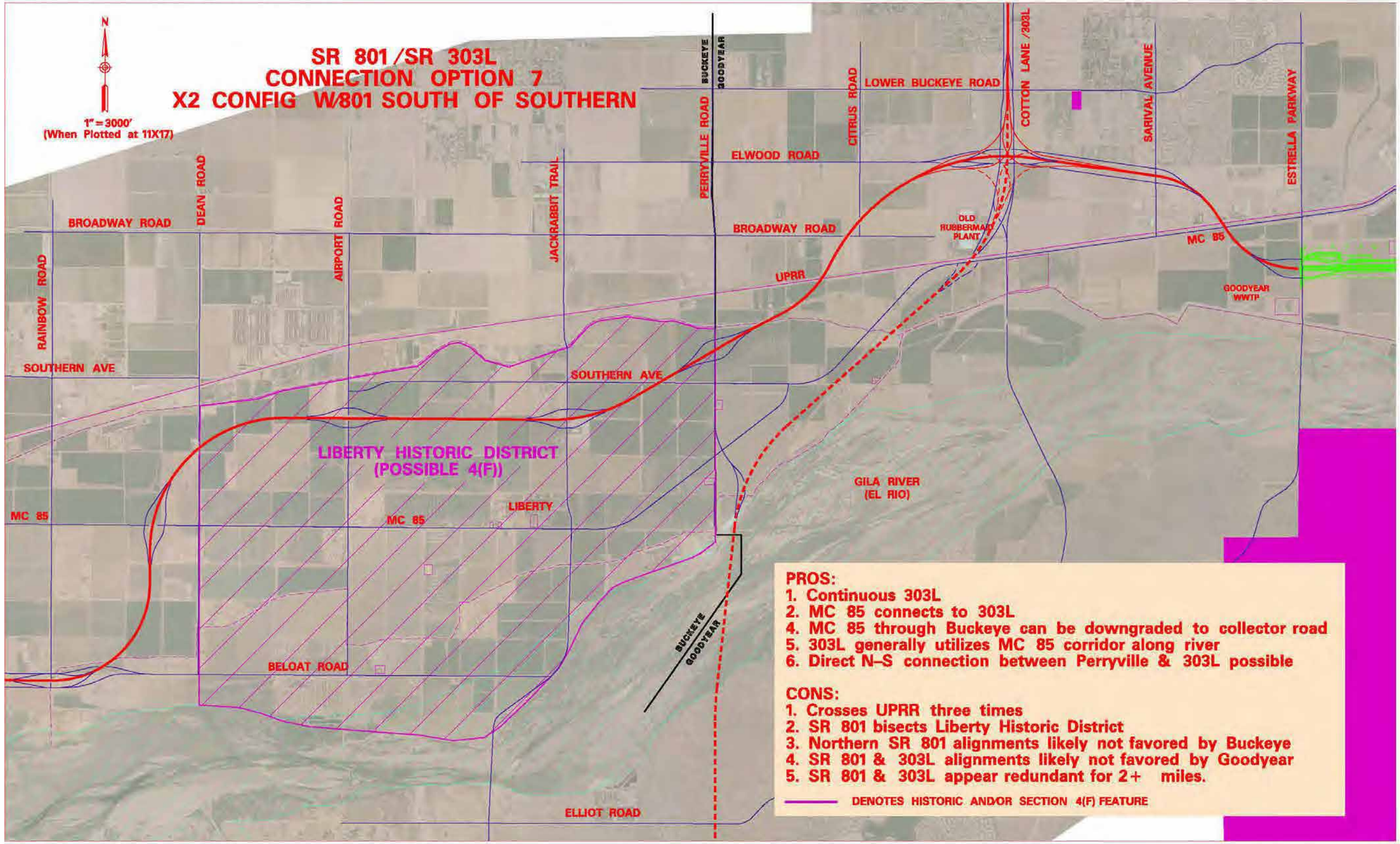


Figure F.8 – SR 801/SR 303L Interchange Concept Option 8

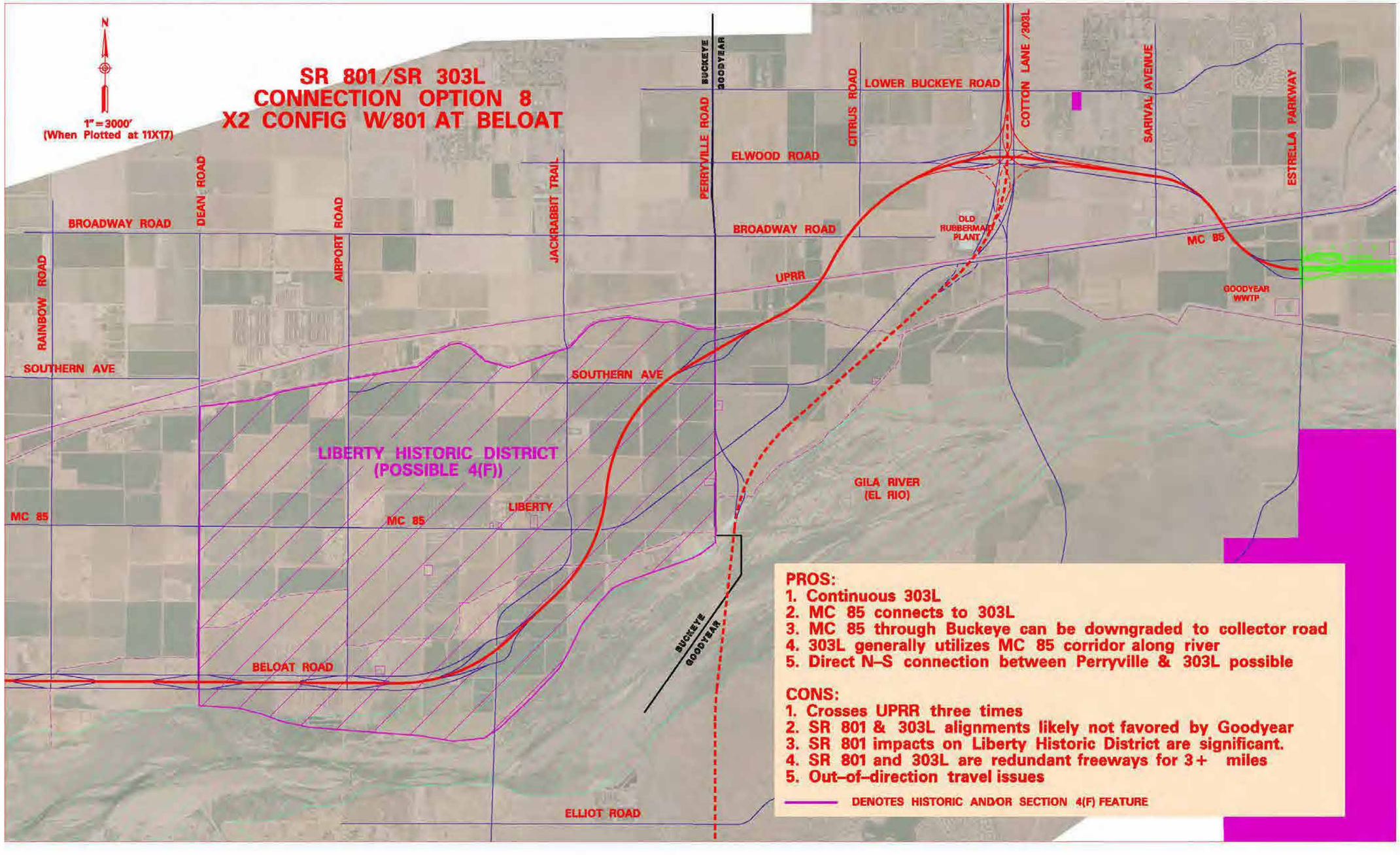


Figure F.9 – SR 801/SR 303L Interchange Concept Option 10

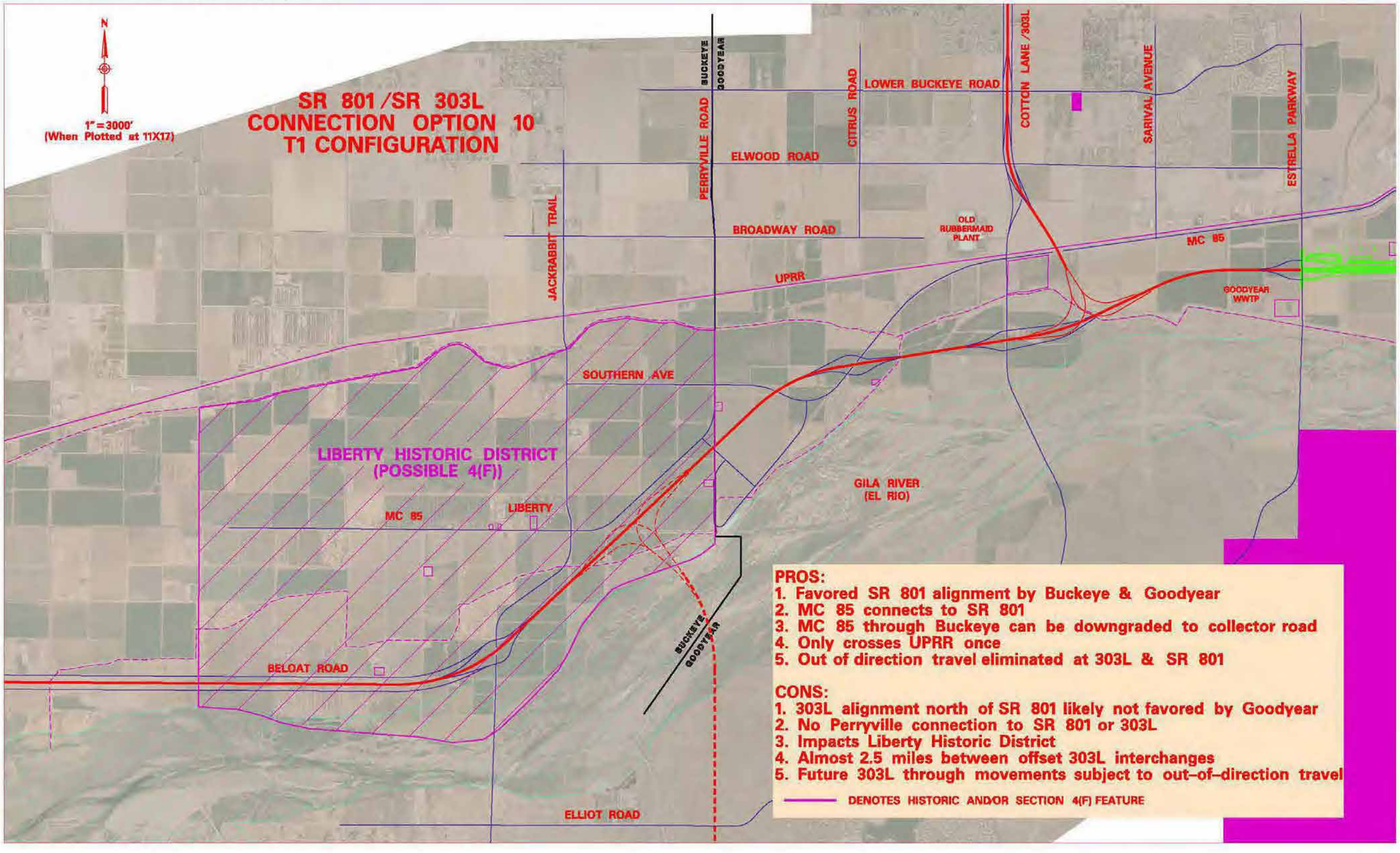


Figure F.10 – SR 801/SR 303L Interchange Concept Option 11

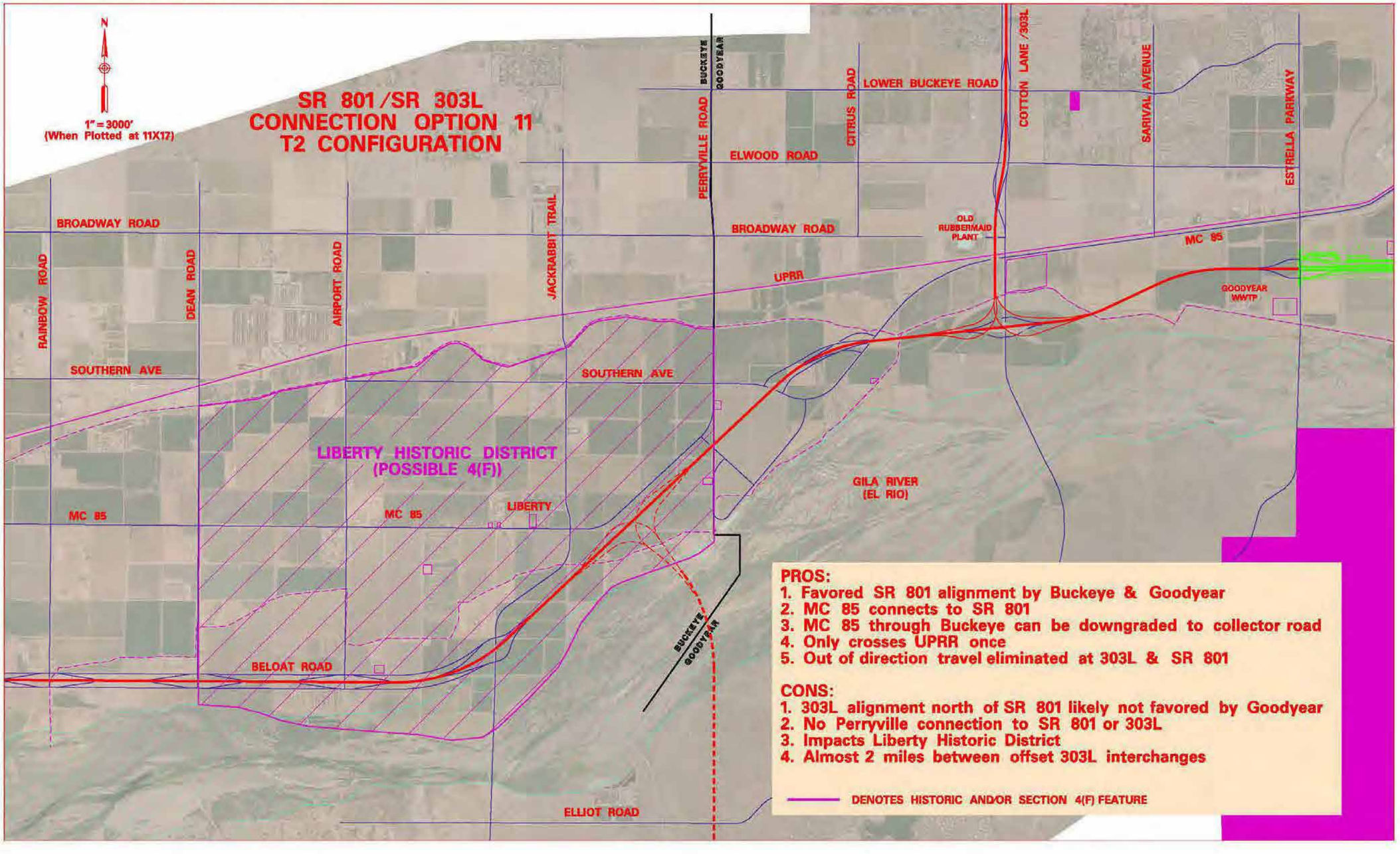


Figure F.11 – SR 801/SR 303L Interchange Concept Option 12

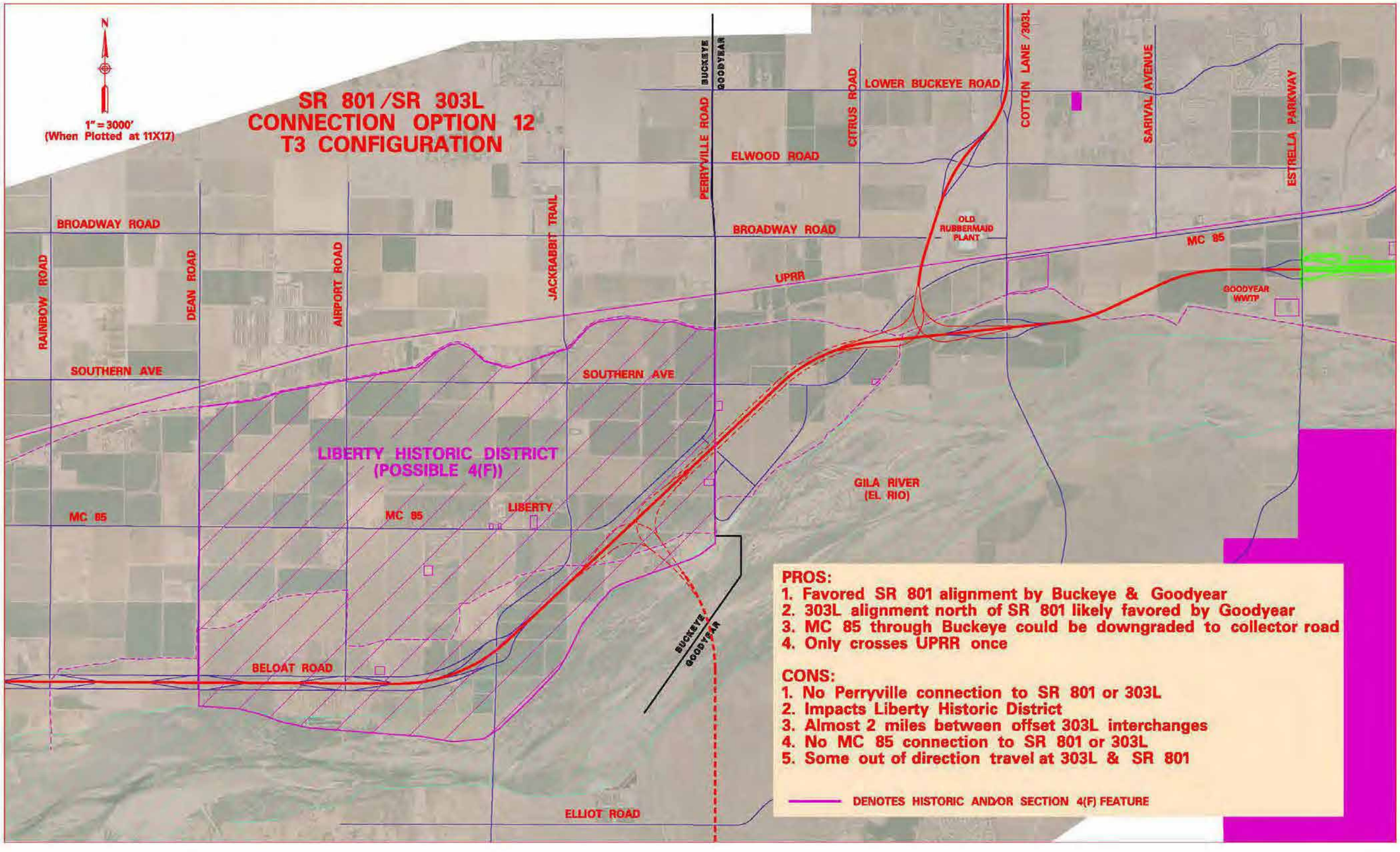


Figure F.12 – SR 801/SR 303L Interchange Concept Option 13

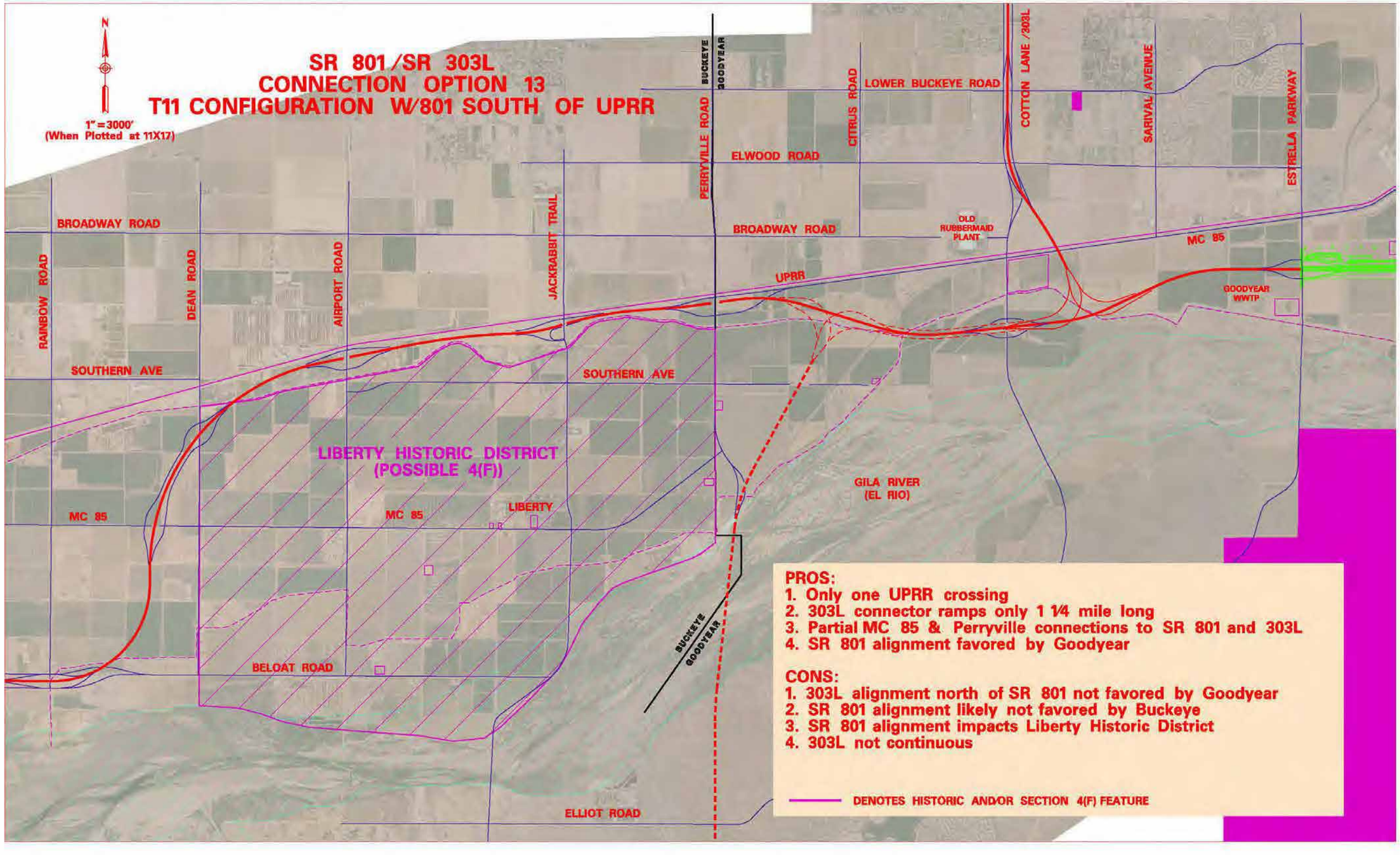


Figure F.13 – SR 801/SR 303L Interchange Concept Option 14

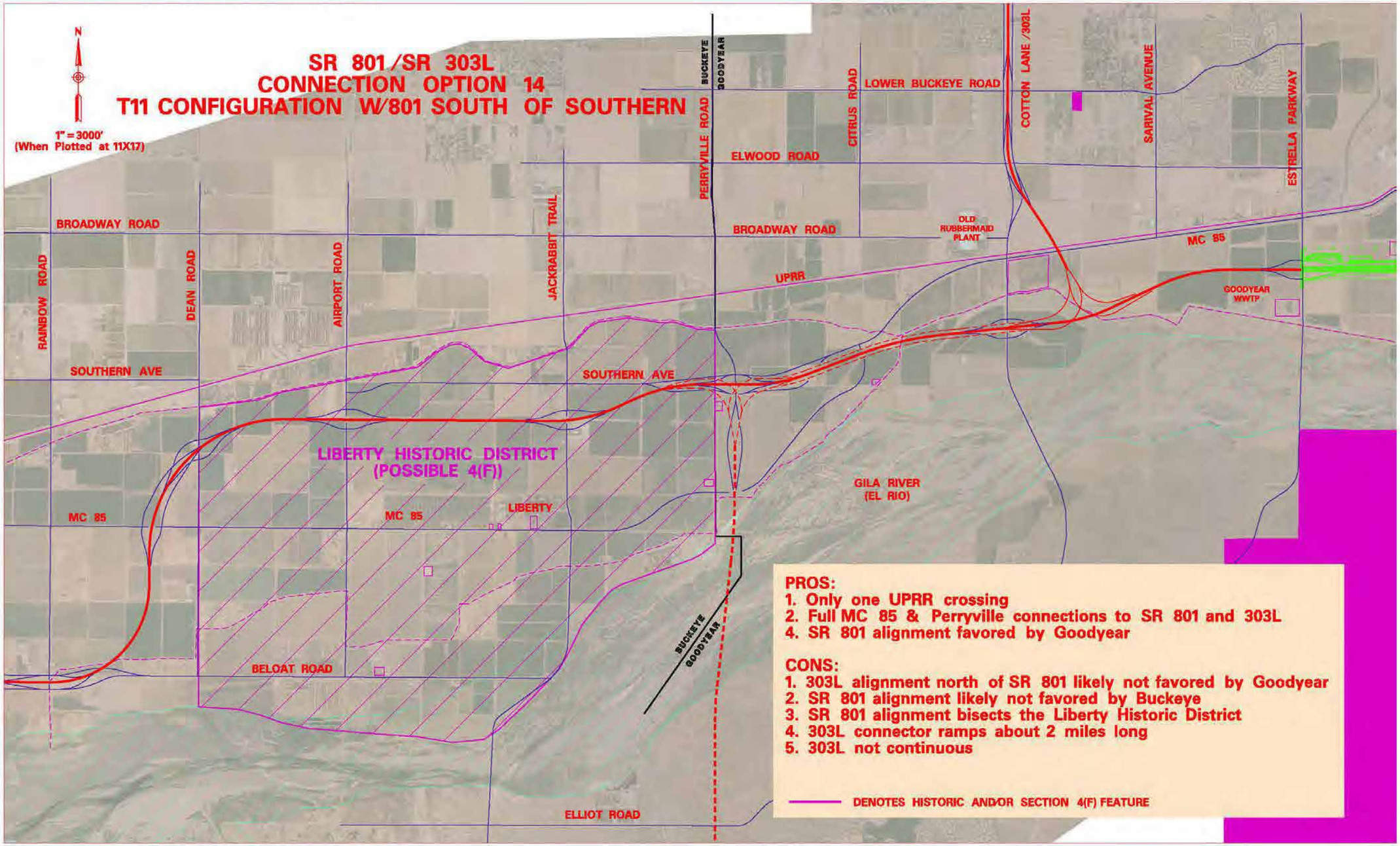


Figure F.14 – SR 801/SR 303L Interchange Concept Option 15

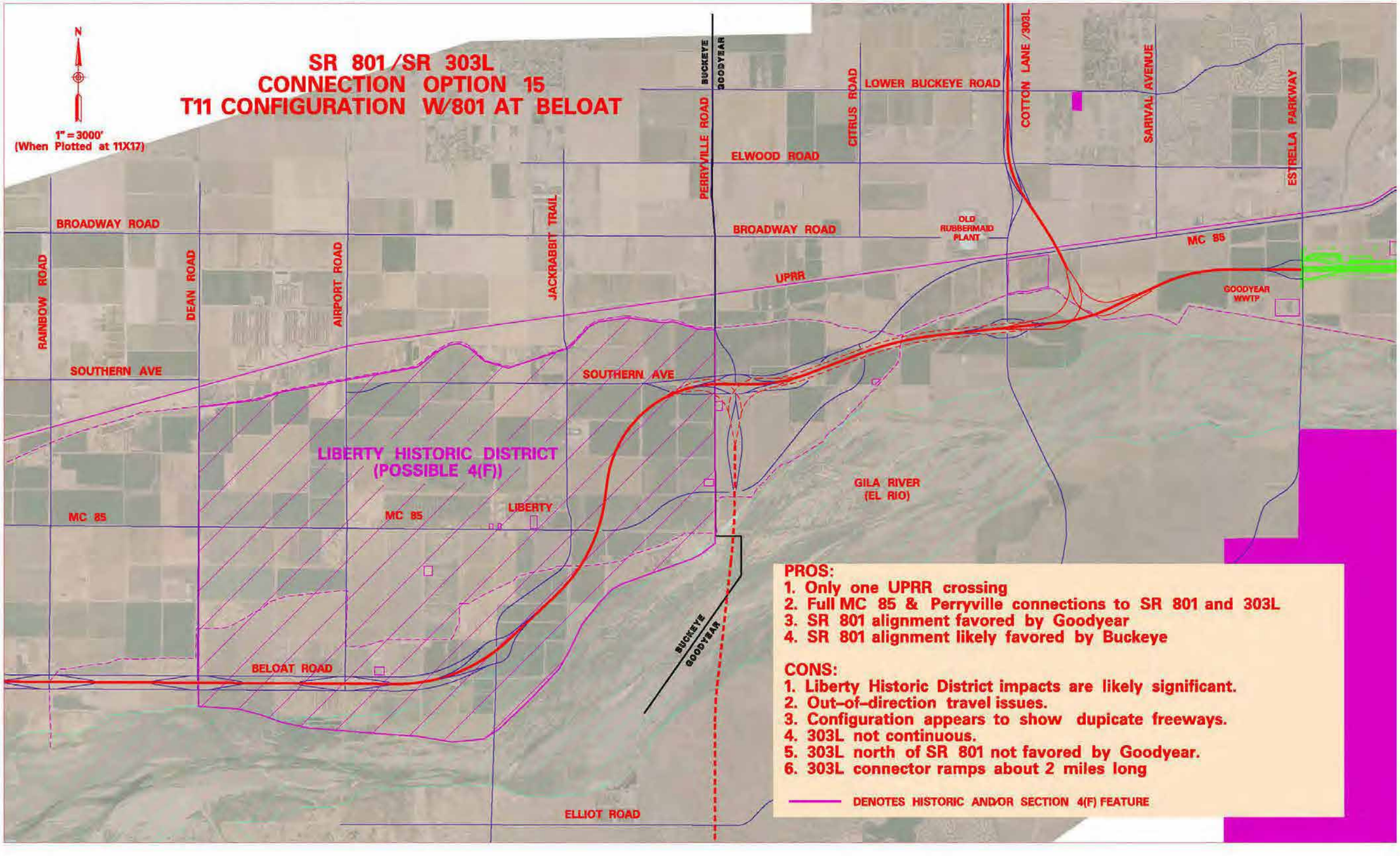


Figure F.15 – SR 801/SR 303L Interchange Concept Option 16

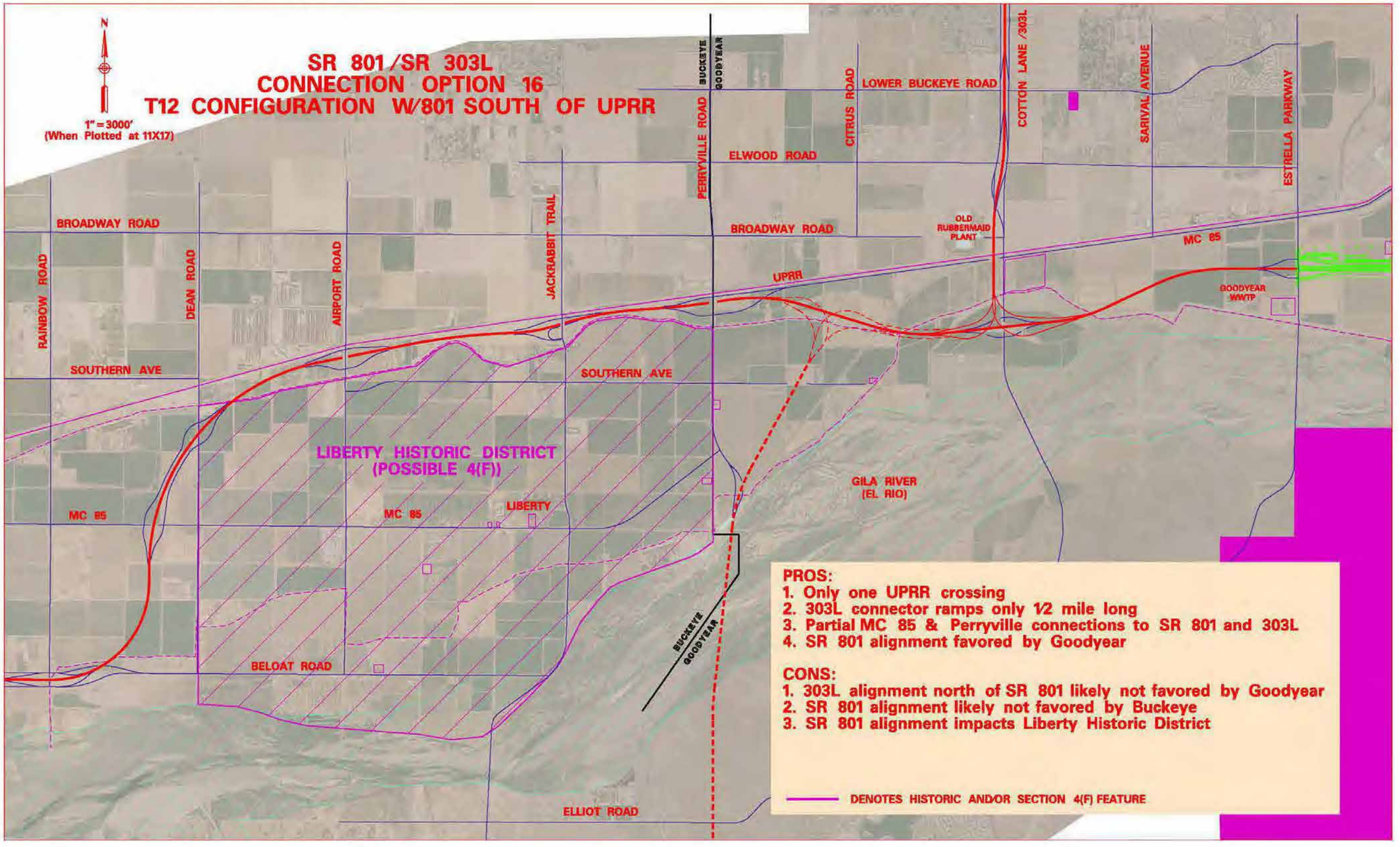


Figure F.16 – SR 801/SR 303L Interchange Concept Option 17

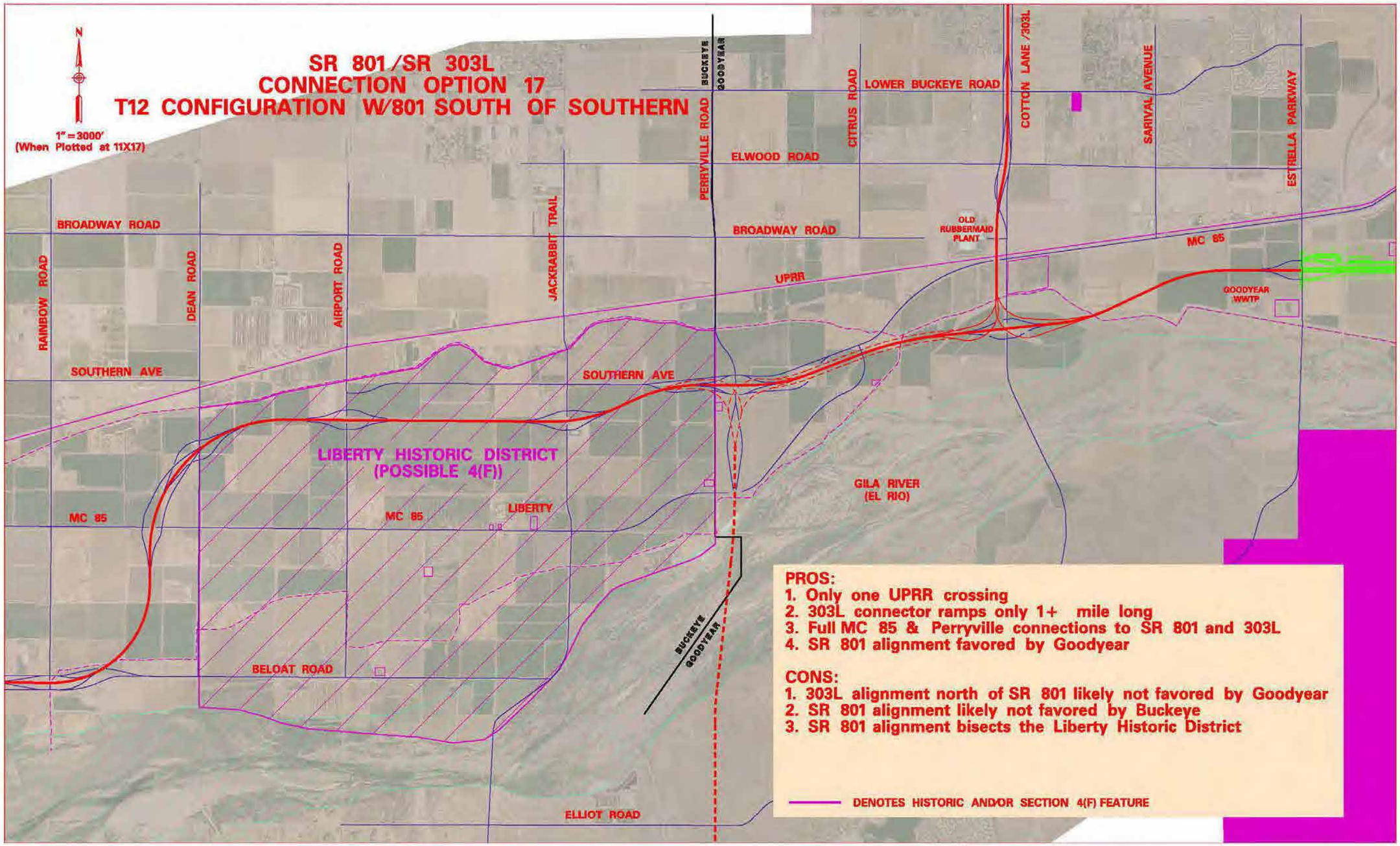


Figure F.17 – SR 801/SR 303 Interchange Concept Option 18

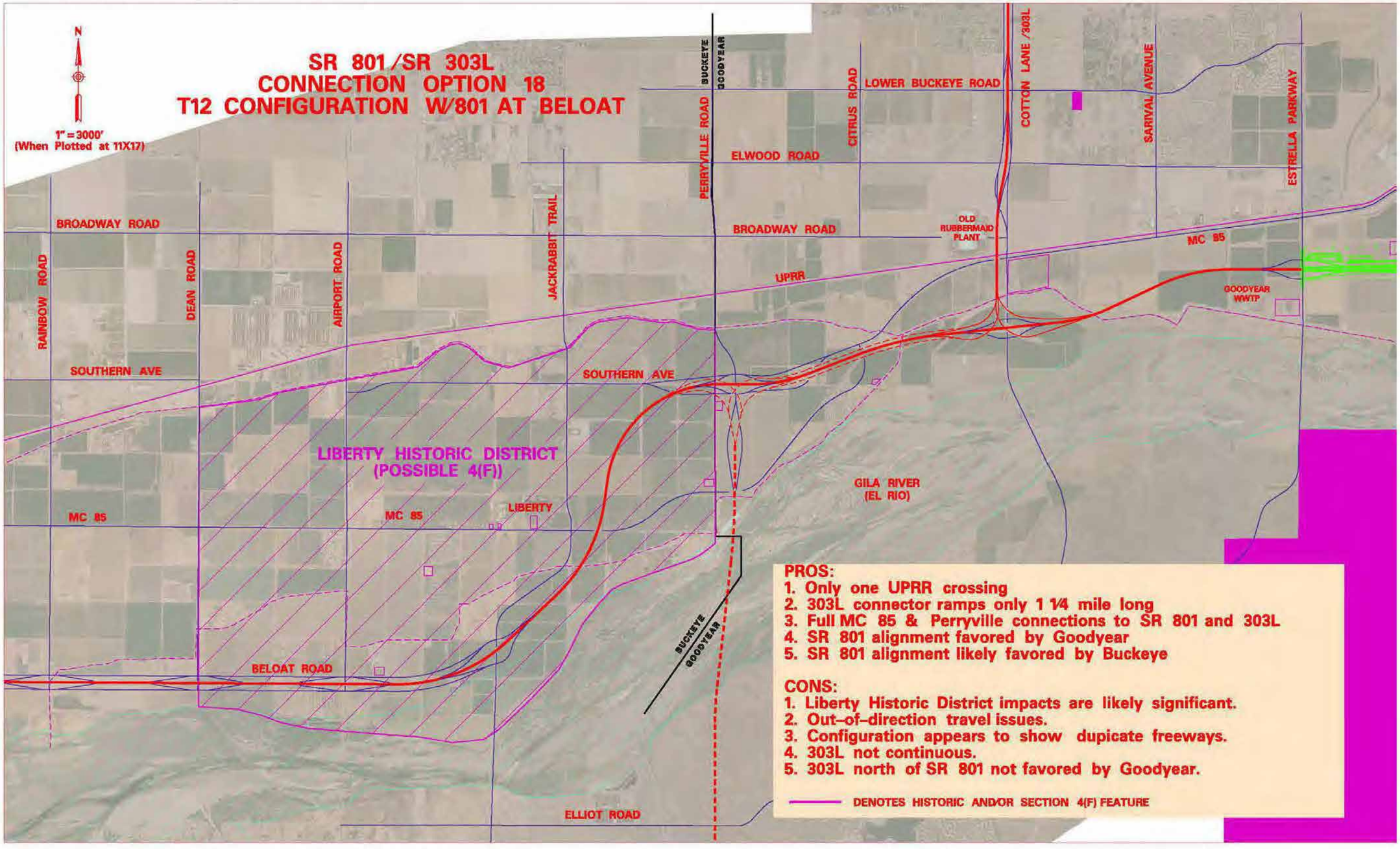


Figure F.18 – SR 801/SR 303L Interchange Concept Option 19

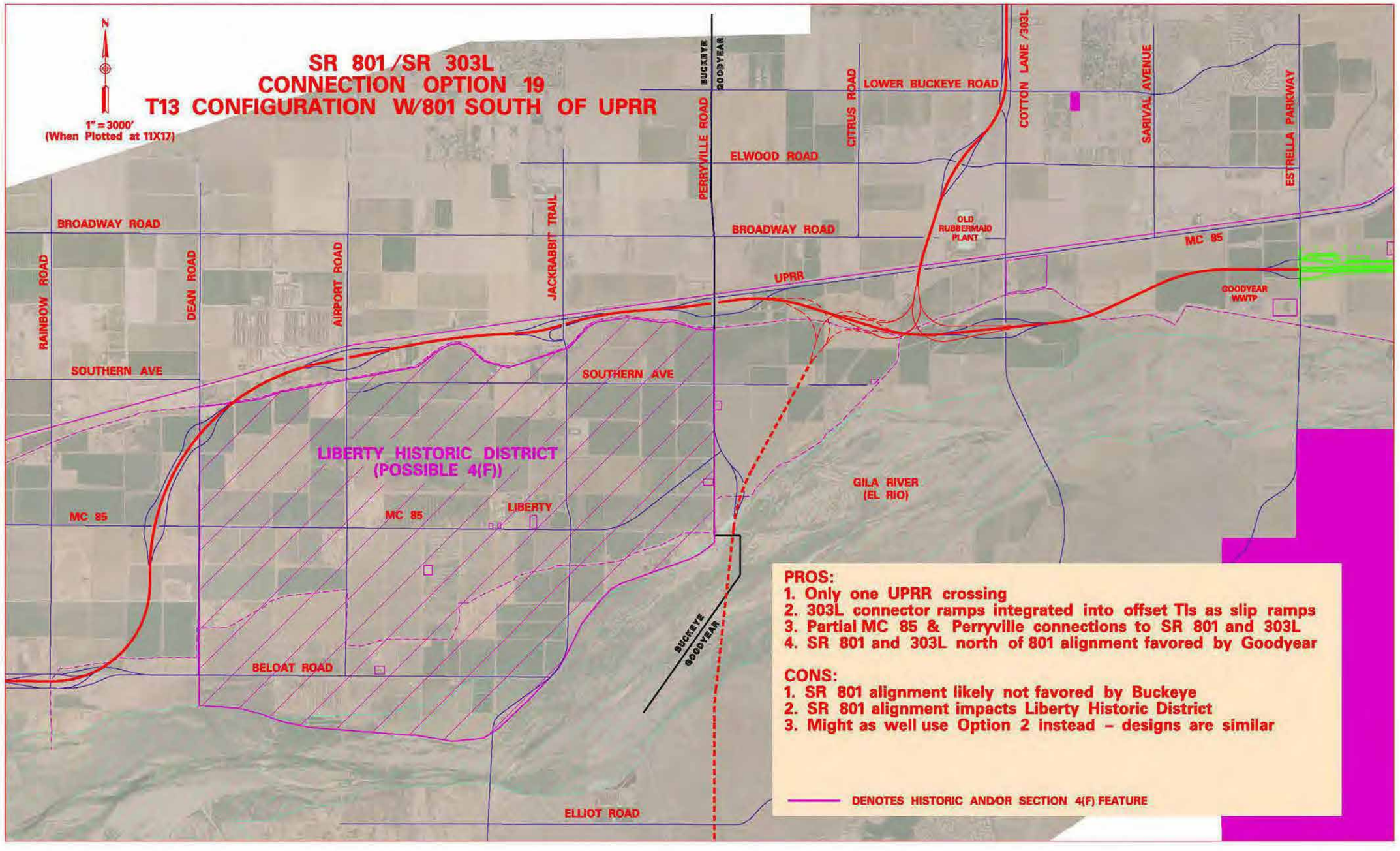


Figure F.19 – SR 801/SR 303L Interchange Concept Option 20

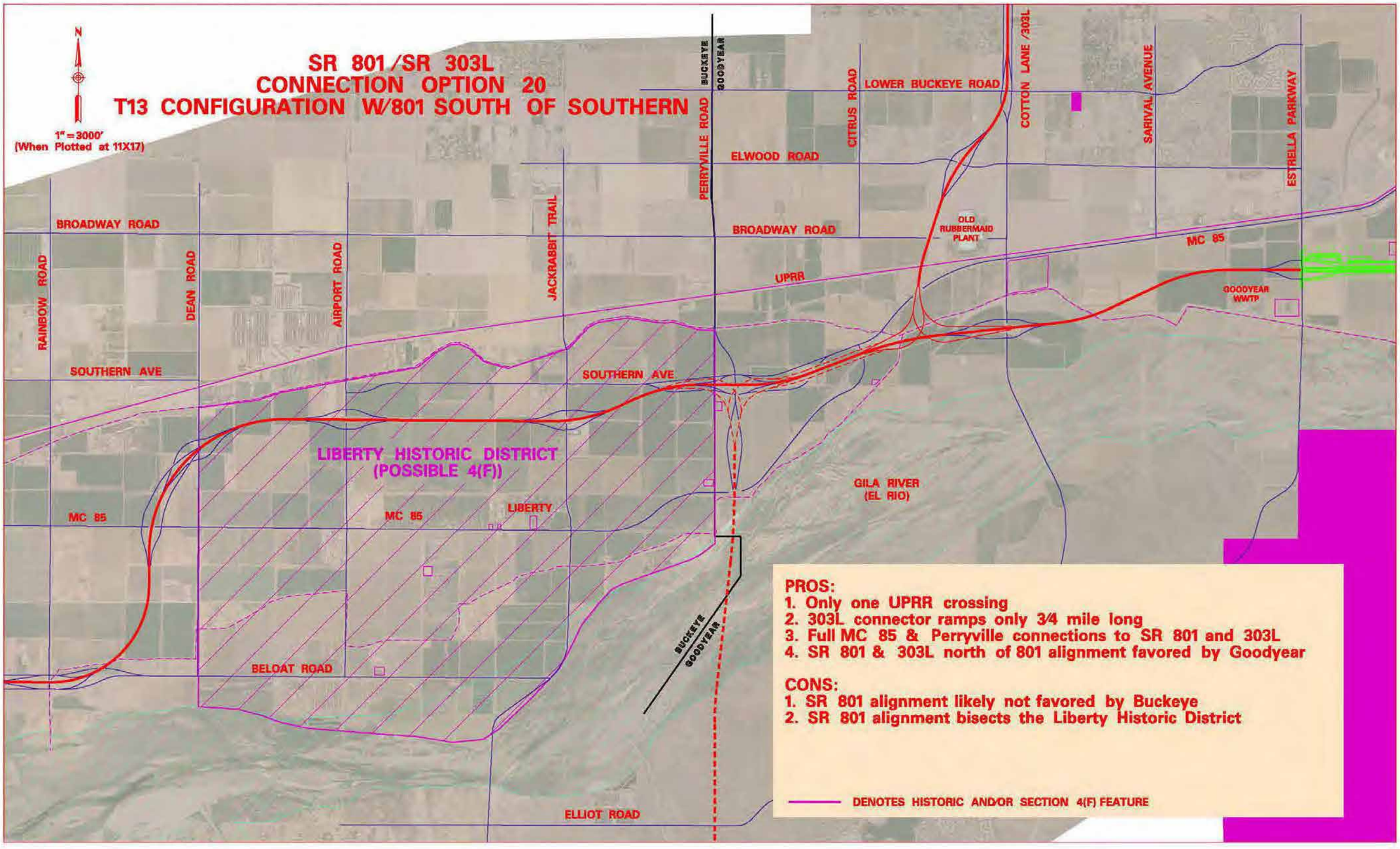


Figure F.20 – SR 801/SR 303L Interchange Concept Option 21

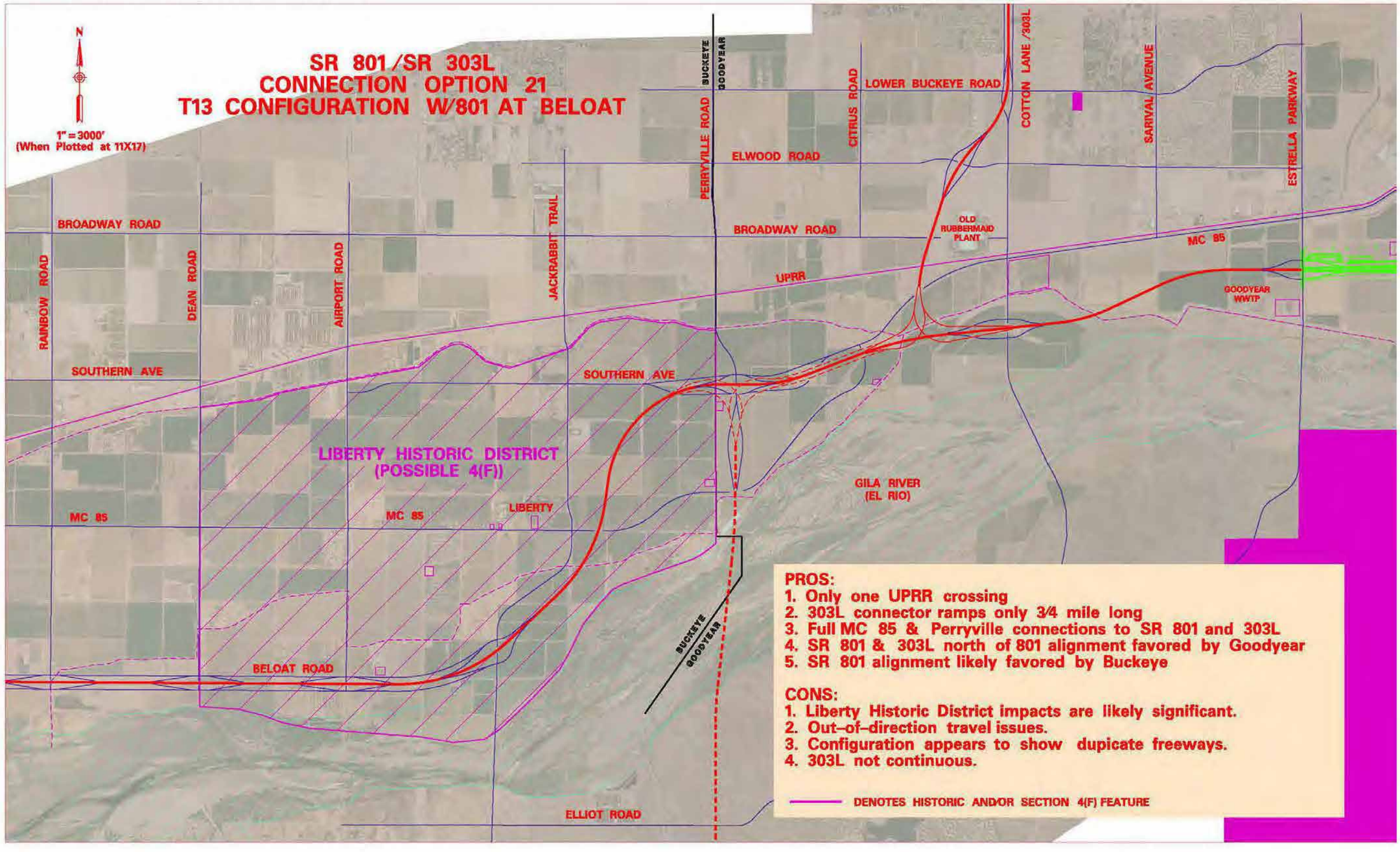


Figure F.21 – SR 801/SR 303L Interchange Concept Option 22

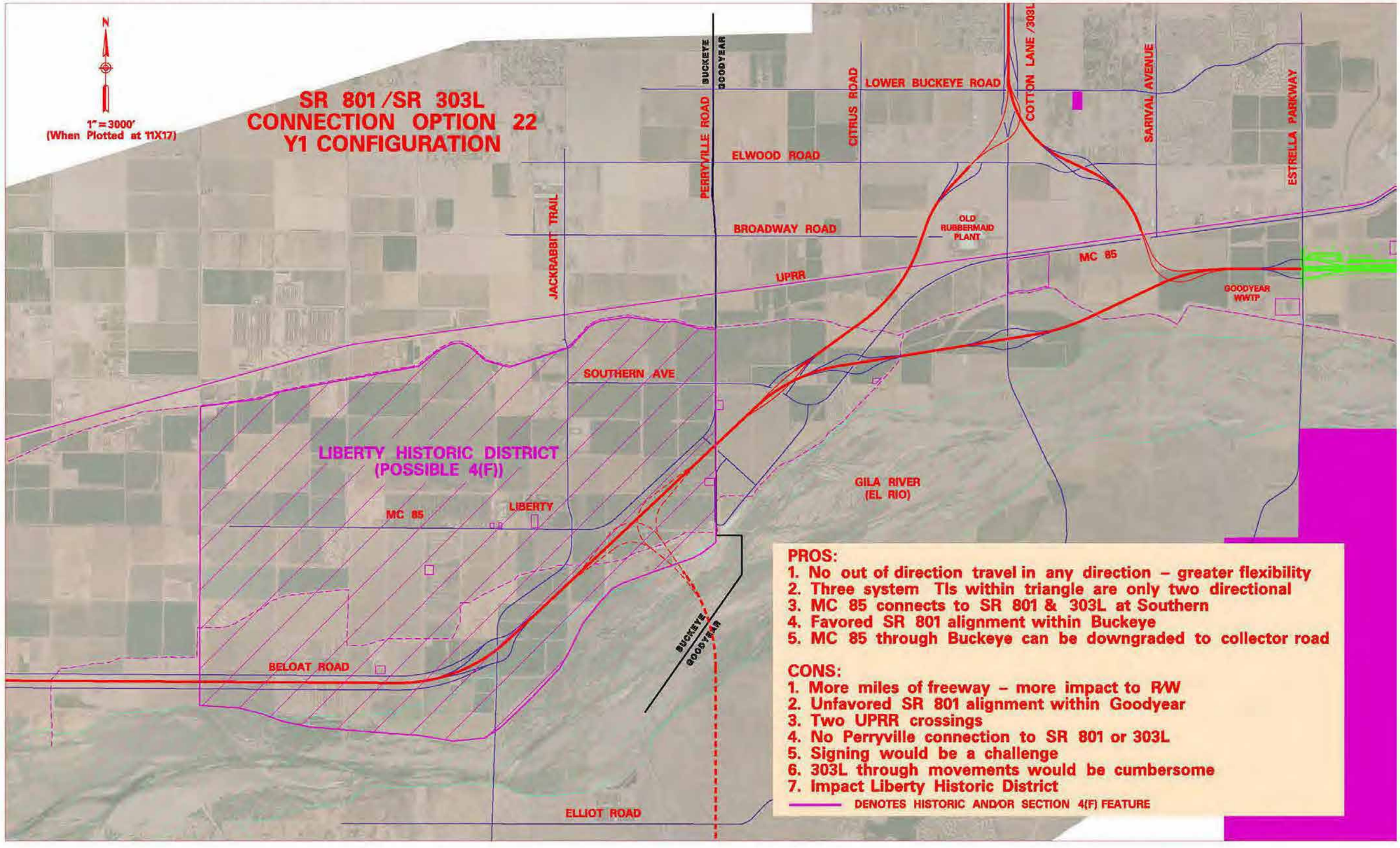


Figure F.22 – SR 801/SR 303L Interchange Concept Option 23

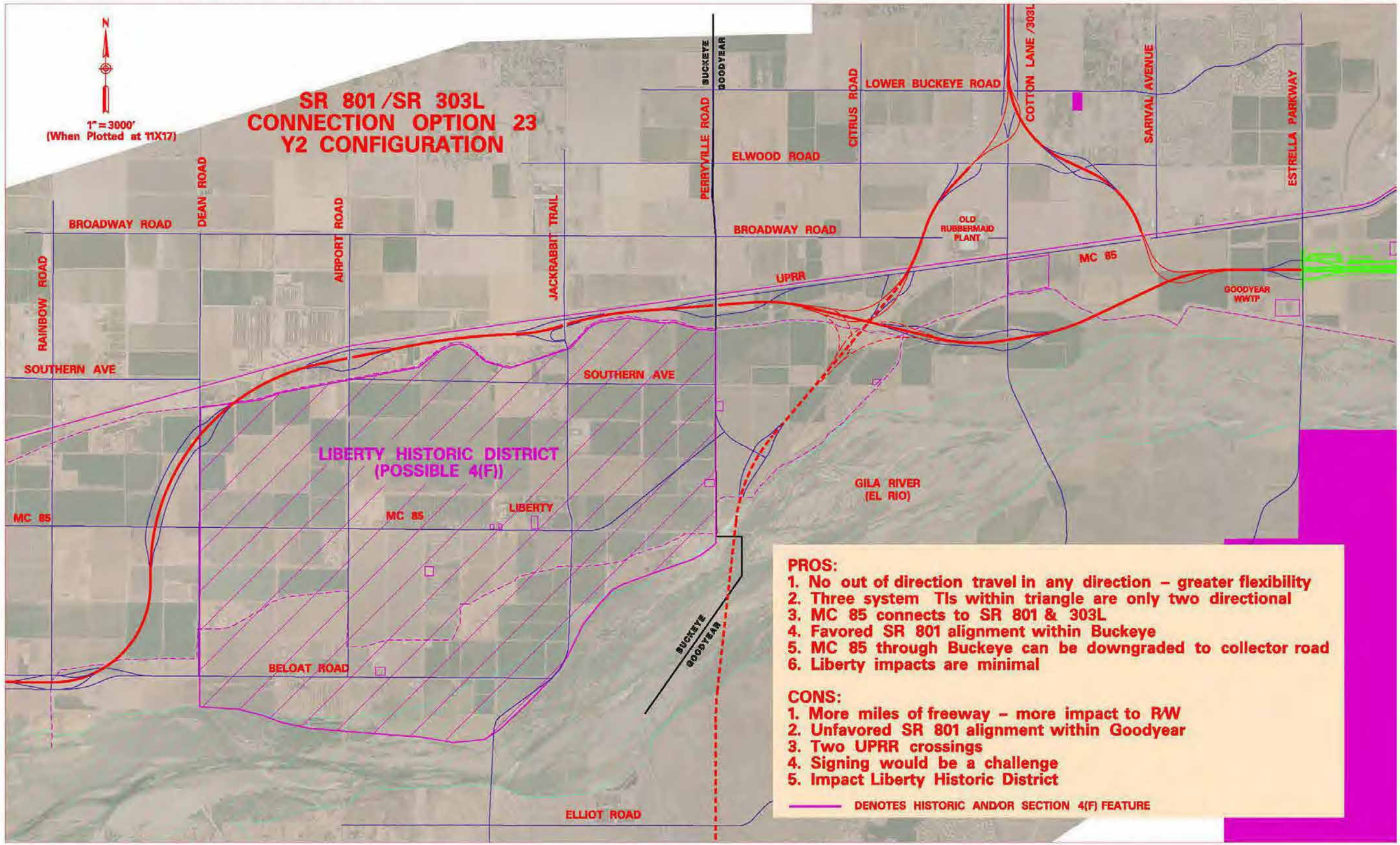


Figure F.23 – SR 801/SR 303L Interchange Concept Option 24

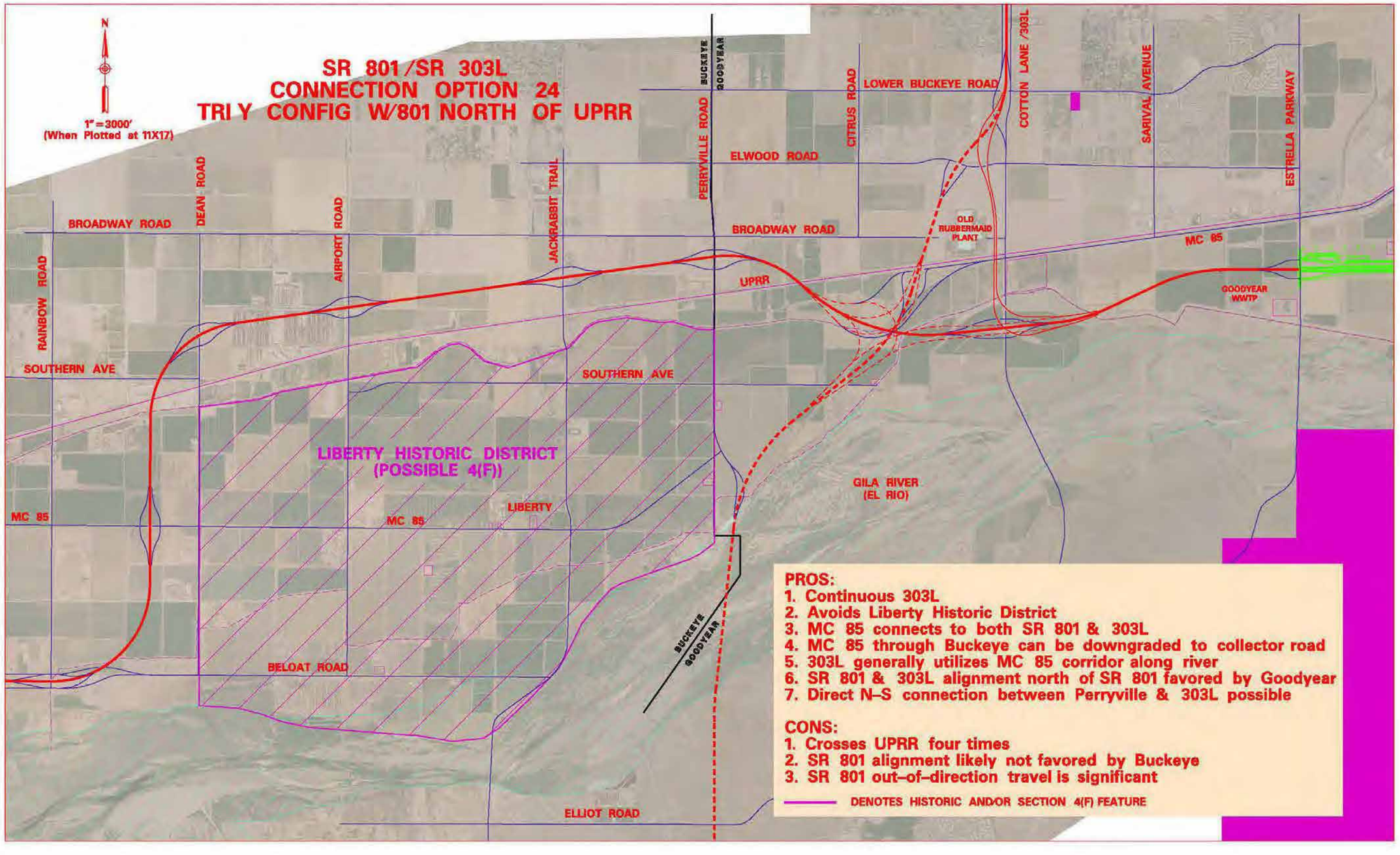


Figure F.24 – SR 801/SR 303L Interchange Concept Option 25

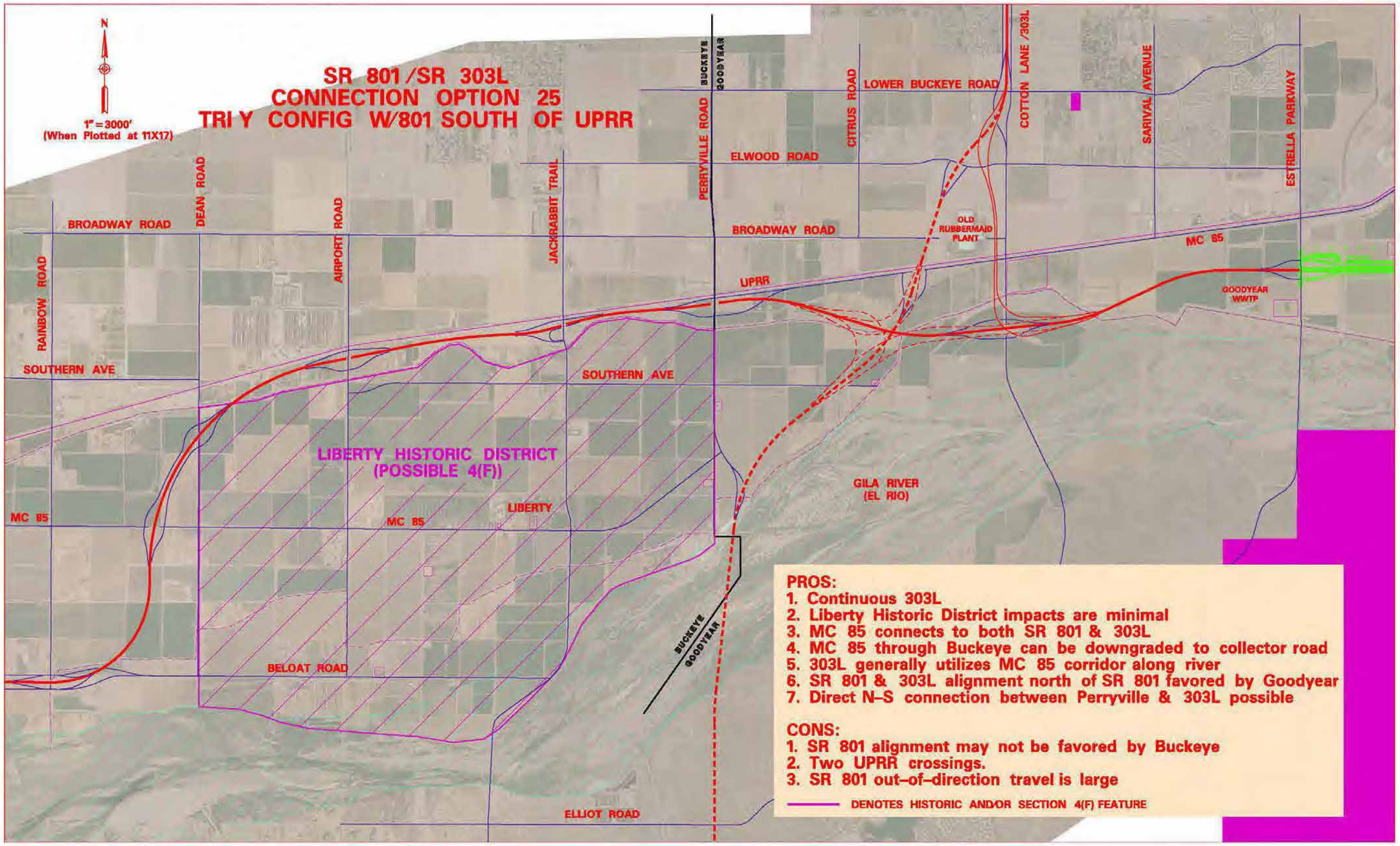


Figure F.25 – SR 801/SR 303L Interchange Concept Option – Ten Surviving Alignments Overview