F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

SPEEDWAY BOULEVARD: CAMINO DE OESTE TO PAINTED HILLS PAVED SHOULDERS

ADOT TRACS NUMBER – 0000 PM PPM SH 652 01C
FEDERAL ID NUMBER – HSIP PPM–0(254)D
PIMA COUNTY PROJECT NUMBER – CTR.4HSBSP

PIMA COUNTY
TRANSPORTATION

General Project Description

Construct Paved Shoulders Mill/Overlay Roadway and Signing/Marking Upgrades on Speedway Boulevard Between Camino De Oeste and Painted Hills Road. Total Project Length is Approximately 1.7 Miles.

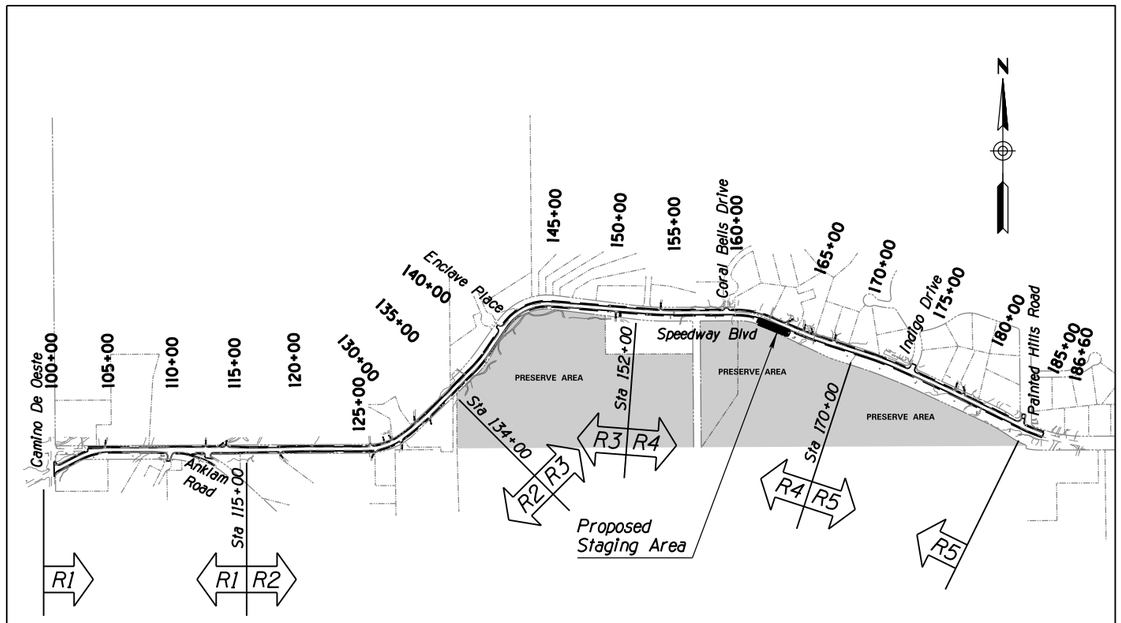
Pima County Board Of Supervisors
Richard Elías, Chair
District 5
Ally Miller — *District 1*
Ramón Valadez — *District 2*
Sharon Bronson — *District 3*
Steve Christy — *District 4*

This Project Is Located Within Supervisor District 5.

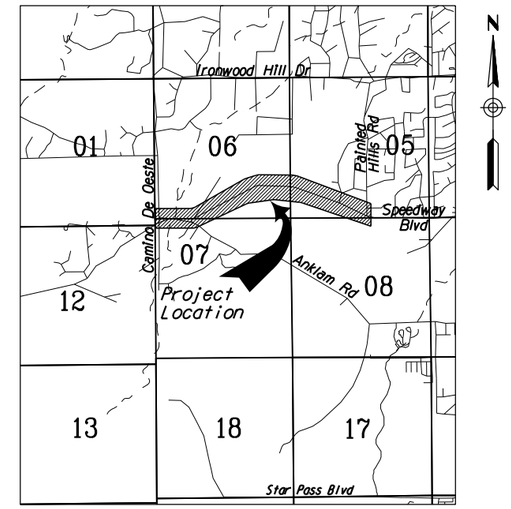
Sheet Index

Page No.	Sheet No.	Description
1	C1	Cover Sheet
2-3	C2-C3	General Notes
4-8	TY1-TY5	Roadway Typical Sections
9	B1	Barrier Summary Sheet
10-14	DT1-DT5	Detail Sheets
15-20	HC1-HC6	Horizontal Control
21-26	D1-D6	Demolition Plans
27-29	DR1-DR3	Drainage Plan & Profile
30-34	R1-R5	Roadway Plans
35-40	SS1-SS6	Side Street P&P Plans
41-42	DW1-DW2	Driveway P&P Plans
43-46	G1-G4	Driveway Grading Plans
47-66	SM1-SM20	Signing & Marking Plans
67-74	L1-L8	Landscape Plans*
75-86	EC1-EC12	Erosion Control Plans
87-95	RW1-RW9	ROW Plans

* *Landscape Plans to be provided at a later date*



Index to Plan Sheets
NTS



Location Map
NTS

Section 5 & 6
T-14-S, R-13-E
Pima County, Arizona
G and S R M

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS- PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Call at least two full working days before you begin excavation.
ARIZONA 811
Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: + 1 520.882.6424

No.	Revisions	Engineer	Date

No.	As Built	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION OR RECORDING

Pima County
Department of Transportation
201 N. Stone Ave. 4th floor Tucson, Arizona 85701
Phone Number: 520-724-6410
Ana M. Olivares, P.E. Director

Approved:_____20__
Director

Project No. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_gface.dgn
Wed 13 Feb 2019, 10:26:35

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

GENERAL NOTES

1. Construction shall be in conformance with the specifications and details listed in the Special Provisions.
2. Utility locations shown on the plans were compiled based on the best information available to the Department. Utility locations are not intended to be exact or complete. Prior to commencing construction, the Contractor shall verify the location of all Utilities with the appropriate organizations. Contact "Blue Stake" at 1-800-782-5348 two full working days prior to beginning construction (Saturdays and Sundays are not considered working days).
3. Right-of-Way encroachments shall be Removed Only by Order of Pima County, Unless otherwise noted.
4. Removal of all Cacti and Native Plants shall be in accordance with the provisions of the "Arizona Native Plant Law" A.R.S, Chapter 7. See Sheet D1 for additional Landscape Notes.
5. The Basis of Bearing for this project is the south line of the southeast quarter (SE 1/4) of Section 5, Township 14 South, Range 13 East, G&SRM, Pima County. Said bearing being North 89°46'41" East (Based on NAD 83 State Plane Coordinates per Pima County DOT - City of Tucson DOT Geodetic Control Points E07 and E09).
6. The Basis of Elevation for this project is the Pima County DOT - City of Tucson DOT Geodetic Control Point E01, said point being a 2" brass cap with punch only in concrete, flush with pavement and located at the intersection of Speedway Boulevard and Camino de Oeste. Said elevation being 2621.90 feet (NAVD 88).
7. Basis of Coordinates: The coordinate system for this project is based on NAD 83, Arizona State Plane coordinates, Central Zone, based upon Pima County DOT - City of Tucson DOT Geodetic Control Points E01, E07, E09 and G01 using a combined scale factor for E01. Project coordinates can be converted to State Plane values by adding 400,000 to the Northings and 900,000 to the Eastings and multiplying by 0.9998544150.
8. Basis of Stationing: Stations for Speedway Boulevard increase from west to east. Stations for side streets and driveways increase from south to north.
9. Soils Information will be made available to prospective bidders in the Geotechnical Report. Soils Information so provided shall be for Information Purposes Only. This information was developed as accurately as possible by the methods used. Pima County accepts no responsibility for any conditions encountered which vary from the Information Provided.
10. The Contractor shall maintain access to all driveways, alleys, and mailboxes during construction. The Contractor will not restrict emergency vehicles, U.S. postal delivery, solid waste collections, and/or access to the adjacent Properties, Expect as approved by the Engineer.
11. Omissions or conflicts between the various elements of the drawings, notes, or details shall be brought to the attention of the Engineer and resolved before proceeding with the work.
12. All stationing shown on the plans and profiles is along the construction centerline, unless otherwise noted.
13. Existing utilities include, but may not be limited to, overhead and underground electric, telephone, television, communication, sewer, gas, and water, and shall be moved by others unless otherwise noted and shown in these plans.
14. The Contractor's attention is called to the limited area available on the site for excavation, embankment and other construction activities. Refer to General Note 23.
15. Existing topographic conditions shown on the plan Sheets reflect conditions as of February 2017.
16. The Contractor shall be responsible for submitting a proposed sequence of operations and a compatible method of maintaining traffic that shall be in accordance with Section 701 of the Standard Specifications, the overview of traffic control sheets contained in the plan set, and the Manual on Uniform Traffic Control Devices, 2009 w/ 2012 revisions edition.
17. The Right-of-Way lines shown herein are based on record documents and a Right-of-Way survey.
18. The posted speed for Speedway Boulevard is 35 MPH from Camino de Oeste to Indigo Drive and 40 MPH from Indigo Drive to Painted Hills Road.
19. The site shall be treated for Buffelgrass and other invasive species prior to initiation of work. See Special Provision 201-3.04 (PC/COT Standard Specifications for Public Improvements, 2003 edition).
20. The contractor is responsible for the preservation of existing plant materials according to Special Provisions Section 201-3.02 (PC/COT Standard Specifications for Public Improvements, 2003 edition).

GENERAL NOTES - CONT.

21. Overhanging branches within the Right-of-Way that may impact construction shall be pruned in accordance with Special Provision Section 201-3.05 and shall be paid using bid Item Number 8061700.
22. Existing trees and other plants on adjacent private property may have overhanging branches that will require pruning. See Special Provisions Section 201-3.05. No pruning shall be performed Without the notification of Pima County Community Relations.
23. Contractor is to stay within project limits, which are defined as pavement edge and adjacent grading necessary to meet existing grade. No other areas shall be disturbed with the exception of the proposed 30'x250' staging area as delineated in the Roadway Plans, See Sheet R4. The Contractor shall return the staging area to its existing condition and hydroseed upon project completion.

WASTEWATER NOTES

1. Construction shall maintain access to all sanitary sewer manhole structures at all times.
2. House or business connection sewers (HCS or BCS) are not part of the public sanitary sewer conveyance system. Private connection sewers constructed prior to January 2006 are not required to be Bluestaked. Any HCS/BCS encountered during construction shall be protected, repaired, or rerouted, as the situation dictates per PCRWRD SSDC 2012, Standard Detail RWRD 400.
3. Immediately report any of the following to either PCRWRD Field Engineering (520-740-2651) or PCRWRD Conveyance Division (520-724-3400): any release of sewage, any damage to the public sanitary sewage system, or the dropping of debris into the public sanitary sewage system. On weekends, holidays, or between 5:00 P.M. and 7:00 A.M., immediately call PCRWRD Operations Control Center at (520-724-6048) and request a PCRWRD representative to be dispatched to the site. Take immediate action to contain the sanitary sewage outflow (SSO) from the sewer system. The Contractor shall be responsible for all costs to repair the system, for all expenses to mitigate the release and to disinfect the release areas and for any regulatory penalties levied on PCRWRD because the SSO entered a natural drainageway or storm water drainage system. The Contractor shall repair all damage as directed and approved by PCRWRD.

EARTHWORK NOTES

1. For estimating purposes, it is assumed that all on-site materials are acceptable for use as roadway embankment and trench backfill. Refer to Section 203 of the Standard Specifications.
2. For estimating purposes, it is assumed that all on-site materials including pavement millings ARE NOT acceptable for use as pipe bedding, pipe shading, or structure backfill.
3. The volume of existing pavement, including asphaltic concrete and aggregate base, is included in the calculation for roadway excavation per Section 109 of the Special Provisions. No adjustment has been made to the existing ground surface to account for pavement removal as this material can be used for embankments, as described in Section 203-9 of the Standard Specifications.
4. Pipe Excavation and Backfill Limits are per PAG Std. Dtl. 108.
5. Excavation and Backfill Limits for Drainage Structures (Headwalls) are per ADOT SD 6.01, Sheet 4 of 5.
6. Ground compaction and shrink factors were obtained from the Geotechnical Report.
7. Fill placed within 3 feet of finished subgrade elevation shall conform to the requirements of Section 203 of the Special Provisions.
8. The subgrade underneath areas to receive new pavement or new roadway embankment fill shall be scarified to a depth of 8 inches and the exposed surface compacted to 95% of maximum dry density.
9. The upper 2 feet of trench backfill within the roadway footprint shall be compacted to a relative compaction of 100%.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

GENERAL NOTES
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet C2 of C3	Page 2 of 95

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

DESIGN DATA

ROADWAY	LIMITS	2018 ADT	2038 ADT
Speedway Blvd	Camino De Oeste to	2305	3845
	Painted Hills Road	--	--

PROJECT LENGTH SUMMARY

ROADWAY	LIMITS	LENGTH
Speedway Blvd	100+00.00 - 188+00.00	8,800 FT = 1.7 Miles +/-

DESIGN SPEEDS

ROADWAY SEGMENT	DESIGN SPEED MPH	POSTED SPEED MPH
Speedway Blvd - Arterial	40	35/40
Camino De Oeste - Side Street	50	45
Circulo Zagala - Side Street	30	25
Anklam Rd - Side Street	50	45
Dusty Hollow Ct - Side Street	30	N/A
Enclave Pl - Side Street	30	25
Coral Bells Dr - Side Street	30	25
Indigo Dr - Side Street	30	25
Painted Hills Rd - Side Street	35	30

EARTHWORK QUANTITIES

ITEM NO.	TYPE	AMOUNT (CY)
2030300	Roadway Excavation *	4,352
	Shrink (20%)	-870
2030401	Drainage Excavation	76
	Shrink (20%)	-15
	Structural Excavation	0
	Shrink (20%)	0
2030501	Rock Excavation *****	675
	Riprap Excavation	243
	Shrink (20%)	-137
	Pipe Excavation	38
	Shrink (20%)	-8
2020001	Asphaltic Concrete Pavement ****	699
2020030	Asphaltic Concrete Milling	1,283
	Total Excavation	6,425
	Roadway Embankment ***	1,398
	Ground Compaction	391
	** Structure Backfill	0
	Trench Backfill	0
	** Pipe Backfill (Shading)	-72
	** Pipe Bedding	-62
	Total Embankment	1,789
	Waste (Total Excavation - Total Embankment)	4,636

EARTHWORK FACTORS

Shrinkage Factor	20%
Ground Compaction	0.1'

DESIGN VEHICLE

ROADWAY SEGMENT	TYPE
Design Arterial	WB-62
Side Streets	SU-30
Driveways - Commercial	SU-30

AVERAGE ELEVATION

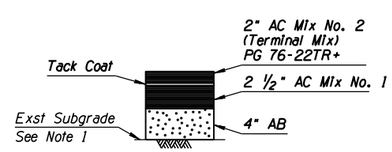
2,554 FT

ABBREVIATIONS

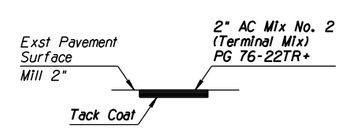
AB = Aggregate Base
AC = Asphaltic Concrete
ACE = Access Control Easement
ADOT = Arizona Department of Transportation
ADT = Average Daily Traffic
AP = Angle Point
BCR = Begin Curb Return
BCSM = Brass Cap Survey Monument
BK = Book
BVC = Begin Vertical Curve
CORR = Correction Factor
Cst = Construction
CTS = Corrosion Test Station
CY = Cubic Yard
DESC = Description
DKT = Docket
DWY = Driveway
EA = Each
ECR = End Curb Return
EG = Existing Grade
Elev = Elevation
EP = Edge of Pavement
ESMT = Easement
EVC = End Vertical Curve
Exst = Existing
FG = Finished Grade
FM = Force Main
FND = Found
FT = Feet
G = Grade
Grnd = Ground
GU = Gutter
Horiz = Horizontal
IP = Iron Pin
M&P = Maps and Plats
MP = Mid Point
NTS = Not to Scale
OTU = Odor Treatment Unit
PC = Point of Curvature
PC/COT = Pima County/City of Tucson
PCDOT = Pima County Department of Transportation
PG = Page
PI = Point of Intersection
POB = Point of Beginning
POE = Point of Ending
PRC = Point of Reverse Curvature
PSS = Pavement Structural Section
PT = Point of Tangency
PVI = Point of Vertical Intersection
PVMT = Pavement
PVRC = Point of Vertical Reverse Curve
R = Radius
R/W = Right of Way
SEC = Section
SHLD = Shoulder
SM = Survey Monument
Sta = Station
SW = Sidewalk
TCE = Temporary Construction Easement
UTIL = Utility
VC = Vertical Curve
Vert = Vertical
WV = Water Valve
TOR = Top of Rail
TWLTL = Two-Way Left-Turn Lane

LEGEND

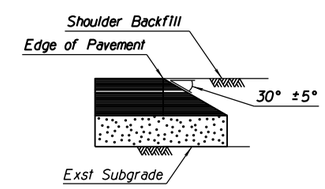
EXISTING		PROPOSED
	Sheet Number	#
	Horizontal Curve No.	1
P.P.	Power Pole	
—OP—	Overhead Power	—OP—
—UGE—	Underground Power	—UGE—
—UGT—	Underground Telephone	—UGT—
—W—	Underground Water	—W—
—S—	Sewer	—S—
Ⓢ	Sewer Manhole	
	Note Reference No.	1
⊗	Water Valve	
	Street Light Pole	
◎	Utility Manhole	◎
	Storm Drain	
	Right-of-Way Line	
	Right-of-Way ℄	
	Property Line	
	Section Line	
	Construction Centerline	
	Easement Line	
	Benchmark	
	R/W Monument (1/2"Rebar) to be set & Tagged by AZ RLS	R/W #X
⊕	Survey Monument Per Std. Dtl. 103	S.M. #X
	Property Corner Reset	P.M. #X



PAVEMENT STRUCTURAL SECTION SECTION NO. 1
N.T.S.
Speedway Blvd



PAVEMENT STRUCTURAL SECTION SECTION NO. 2
N.T.S.
Speedway Blvd Mill and Fill



SAFETY EDGE DETAIL
N.T.S.

* Earthwork was calculated from the existing top of pavement. See Earthwork Notes on Sheet C2.
** Assumed to be Imported Material and therefore not included in the total Embankment Quantity.
*** Excludes Volume of Culvert Materials & Volume of Voids Created by Culverts.
**** Quantity is included in Item No. 2020001 Removal of Structures and Obstructions. For estimating purposes, a 6" existing pavement thickness was assumed for sawcut removal and side streets.
***** Rock Excavation is the roadway excavation into rock outcrop from station 119+25 to 121+50, 17' Rt to slope catch point.

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

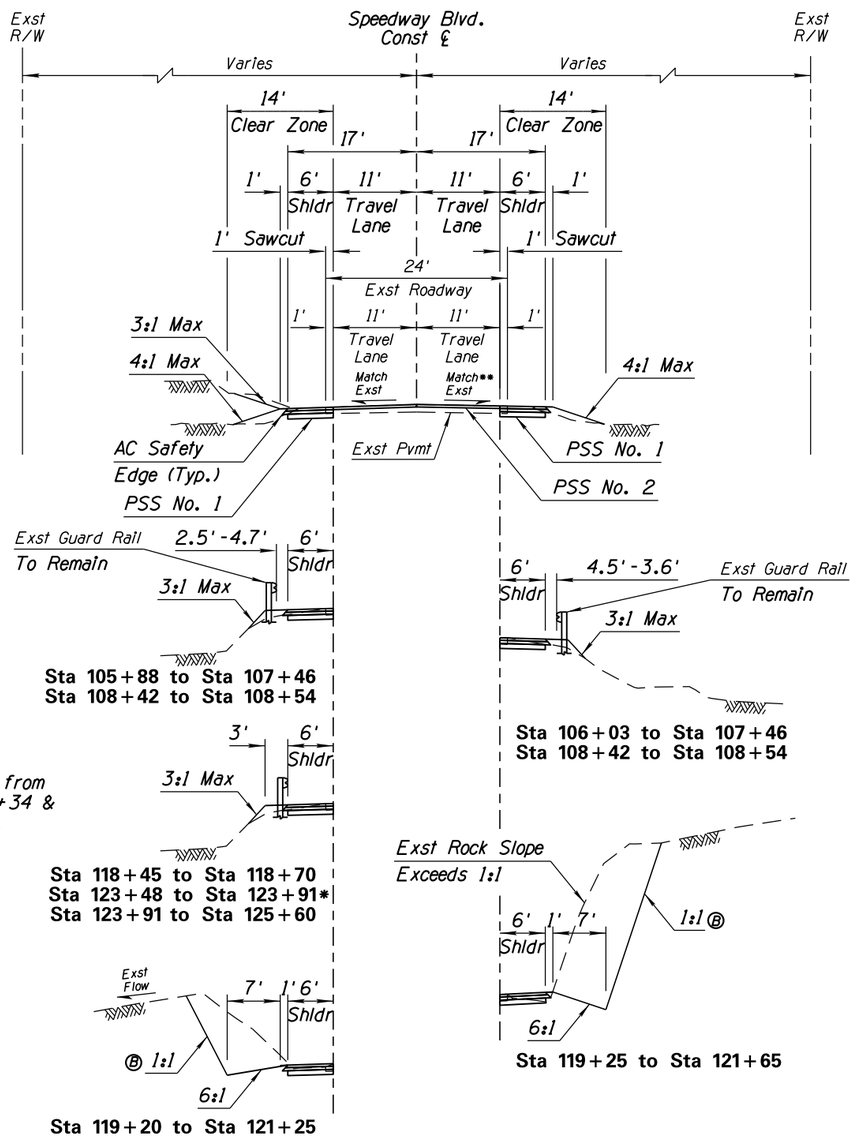
GENERAL NOTES
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet C3 of C3 | Page 3 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_gennotes02.dgn
Wed 13 Feb 2019, 10:26:48

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



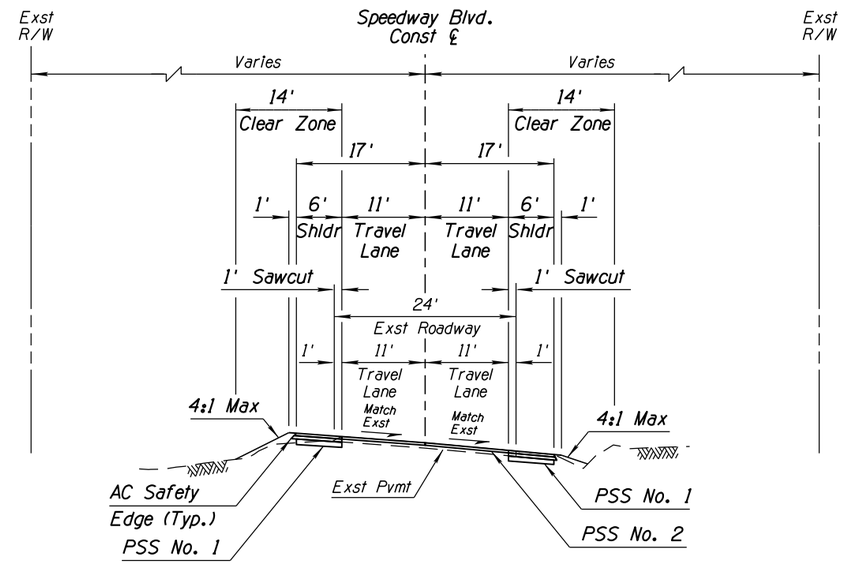
* 2:1 Fill Slope Ⓐ

** Cross slope to the left from Sta 118+45 to Sta 119+34 & Sta 119+76 to 125+60.

SPEEDWAY BOULEVARD

NTS

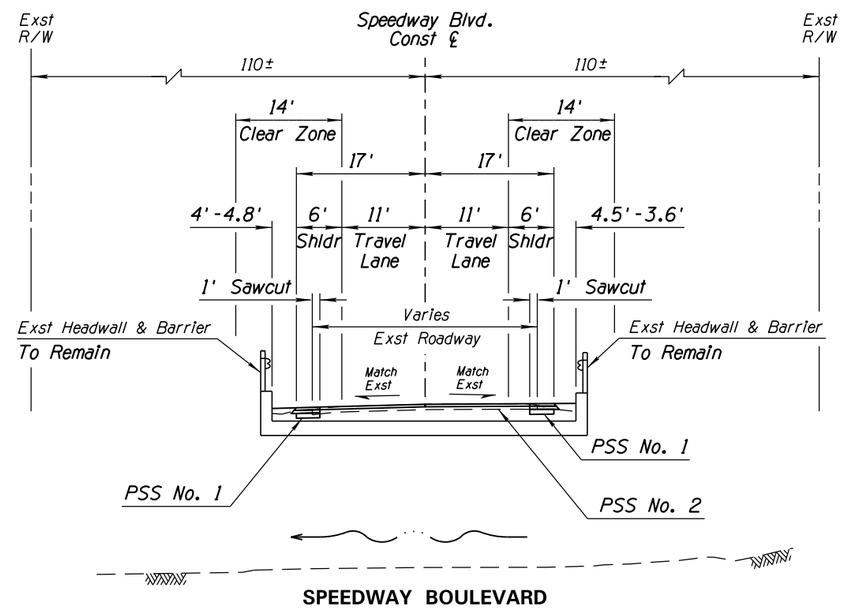
Sta 100+00 to Sta 102+30
Sta 105+79 to Sta 107+46
Sta 108+42 to Sta 108+54
Sta 118+45 to Sta 125+60



SPEEDWAY BOULEVARD

NTS

Sta 102+30 to Sta 105+79



SPEEDWAY BOULEVARD

NTS

Sta 107+46 to Sta 108+42

Notes

1. See Plan & Profile Plans (SS1-SS6 & DW1-DW2) and Driveway Grading Plans (G1-G4) for Final Grade Elevations.

Ⓐ See Detail A for 2:1 Slope with Riprap (Hand Placed).
Ⓑ Rock cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report.
Ⓒ See Detail A for 1.5:1 Slope with Riprap (Hand Placed) (Grouted).

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

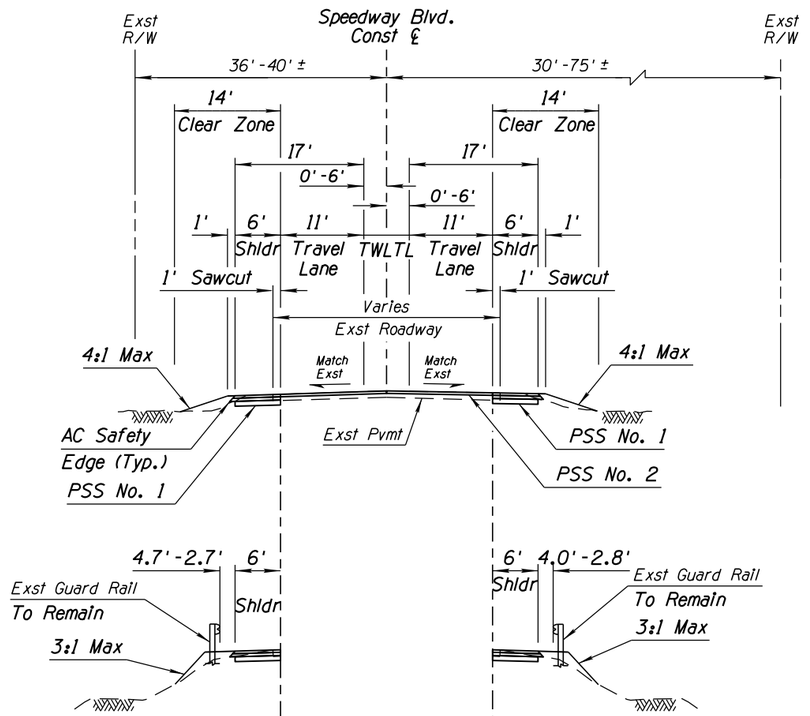
ROADWAY TYPICAL SECTIONS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

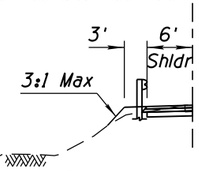
Scale:	NTS	Sheet TY1 of TY5	Page 4 of 95

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

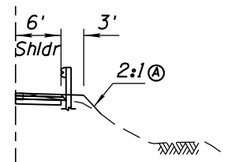


Sta 108+54 to Sta 109+85

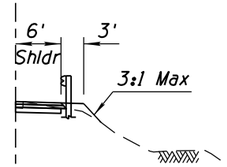
Sta 108+54 to Sta 109+00



Sta 115+45 to Sta 116+25



Sta 114+65 to Sta 115+00

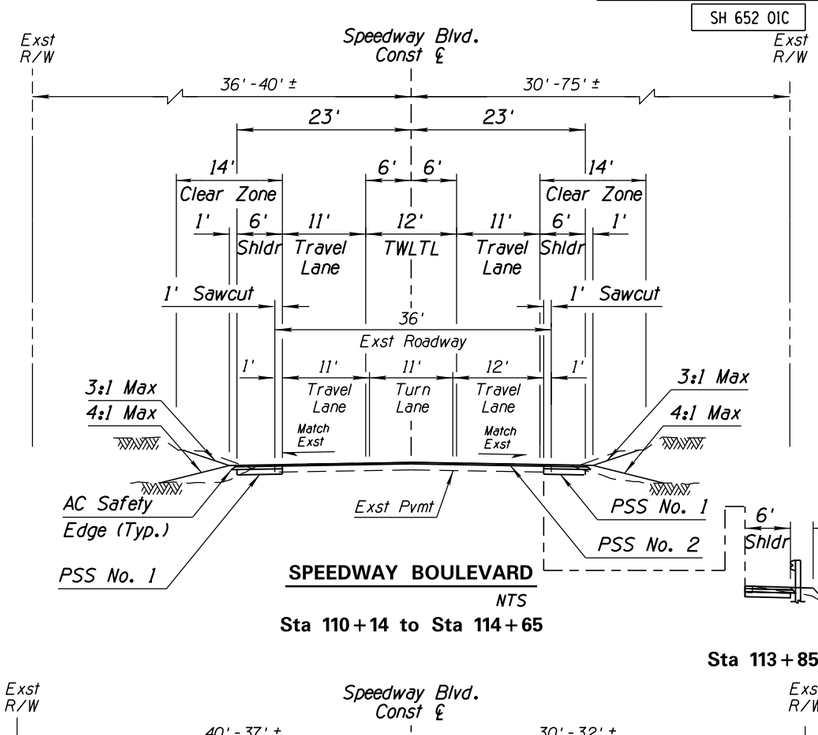


Sta 115+00 to Sta 116+25

SPEEDWAY BOULEVARD

NTS

Sta 108+54 to Sta 110+14
Sta 114+65 to Sta 116+25

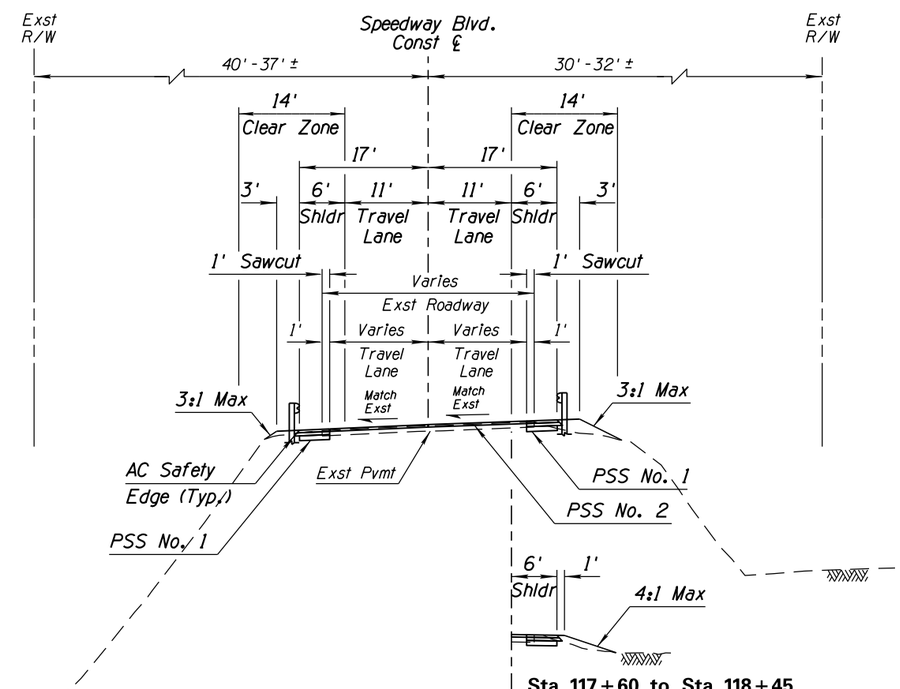


SPEEDWAY BOULEVARD

NTS

Sta 110+14 to Sta 114+65

Sta 113+85 to Sta 114+65



Sta 117+60 to Sta 118+45

SPEEDWAY BOULEVARD

NTS

Sta 116+25 to Sta 118+45

Notes

1. *See Plan & Profile Plans (SS1-SS6 & DW1-DW2) and Driveway Grading Plans (G1-G4) for Final Grade Elevations.*

Ⓐ *See Detail A for 2:1 Slope with Riprap (Hand Placed).*
Ⓑ *Rock cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report.*
Ⓒ *See Detail A for 1.5:1 Slope with Riprap (Hand Placed) (Grouted).*

Scale:	NTS	Sheet TY2 of TY5	Page 5 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1102
Tucson, AZ 85701
TEL: +1 520.882.8424

Pima County Department of Transportation

ROADWAY TYPICAL SECTIONS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

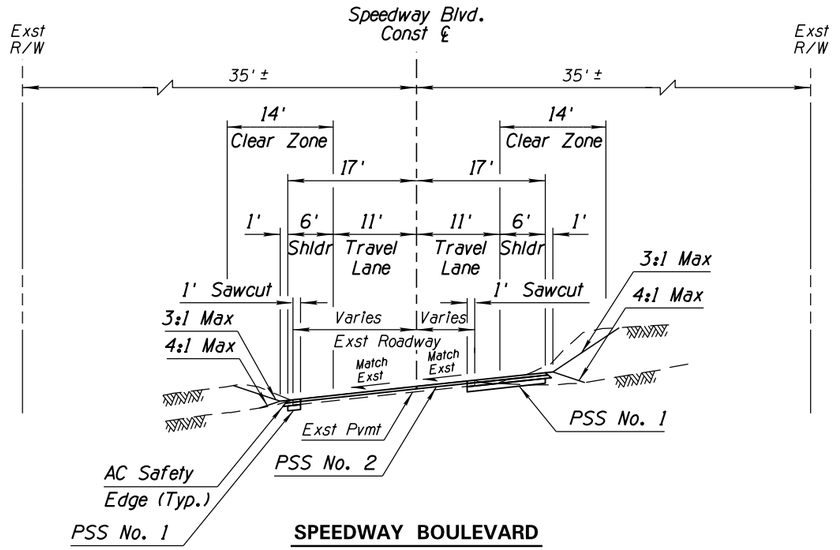
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_Typs02.dgn

Wed 13 Feb 2019, 10:26:59

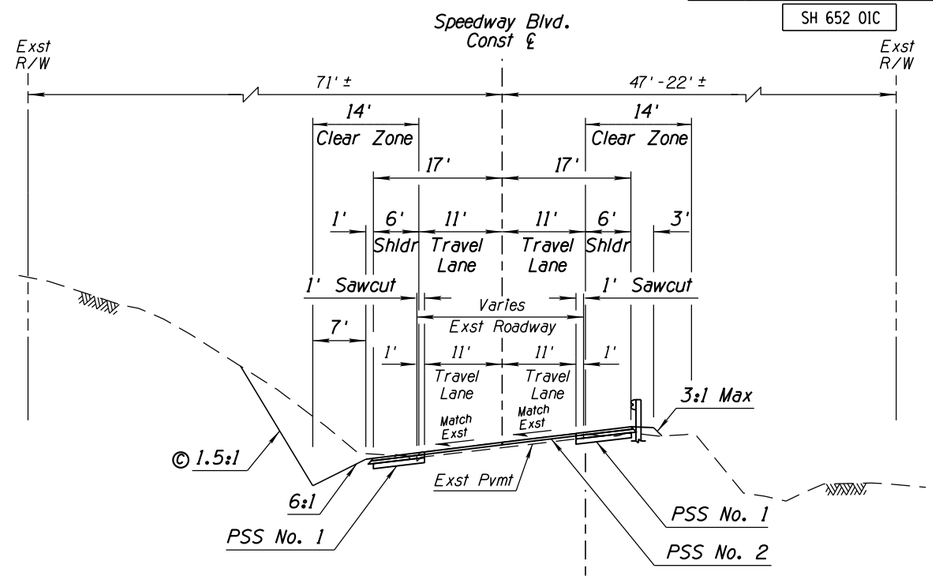
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

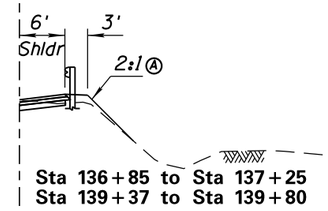


SPEEDWAY BOULEVARD

NTS

Sta 125+60 to Sta 131+70



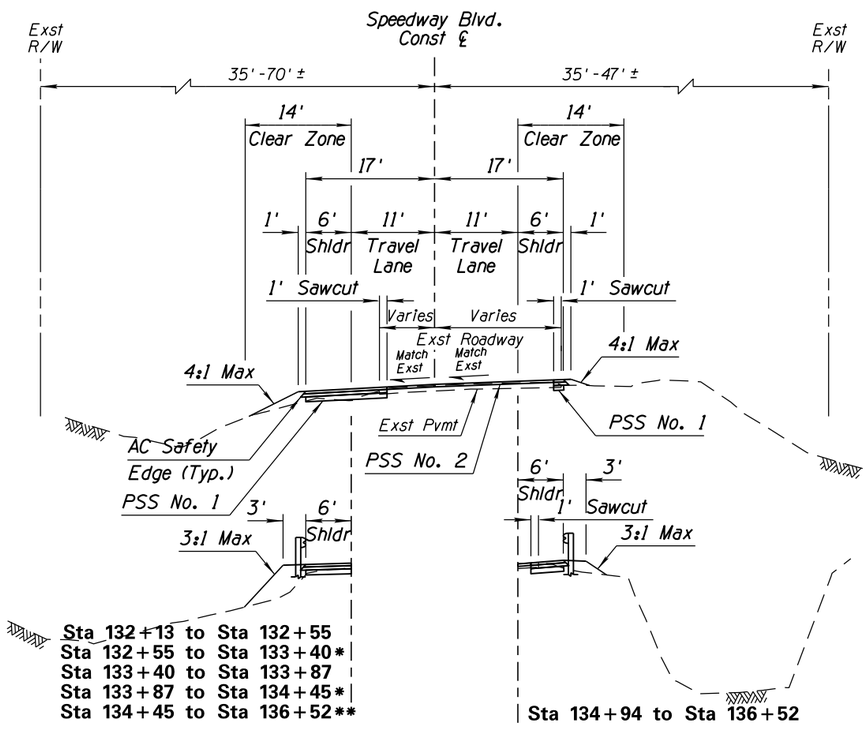


Sta 136+85 to Sta 137+25
Sta 139+37 to Sta 139+80

SPEEDWAY BOULEVARD

NTS

Sta 136+52 to Sta 140+18



Sta 132+13 to Sta 132+55
Sta 132+55 to Sta 133+40*
Sta 133+40 to Sta 133+87
Sta 133+87 to Sta 134+45*
Sta 134+45 to Sta 136+52**

Sta 134+94 to Sta 136+52

SPEEDWAY BOULEVARD

NTS

Sta 131+70 to Sta 136+52

* 2:1 Fill Slope Ⓐ

** Guardrail Ends at Sta 136+75

Notes

1. *See Plan & Profile Plans (SS1-SS6 & DW1-DW2) and Driveway Grading Plans (G1-G4) for Final Grade Elevations.*

Ⓐ *See Detail A for 2:1 Slope with Riprap (Hand Placed).*
Ⓑ *Rock cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report.*
Ⓒ *See Detail A for 1.5:1 Slope with Riprap (Hand Placed) (Grouted).*

Scale:	NTS	Sheet TY3 of TY5	Page 6 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

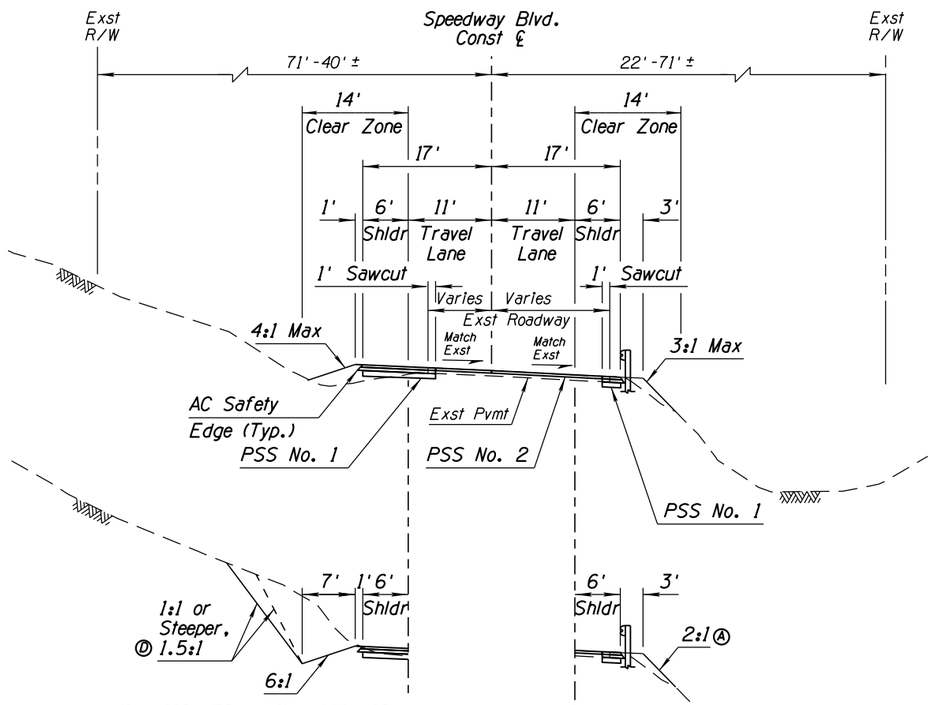
Pima County Department of Transportation

ROADWAY TYPICAL SECTIONS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

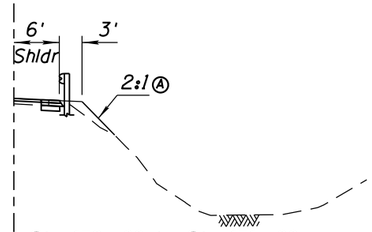
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

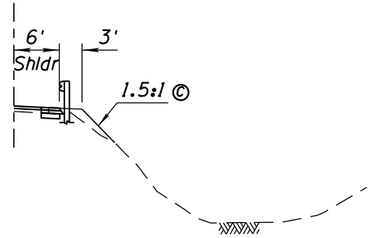
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



Sta 143+56 to Sta 144+43
Sta 144+81 to Sta 150+36
Sta 151+07 to Sta 153+00



Sta 150+60 to Sta 151+00

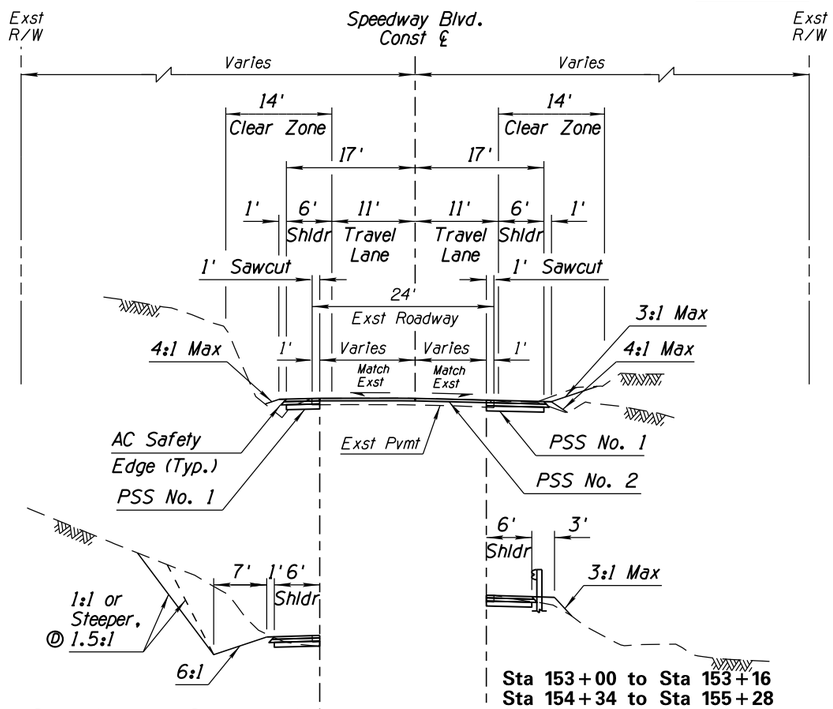


Sta 142+45 to Sta 142+93
Sta 145+15 to Sta 146+27

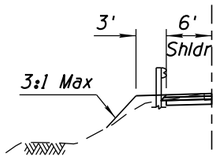
SPEEDWAY BOULEVARD

NTS

Sta 140+18 to Sta 153+00

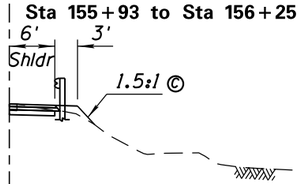


Sta 153+00 to Sta 155+62

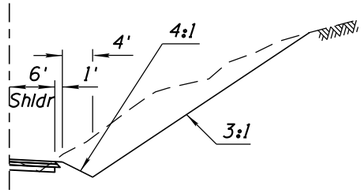


Sta 155+72 to Sta 156+25
Sta 168+50 to Sta 171+50

Sta 153+00 to Sta 153+16
Sta 154+34 to Sta 155+28
Sta 155+93 to Sta 156+25



Sta 155+28 to Sta 155+93



Sta 167+15 to Sta 168+66

SPEEDWAY BOULEVARD

NTS

Sta 153+00 to Sta 156+25
Sta 165+00 to Sta 177+90

Notes

1. See Plan & Profile Plans (SS1-SS6 & DW1-DW2) and Driveway Grading Plans (G1-G4) for Final Grade Elevations.

Ⓐ See Detail A for 2:1 Slope with Riprap (Hand Placed).
Ⓑ Rock cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report.
Ⓒ See Detail A for 1.5:1 Slope with Riprap (Hand Placed) (Grouted).
Ⓓ Rock Cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report. If not possible per Contractor's Evaluation, use 1.5:1 Slope with Riprap (Hand Placed)(Grouted) per Detail A.

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

ROADWAY TYPICAL SECTIONS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

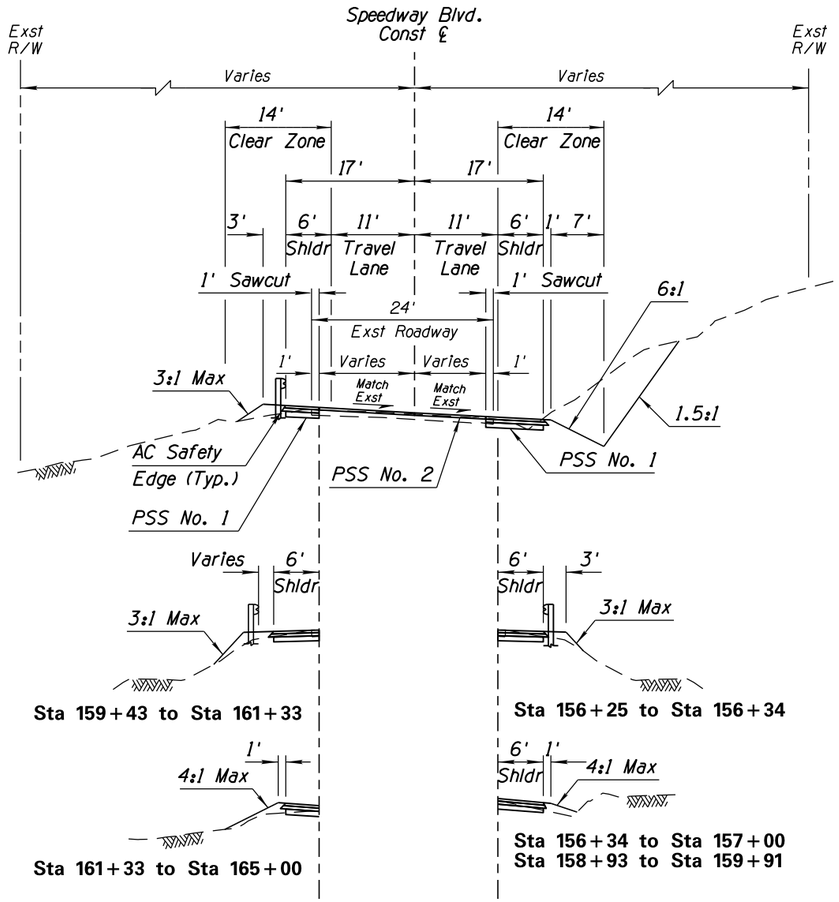
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet TY4 of TY5	Page 7 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_Typs04.dgn

Wed 13 Feb 2019, 10:27:09

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



Sta 159+43 to Sta 161+33

Sta 156+25 to Sta 156+34

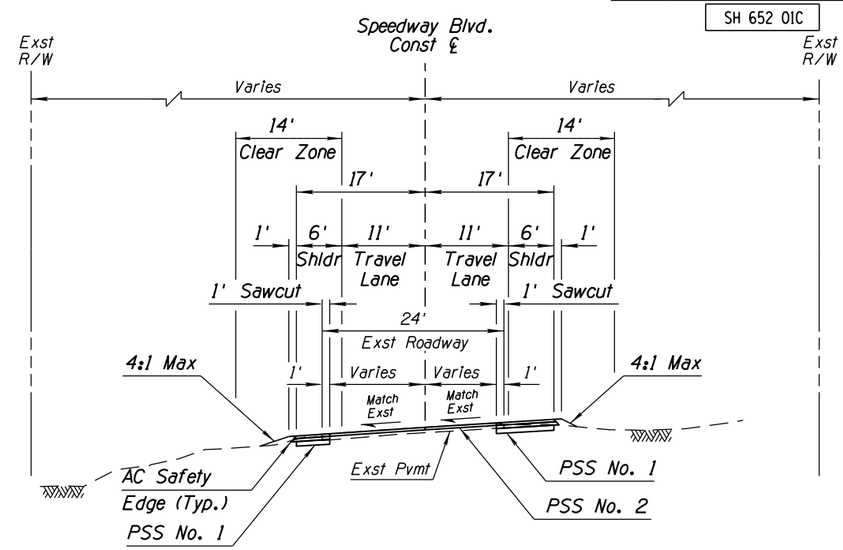
Sta 161+33 to Sta 165+00

Sta 156+34 to Sta 157+00
Sta 158+93 to Sta 159+91

SPEEDWAY BOULEVARD

NTS

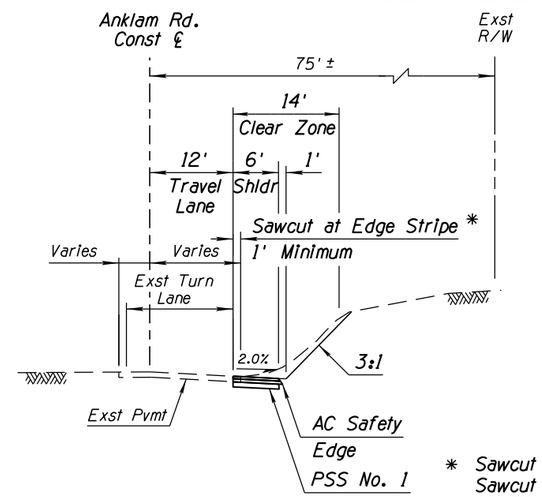
Sta 156+25 to Sta 165+00



SPEEDWAY BOULEVARD

NTS

Sta 177+90 to Sta 187+49



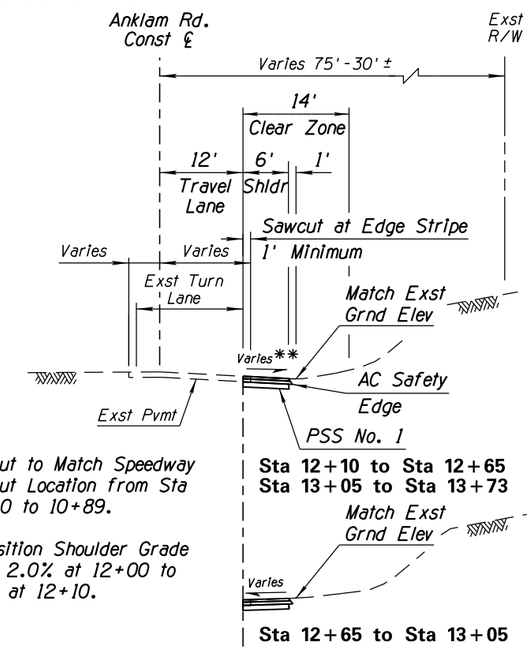
ANKLAM ROAD
EB to SB RIGHT TURN

NTS

Sta 10+50 to Sta 12+10

* Sawcut to Match Speedway Sawcut Location from Sta 10+50 to 10+89.

** Transition Shoulder Grade from 2.0% at 12+00 to 1.8% at 12+10.



Sta 12+10 to Sta 12+65
Sta 13+05 to Sta 13+73

Sta 12+65 to Sta 13+05

ANKLAM ROAD
EB to SB RIGHT TURN

NTS

Sta 12+10 to Sta 13+73

Notes

1. See Plan & Profile Plans (SS1-SS6 & DW1-DW2) and Driveway Grading Plans (G1-G4) for Final Grade Elevations.

Ⓐ See Detail A for 2:1 Slope with Riprap (Hand Placed).
Ⓑ Rock cut at 1:1 or Steeper, Rough Cut, per Geotechnical Report.
Ⓒ See Detail A for 1.5:1 Slope with Riprap (Hand Placed) (Grouted).

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

Ana M. Olivares, P.E., Director

FINAL PS&E
NOT FOR CONSTRUCTION
PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1102
Tucson, AZ 85701
TEL: +1 520.892.6424

Pima County Department of Transportation

ROADWAY TYPICAL SECTIONS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

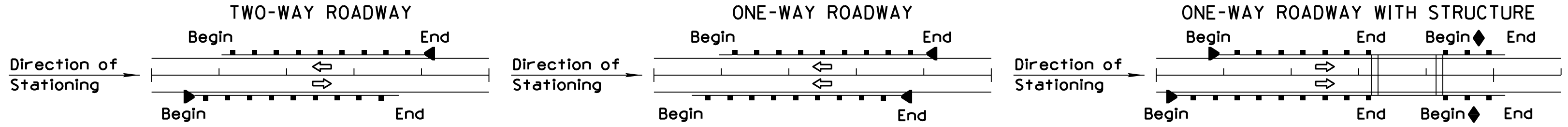
Scale:	NTS	Sheet TY5 of TY5	Page 8 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_Typs05.dgn

Wed 13 Feb 2019, 10:27:14

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C



LOCATION				BARRIER																									TRANSITION										END TREATMENT											REMARKS
				NEW GUARDRAIL				▼				CONCRETE BARRIER														CABLE			RAIL (Each)			CONCRETE BARRIER (Each)							Action					Each ◪							
Beginning Station (Approximate) (0)	Plan Reference Number	Type "A" C-10.01, Type "B" C-10.02	Detail	C-10.03 (Timber) Length (Linear Feet) (0.0)	C-10.06 Nested W-Beam ▲ Length (Linear Feet) (0.0)	C-10.07 Bolted Anchor (Each)	Shop Curved Guardrail Length (Linear Feet) (0.0)					C-10.40 (32" Median)	C-10.41 (42" Median)	C-10.50 (32" Half)	C-10.51 (32" Half w/ Sidewalk)	C-10.52 (32" Half w/ Gutter) △	C-10.53 (42" Half w/ Gutter) △	C-10.54 (32" Half at Piers)	C-10.55 (42" Half at Piers)	Bridge Barrier ◒ SD 1.01	Bridge Barrier ◒ SD 1.02	Detail C	Detail R	Detail U	Length (Linear Feet) (0.0)	High-Tension Cable Barrier ● Length (Linear Feet) (0.0)	C-12.30 Chain-Link Cable Length (Linear Feet) (0.0)	Begin = Treatment at Beginning End = Treatment at End	C-10.30 Thrie Beam	Bridge Thrie Beam SD 1.03 ◒	Reconstruct Rub Rail	C-10.70 32" or C-10.72 42" *	C-10.71 32" or C-10.73 42" △	C-10.74 42" to 32"	C-10.75 32" to C&G ◊	Detail I or Detail J	Bridge Barrier ◒	Detail S or Detail T	New	Reconstruct (See Special Prv)	Remove and Salvage ET	Construct from Salvage	Attach to Exst Conc Barrier	Tangent MSKT ◧	Flared SRT-350 or FLEAT-350 ◧	End Anchor C-10.08 or Detail	High-Tension Cable Terminal	Sand Barrels C-1 or Detail ■	Attenuator Detail	Quadguard	
Speedway Blvd Cst ℄ 114+00.17 Rt	1			261.5	25.0																							Begin																X							
																												End																		X					
Speedway Blvd Cst ℄ 115+49.60 Lt	2			211.5	25.0																							Begin																		X					
																												End																X							
Speedway Blvd Cst ℄ 123+52.10 Lt	3			124.0																								Begin																		X					
																												End																X							
Speedway Blvd Cst ℄ 132+17.10 Lt	4			349.0	25.0																							Begin																		X					
																												End																X							
Speedway Blvd Cst ℄ 135+09.17 Rt	5			1386.5	50.0																							Begin																X							
																												End																		X					
Speedway Blvd Cst ℄ 150+47.27 Rt	6			199.5			35.0																					Begin																		X					GUARDRAIL RADIUS AT RETURN = 15'.
																												End																		X					
Speedway Blvd Cst ℄ 154+49.17 Rt	7			86.5	25.0																							Begin																X							
																												End																		X					
Speedway Blvd Cst ℄ 155+76.16 Rt	8			234.5	25.0		37.5																					Begin																		X					GUARDRAIL RADIUS AT RETURN = 20'.
																												End																		X					
Speedway Blvd Cst ℄ 168+54.60 Rt	9			211.5																								Begin																		X					
																												End																X							
																												Begin																							
																												End																							
																												Begin																							
																												End																							
																												Begin																							
																												End																							
																												Begin																							
																												End																							
																												Begin																							
																												End																							
Sheet Total				3064.5	175		72.5																																					7		11					

THE ZEROS IN PARENTHESES (0.0) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN

▲ THE LENGTH OF NESTED W-BEAM IS FOR TYPES 2 OR 3 (37.5'). DETERMINATION OF TYPE (1, 2 or 3) TO USE IS MADE IN THE FIELD. THE PAY QUANTITY IS THE LENGTH INSTALLED PER STD. C-10.06 (25.0' or 37.5').

△ SPECIFY GUTTER WIDTH UNDER "REMARKS"

◆ BEGIN STATION AFTER BRIDGE TRANSITION

◒ SEE ADOT STRUCTURE DETAIL (SD) DRAWINGS

● LENGTH IS FROM LENGTH OF NEED (LON) POINT TO LON POINT. ACTUAL SEGMENT LENGTH VARIES DEPENDING ON TERMINAL TYPE. SEE SPECIAL PROVISIONS.

* THE OPTIONAL CONSTRUCTION JOINT PER C-10.70 SHEET 3 OF 3 IS REQUIRED

◊ SPECIFY TYPE 1 OR 2 UNDER 'REMARKS'

◪ ALLOWABLE END TREATMENT OPTIONS ARE INDICATED WITH THE NUMBER '1' IN THE SPACE. BLANK SPACES ARE NOT VIABLE ALTERNATIVES.

■ ARRAY TYPE AND ANGLE IS NOTED UNDER 'REMARKS'

◧ NOTE: FOR AS-BUILT PREPARATION - CIRCLE END TREATMENT INSTALLED

▼ SEE DEMOLITION PLANS FOR REMOVAL OF EXISTING GUARDRAIL

REV. DATE: 11/02/2009

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Data\4HSBSP_bsum01.dgn

Wed 13 Feb 2019, 10:27:20

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPG	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: + 1 520.882.6424

Call at least two full working days before you begin excavation. ARIZONA811 Arizona Blue Stake, Inc. Dial 8-1-1 or 1-800-STAKE-IT (782-5348) In Maricopa County: (602) 263-1100

Pima County Department of Transportation

BARRIER SUMMARY SHEET
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

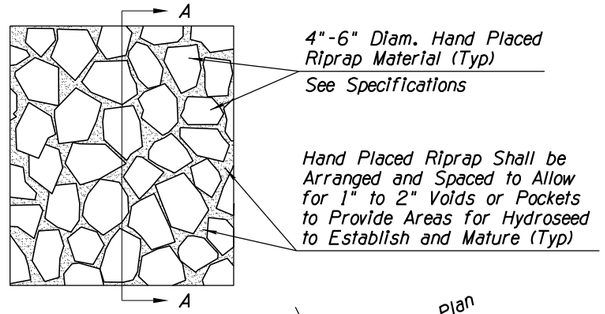
Scale: 1"=40' Horiz. | Sheet B1 of B1 |

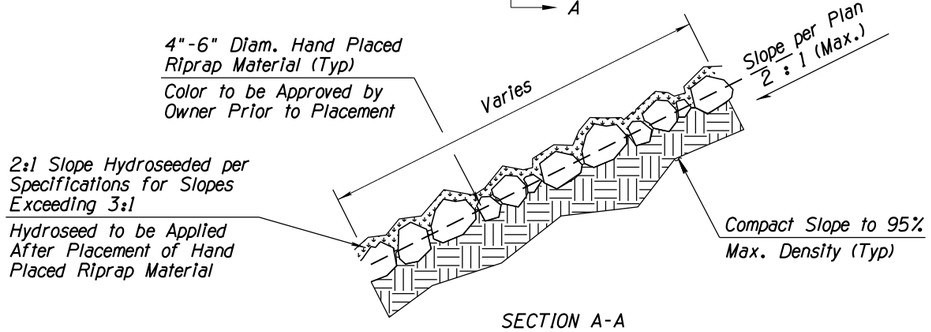
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

RIPRAP (HAND PLACED) SLOPE STABILIZATION:
PAY ITEM 9130001, RIPRAP (HAND PLACED)
PAY ITEM 8050004, SEEDING (CLASS II)
PAY ITEM 8050009, SEEDING (CLASS II) (2ND APPLICATION)

Notes:

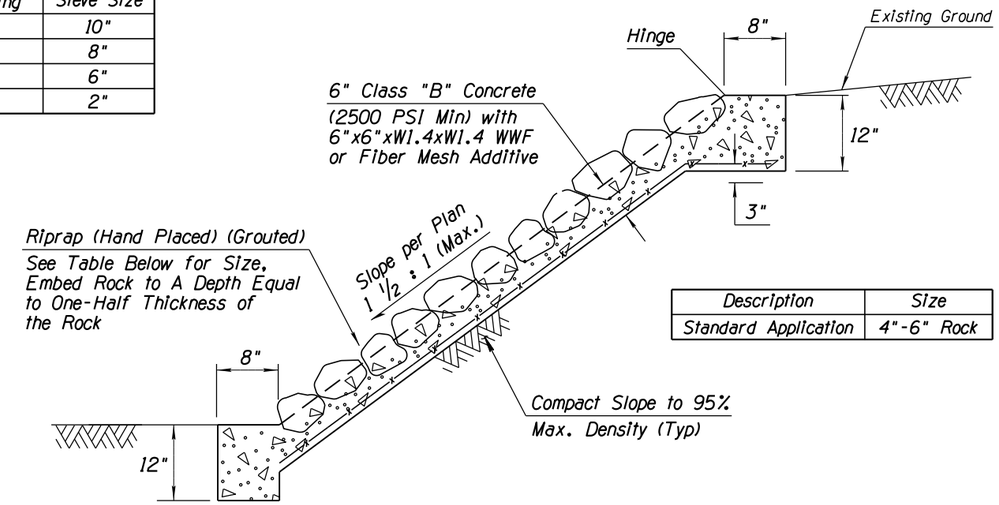
1. No Pre-Emergent Herbicides to be Used in Seeded Areas.
2. Ground Surface to be Prepared for Class II Seeding. See Special Provisions Section 805.
3. Seeding to be Applied After Application of Hand Placed Riprap.
4. Hydroseed Slurry Mix for Hand Placed Riprap Slope Stabilization Areas Shall Consist of Seed, Compost, and Water. See Specifications.





SECTION A-A

Riprap Gradation, D_{50}=6"	
% Passing	Sieve Size
100	10"
85	8"
50	6"
15	2"

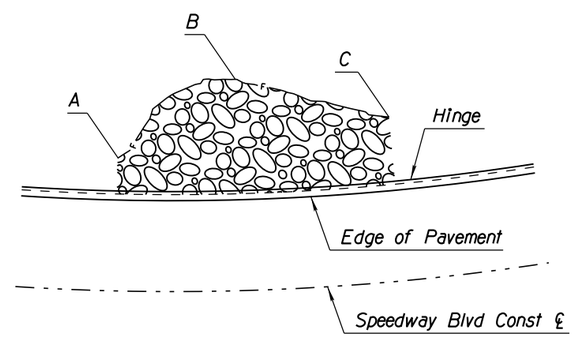


Description	Size
Standard Application	4"-6" Rock

RIPRAP (HAND PLACED) DATA								
	A		B		C			
ID.	STA	OFFSET	STA	OFFSET	STA	OFFSET	AREA (SF)	VOL (CY)
1	114+65	29' Rt	114+82	28' Rt	115+00	27' Rt	158	3
2	123+91	22' Lt	124+00	31' Lt	124+37	21' Lt	305	6
3	132+55	21' Lt	132+95	30' Lt	133+40	23' Lt	929	17
4	133+87	23' Lt	134+15	28' Lt	134+45	23' Lt	447	8
5	136+85	22' Rt	137+15	26' Rt	137+25	23' Rt	181	3
6	139+37	22' Rt	139+60	21' Rt	139+80	21' Rt	114	2
7	150+60	45' Rt	150+82	47' Rt	151+00	42' Rt	958	18

RIPRAP (HAND PLACED) (GROUTED) DATA								
	A		B		C			
ID.	STA	OFFSET	STA	OFFSET	STA	OFFSET	AREA (SF)	AREA (SY)
1	136+52	29' Lt	137+10	49' Lt	140+19	29' Lt	3494	388
2	142+45	25' Rt	142+65	30' Rt	142+93	25' Rt	411	46
3	145+15	20' Rt	146+16	43' Rt	146+27	23' Rt	875	97
4	149+80	44' Rt	150+00	29' Rt	150+20	38' Rt	678	75
5	151+07	25' Lt	151+75	40' Lt	153+89	29' Lt	3225	358
6	154+03	29' Lt	154+42	38' Lt	155+62	25' Lt	1650	183
7	155+28	24' Rt	155+65	33' Rt	155+93	20' Rt	867	96
8	157+01	23' Rt	158+36	37' Rt	158+93	37' Rt	2254	250
9	159+91	29' Rt	161+28	37' Rt	163+43	21' Rt	2505	278

9 **RIPRAP (HAND PLACED) SLOPE PROTECTION**
PAID AS BID ITEM #9130001 NTS



10 **RIPRAP (HAND PLACED) (GROUTED)**
PAID AS BID ITEM #9130009 NTS

General Notes:

1. The locations of these treatments will be verified by geotechnical information or field observation in coordination with Pima County.

DETAIL A
SHEET 1 OF 2

Scale:	AS NOTED	Sheet DT1 of DT5	Page 10 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

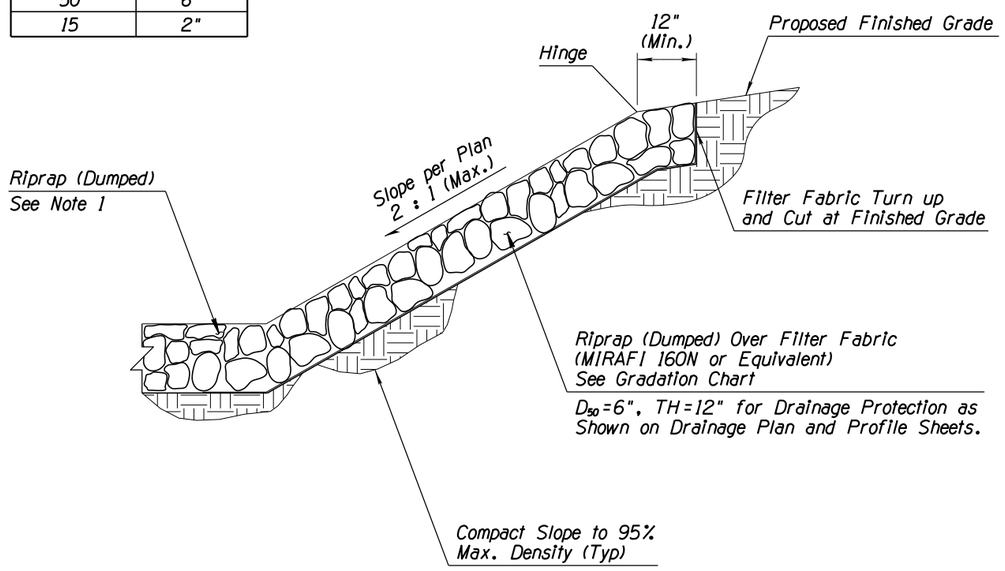
Pima County Department of Transportation

DETAIL SHEET
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Riprap Gradation, D_{50}=6"	
% Passing	Sieve Size
100	10"
85	8"
50	6"
15	2"



RIPRAP (DUMPED) DRAINAGE PROTECTION

PAID AS BID ITEM #9130001 NTS

Notes:

1. See Drainage Plan and Profile Sheets DR01-DR03 for the locations of this treatment and associated material quantities.

DETAIL A

SHEET 2 OF 2

Scale:	AS NOTED	Sheet DT2 of DT5	Page 11 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.8424

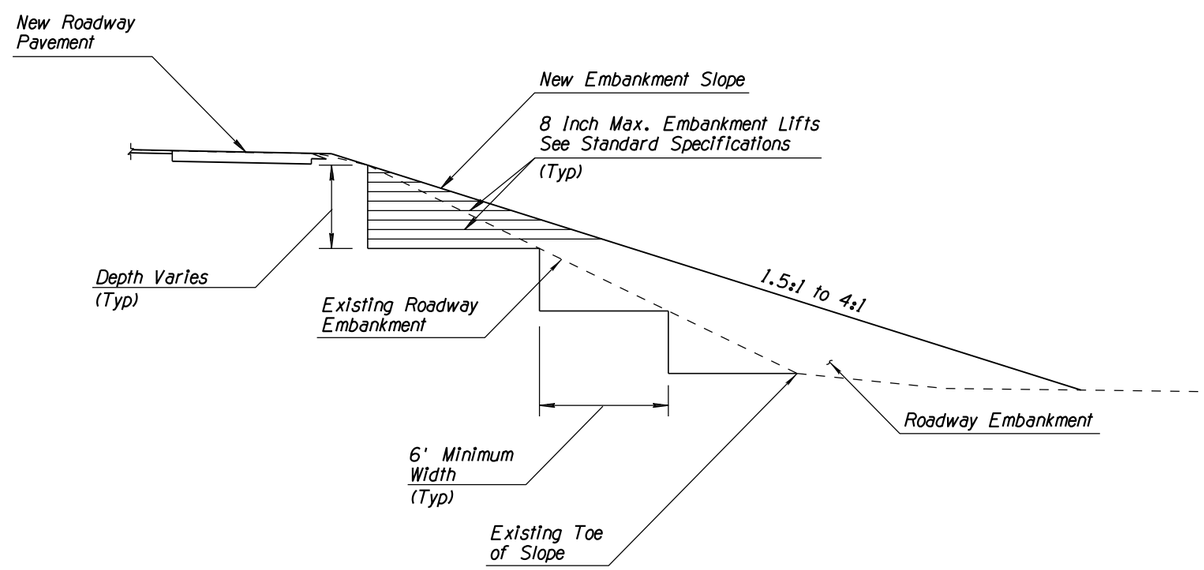
Pima County Department of Transportation

DETAIL SHEET
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



Notes:

1. See Section 203-9.03 of the Standard Specifications for Additional Construction Requirements.
2. There Shall Be No Separate Bid Item nor Payments for Fill Slope Benching.

DETAIL B

FILL SLOPE BENCHING

Scale:	NTS	Sheet DT3 of DT5	Page 12 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

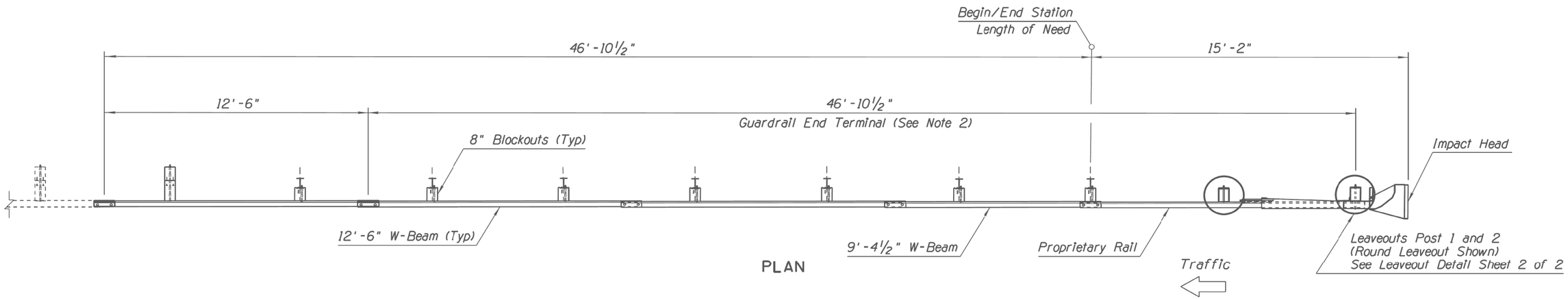
DETAIL SHEET
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

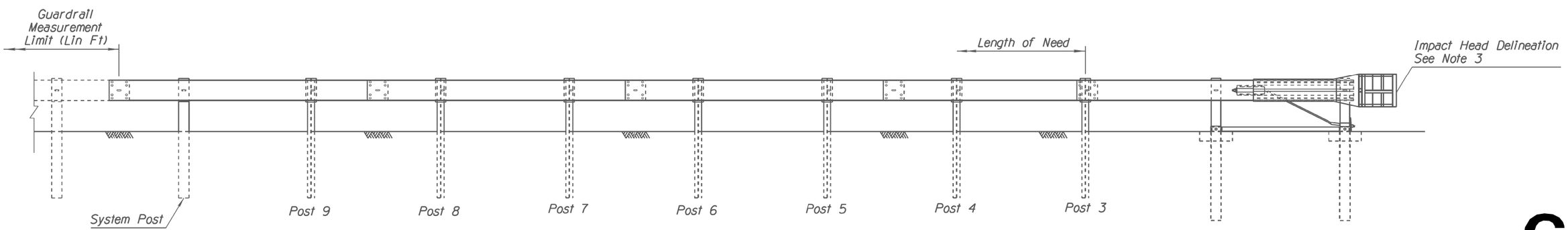
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

GENERAL NOTES

1. This drawing is for roadway layout only.
2. The MSKT shall be installed in accordance with the manufacturer's specifications and current approved drawing including all details, hardware, hardware quantities, and other information. The current manufacturer's approved drawing number is MSKT-SP-MGS8. Visit the Roadway Engineering web site to view the manufacturer's drawing.
3. See specifications and Traffic Signing and Marking Standard Drawings.
4. Posts 3 - 9 shall be steel line posts. Posts 1 and 2 are proprietary.
5. No rigid objects are allowed within the terminal pad footprint.



PLAN



ELEVATION

DETAIL C

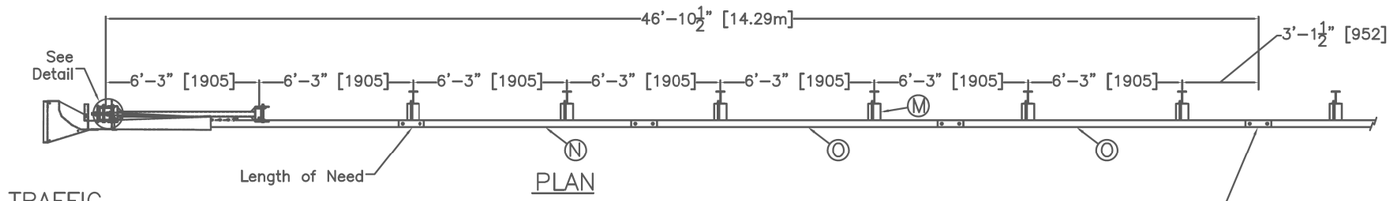
SHEET 1 OF 2
GUARDRAIL END TERMINAL PAD
LAYOUT FOR MSKT ADOT C-10.21

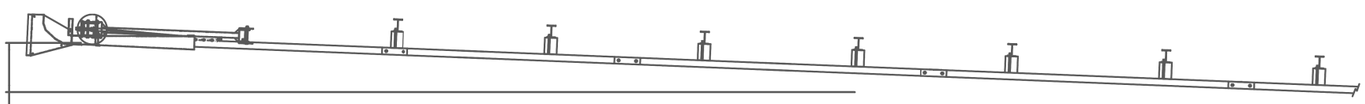
Note to Designer:
The information presented in this Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

PRIOR DISTRIBUTION DATE

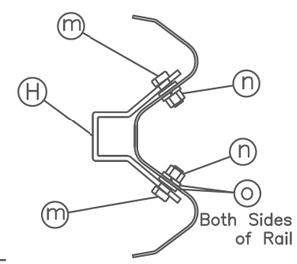
STANDARDS ENGINEER J. C. COOPER RECOMMENDED FOR APPROVAL GROUP MANAGER D. R. HENRY APPROVED STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION 12/17 DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP STANDARD DRAWING
	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
	DRAWING NO. C-10.21

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

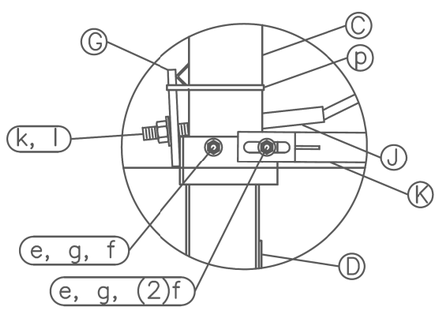




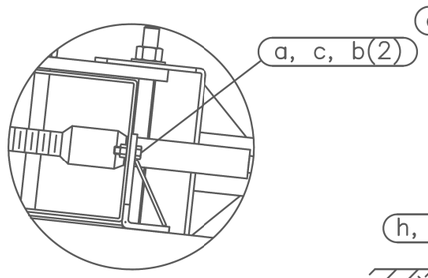
OPTIONAL FLARED INSTALLATION
25:1 maximum flare rate



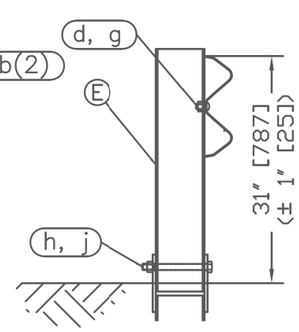
SECTION B–B
Anchor Bracket



Post #1 Connection Detail



Impact Head Connection Detail



SECTION A–A
Post #2

ITEM	QTY	BILL OF MATERIALS	ITEM NO.
A	1	IMPACT HEAD	MS3000
B	1	W–BEAM GUARDRAIL END SECTION, 12 Ga.	SF1303
C	1	FIRST POST TOP (6X6X⅛" Tube)	MTPHP1A
D	1	FIRST POST BOTTOM (6' W6X15)	MTPHP1B
E	1	SECOND POST ASSEMBLY TOP	UHP2A
F	1	SECOND POST ASSEMBLY BOTTOM	HP2B
G	1	BEARING PLATE	E750
H	1	CABLE ANCHOR BOX	S760
J	1	BCT CABLE ANCHOR ASSEMBLY	E770
K	1	STRUT	MS785
L	6	6x9 (6x8.5) STEEL POST	P621
M	6	RECYCLED PLASTIC BLOCK OR EQUIV.	CBSP–14
N	1	W–BEAM MGS RAIL SECTION (9'–4 1/2")	G12025
O	2	W–BEAM MGS RAIL SECTION (12'–6")	G1203A
		HARDWARE (ALL DIMENSIONS IN INCHES)	
a	2	5/16 x 1 HEX BOLT GRD 5	B5160104A
b	4	5/16 WASHER	W0516
c	2	5/16 HEX NUT	N0516
d	25	5/8 Dia. x 1 1/4 SPLICE BOLT (POST #2)	B580122
e	2	5/8 Dia. x 9 HEX BOLT A449	B580904A
f	3	5/8 WASHER	W050
g	33	5/8 Dia. H.G.R NUT	N050
h	1	3/4 Dia. x 8 1/2 HEX BOLT GRD A449	B340854A
j	1	3/4 Dia. HEX NUT	N030
k	2	1 ANCHOR CABLE HEX NUT	N100
l	2	1 ANCHOR CABLE WASHER	W100
m	8	1/2 RSI SHOULDER BOLT W/WASHER	SB12A
n	8	1/2 STRUCTURAL NUT	N012A
o	8	1/2 STRUCTURAL WASHER	W012A
p	1	BEARING PLATE RETAINER TIE	CT–100ST
q	6	5/8" x 10" H.G.R. BOLT	B581002

GENERAL NOTES:
1. All bolts, nuts, cable assemblies, cable anchors and bearing plates shall be galvanized.
2. The lower sections of the Posts 1&2 shall not protrude more than 4 in [100] above the ground (measured along a 5' [1.5m] cord longitudinal to the system). Site grading may be necessary to meet this requirement.
3. The lower section of the hinged post should not be driven with the upper post attached. If the post is placed in a drilled hole, the backfill material must be satisfactorily compacted to prevent settlement.
4. When competent rock is encountered, a 12" [300] Ø post hole, 20 in. [500] deep cored into the rock surface may be used if approved by the engineer for Posts 1 and/or 2. Granular material will be placed in the bottom of the hole, approximately 2.5" [60] deep to provide drainage. The first and/or second post can be field cut to length, placed in the hole and backfilled with suitable backfill. The soil plate may be trimmed if required.
5. The breakaway cable assembly must be taut. A locking device (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening nuts.

R-SI Road Systems, Inc.
Big Spring, TX
Phone: 432-263-2435
or Phone: 330-346-0721

MSKT-SP-MGS Terminal (8" Blocks) Test Level 3

Sheet:	Date:	By:
1	05/20/17	JRR

Drawing Name:	Scale:	Rev:
MSKT-SP-MGS8	None	0

DETAIL C

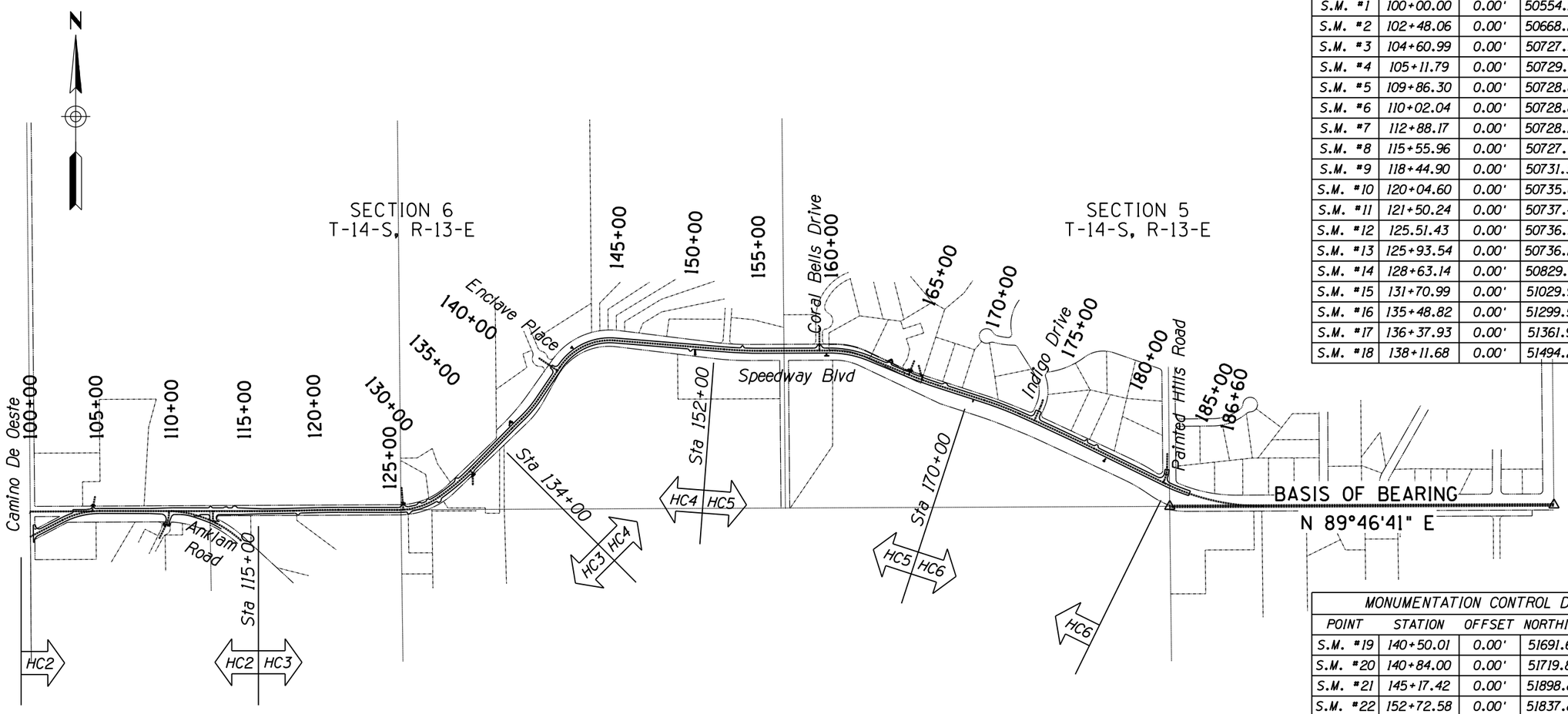
SHEET 2 OF 2
MSKT-SP-MGS TERMINAL

Scale:	NTS	Sheet DT5 of DT5	Page 14 of 95

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

MONUMENTATION CONTROL DATA				
POINT	STATION	OFFSET	NORTHING	EASTING
S.M. #1	100+00.00	0.00'	50554.25	64163.65
S.M. #2	102+48.06	0.00'	50668.25	64383.97
S.M. #3	104+60.99	0.00'	50727.54	64587.09
S.M. #4	105+11.79	0.00'	50729.78	64637.82
S.M. #5	109+86.30	0.00'	50728.85	65112.33
S.M. #6	110+02.04	0.00'	50728.82	65128.07
S.M. #7	112+88.17	0.00'	50728.25	65414.20
S.M. #8	115+55.96	0.00'	50727.72	65681.99
S.M. #9	118+44.90	0.00'	50731.33	65970.90
S.M. #10	120+04.60	0.00'	50735.63	66130.54
S.M. #11	121+50.24	0.00'	50737.43	66276.16
S.M. #12	125.51.43	0.00'	50736.55	66677.35
S.M. #13	125+93.54	0.00'	50736.23	66719.42
S.M. #14	128+63.14	0.00'	50829.96	66969.47
S.M. #15	131+70.99	0.00'	51029.90	67203.05
S.M. #16	135+48.82	0.00'	51299.53	67467.73
S.M. #17	136+37.93	0.00'	51361.99	67531.27
S.M. #18	138+11.68	0.00'	51494.27	67643.40



Horizontal Control Index
NTS

MONUMENTATION CONTROL DATA				
POINT	STATION	OFFSET	NORTHING	EASTING
S.M. #19	140+50.01	0.00'	51691.69	67776.91
S.M. #20	140+84.00	0.00'	51719.85	67795.95
S.M. #21	145+17.42	0.00'	51898.84	68168.72
S.M. #22	152+72.58	0.00'	51837.80	68921.42
S.M. #23	155+25.69	0.00'	51828.00	69174.26
S.M. #24	159+24.47	0.00'	51829.38	69573.03
S.M. #25	159+95.43	0.00'	51829.62	69644.00
S.M. #26	162+73.33	0.00'	51776.12	69914.84
S.M. #27	165+35.84	0.00'	51675.46	70157.29
S.M. #28	167+78.92	0.00'	51591.44	70385.31
S.M. #29	171+15.54	0.00'	51487.94	70705.62
S.M. #30	173+69.58	0.00'	51397.20	70942.78
S.M. #31	173+77.41	0.00'	51394.02	70949.94
S.M. #32	174+83.74	0.00'	51350.48	71046.94
S.M. #33	179+37.11	0.00'	51157.14	71457.00
S.M. #34	184+64.33	0.00'	50925.13	71930.43
S.M. #35	184+83.78	0.00'	50916.57	71947.89
S.M. #36	191+73.10	0.00'	50763.53	72613.80

MONUMENTATION CONTROL DATA				
POINT	STATION	OFFSET	NORTHING	EASTING
R/W #1	159+91.13	43.39'LT	51873.00	69639.55
R/W #2	160+26.06	44.15'LT	51873.17	69676.40
R/W #3	162+41.81	38.67'LT	51823.89	69898.67
R/W #4	162+79.94	35.99'LT	51806.83	69934.75
R/W #5	165+15.96	24.77'LT	51705.95	70148.42
R/W #6	165+28.48	24.17'LT	51700.61	70159.75
R/W #7	166+62.44	32.17'LT	51659.60	70286.27

PROPERTY CORNER RESET DATA				
POINT	STATION	OFFSET	NORTHING	EASTING
P.M. #1	100+17.55	31.63'RT	50534.22	64193.78
P.M. #2	113+14.04	50.57'RT	50677.63	65439.97
P.M. #3	113+23.36	31.63'RT	50696.55	65449.33

1. See Sheet C2 for Basis of Bearing for this Project.
2. See Sheet C2 for Basis of Elevation for this Project.
3. See Sheet C2 for Basis of Coordinates for this Project.

Ana M. Olivares, P.E., Director

Designed	FF	Date 2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: + 1 520.882.6424

Pima County Department of Transportation

HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

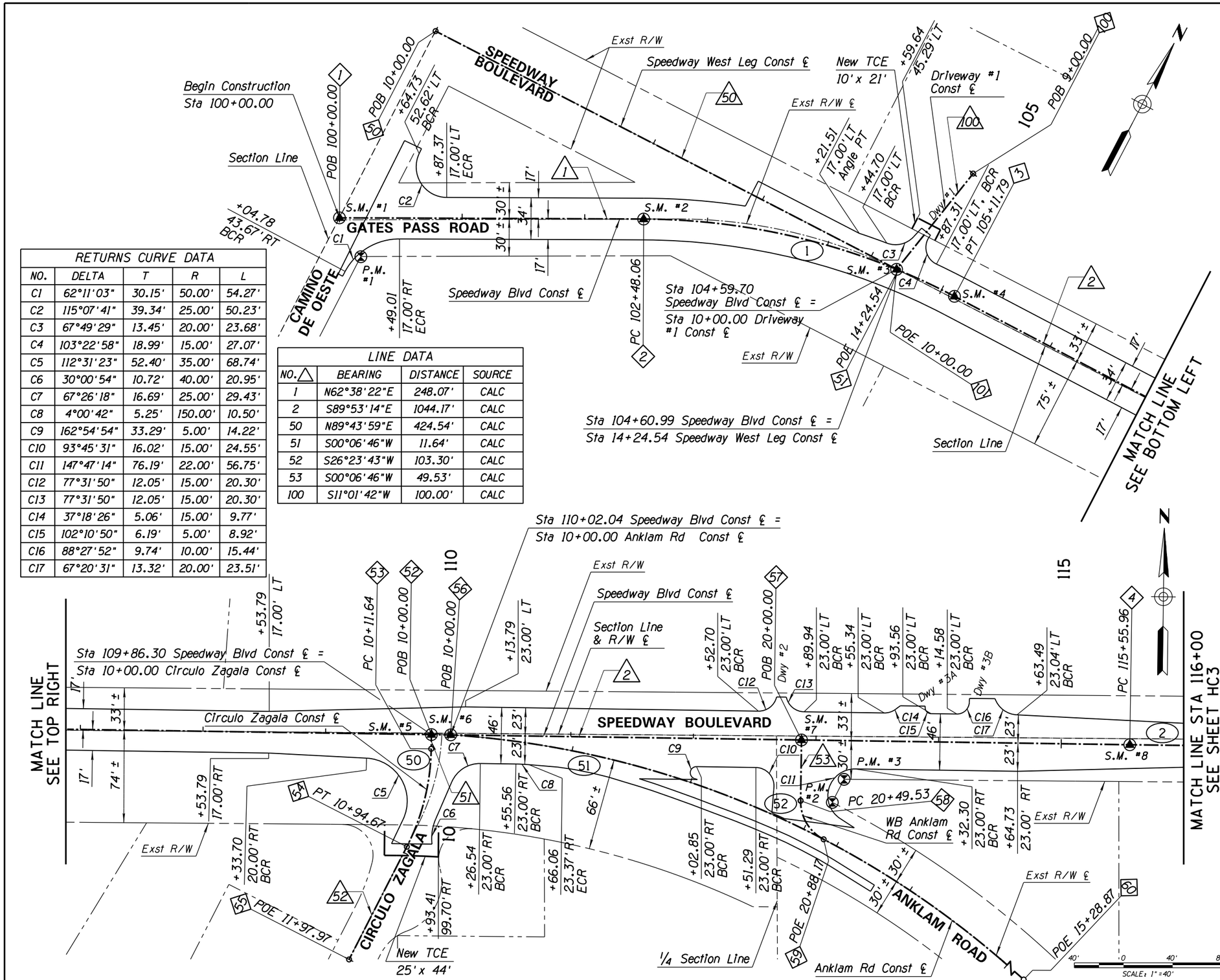
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet HC1 of HC6 | Page 15 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo01.dgn

Wed 13 Feb 2019, 11:24:42



RETURNS CURVE DATA				
NO.	DELTA	T	R	L
C1	62°11'03"	30.15'	50.00'	54.27'
C2	115°07'41"	39.34'	25.00'	50.23'
C3	67°49'29"	13.45'	20.00'	23.68'
C4	103°22'58"	18.99'	15.00'	27.07'
C5	112°31'23"	52.40'	35.00'	68.74'
C6	30°00'54"	10.72'	40.00'	20.95'
C7	67°26'18"	16.69'	25.00'	29.43'
C8	4°00'42"	5.25'	150.00'	10.50'
C9	162°54'54"	33.29'	5.00'	14.22'
C10	93°45'31"	16.02'	15.00'	24.55'
C11	147°47'14"	76.19'	22.00'	56.75'
C12	77°31'50"	12.05'	15.00'	20.30'
C13	77°31'50"	12.05'	15.00'	20.30'
C14	37°18'26"	5.06'	15.00'	9.77'
C15	102°10'50"	6.19'	5.00'	8.92'
C16	88°27'52"	9.74'	10.00'	15.44'
C17	67°20'31"	13.32'	20.00'	23.51'

LINE DATA			
NO.△	BEARING	DISTANCE	SOURCE
1	N62°38'22"E	248.07'	CALC
2	S89°53'14"E	1044.17'	CALC
50	N89°43'59"E	424.54'	CALC
51	S00°06'46"W	11.64'	CALC
52	S26°23'43"W	103.30'	CALC
53	S00°06'46"W	49.53'	CALC
100	S11°01'42"W	100.00'	CALC

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

HORIZONTAL CONTROL NOTES

1. All stations are along the Speedway Blvd Const ℄. Unless otherwise noted.
2. See Side Street Plan and Profile for Edge Geometry, Staking and TCE Data.
3. See Driveway Grading Plans for Edge Geometry, Staking and TCE Data.
4. Any Existing Survey Monuments on this Project that will be Replaced or Disturbed will be Referenced by an Arizona Registered Land Surveyor before Construction begins. After Construction an Arizona Registered Land Surveyor Shall Provide Cross outs for the New Monuments, Stamp them Appropriately, and then File a Record of Survey Showing the New Monumentation.
5. New R/W Monumentation shall be 1/2" rebar to be set and tagged by an AZ RLS.
6. Survey Monuments within the roadway pavement shall be per Std. Dtl. 103 and paid under Bid Item No. 9090021. See Monumentation Control Data Table on Sheet HC1.

CONTROL DATA				
NO.◇	STATION	NORTHING	EASTING	DESC.
1	100+00.00	50554.25	64163.65	POB
2	102+48.06	50668.25	64383.97	PC
3	105+11.79	50729.78	64637.82	PT
4	115+55.96	50727.72	65681.99	PC
50	10+00.00	50725.56	64162.56	POB
51	14+24.54	50727.54	64587.09	POE
52	10+00.00	50728.85	65112.33	POB
53	10+11.64	50717.21	65112.31	PC
54	10+94.67	50637.10	65093.44	PT
55	11+97.97	50544.57	65047.52	POE
56	10+00.00	50728.82	65128.07	POB
57	20+00.00	50728.25	65414.20	POB
58	20+49.53	50678.72	65414.11	PC
59	20+88.17	50647.43	65433.29	POE
60	15+28.87	50527.68	65605.82	POE
100	9+00.00	50825.57	64606.94	POB
101	10+00.00	50727.42	64585.81	POE

CURVE DATA				
NO.○	DELTA	T	R	L
1	27°28'24"	134.45'	550.00'	263.72'
2	01°39'20"	144.48'	10000.00'	288.95'
50	26°16'57"	42.26'	181.00'	83.03'
51	42°55'50"	300.39'	763.94'	528.87'
52	63°15'01"	21.55'	35.00'	38.64'

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

Ana M. Olivares, P.E., Director

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1102
Tucson, AZ 85701
TEL: +1.520.882.8424

Pima County Department of Transportation

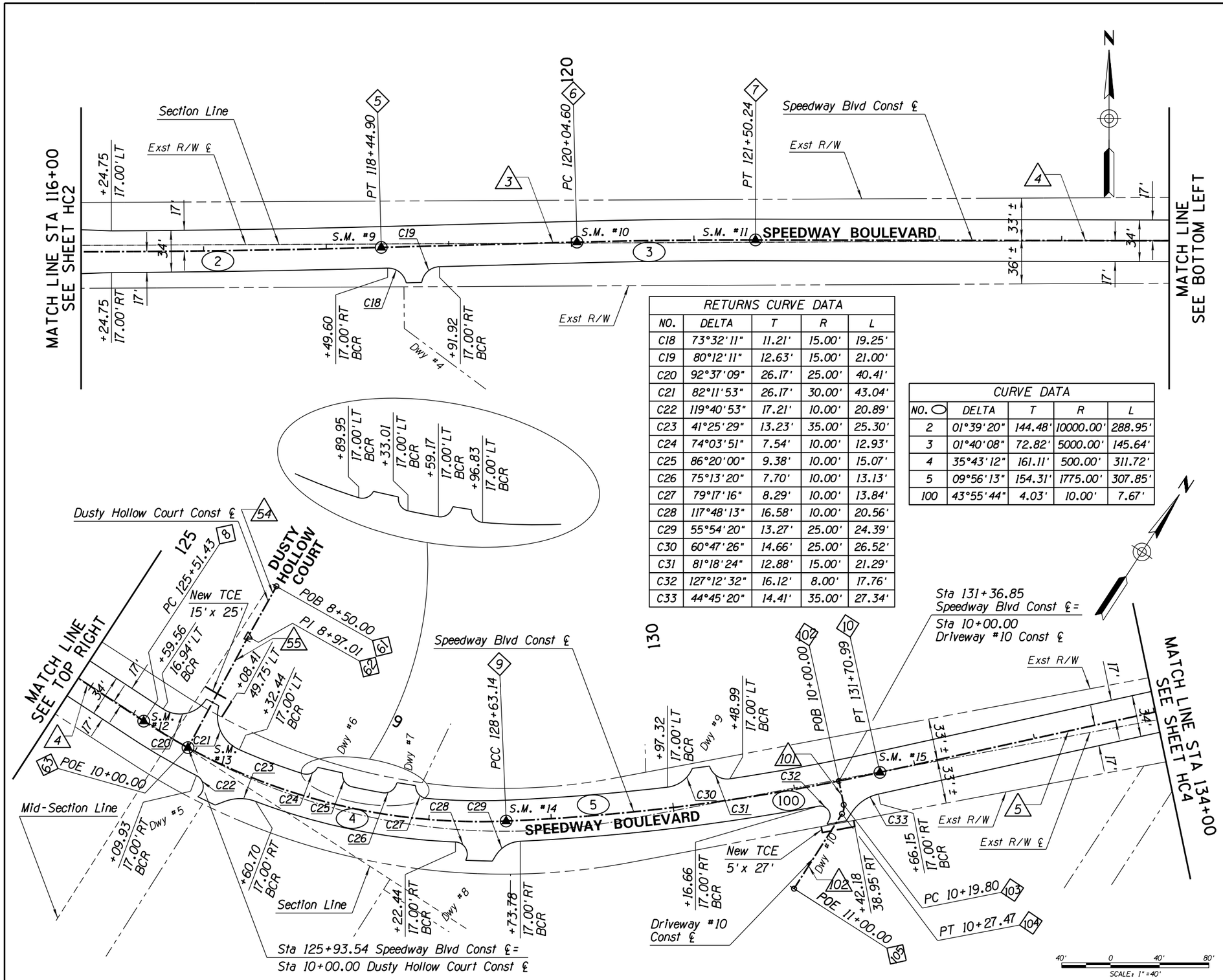
HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet HC2 of HC6 | Page 16 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo02.dgn

Wed 13 Feb 2019, 11:24:49



RETURNS CURVE DATA				
NO.	DELTA	T	R	L
C18	73°32'11"	11.21'	15.00'	19.25'
C19	80°12'11"	12.63'	15.00'	21.00'
C20	92°37'09"	26.17'	25.00'	40.41'
C21	82°11'53"	26.17'	30.00'	43.04'
C22	119°40'53"	17.21'	10.00'	20.89'
C23	41°25'29"	13.23'	35.00'	25.30'
C24	74°03'51"	7.54'	10.00'	12.93'
C25	86°20'00"	9.38'	10.00'	15.07'
C26	75°13'20"	7.70'	10.00'	13.13'
C27	79°17'16"	8.29'	10.00'	13.84'
C28	117°48'13"	16.58'	10.00'	20.56'
C29	55°54'20"	13.27'	25.00'	24.39'
C30	60°47'26"	14.66'	25.00'	26.52'
C31	81°18'24"	12.88'	15.00'	21.29'
C32	127°12'32"	16.12'	8.00'	17.76'
C33	44°45'20"	14.41'	35.00'	27.34'

CURVE DATA				
NO. ⬭	DELTA	T	R	L
2	01°39'20"	144.48'	10000.00'	288.95'
3	01°40'08"	72.82'	5000.00'	145.64'
4	35°43'12"	161.11'	500.00'	311.72'
5	09°56'13"	154.31'	1775.00'	307.85'
100	43°55'44"	4.03'	10.00'	7.67'

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

HORIZONTAL CONTROL NOTES

1. All stations are along the Speedway Blvd Const ℄. Unless otherwise noted.
2. See Driveway Grading Plans for Edge Geometry, Staking and TCE Data.
3. Any Existing Survey Monuments on this Project that will be Replaced or Disturbed will be Referenced by an Arizona Registered Land Surveyor before Construction begins. After Construction an Arizona Registered Land Surveyor Shall Provide Cross outs for the New Monuments, Stamp them Appropriately, and then File a Record of Survey Showing the New Monumentation.
4. New R/W Monumentation shall be 1/2" rebar to be set and tagged by an AZ RLS.
5. Survey Monuments within the roadway pavement shall be per Std. Dtl. 103 and paid under Bid Item No. 9090021. See Monumentation Control Data Table on Sheet HC1.

CONTROL DATA				
NO. ◇	STATION	NORTHING	EASTING	DESC.
5	118+44.90	50731.33	65970.90	PT
6	120+04.60	50735.63	66130.54	PC
7	121+50.24	50737.43	66276.16	PT
8	125+51.43	50736.55	66677.35	PC
9	128+63.14	50829.96	66969.47	PCC
10	131+70.99	51029.90	67203.05	PT
61	8+50.00	50887.78	66707.92	POB
62	8+97.01	50840.87	66710.98	PI
63	10+00.00	50738.23	66719.42	POE
102	10+00.00	51005.77	67178.90	POB
103	10+19.80	50991.62	67192.76	PC
104	10+27.47	50984.71	67195.62	PT
105	11+00.00	50912.18	67196.25	POE

LINE DATA			
NO. △	BEARING	DISTANCE	SOURCE
3	N88°27'26"E	159.70'	CALC
4	S89°52'26"E	401.19'	CALC
5	N44°28'09"E	377.83'	CALC
54	S03°44'14"E	47.01'	CALC
55	S04°42'00"E	102.99'	CALC
101	S44°25'44"E	19.80'	CALC
102	S00°30'00"E	72.53'	CALC

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

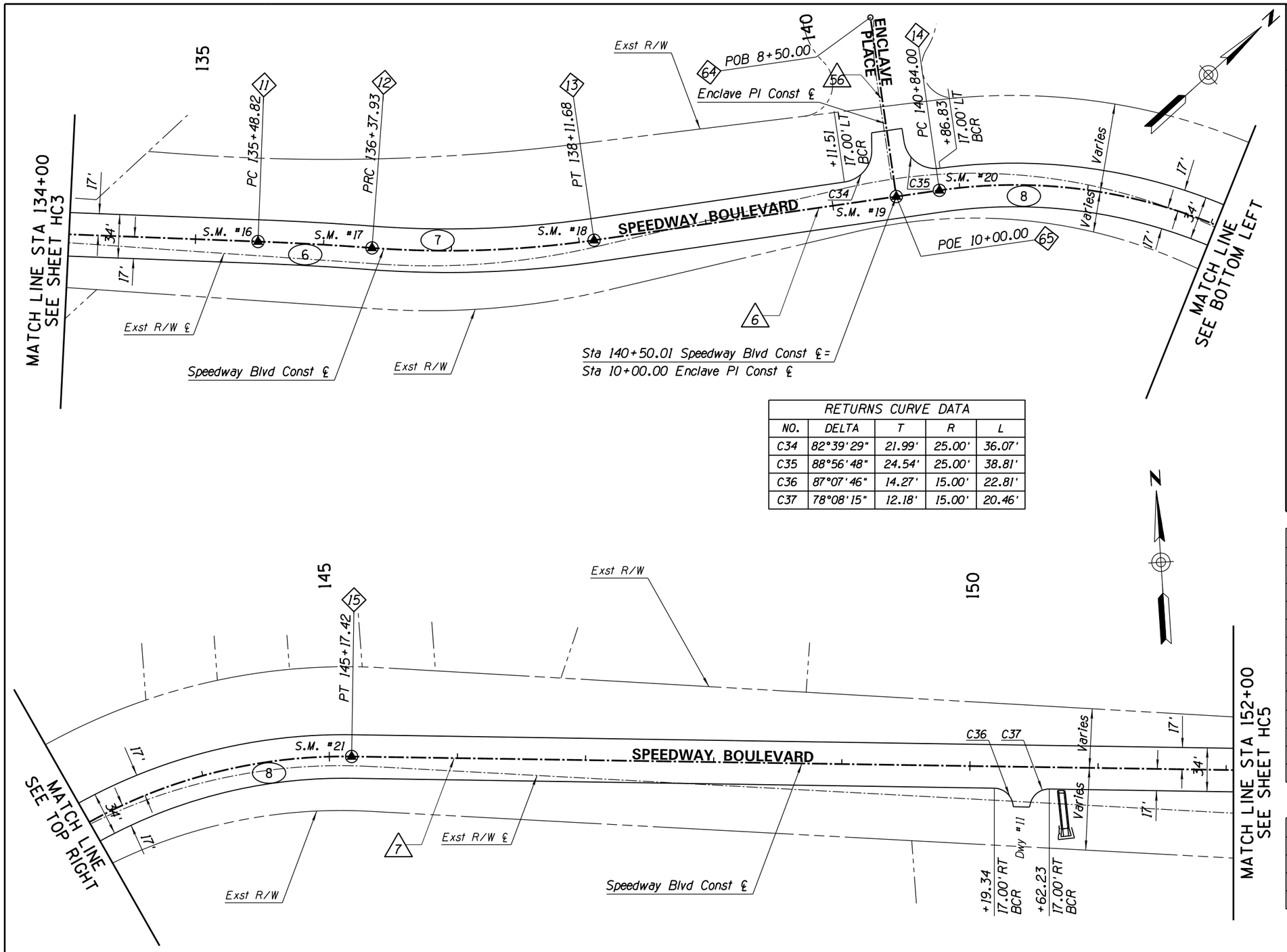
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet HC3 of HC6 | Page 17 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo03.dgn

Wed 13 Feb 2019, 11:24:56



RETURNS CURVE DATA				
NO.	DELTA	T	R	L
C34	82°39'29"	21.99'	25.00'	36.07'
C35	88°56'48"	24.54'	25.00'	38.81'
C36	87°07'46"	14.27'	15.00'	22.81'
C37	78°08'15"	12.18'	15.00'	20.46'

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

HORIZONTAL CONTROL NOTES

1. All stations are along the Speedway Blvd Const ℄. Unless otherwise noted.
2. See Driveway Grading Plans for Edge Geometry, Staking and TCE Data.
3. Any Existing Survey Monuments on this Project that will be Replaced or Disturbed will be Referenced by an Arizona Registered Land Surveyor before Construction begins. After Construction an Arizona Registered Land Surveyor Shall Provide Cross outs for the New Monuments, Stamp them Appropriately, and then File a Record of Survey Showing the New Monumentation.
4. New R/W Monumentation shall be 1/2" rebar to be set and tagged by an AZ RLS.
5. Survey Monuments within the roadway pavement shall be per Std. Dtl. 103 and paid under Bid Item No. 9090021. See Monumentation Control Data Table on Sheet HC1.

CONTROL DATA				
NO. ◇	STATION	NORTHING	EASTING	DESC.
11	135+48.82	51299.53	67467.73	PC
12	136+37.93	51361.99	67531.27	PRC
13	138+11.68	51494.27	67643.40	PT
14	140+84.00	51719.85	67795.95	PC
15	145+17.42	51898.84	68168.72	PT
64	8+50.00	51775.72	67652.65	POB
65	10+00.00	51691.69	67776.91	POE

LINE DATA			
NO. △	BEARING	DISTANCE	SOURCE
6	N34°04'03"E	272.32'	CALC
7	S85°21'50"E	755.16'	CALC
56	S55°55'57"E	150.00'	CALC

CURVE DATA				
NO. ○	DELTA	T	R	L
6	02°02'32"	44.56'	2500.00'	89.11'
7	12°26'38"	87.22'	800.00'	173.75'
8	60°34'07"	239.43'	410.00'	433.42'

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

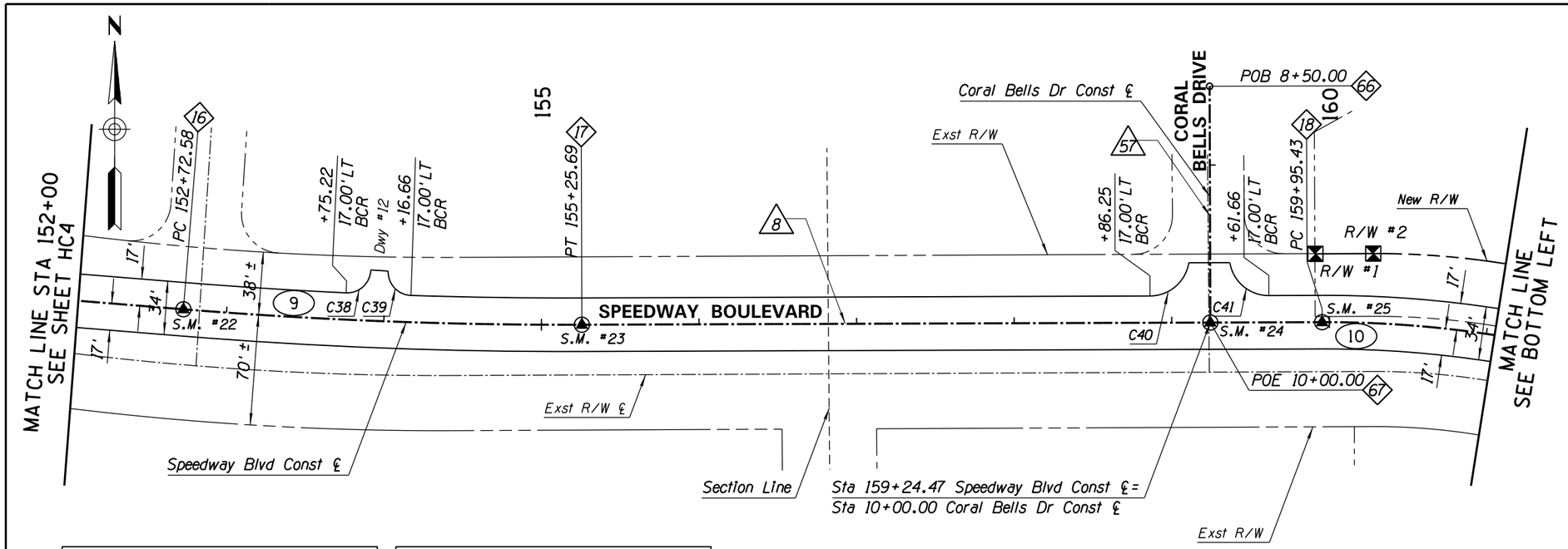
Pima County Department of Transportation

HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet HC4 of HC6 | Page 18 of 95

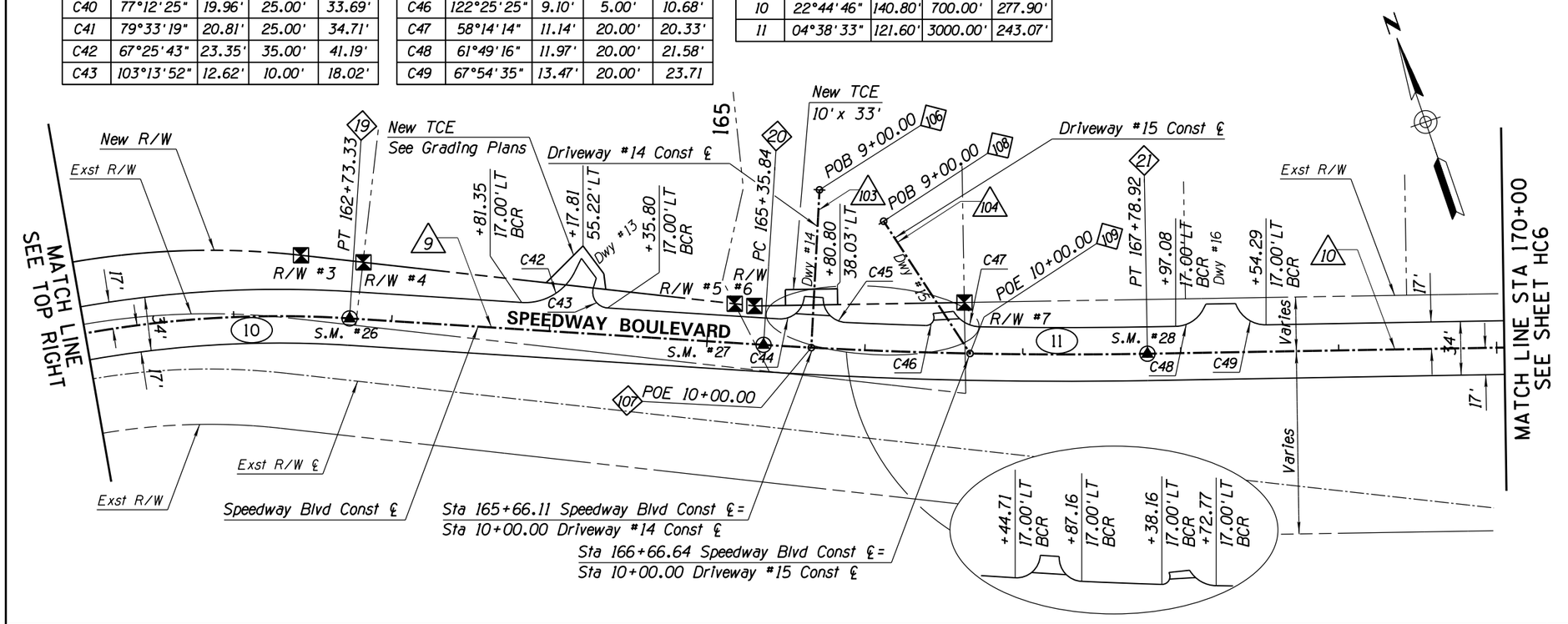
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo04.dgn
Wed 13 Feb 2019, 11:25:03



RETURNS CURVE DATA				
NO.	DELTA	T	R	L
C38	90°54'40"	15.24'	15.00'	23.80'
C39	89°52'49"	14.97'	15.00'	23.53'
C40	77°12'25"	19.96'	25.00'	33.69'
C41	79°33'19"	20.81'	25.00'	34.71'
C42	67°25'43"	23.35'	35.00'	41.19'
C43	103°13'52"	12.62'	10.00'	18.02'

RETURNS CURVE DATA				
NO.	DELTA	T	R	L
C44	90°43'05"	15.19'	15.00'	23.75'
C45	90°05'34"	15.02'	15.00'	23.59'
C46	122°25'25"	9.10'	5.00'	10.68'
C47	58°14'14"	11.14'	20.00'	20.33'
C48	61°49'16"	11.97'	20.00'	21.58'
C49	67°54'35"	13.47'	20.00'	23.71

CURVE DATA				
NO. ◯	DELTA	T	R	L
9	04°50'02"	126.63'	3000.00'	253.11'
10	22°44'46"	140.80'	700.00'	277.90'
11	04°38'33"	121.60'	3000.00'	243.07'



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

HORIZONTAL CONTROL NOTES

1. All stations are along the Speedway Blvd Const ℄. Unless otherwise noted.
2. See Side Street Plan and Profile for Edge Geometry, Staking and TCE Data.
3. See Driveway Grading Plans for Edge Geometry, Staking and TCE Data.
4. Any Existing Survey Monuments on this Project that will be Replaced or Disturbed will be Referenced by an Arizona Registered Land Surveyor before Construction begins. After Construction an Arizona Registered Land Surveyor Shall Provide Cross outs for the New Monuments, Stamp them Appropriately, and then File a Record of Survey Showing the New Monumentation.
5. New R/W Monumentation shall be 1/2" rebar to be set and tagged by an AZ RLS.
6. Survey Monuments within the roadway pavement shall be per Std. Dtl. 103 and paid under Bid Item No. 9090021. See Monumentation Control Data Table on Sheet HC1.

CONTROL DATA				
NO. ◇	STATION	NORTHING	EASTING	DESC.
16	152+72.58	51837.80	68921.42	PC
17	155+25.69	51828.00	69174.26	PT
18	159+95.43	51829.62	69644.00	PC
19	162+73.33	51776.12	69914.84	PT
20	165+35.84	51675.46	70157.29	PC
21	167+78.92	51591.44	70385.31	PT
66	8+50.00	51979.38	69572.57	POB
67	10+00.00	51829.38	69573.03	POE
106	9+00.00	51756.79	70222.55	POB
107	10+00.00	51663.99	70185.30	POE
108	9+00.00	51724.87	70254.52	POB
109	10+00.00	51627.95	70279.14	POE

LINE DATA			
NO. △	BEARING	DISTANCE	SOURCE
8	N89°48'08"E	469.74'	CALC
9	S67°27'06"E	262.51'	CALC
10	S72°05'39"E	336.62'	CALC
57	S00°10'35"E	150.00'	CALC
103	S21°52'15"W	100.00'	CALC
104	S14°15'10"E	100.00'	CALC

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

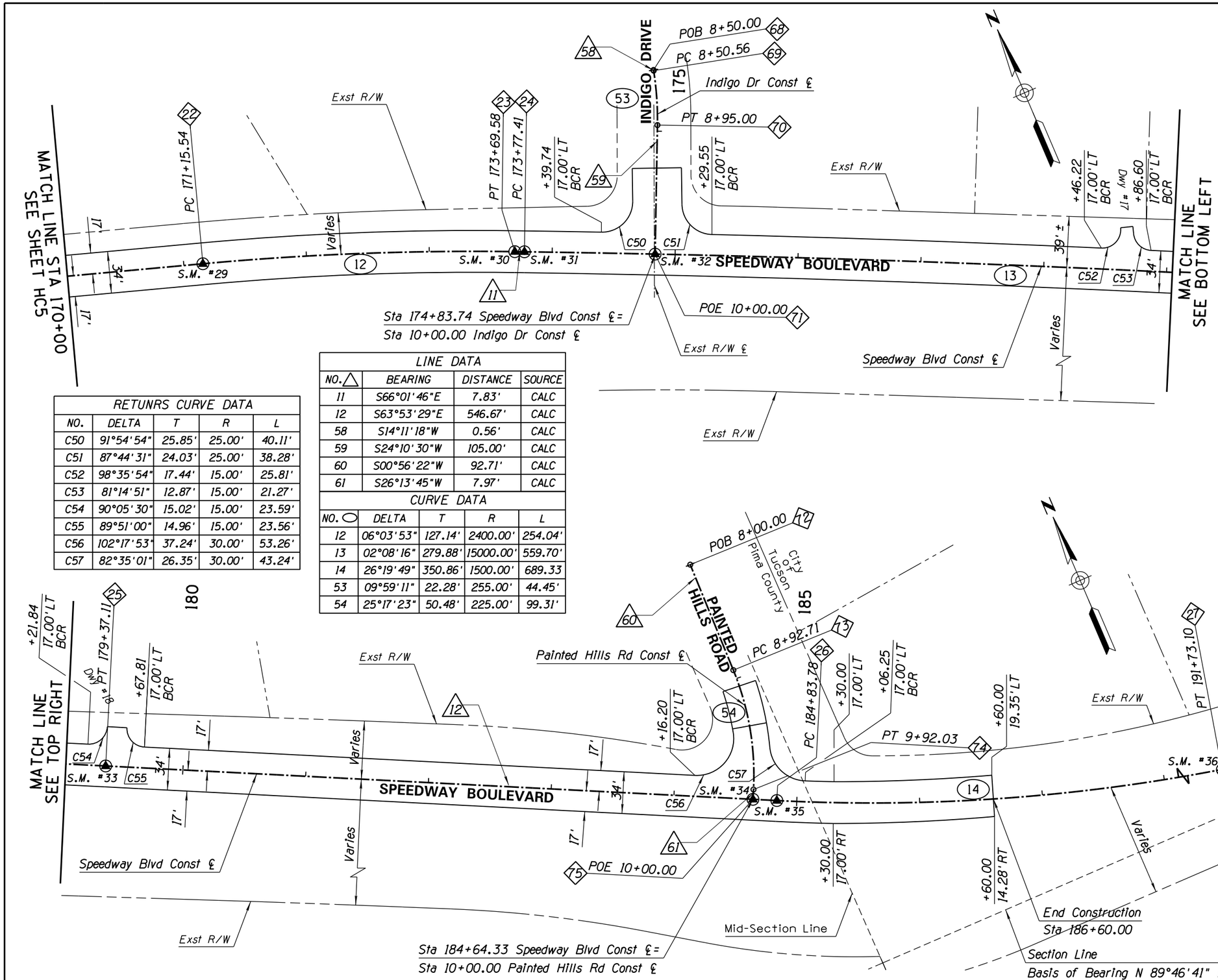
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet HC5 of HC6 | Page 19 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo05.dgn

Wed 13 Feb 2019, 11:25:08

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



RETUNRS CURVE DATA				
NO.	DELTA	T	R	L
C50	91°54'54"	25.85'	25.00'	40.11'
C51	87°44'31"	24.03'	25.00'	38.28'
C52	98°35'54"	17.44'	15.00'	25.81'
C53	81°14'51"	12.87'	15.00'	21.27'
C54	90°05'30"	15.02'	15.00'	23.59'
C55	89°51'00"	14.96'	15.00'	23.56'
C56	102°17'53"	37.24'	30.00'	53.26'
C57	82°35'01"	26.35'	30.00'	43.24'

LINE DATA			
NO.△	BEARING	DISTANCE	SOURCE
11	S66°01'46"E	7.83'	CALC
12	S63°53'29"E	546.67'	CALC
58	S14°11'18"W	0.56'	CALC
59	S24°10'30"W	105.00'	CALC
60	S00°56'22"W	92.71'	CALC
61	S26°13'45"W	7.97'	CALC

CURVE DATA				
NO.○	DELTA	T	R	L
12	06°03'53"	127.14'	2400.00'	254.04'
13	02°08'16"	279.88'	15000.00'	559.70'
14	26°19'49"	350.86'	1500.00'	689.33
53	09°59'11"	22.28'	255.00'	44.45'
54	25°17'23"	50.48'	225.00'	99.31'

HORIZONTAL CONTROL NOTES

1. All stations are along the Speedway Blvd Const ℄. Unless otherwise noted.
2. See Side Street Plan and Profile for Edge Geometry, Staking and TCE Data.
3. See Driveway Grading Plans for Edge Geometry, Staking and TCE Data.
4. Any Existing Survey Monuments on this Project that will be Replaced or Disturbed will be Referenced by an Arizona Registered Land Surveyor before Construction begins. After Construction an Arizona Registered Land Surveyor Shall Provide Cross outs for the New Monuments, Stamp them Appropriately, and then File a Record of Survey Showing the New Monumentation.
5. New R/W Monumentation shall be 1/2" rebar to be set and tagged by an AZ RLS.
6. Survey Monuments within the roadway pavement shall be per Std. Dtl. 103 and paid under Bid Item No. 9090021. See Monumentation Control Data Table on Sheet HC1.

CONTROL DATA				
NO.◇	STATION	NORTHING	EASTING	DESC.
22	171+15.54	51487.94	70705.62	PC
23	173+69.58	51397.20	70942.78	PT
24	173+77.41	51394.02	70949.94	PC
25	179+37.11	51157.14	71457.00	PT
26	184+83.78	50916.57	71947.89	PC
27	191+73.10	50763.53	72613.80	PT
68	8+50.00	51488.73	71104.66	POB
69	8+50.56	51488.20	71104.52	PC
70	8+95.00	51446.27	71089.94	PT
71	10+00.00	51350.48	71046.94	POE
72	8+00.00	51120.73	71958.61	POB
73	8+92.71	51028.03	71957.09	PC
74	9+92.03	50932.28	71933.95	PT
75	10+00.00	50925.13	71930.43	POE

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

HORIZONTAL CONTROL
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet HC6 of HC6 | Page 20 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Geometry\4HSBSP-Geo06.dgn

Wed 13 Feb 2019, 11:25:15

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

UTILITY ADJUSTMENTS AND RELOCATIONS

No.	STA	OFF	OWNER	FACILITY	ACTION
1	104+20	24' Rt	TEP	Pole	Relocate by Others
2	104+24	24' Rt	CTL	Pole	Relocate by Others
3	104+97	22' Rt	TW	Water Valve	Adjust to Grade
4	106+52	15' Lt	SWG	Gas Valve	Adjust to Grade
5	106+73	15' Lt	SWG	Gas Valve	Adjust to Grade
6	109+73	71' Rt	TW	Water Valve	Adjust to Grade
7	110+58	27' Rt	TEP	Pole	Relocate by Others
8	112+42	26' Rt	TEP	Pole	Relocate by Others
9	112+45	26' Rt	CTL	Pole	Relocate by Others
10	112+63	19' Rt	TW	Water Valve	Adjust to Grade
11	113+93	26' Rt	TEP	Pole	Relocate by Others
12	113+95	25' Rt	CTL	Pole	Relocate by Others
13	118+96	24' Rt	CTL	Pole	Relocate by Others
14	118+99	24' Rt	TEP	Pole	Relocate by Others
15	121+12	29' Rt	CTL	Pole	Relocate by Others
16	121+14	29' Rt	TEP	Pole	Relocate by Others
17	130+66	22' Rt	CTL	Pole	Relocate by Others
18	130+69	22' Rt	TEP	Pole	Relocate by Others
19	132+60	24' Rt	CTL	Pole	Relocate by Others
20	140+45	19' Lt	TW	Water Valve	Adjust to Grade
21	140+54	8' Lt	TW	Water Valve	Adjust to Grade
22	142+44	24' Lt	TEP	Guy Pole	Relocate by Others
23	149+90	20' Lt	TEP	Guy Pole	Relocate by Others
23A	158+38	38' Rt	TEP	Pole	Relocate by Others
24	159+04	7' Rt	TW	Water Valve	Adjust to Grade
25	159+13	31' Lt	TW	Water Valve	Adjust to Grade
26	161+48	35' Rt	TEP	Pole	Relocate by Others
27	164+16	21' Rt	TW	Water Valve	Adjust to Grade
28	174+44	14' Lt	TW	Water Valve	Adjust to Grade
29	174+57	26' Lt	TW	Water Valve	Adjust to Grade
30	179+75	20' Lt	TW	Water Valve	Adjust to Grade
31	184+93	22' Lt	TW	Water Valve	Adjust to Grade
32	185+09	23' Lt	TW	Water Valve	Adjust to Grade
33	185+10	17' Lt	TW	Water Valve	Adjust to Grade
34	185+23	13' Rt	TW	Water Valve	Adjust to Grade
35	185+46	23' Lt	TW	Water Valve	Adjust to Grade
36	185+53	18' Lt	TW	Water Valve	Adjust to Grade
37	185+75	22' Lt	TW	Water Valve	Adjust to Grade

CTL = CenturyLink
SWG = Southwest Gas
TEP = Tucson Electric Power
TW = Tucson Water

LANDSCAPE DEMOLITION NOTES:

1. Site shall be treated for buffelgrass and other invasive species prior to initiation of work. Refer to PAG Standard Specification Section 201.
2. Contractor is responsible for the preservation of existing plant materials according to PAG Standard Specifications Section 201. Overhanging branches within the right-of-way that may impact construction shall be pruned in accordance with PAG Standard Specifications Section 201 Item No. 8061700.
3. Existing trees on adjacent property may have overhanging branches that will require pruning. See PAG Standard Specifications notification of Pima County Community Relations.
4. Where construction impacts existing landscape or irrigation encroachments within right-of-way, contractor shall coordinate required adjustments with Project Engineer and adjacent property owners.
5. Contractor is to install preservation fencing as directed by engineer prior to clearing. Locations shown on plans shall be adjusted in the field as required. Preservation fencing is to remain during duration of project. Refer to Stored Specification No. 2010004.
6. Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law", A.R.S. Chapter 7. Cacti under the protection of native plant laws will have been removed prior to construction. If, during construction, additional saguaro or barrel cacti will be impacted, contractor is to contact Ellen Alster, PCDOT Senior Landscape Architect (520-724-6655 or Ellen.Alster@pima.gov) or Jessie Byrd, Pima County Plant Nursery Manager (520-488-8022 or Jessie.Byrd@pima.gov).
7. Any plants labelled as PIP that must be removed shall be called to the attention of the engineer.
8. All PIP plants not remaining at the completion of the project shall be replaced by the contractor.

DEMOLITION NOTES:

1. Contractor shall not disturb any Preserve Areas.
2. All removals shall be paid under Bid Item No. 2020001.

TUCSON WATER NOTES:

1. Valve adjustments and ARV adjustments shall be installed per Tucson Water Standard Detail SD-300 and shall be paid under Bid Item No. 8080646.

MANHOLE ADJUSTMENTS

OWNER	MH NO.	STA	OFF	EXST. RIM EL.	NEW RIM EL.	DELTA (FT)	ADJUST (EA)	RECONSTRUCT (LF)	Notes
CTL		102+94	24' Lt	2611.41	2611.98	0.57	N/A	BY OTHERS	CenturyLink to Reconstruct
PCRWRD	6124-04	103+44	12' Rt	2611.08	2611.37	0.29	1	N/A	Provide Conc. Collar per Std. Dtl. RWRD 211
PCRWRD	6124-A12	158+02	13' Rt	2513.06	2512.86	-0.20	N/A	4	Provide Conc. Collar per Std. Dtl. RWRD 211
PCRWRD	6124-A11	159+94	17' Rt	2513.89	2513.89	0.00	N/A	N/A	Provide Conc. Collar per Std. Dtl. RWRD 211

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

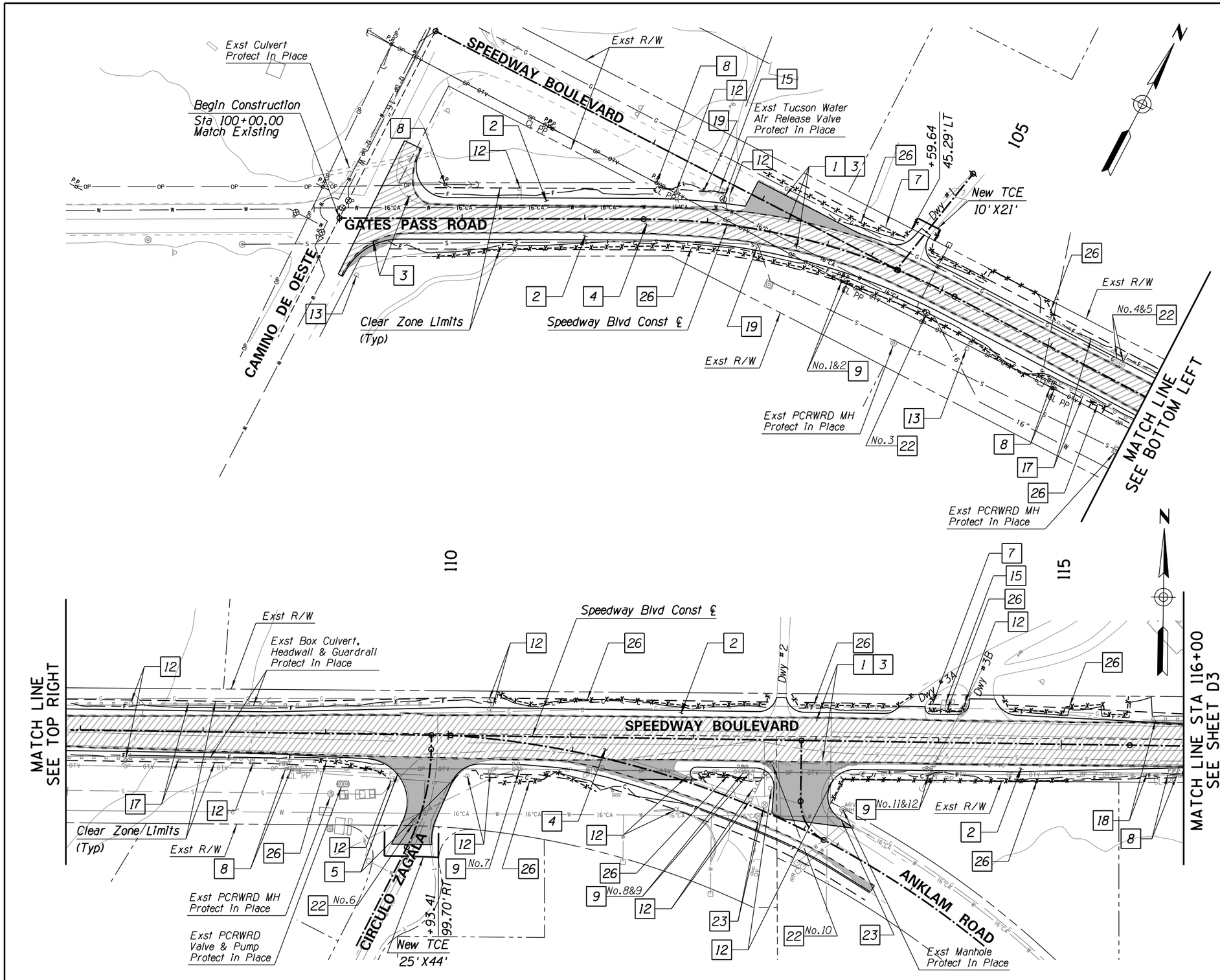
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

DEMOLITION NOTES
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet D1 of D6	Page 21 of 95



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

DEMOLITION KEYNOTES

1	Sawcut 3484 LF.
2	Roadway Excavation 2669 SY.
3	Remove 1256 SY Existing Bituminous Pavement.
4	Remove 5250 SY Existing Bituminous Pavement by Milling.
5	Remove 119 SY Existing Concrete Header Curb.
7	Remove 1 Delineators.
8	Existing Utility Pole, Protect in Place.
9	Existing Utility Pole, Relocate 7 EA by Others.
12	Existing Sign, Remove & Salvage.
13	Existing Sign, Protect in Place.
15	Existing Mailbox, Relocate.
17	Existing Guardrail, Protect in Place.
18	Existing Guardrail, Remove 156 LF.
19	Existing Manhole. See Manhole Adjustment Table on Sheet D1.
22	Existing Valve, Adjust to Grade. See Sheet D1.
23	Existing Valve, Protect in Place.
26	Preservation Fence, See Detail 1, Sheet L1.

Notes:

1. See Sheet C3 for Pavement Structural Sections.
2. See Sheets TY1-TY5 for additional Pavement Structural Section Information.

Remove Existing Bituminous Pavement.

Remove Existing Bituminous Pavement by Milling.

40' 0 40' 80'
SCALE: 1" = 40'

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

Ana M. Olivares, P.E., Director

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1102
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

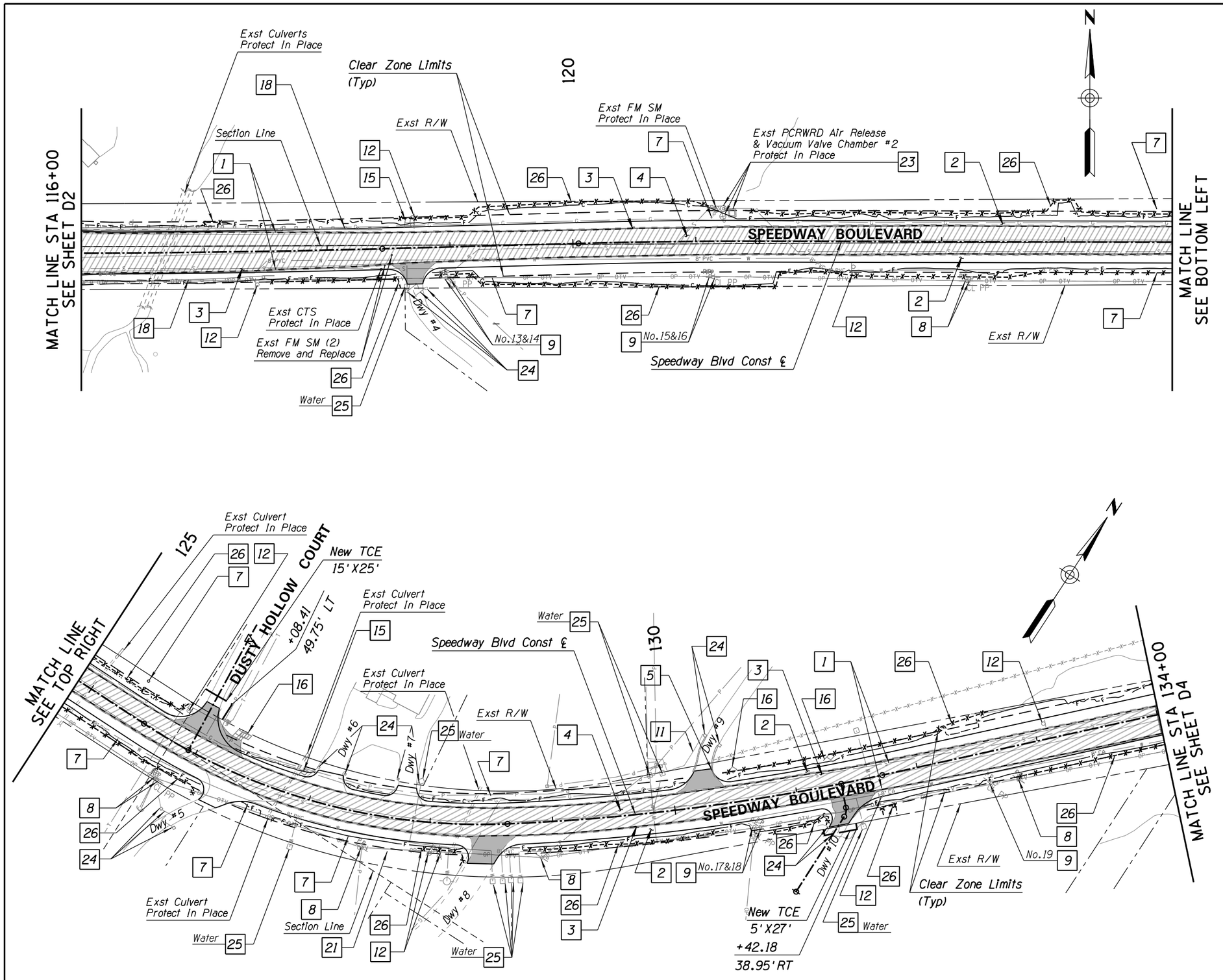
DEMOLITION PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet D2 of D6 | Page 22 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Demo\4HSBSP-Demo01.dgn

Wed 13 Feb 2019, 11:32:05



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

DEMOLITION KEYNOTES

1. Sawcut 3597 LF.
2. Roadway Excavation 2395 SY.
3. Remove 664 SY Existing Bituminous Pavement.
4. Remove 4719 SY Existing Bituminous Pavement by Milling.
5. Remove 10 LF Existing Concrete Header Curb.
7. Remove 9 Delineators.
8. Existing Utility Pole, Protect in Place.
9. Existing Utility Pole, Relocate 7 EA by Others.
11. Existing Fence, Protect in Place.
12. Existing Sign, Remove & Salvage.
13. Existing Sign, Protect in Place.
15. Existing Mailbox, Relocate.
16. Existing Mailbox, Protect in Place.
18. Existing Guardrail, Remove 402 LF.
21. Existing Fire Hydrant, Protect in Place.
23. Existing Valve, Protect In Place.
24. Existing Gate/Structure, Protect in Place.
25. Existing Meter/Box, Protect in Place.
26. Preservation Fence, See Detail 1, Sheet L1.

Notes:

1. See Sheet C3 for Pavement Structural Sections.
2. See Sheets TY1-TY5 for additional Pavement Structural Section Information.

Remove Existing Bituminous Pavement.

Remove Existing Bituminous Pavement by Milling.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

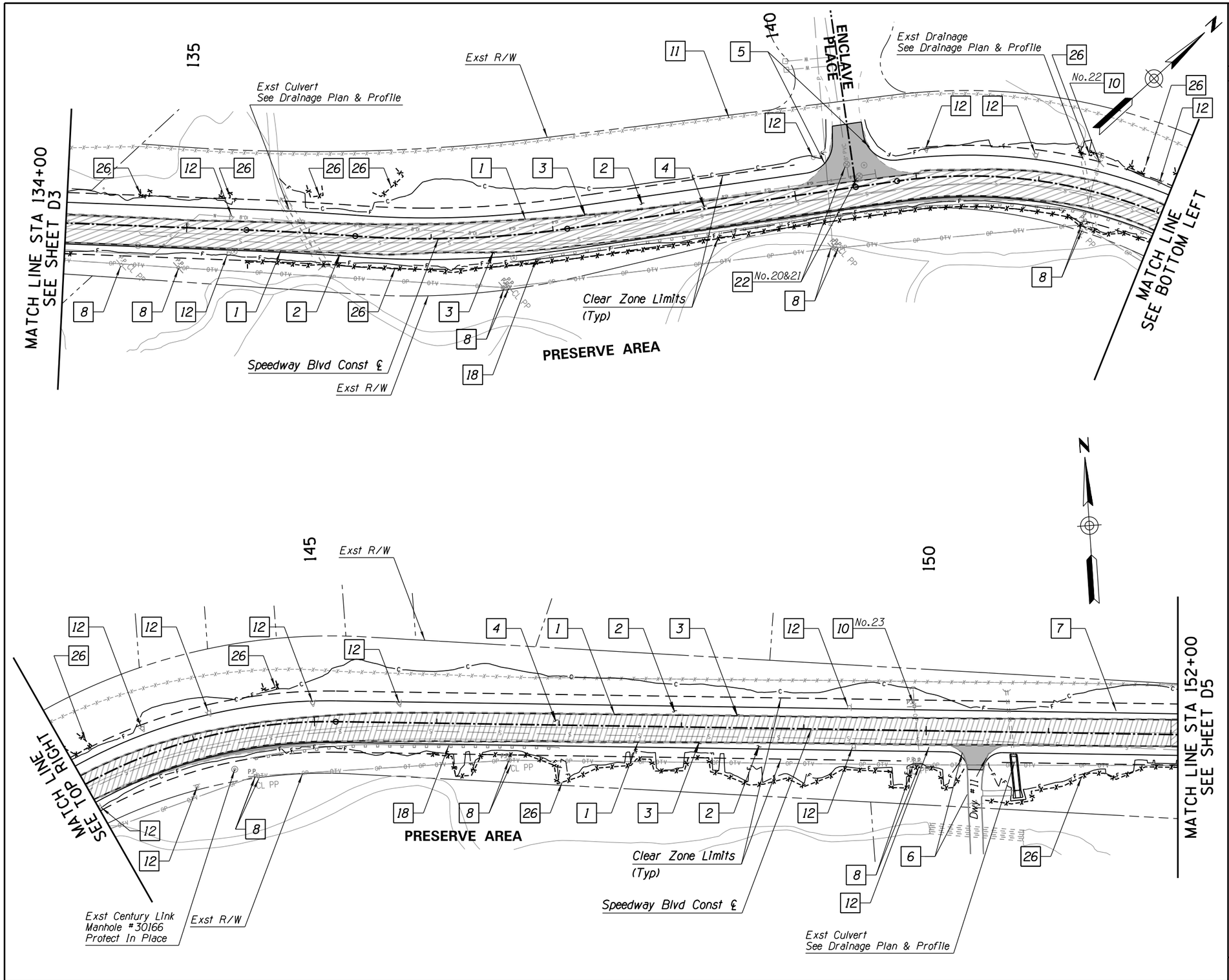
DEMOLITION PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet D3 of D6 | Page 23 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Demo\4HSBSP-Demo02.dgn

Wed 13 Feb 2019, 11:32:12



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

DEMOLITION KEYNOTES

1. Sawcut 3592 LF.
2. Roadway Excavation 2549 SY.
3. Remove 754 SY Existing Bituminous Pavement.
4. Remove 4410 SY Existing Bituminous Pavement by Milling.
5. Remove 142 SY Existing Concrete Header Curb.
6. Remove 37 LF Existing Concrete Curb.
7. Remove 1 Delineator.
8. Existing Utility Pole, Protect in Place.
10. Existing Guy Pole, Relocate 2 EA by Others.
11. Existing Fence, Protect in Place.
12. Existing Sign, Remove & Salvage.
18. Existing Guardrail, Remove 779 LF.
22. Existing Valve, Adjust to Grade. See Sheet D1.
26. Preservation Fence, See Detail 1, Sheet L1.

Notes:

1. See Sheet C3 for Pavement Structural Sections.
2. See Sheets TY1-TY5 for additional Pavement Structural Section Information.

Remove Existing Bituminous Pavement.

Remove Existing Bituminous Pavement by Milling.

40' 0 40' 80'
SCALE: 1" =40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

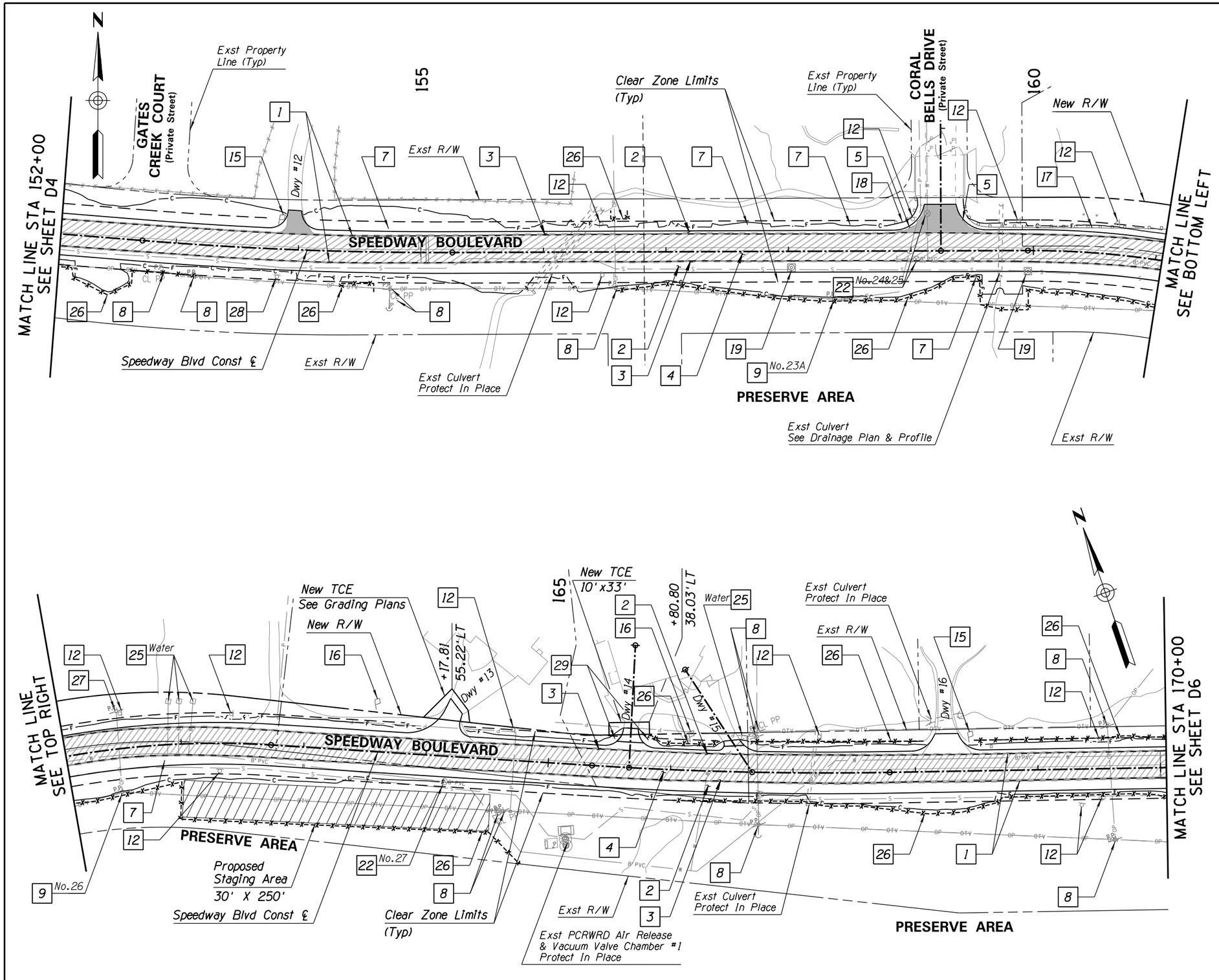
DEMOLITION PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet D4 of D6 | Page 24 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Demo\4HSBSP-Demo03.dgn

Wed 13 Feb 2019, 11:32:21



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

DEMOLITION KEYNOTES

1. Sawcut 3602 LF.
2. Roadway Excavation 2618 SY.
3. Remove 526 SY Existing Bituminous Pavement.
4. Remove 4427 SY Existing Bituminous Pavement by Milling.
5. Remove 80 SY Existing Concrete Header Curb.
7. Remove 5 Delineators.
8. Existing Utility Pole, Protect in Place.
9. Existing Utility Pole, Relocate 2 EA by Others.
12. Existing Sign, Remove & Salvage.
15. Existing Mailbox, Relocate.
16. Existing Mailbox, Protect in Place.
17. Existing Guardrail, Protect in Place.
18. Existing Guardrail, Remove 40 LF.
19. Existing Manhole. See Manhole Adjustment Table on Sheet D1.
22. Existing Valve, Adjust to Grade. See Sheet D1.
25. Existing Meter Box, Protect In Place.
26. Preservation Fence, See Detail 1, Sheet L1.
27. Existing Guy Pole, Protect in Place.
28. Existing Sign, Remove, Salvage, & Reinstall. See Signing Plans.
29. Existing Lanscape Stone, Remove, Salvage, & Replace 10 SY.

Notes:

1. See Sheet C3 for Pavement Structural Sections.
2. See Sheets TY1-TY5 for additional Pavement Structural Section Information.

Remove Existing Bituminous Pavement.

Remove Existing Bituminous Pavement by Milling.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

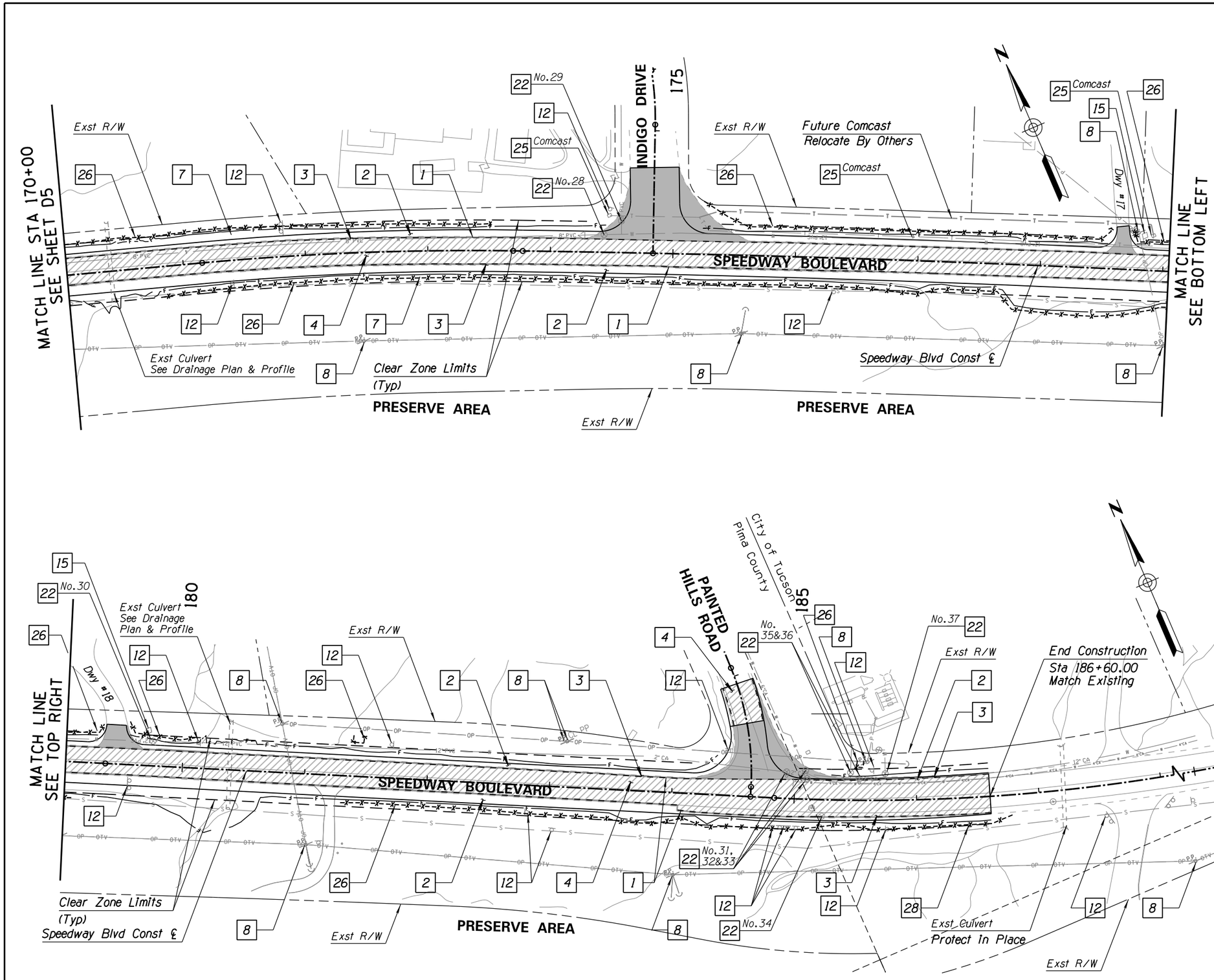
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: + 1 520.882.6424

Pima County Department of Transportation

DEMOLITION PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



DEMOLITION KEYNOTES

1. Sawcut 3327 LF.
2. Roadway Excavation 2683 SY.
3. Remove 1274 SY Existing Bituminous Pavement.
4. Remove 4205 SY Existing Bituminous Pavement by Milling.
7. Remove 2 Delineators.
8. Existing Utility Pole, Protect in Place.
12. Existing Sign, Remove & Salvage.
15. Existing Mailbox, Relocate.
22. Existing Valve, Adjust to Grade. See Sheet D1.
25. Existing Meter/Box, Protect In Place.
26. Preservation Fence, See Detail 1, Sheet L1.
28. Existing Sign, Remove, Salvage, & Reinstall. See Signing Plans.

Notes:

1. See Sheet C3 for Pavement Structural Sections.
2. See Sheets TY1-TY5 for additional Pavement Structural Section Information.

Remove Existing Bituminous Pavement.

Remove Existing Bituminous Pavement by Milling.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

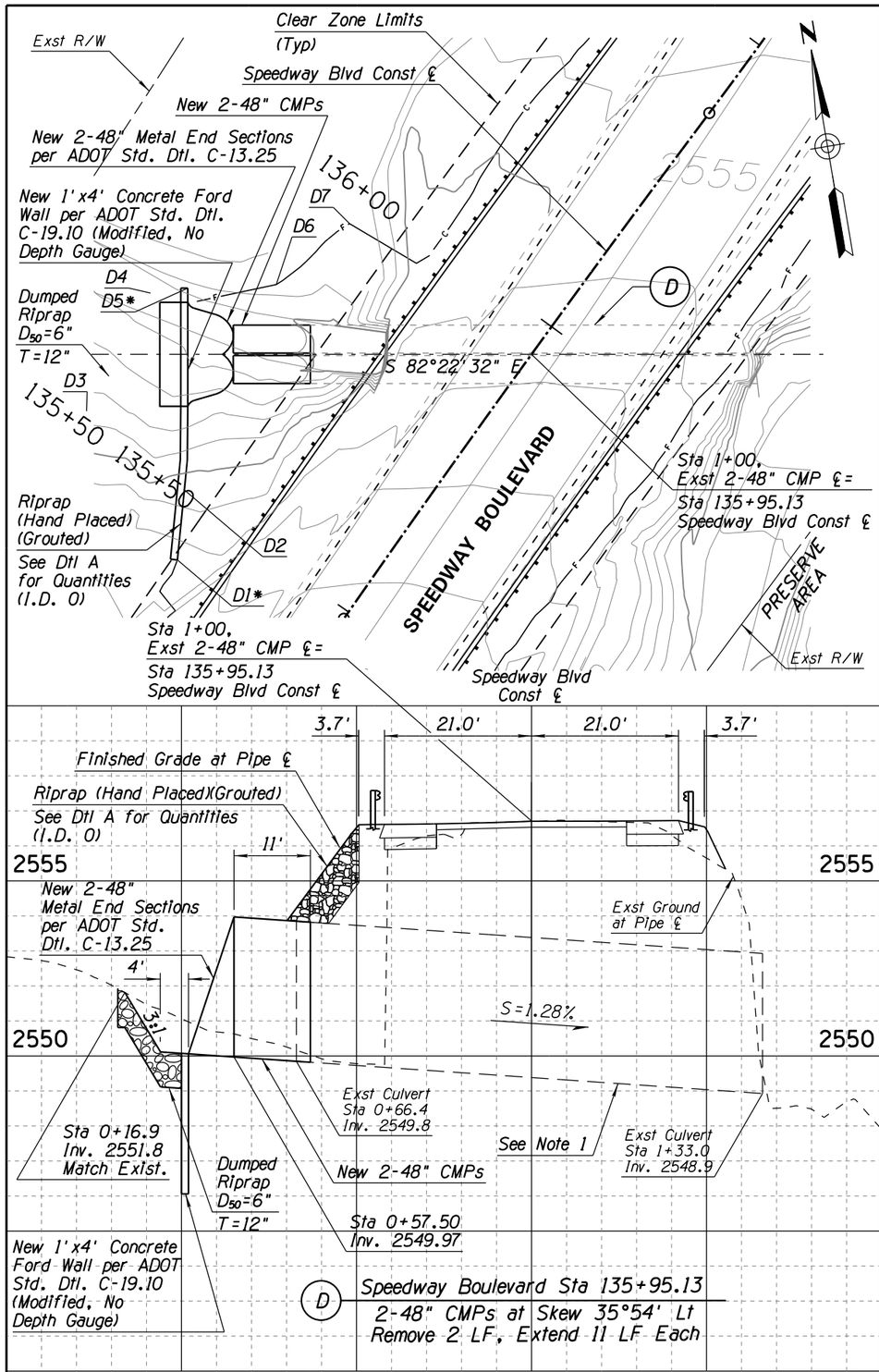
DEMOLITION PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

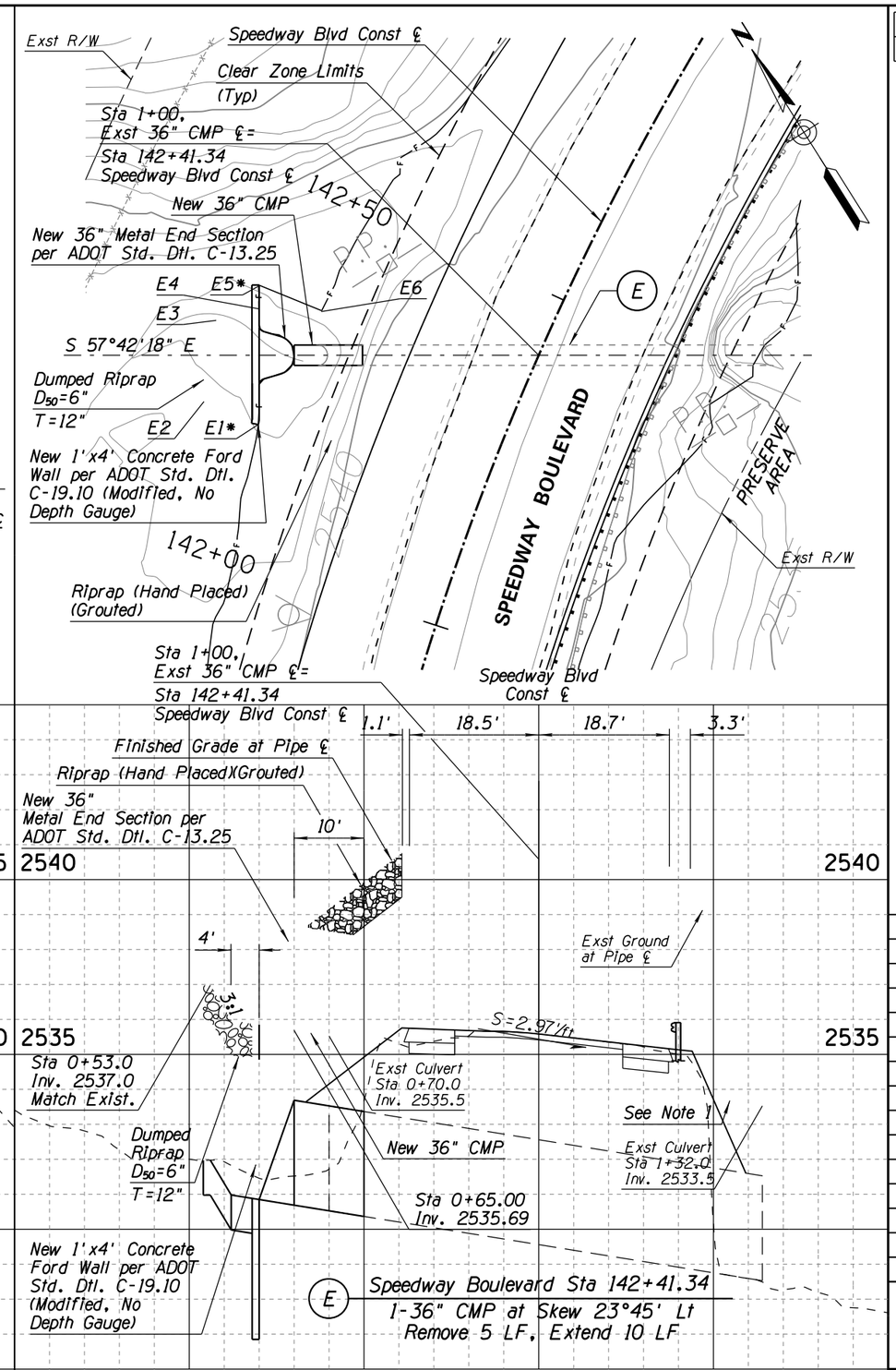
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale:	1"=40' Horiz.	Sheet D6 of D6	Page 26 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Demo\4HSBSP-Demo05.dgn

Wed 13 Feb 2019, 11:32:34





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

Drainage Quantities:

36" CMPs (14 Gauge): 10 LF
48" CMP (14 Gauge): 22 LF
36" Flared End Section: 1 EA
48" Flared End Section: 2 EA
Concrete Ford Wall (1'x4'): 59 LF
Riprap (d_{50}= 6"): 14 CY
Riprap (4"-6" Rock): 42 SY

Earthwork Quantities:

Structural Excavation: N/A
Pipe Excavation: 20 CY
Drainage Excavation: 56 CY
Structural Backfill: N/A
Pipe Backfill: 31 CY
Trench Backfill: N/A

Pay Items:

36" CMP (14 Gauge): 10 LF
Bid Item No. 5010036
48" CMPs (14 Gauge): 22 LF
Bid Item No. 5010048
36" Flared End Section: 1 EA
Bid Item No. 5014036
48" Flared End Section: 2 EA
Bid Item No. 5014048
Concrete Ford Wall (1'x4'): 59 LF
Bid Item No. 9080504
Riprap (Dumped): 14 CY
Bid Item No. 9130001
Riprap (Hand Placed)(Grouted): 42 SY
Bid Item No. 9130009

Notes:

1. Clean Existing Pipes. Cost is Incidental to Pipe Items.

* Denotes Begin/End of Concrete Ford Wall.

RIPRAP DATA

I.D.	STATION	OFFSET	ELEV
D1*	135+42	24' LT	2557.4
D2	135+51	29' LT	2555.5
D3	135+52	47' LT	2553.6
D4	135+71	49' LT	2550.7
D5*	135+74	45' LT	2550.8
D6	135+82	35' LT	2551.5
D7	135+95	32' LT	2551.8
E1*	142+18	33' LT	2537.0
E2	142+19	42' LT	2537.4
E3	142+27	44' LT	2536.6
E4	142+32	39' LT	2536.8
E5*	142+35	41' LT	2537.1
E6	142+35	31' LT	2537.3

10' 0 10' 20'
SCALE: 1"=10'

Scale: Hor.: 1"=10' Vert.: 1"=2'

Sheet DR01 of DR03

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

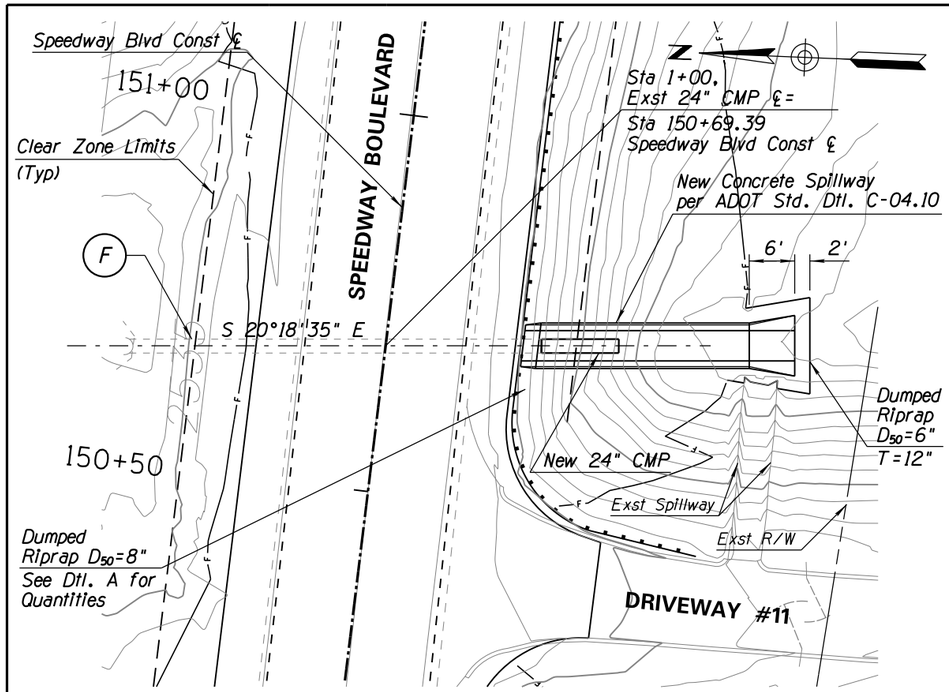
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

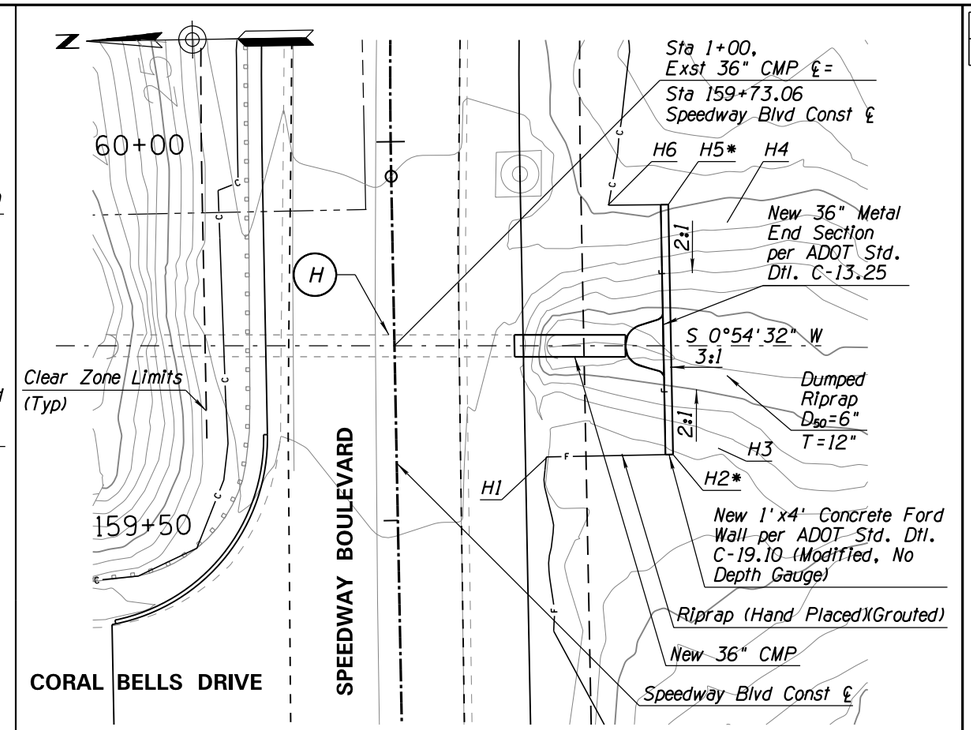
Pima County Department of Transportation

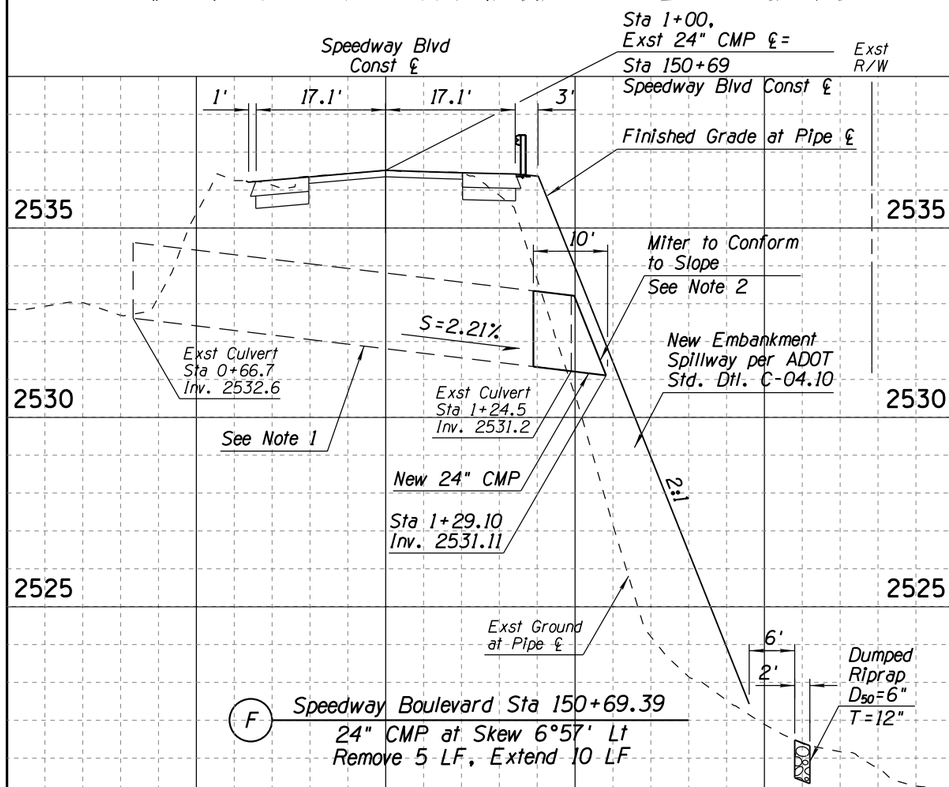
DRAINAGE PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

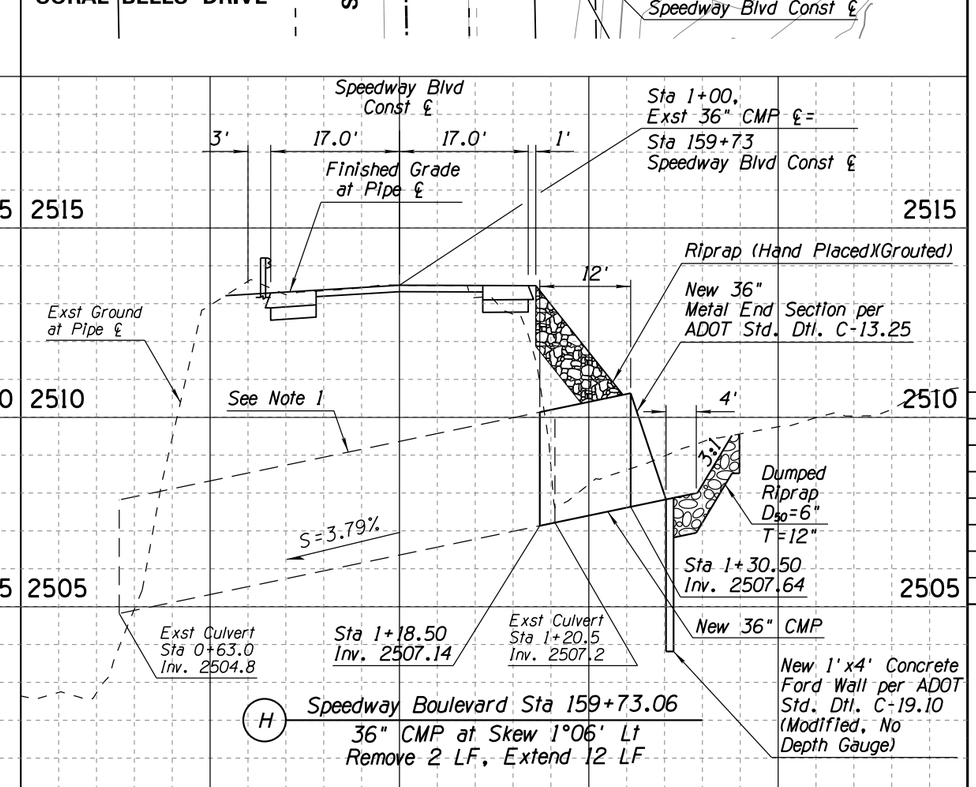
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Drainage Quantities:

24" CMP (14 Gauge): 10 LF
36" CMP (14 Gauge): 12 LF
36" Flared End Section: 1 EA
Concrete Ford Wall (1'x4'): 33 LF
Riprap (d_{50}= 6"): 14 CY
Riprap (4"-6" Rock): 66 SY

Earthwork Quantities:

Structural Excavation: N/A
Pipe Excavation: 9 CY
Drainage Excavation: 31 CY
Structural Backfill: N/A
Pipe Backfill: 11 CY
Trench Backfill: N/A

Pay Items:

24" CMP (14 Gauge): 10 LF
Bid Item No. 5010011
36" CMP (14 Gauge): 12 LF
Bid Item No. 5010025
36" Flared End Section: 1 EA
Bid Item No. 5014036
Concrete Ford Wall (1'x4'): 33 LF
Bid Item No. 9080504
Riprap (Dumped): 14 CY
Bid Item No. 9130001
Riprap (Hand Placed)(Grouted): 66 SY
Bid Item No. 9130009
Embankment Spillway: 30 LF
Bid Item No. 9170001

Notes:

1. Clean Existing Pipes. Cost is Incidental to Pipe Items.
2. Construct Pipe Collar per ADOT Std. Dtl. C-13.80. Incidental to Pipe Items.

* Denotes Begin/End of Concrete Ford Wall.

RIPRAP DATA

I.D.	STATION	OFFSET	ELEV
H1	159+58	20' RT	2512.9
H2*	159+58	35' RT	2513.1
H3	159+59	42' RT	2512.9
H4	159+88	44' RT	2514.3
H5*	159+91	36' RT	2515.2
H6	159+91	29' RT	2515.2

10' 0 10' 20'
SCALE: 1" = 10'

Scale:	Hor.: 1"=10' Vert.: 1"=2'	Sheet DR02 of DR03	Page 28 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

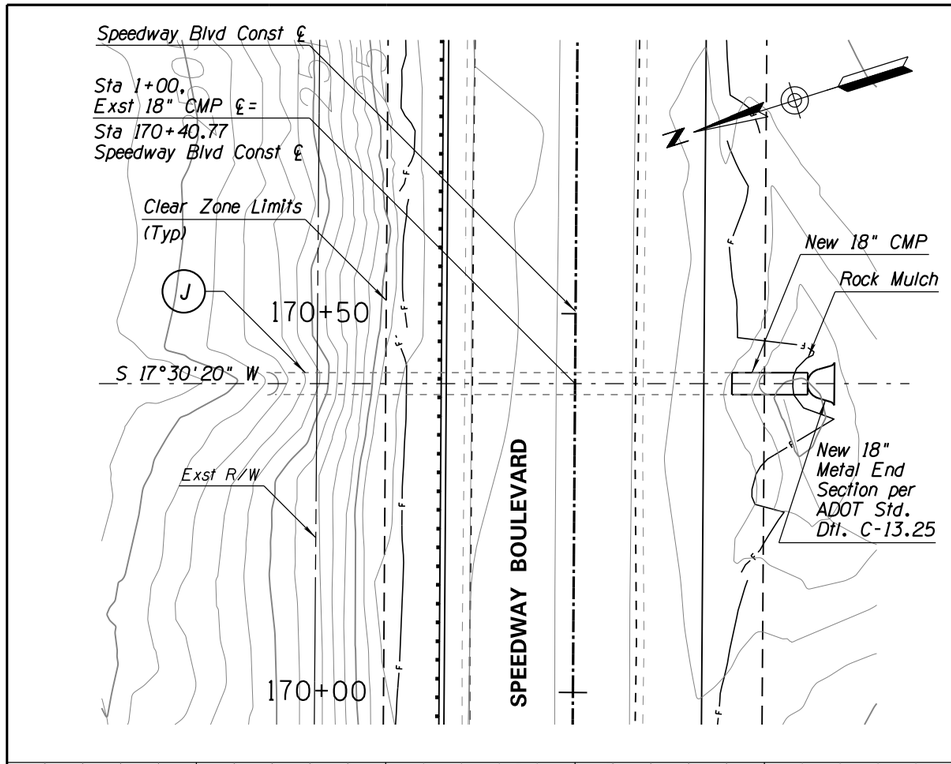
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

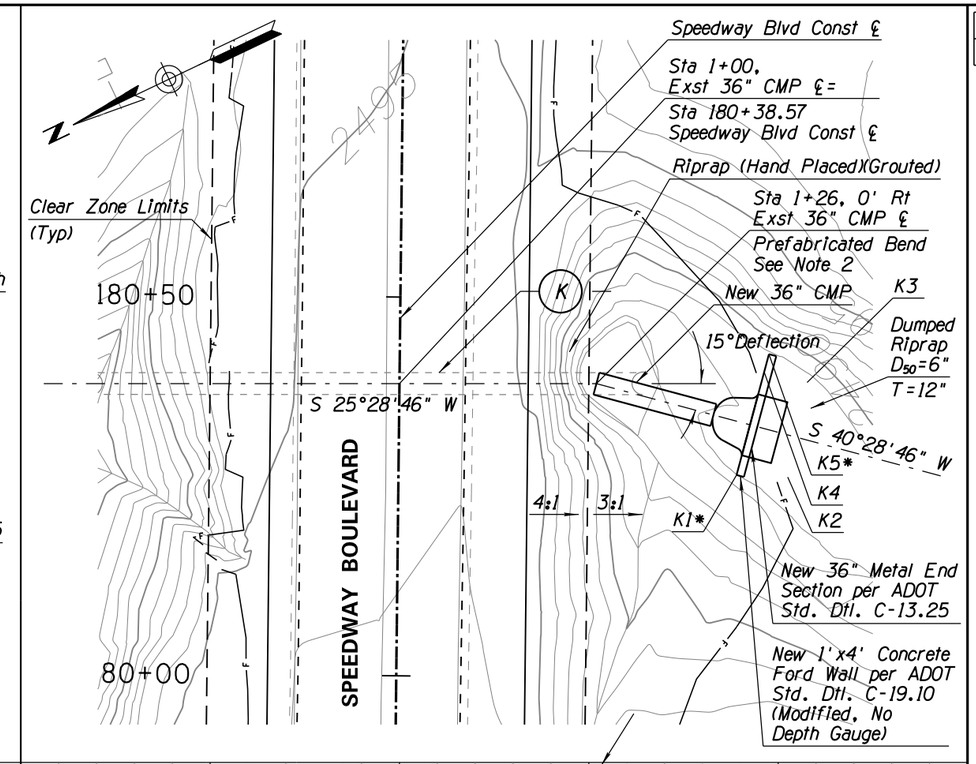
Pima County Department of Transportation

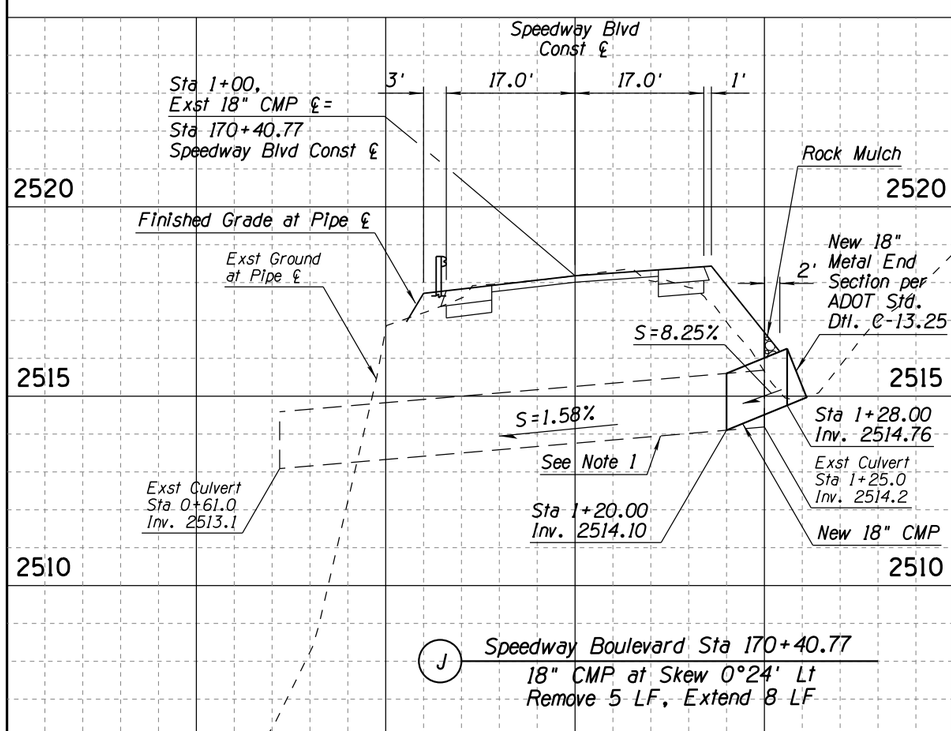
DRAINAGE PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

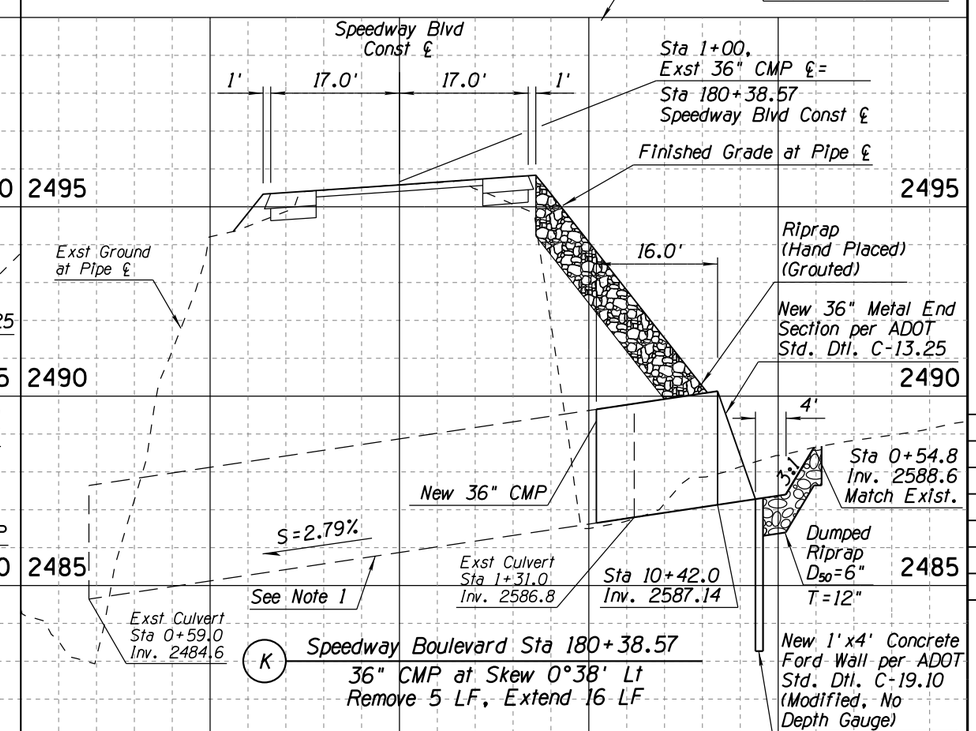
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Drainage\4HSBSP-DrainC02.dgn
Wed 13 Feb 2019, 08:41:43









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

Drainage Quantities:

18" CMP (14 Gauge): 8 LF
36" CMP (14 Gauge): 16 LF
18" Flared End Section: 1 EA
36" Flared End Section: 1 EA
Rock Mulch (d = 3"): 1.5 CY
Concrete Ford Wall (1'x4'): 17 LF
Riprap (d_{50}= 6"): 4 CY
Riprap (4"-6" Rock): 51 SY

Earthwork Quantities:

Structural Excavation: N/A
Pipe Excavation: 9 CY
Drainage Excavation: 8 CY
Structural Backfill: N/A
Pipe Backfill: 15 CY
Trench Backfill: N/A

Pay Items:

18" CMP (14 Gauge): 8 LF
Bid Item No. 5010007
36" CMP (14 Gauge): 16 LF
Bid Item No. 5010025
18" Flared End Section: 1 EA
Bid Item No. 5014018
36" Flared End Section: 1 EA
Bid Item No. 5014036
Rock Mulch: 1.5 CY
Bid Item No. 8030031
Concrete Ford Wall (1'x4'): 17 LF
Bid Item No. 9080504
Riprap (Dumped): 4 CY
Bid Item No. 9130001
Riprap (Hand Placed)(Grouted): 51 SY
Bid Item No. 9130009

Notes:

1. Clean Existing Pipes. Cost is Incidental to Pipe Items.
2. Prefabricated Bend is Incidental to 36" CMP (14 Gauge).

* Denotes Begin/End of Concrete Ford Wall.

RIPRAP DATA

I.D.	STATION	OFFSET	ELEV
K1*	180+27	45' RT	2488.0
K2	180+27	51' RT	2488.3
K3	180+39	54' RT	2488.6
K4	180+41	48' RT	2488.4
K5*	180+43	49' RT	2488.8

10' 0 10' 20'
SCALE: 1" = 10'

Scale: Hor.: 1"=10' Vert.: 1"=2'

Sheet DR03 of DR03

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
TUCSON, AZ 85701
TEL: +1 520.882.8424

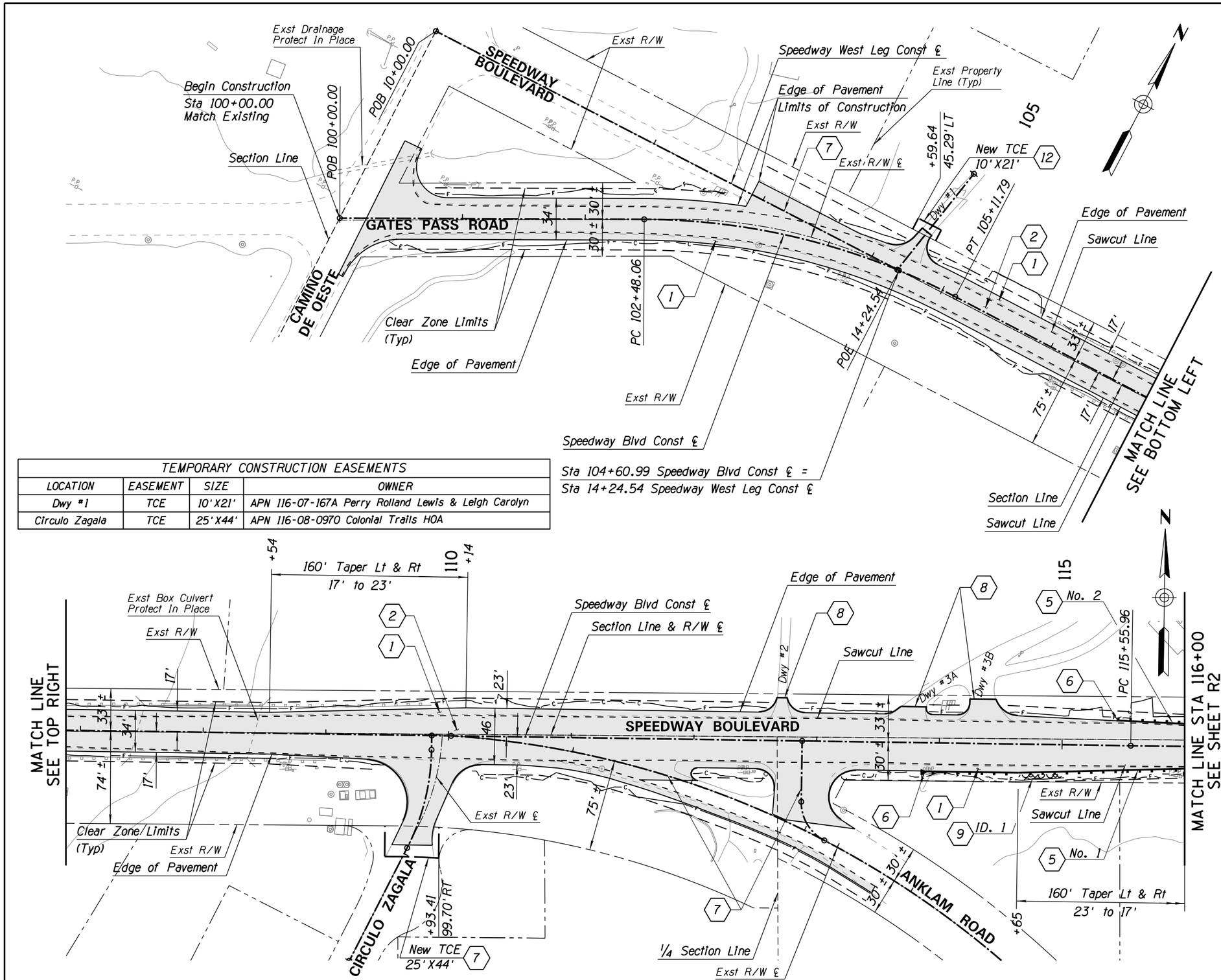
Pima County Department of Transportation

DRAINAGE PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



TEMPORARY CONSTRUCTION EASEMENTS			
LOCATION	EASEMENT	SIZE	OWNER
Dwy #1	TCE	10'X21'	APN 116-07-167A Perry Rolland Lewis & Leigh Carolyn
Circulo Zagala	TCE	25'X44'	APN 116-08-0970 Colonial Trails HOA

ROADWAY KEYNOTES

1. Construct 2669 SY New Pavement Structural Section No. 1.
2. Construct 5250 SY New Pavement (Mill Replacement) Structural Section No. 2.
5. Construct New Guardrail (ADOT Std Dtl C-10.03), See Sheet B1.
6. Construct 1 EA New Guardrail End Terminal & 1 EA Guardrail End Anchor.
7. See Sheets SS1-SS3 for Side Street Plan & Profile.
8. See Sheet G1 for Driveway Edge Geometry, Grading and TCE Data.
9. Construct Riprap (Hand-Placed) per Detail A, See Sheet DT1.
12. See Sheet DW1 for Driveway Plan & Profile.

New Pavement Limits, See Sheets TY1-TY5.

40' 0 40' 80'
SCALE: 1" =40'

Scale:	1"=40' Horiz.	Sheet R1 of R5	Page 30 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

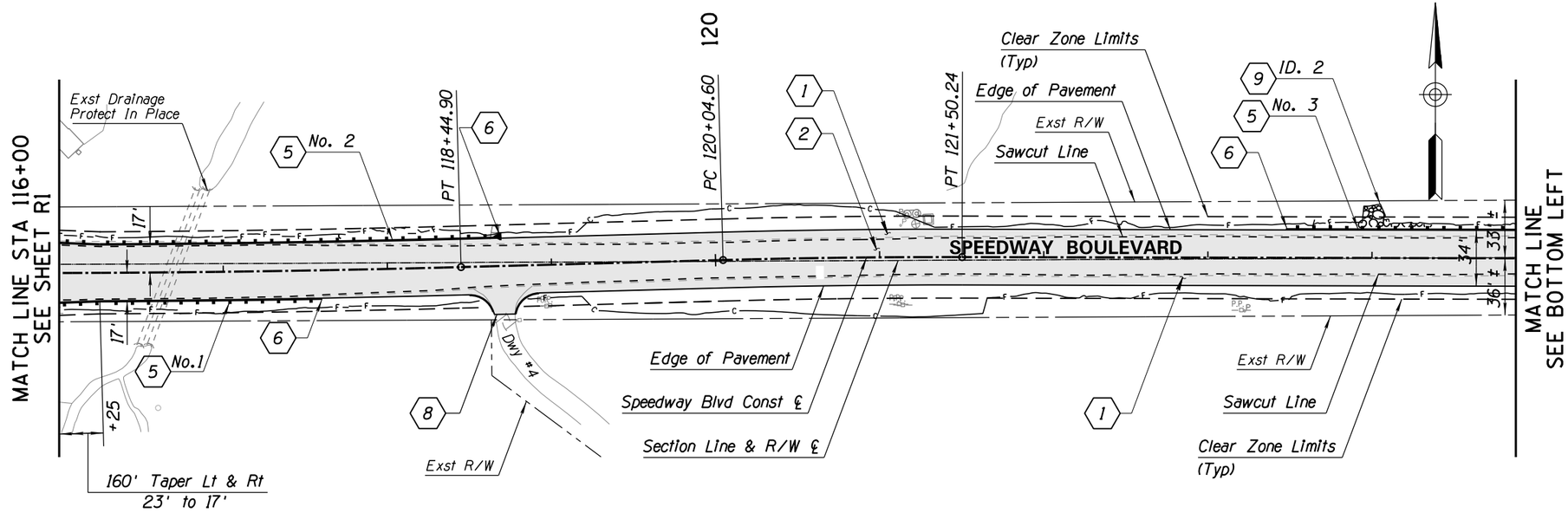
Pima County Department of Transportation

ROADWAY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

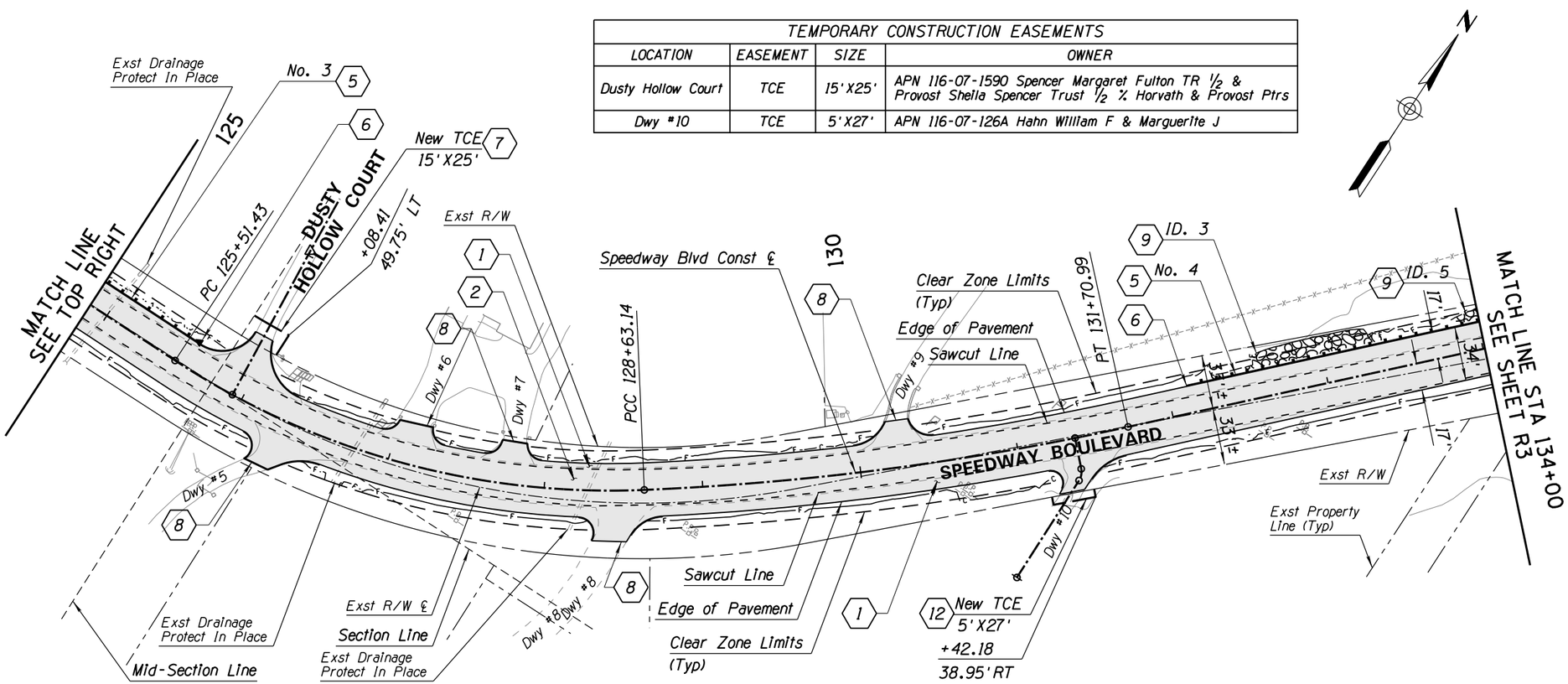
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-Civ01.dgn

Wed 13 Feb 2019, 10:00:14



TEMPORARY CONSTRUCTION EASEMENTS			
LOCATION	EASEMENT	SIZE	OWNER
Dusty Hollow Court	TCE	15'X25'	APN 116-07-1590 Spencer Margaret Fulton TR ½ & Provost Sheila Spencer Trust ½ % Horvath & Provost Ptrs
Dwy #10	TCE	5'X27'	APN 116-07-126A Hahn William F & Marguerite J



New Pavement Limits, See Sheets TY1-TY5.

40' 0 40' 80'
SCALE: 1"=40'

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1. Construct 2395 SY New Pavement Structural Section No. 1.
2. Construct 4719 SY New Pavement (Mill Replacement) Structural Section No. 2.
5. Construct New Guardrail (ADOT Std Dtl C-10.03), See Sheet B1.
6. Construct 2 EA New Guardrail End Terminals & 3 EA Guardrail End Anchors.
7. See Sheet SS4 for Side Street Plan & Profile.
8. See Sheets G1-G3 for Driveway Edge Geometry, Grading and TCE Data.
9. Construct Riprap (Hand-Placed) per Detail A, See Sheet DT1.
12. See Sheet DW1 for Driveway Plan & Profile.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

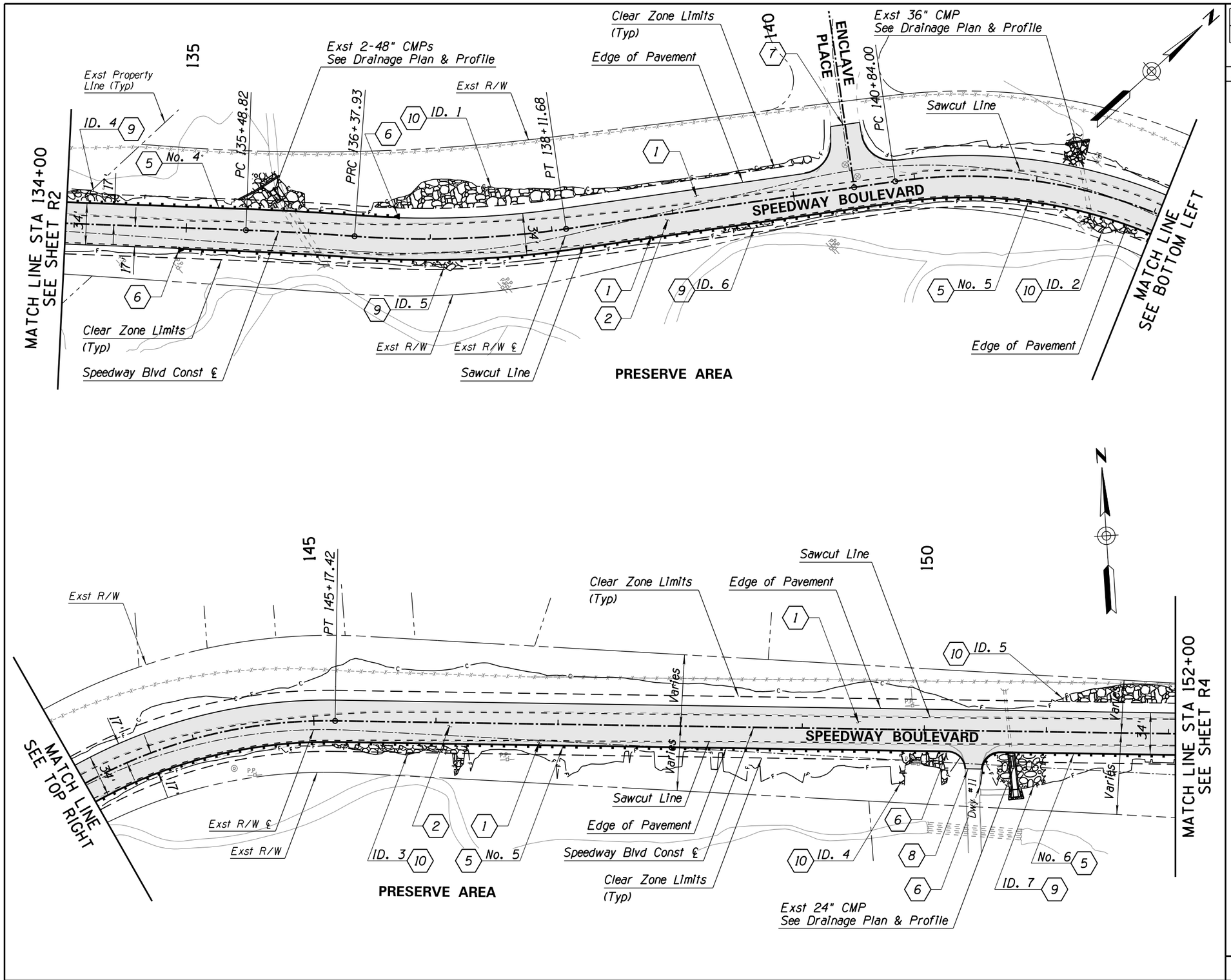
ROADWAY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet R2 of R5 | Page 31 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-Civ02.dgn

Wed 13 Feb 2019, 10:00:21



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1. Construct 2549 SY New Pavement Structural Section No. 1.
2. Construct 4410 SY New Pavement (Mill Replacement) Structural Section No. 2.
5. Construct New Guardrail (ADOT Std Dtl C-10.03), See Sheet B1.
6. Construct 2 EA New Guardrail End Terminals & 2 EA Guardrail End Anchors.
7. See Sheet SS4 for Side Street Plan & Profile.
8. See Sheets G3 for Driveway Edge Geometry, Grading and TCE Data.
9. Construct Riprap Hand-Placed) per Detail A, See Sheet DT1.
10. Construct Riprap (Hand-Placed) (Grouted) per Detail A, See Sheet DT1.

New Pavement Limits, See Sheets TY1-TY5.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

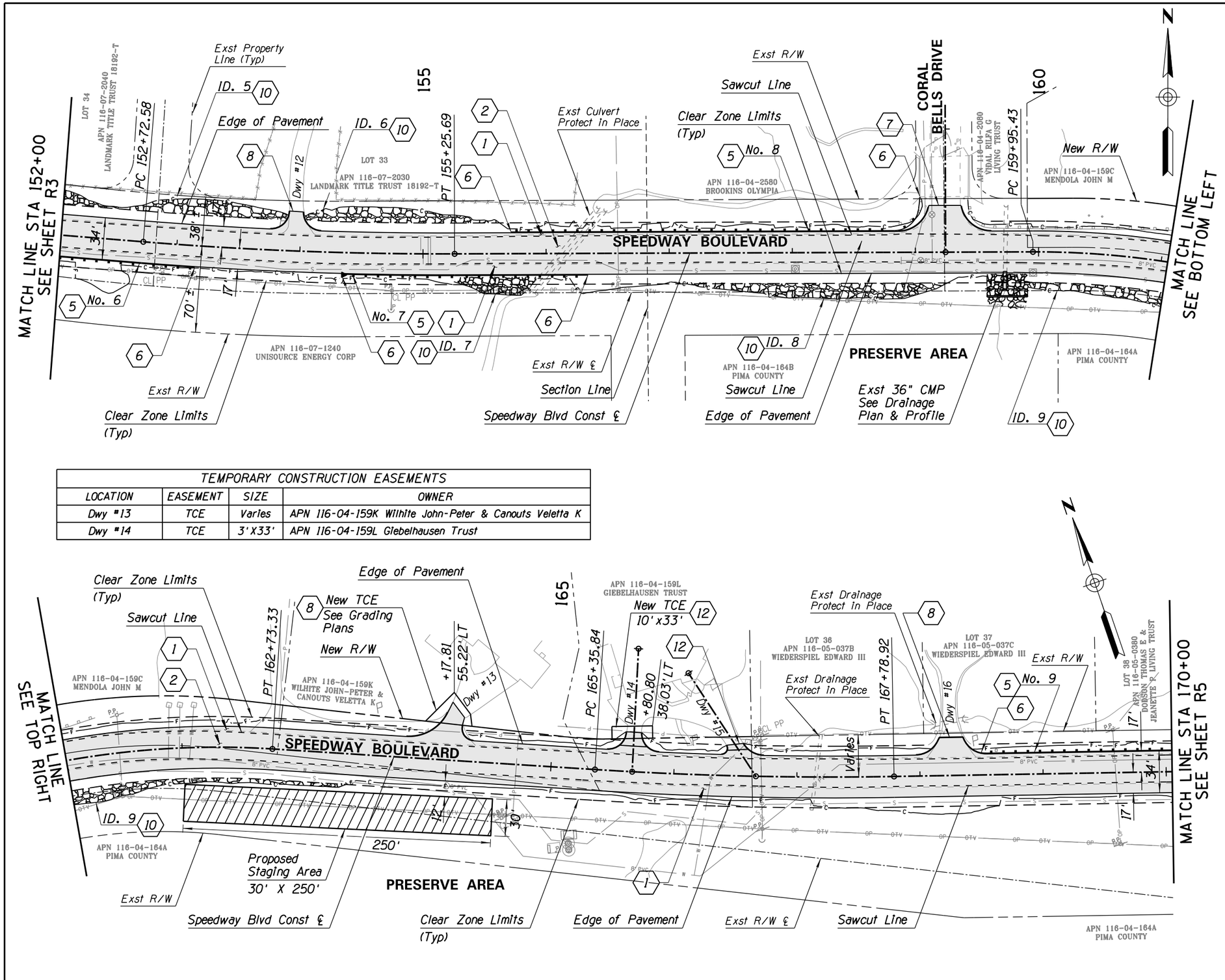
ROADWAY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale:	1"=40' Horiz.	Sheet R3 of R5	Page 32 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-Civ03.dgn

Wed 13 Feb 2019, 10:00:28



TEMPORARY CONSTRUCTION EASEMENTS			
LOCATION	EASEMENT	SIZE	OWNER
Dwy #13	TCE	Varies	APN 116-04-159K Wilhite John-Peter & Canouts Veletta K
Dwy #14	TCE	3'X33'	APN 116-04-159L Giebelhausen Trust

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1. Construct 2618 SY New Pavement Structural Section No. 1.
2. Construct 4427 SY New Pavement (Mill Replacement) Structural Section No. 2.
5. Construct New Guardrail (ADOT Std Dtl C-10.03), See Sheet B1.
6. Construct 1 EA New Guardrail End Terminal & 5 EA Guardrail End Anchor.
7. See Sheets SS5 for Side Street Plan & Profile.
8. See Sheet G3-G4 for Driveway Edge Geometry, Grading and TCE Data.
10. Construct Riprap (Hand-Placed) (Grouted) per Detail A, See Sheet DT1.
12. See Sheet DW2 for Driveway Plan & Profile.

New Pavement Limits, See Sheets TY1-TY5.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

	Date
Designed FF	2/2009
Drawn CPC	2/2009
Checked JAV	2/2009
Proj. Engr. FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.5424

Pima County Department of Transportation

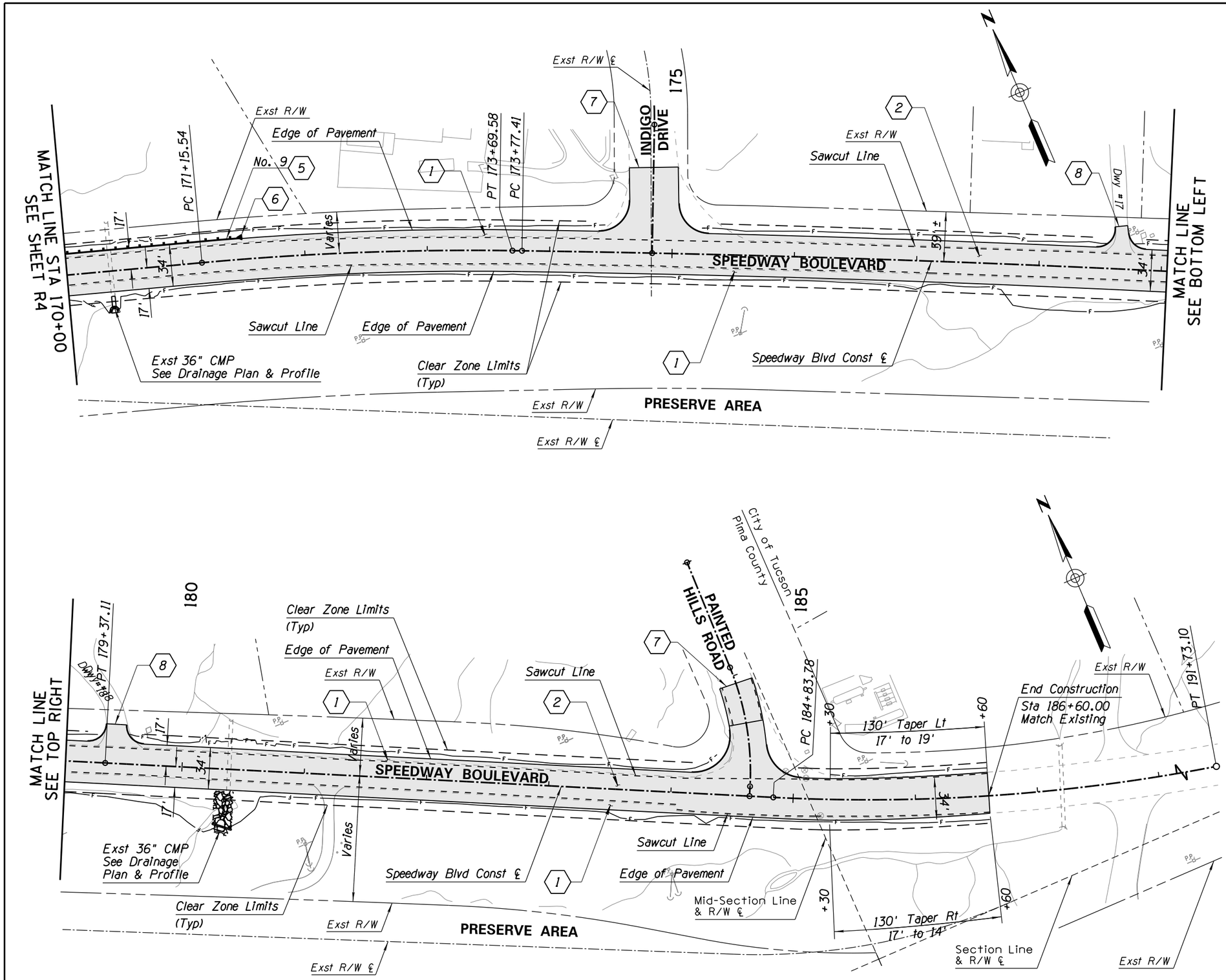
ROADWAY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet R4 of R5 | Page 33 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-Civ04.dgn

Wed 13 Feb 2019, 09:22:34



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1. Construct 2683 SY New Pavement Structural Section No. 1.
2. Construct 4205 SY New Pavement (Mill Replacement) Structural Section No. 2.
5. Construct New Guardrail (ADOT Std Dtl C-10.03), See Sheet B1.
6. Construct 1 EA New Guardrail End Terminal.
7. See Sheets SS5-SS6 for Side Street Plan & Profile.
8. See Sheet G4 for Driveway Edge Geometry, Grading and TCE Data.

New Pavement Limits, See Sheets TY1-TY5.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

ROADWAY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

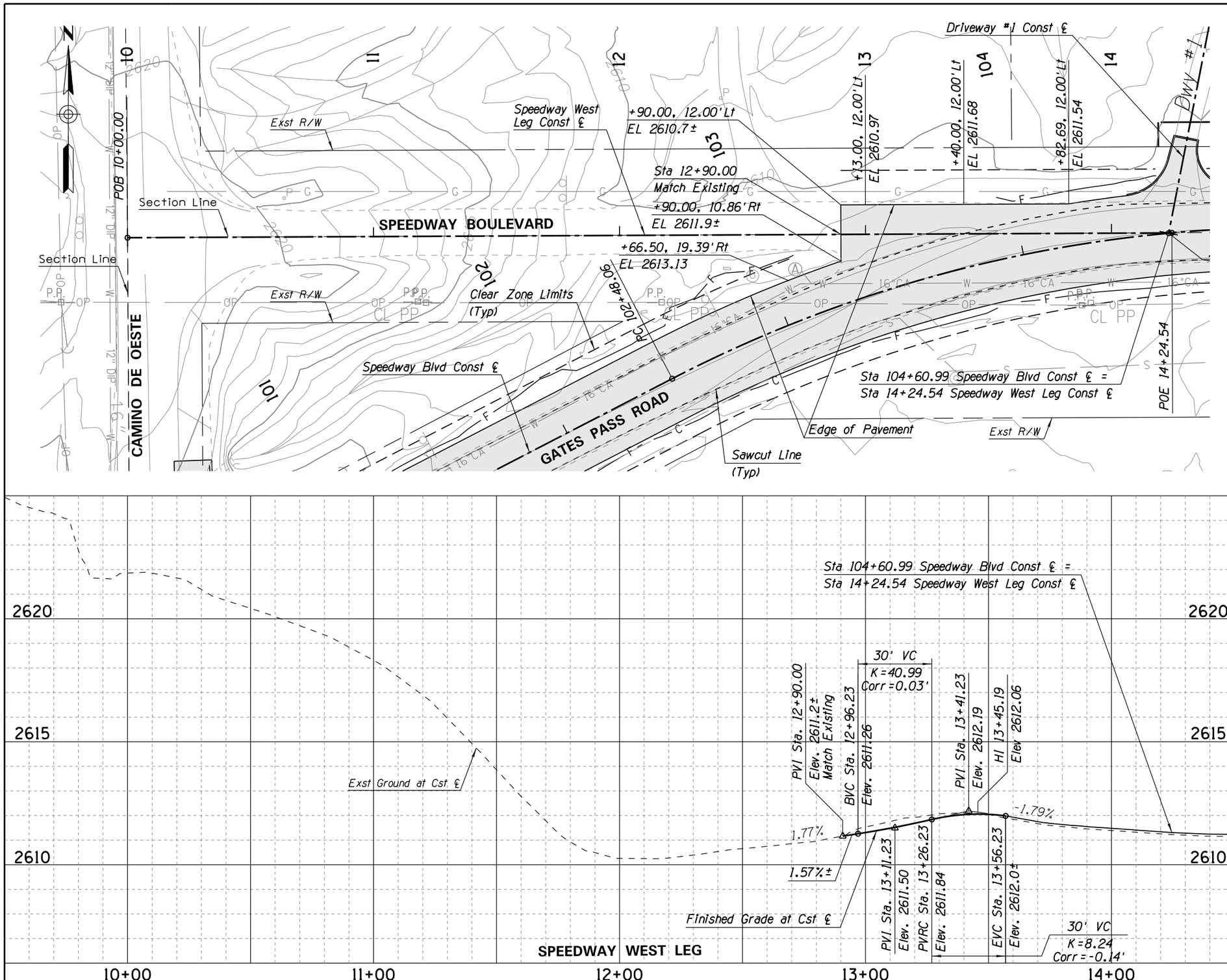
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale:	1"=40' Horiz.	Sheet R5 of R5	Page 34 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-Civ05.dgn

Wed 13 Feb 2019, 10:00:42



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIDE STREET PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

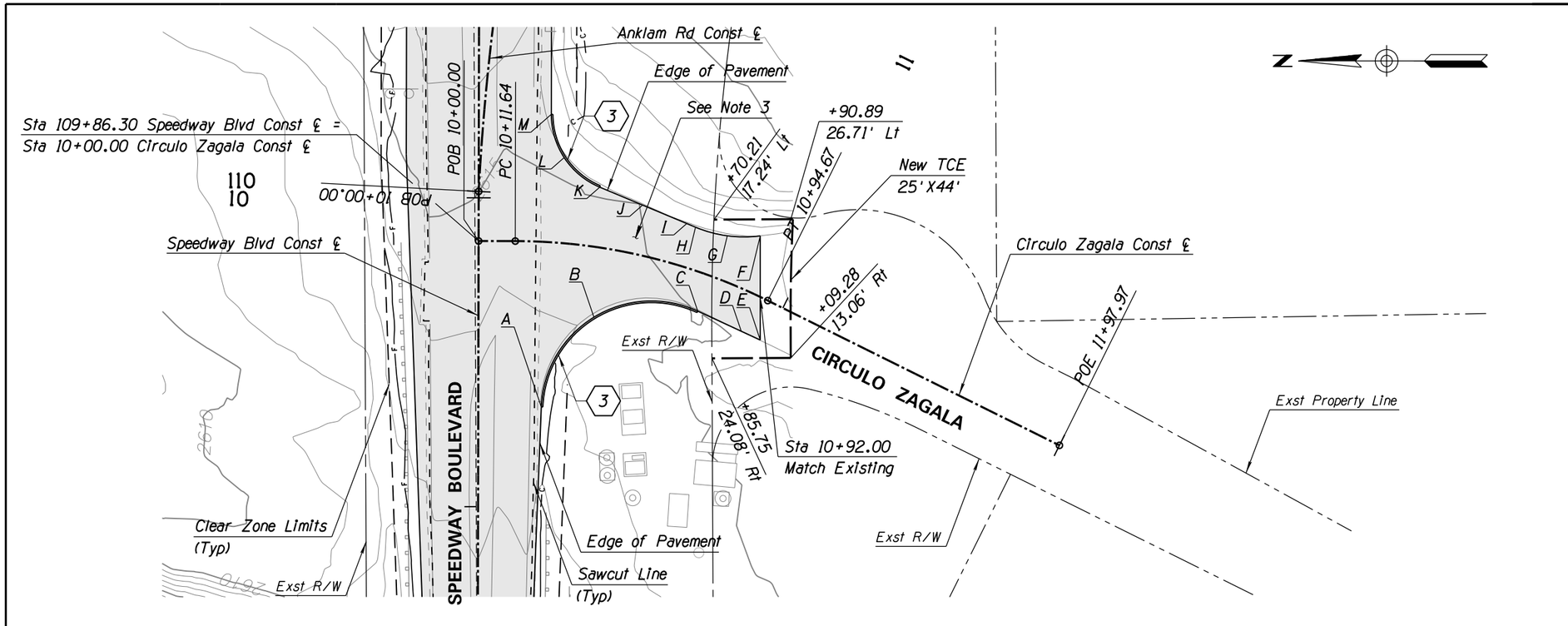
PROJECT NO. CTR.4HSBSP

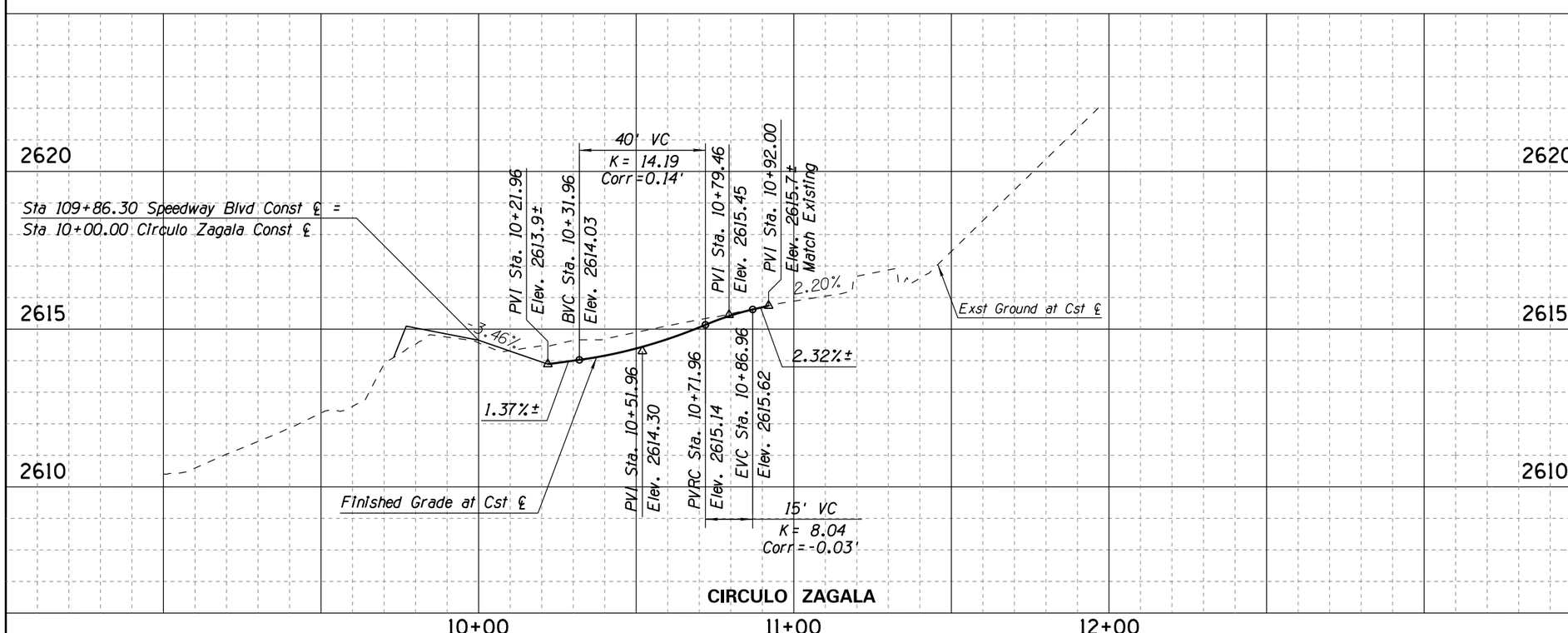
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=20' Horiz. | Sheet SS01 of SS06 | Page 35 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-CivSS01.dgn

Wed 13 Feb 2019, 10:00:49





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 99 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	10+23.41	52.33'RT	2613.29	BCR
B	10+40.24	22.12'RT	2613.84	MP
C	10+74.93	11.87'RT	2614.86	ECR
D	10+92.00	12.41'RT	2615.21	AP
E	10+98.08	12.26'RT	2615.4	MATCH EXST
F	10+84.39	17.63'LT	2615.72	MATCH EXST
G	10+75.45	13.79'LT	2615.53	AP
H	10+65.75	13.13'LT	2615.19	AP
I	10+62.00	13.56'LT	2615.10	AP
J	10+50.62	15.38'LT	2614.78	AP
K	10+35.94	18.95'LT	2614.56	ECR
L	10+27.00	24.65'LT	2614.58	MP
M	10+20.93	40.53'LT	2614.86	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Pavement Structural Section No. 1.
4. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

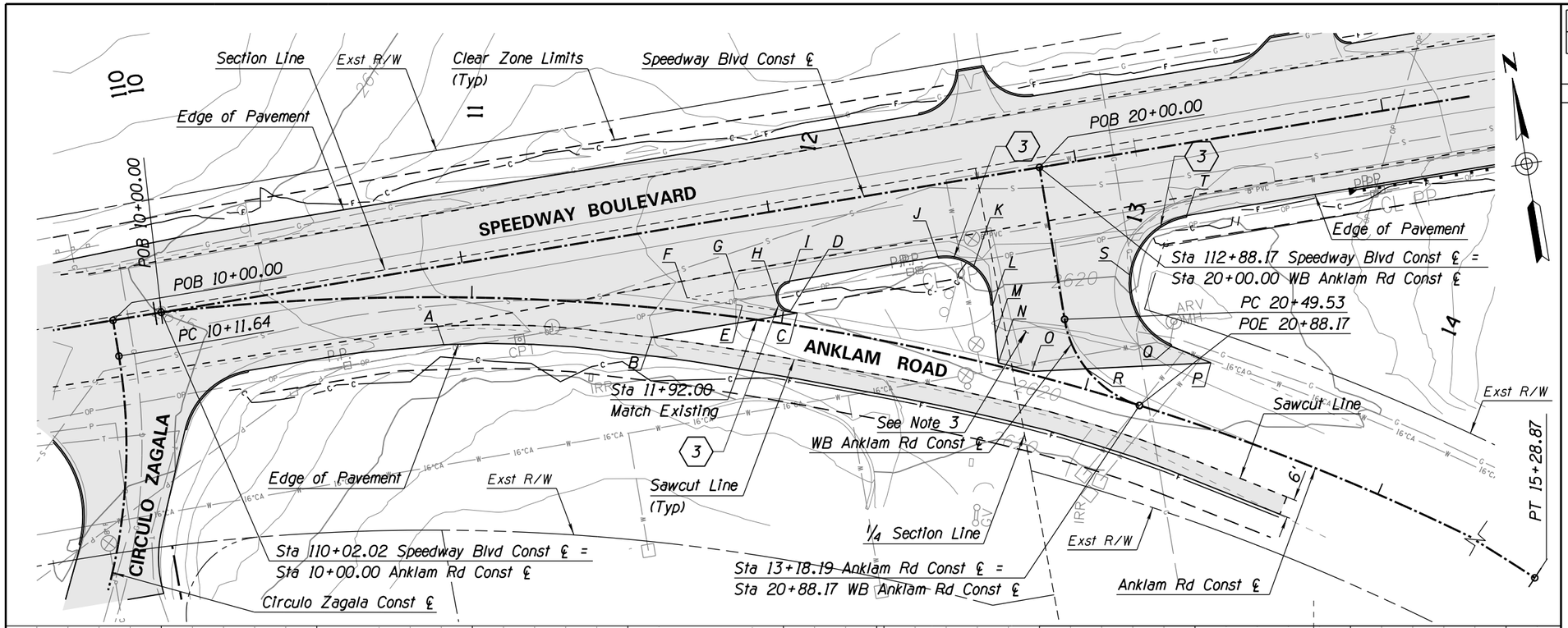
Pima County Department of Transportation

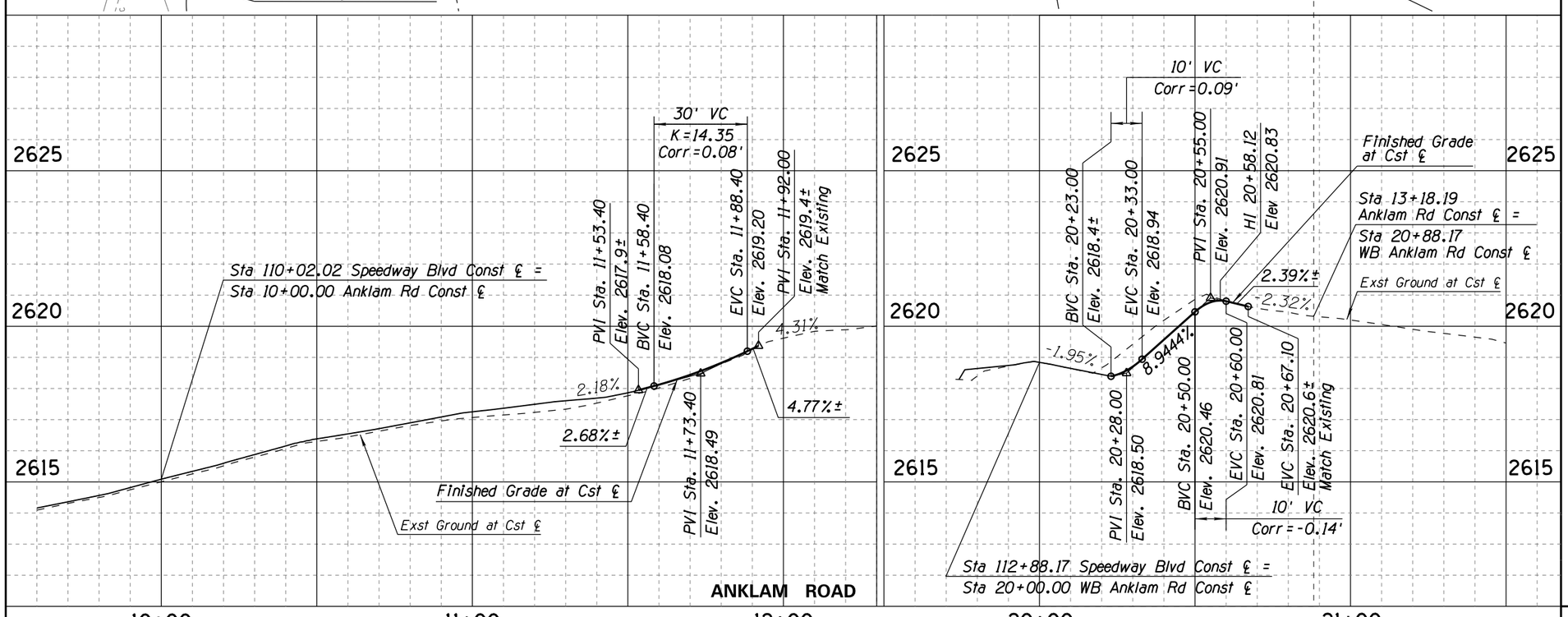
SIDE STREET PLAN & PROFILE

SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 95 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	10+91.10	15.27'RT	2616.43	AP
B	11+58.94	9.52'RT	2618.0	MATCH EXST
C	12+04.52	4.05'RT	2619.9	MATCH EXST
D	12+02.06	4.00'RT	2619.89	ECR
E	11+86.73	3.90'RT	2619.33	AP
F	11+68.94	4.17'RT	2618.08	AP
G	11+85.56	9.03'LT	2618.14	AP
H	11+97.09	8.19'LT	2619.05	MP
I	12+00.45	13.76'LT	2618.20	BCR
J	20+23.00	36.88'RT	2618.44	BCR
K	20+27.75	25.93'RT	2618.86	MP
L	20+41.26	22.06'RT	2620.6	ECR/ MATCH EXST
M	20+50.16	22.68'RT	2620.8	MP/ MATCH EXST
N	20+55.68	24.19'RT	2620.3	MATCH EXST
O	20+60.00	15.29'RT	2620.3	MATCH EXST
P	21+05.52	20.14'LT	2620.5	MATCH EXST
Q	20+92.08	21.27'LT	2620.72	ECR
R	20+67.10	0.00'LT	2620.6	MATCH EXST
S	20+38.90	22.99'LT	2619.63	MP
T	20+23.00	44.13'LT	2619.11	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Pavement Structural Section No. 1.
4. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.5424

Pima County Department of Transportation

SIDE STREET PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

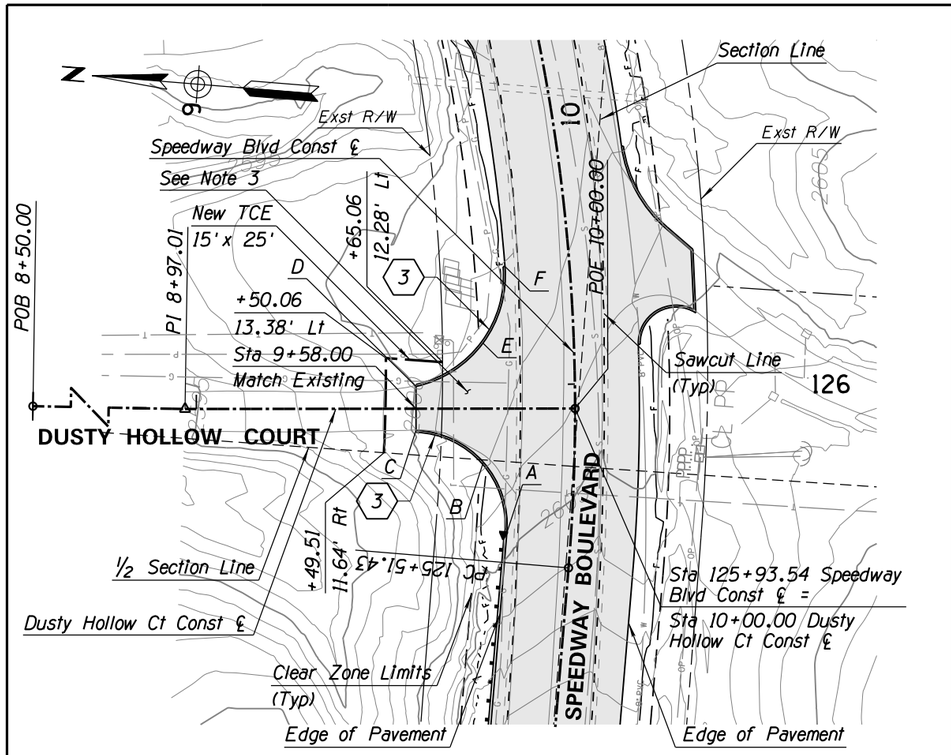
PROJECT NO. CTR.4HSBSP

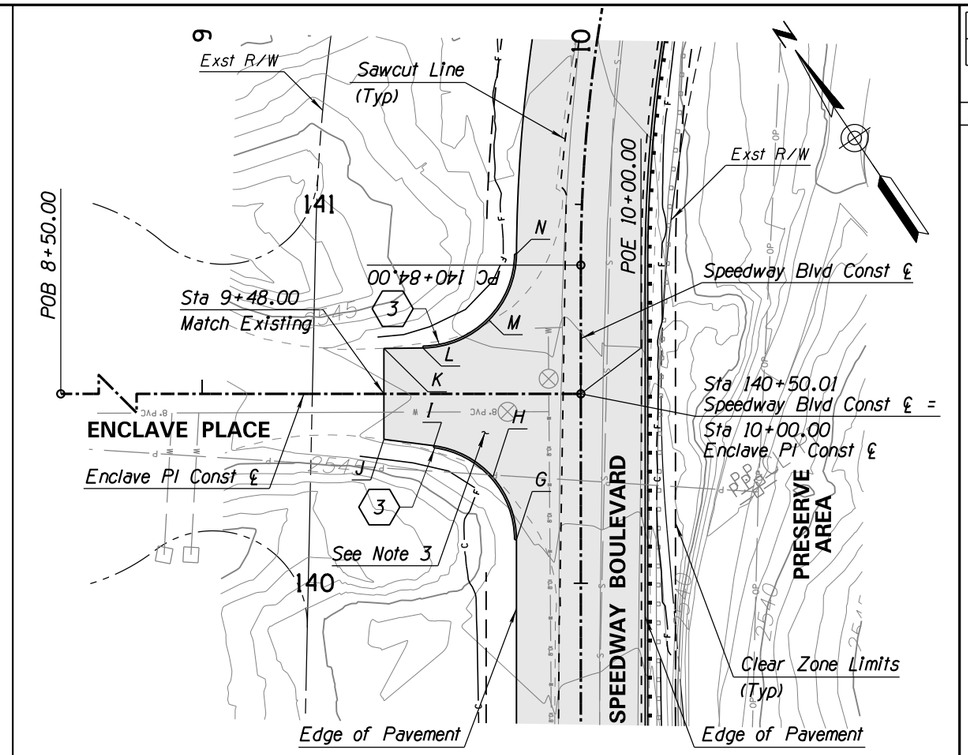
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

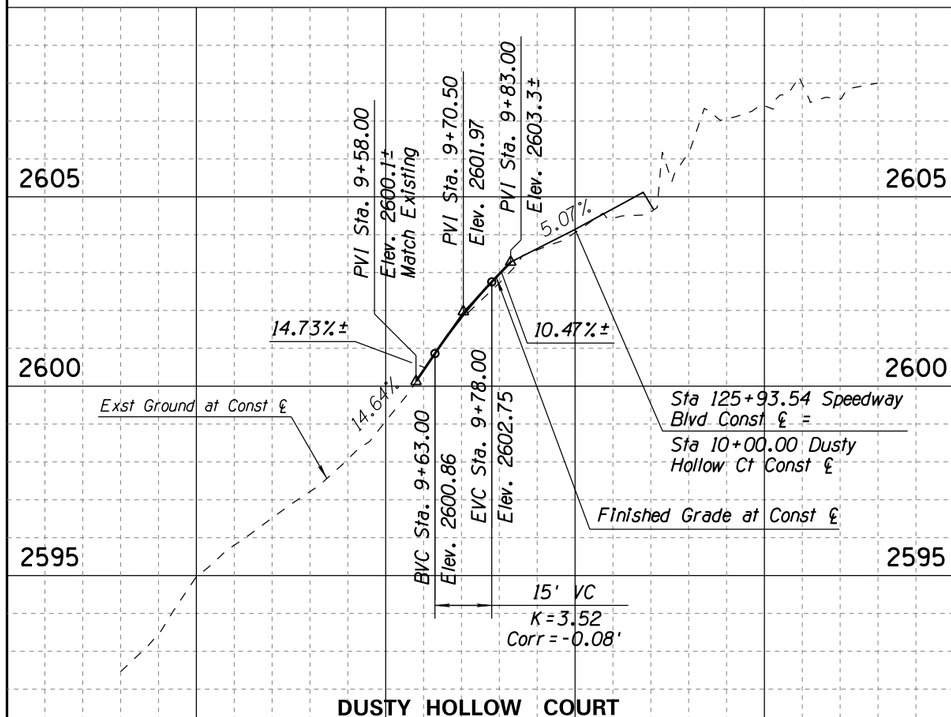
Scale: 1"=20' Horiz. | Sheet SS03 of SS06 | Page 37 of 95

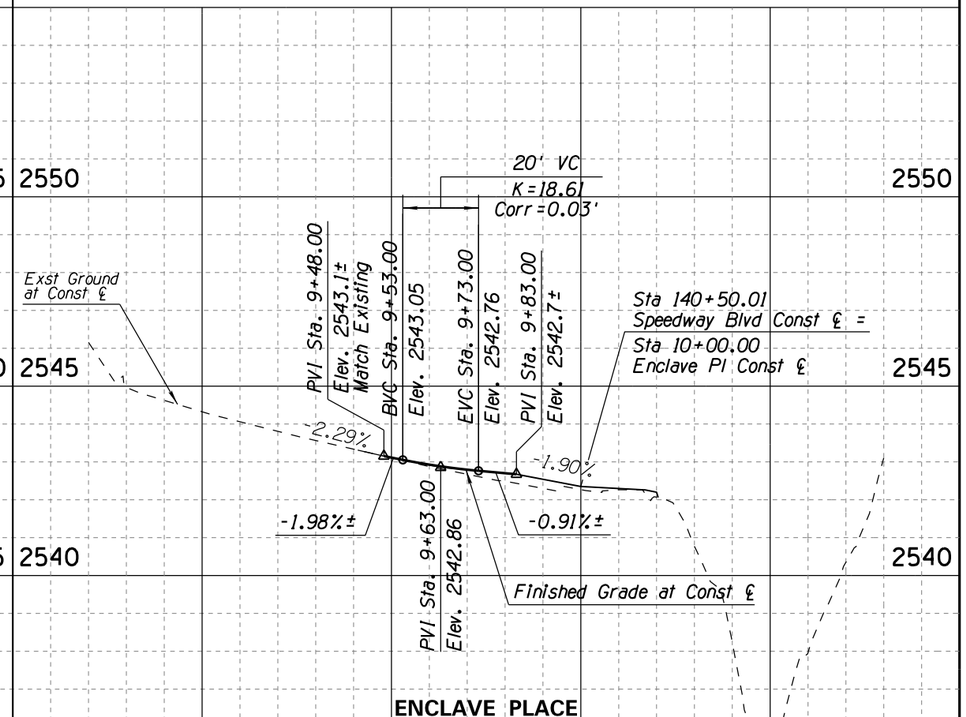
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-CivSS03.dgn

Wed 13 Feb 2019, 10:01:02









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 158 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	9+81.95	32.81' RT	2604.88	BCR
B	9+75.77	14.14' RT	2602.54	MP
C	9+58.00	5.72' RT	2600.2	ECR/MATCH EXST
D	9+58.00	5.89' LT	2600.0	ECR/MATCH EXST
E	9+75.70	17.30' LT	2602.10	MP
F	9+81.54	37.54' LT	2602.12	BCR
G	9+85.00	38.50' LT	2543.20	BCR
H	9+76.77	21.99' RT	2543.06	MP
I	9+61.19	13.70' RT	2542.92	ECR
J	9+48.00	12.00' RT	2542.8	MATCH EXST
K	9+48.00	12.00' RT	2542.6	MATCH EXST
L	9+58.30	12.12' LT	2542.49	ECR
M	9+75.73	19.48' LT	2542.24	MP
N	9+83.01	36.94' LT	2542.0	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Pavement Structural Section No. 1.
4. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

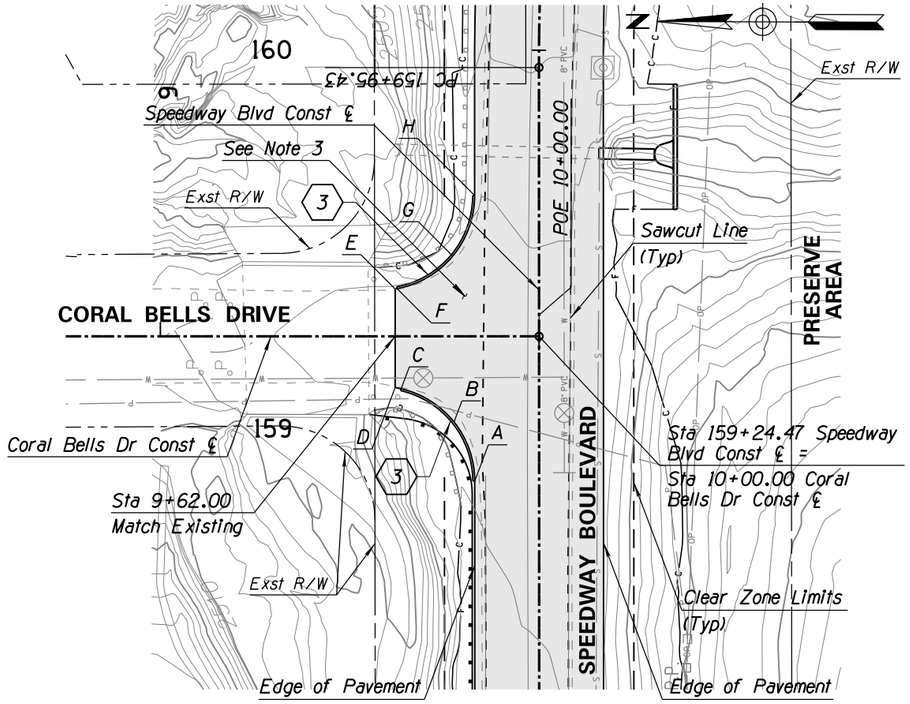
SIDE STREET PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

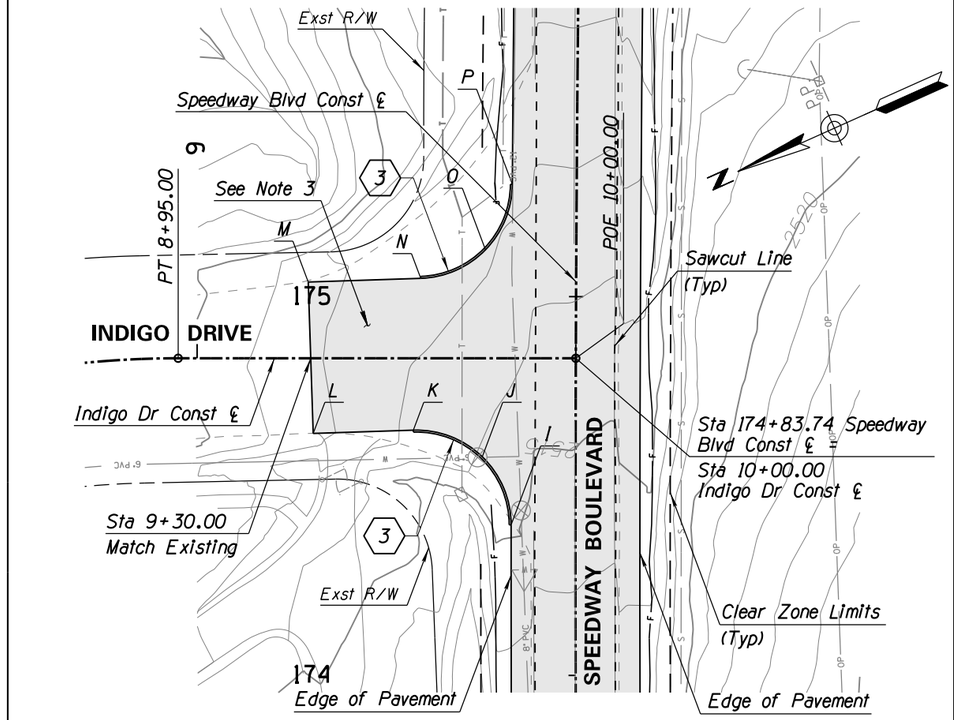
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

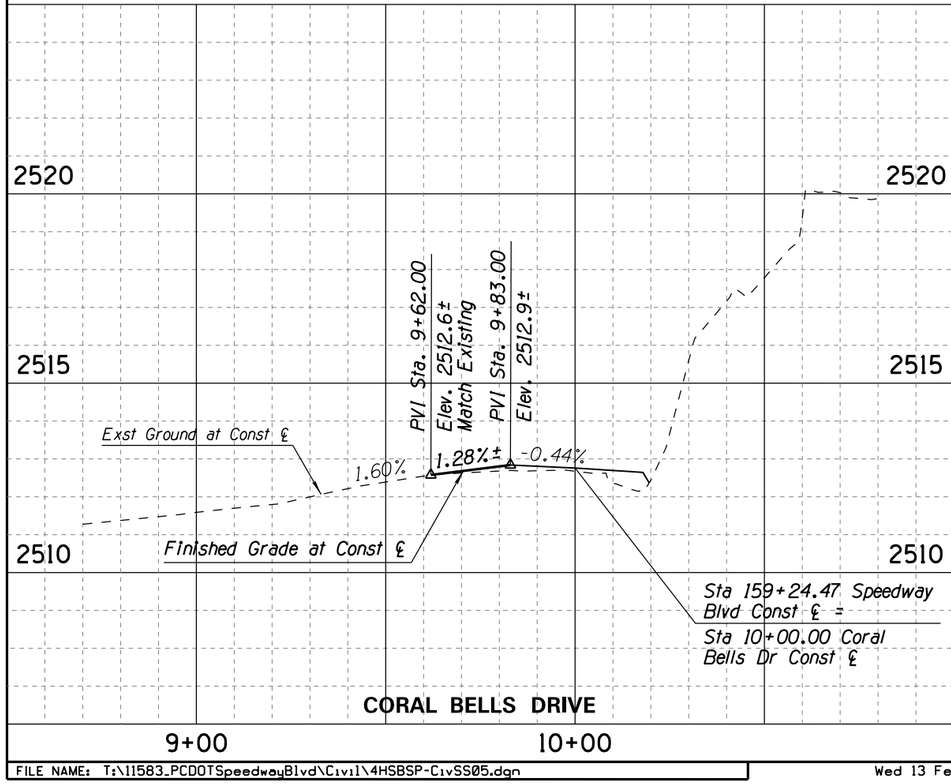
Scale: 1"=20' Horiz. | Sheet SS04 of SS06 | Page 38 of 95

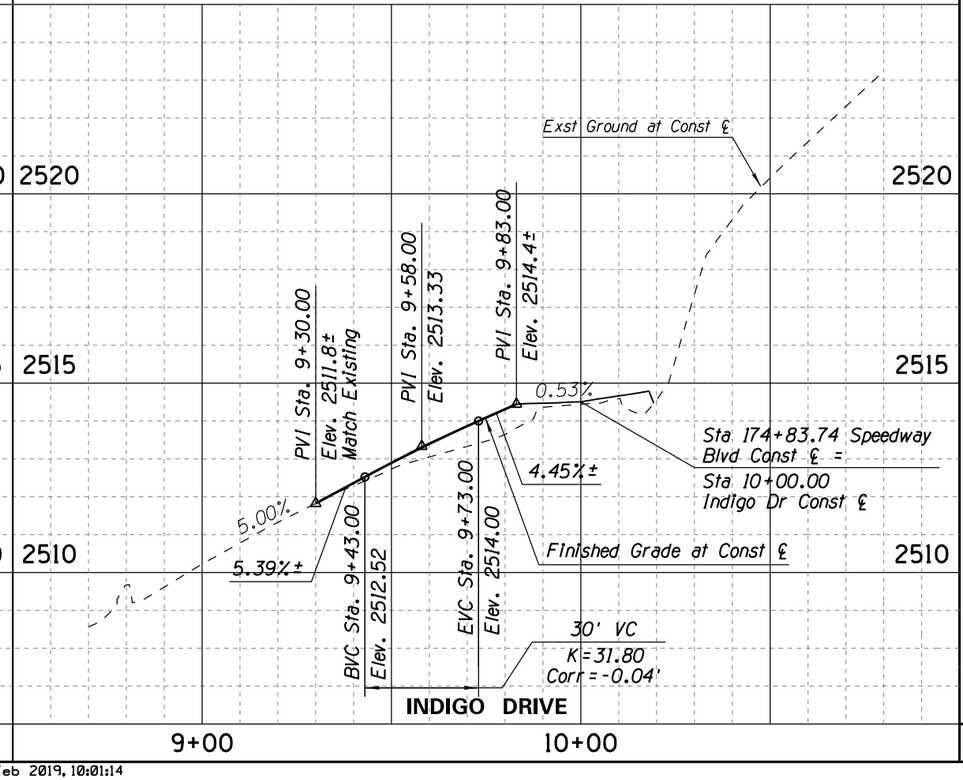
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-CivSS04.dgn

Wed 13 Feb 2019, 10:01:08









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 147 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	9+83.01	38.22'RT	2512.85	BCR
B	9+77.54	22.62'RT	2512.61	MP
C	9+63.54	13.85'RT	2512.37	ECR
D	9+62.00	13.50'RT	2512.4	MATCH EXST
E	9+62.00	12.50'LT	2512.3	MATCH EXST
F	9+62.53	12.60'LT	2512.28	ECR
G	9+77.20	21.19'LT	2512.72	MP
H	9+82.98	37.19'LT	2513.15	BCR
I	9+82.91	43.98'RT	2515.57	BCR
J	9+75.30	26.01'RT	2514.40	MP
K	9+57.09	18.98'RT	2513.23	ECR
L	9+30.65	19.85'RT	2511.7	MATCH EXST
M	9+29.34	20.13'LT	2511.5	MATCH EXST
N	9+59.06	21.10'LT	2512.22	ECR
O	9+76.14	28.64'LT	2512.72	MP
P	9+83.23	45.92'LT	2513.22	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Pavement Structural Section No. 1.
4. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.8424

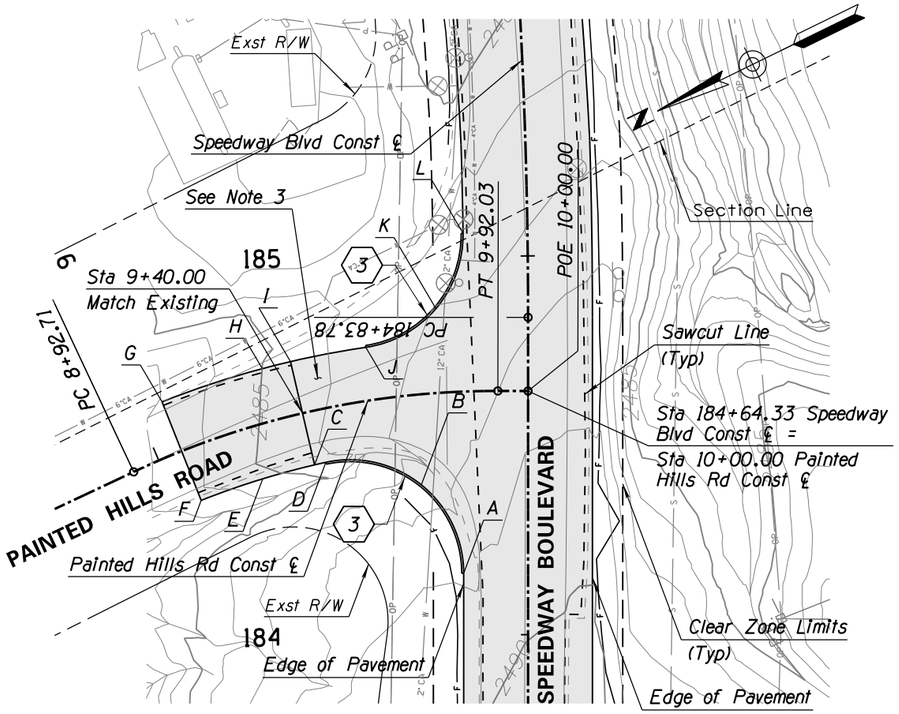
Pima County Department of Transportation

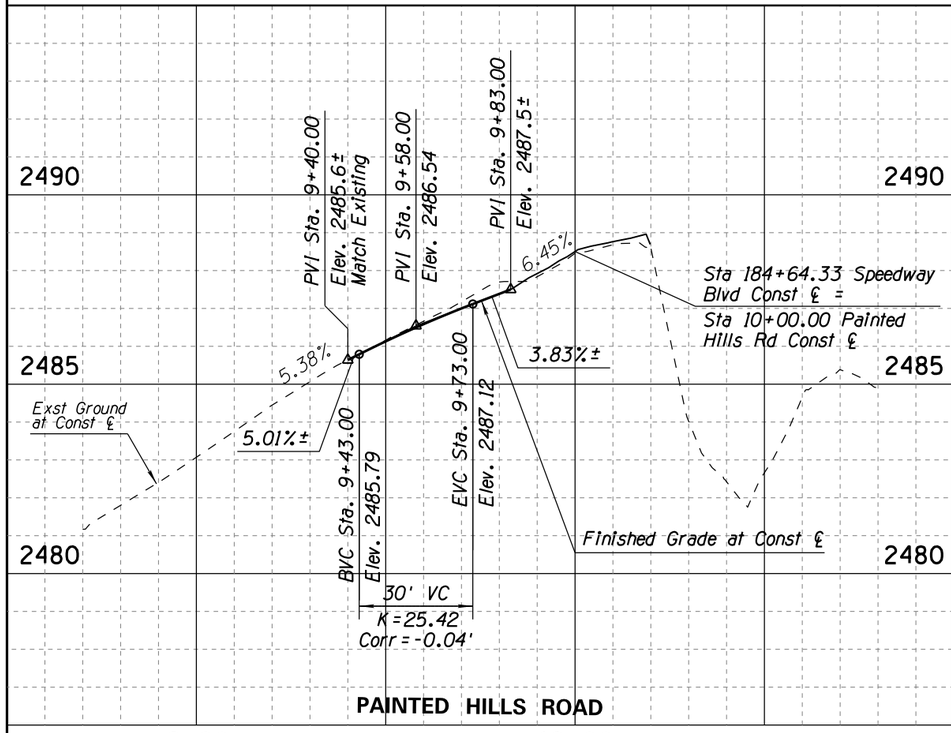
SIDE STREET PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=20' Horiz. | Sheet SS05 of SS06 | Page 39 of 95





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

ROADWAY KEYNOTES

(3) Construct 97 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	9+80.68	47.95'RT	2489.16	BCR
B	9+69.45	23.82'RT	2487.62	MP
C	9+43.26	14.00'RT	2485.91	ECR
D	9+40.00	14.00'RT	2485.8	MATCH EXST
E	9+24.85	14.00'RT	2484.92	MP
F	9+6.50	14.00'RT	2483.83	AP
G	9+6.50	14.00'LT	2483.1	MATCH EXST
H	9+32.78	14.00'LT	2485.00	MP
I	9+40.00	14.00'LT	2485.5	MATCH EXST
J	9+59.06	14.00'LT	2486.28	ECR
K	9+77.09	22.25'LT	2486.72	MP
L	9+84.20	41.79'LT	2486.40	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Pavement Structural Section No. 1.
4. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIDE STREET PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

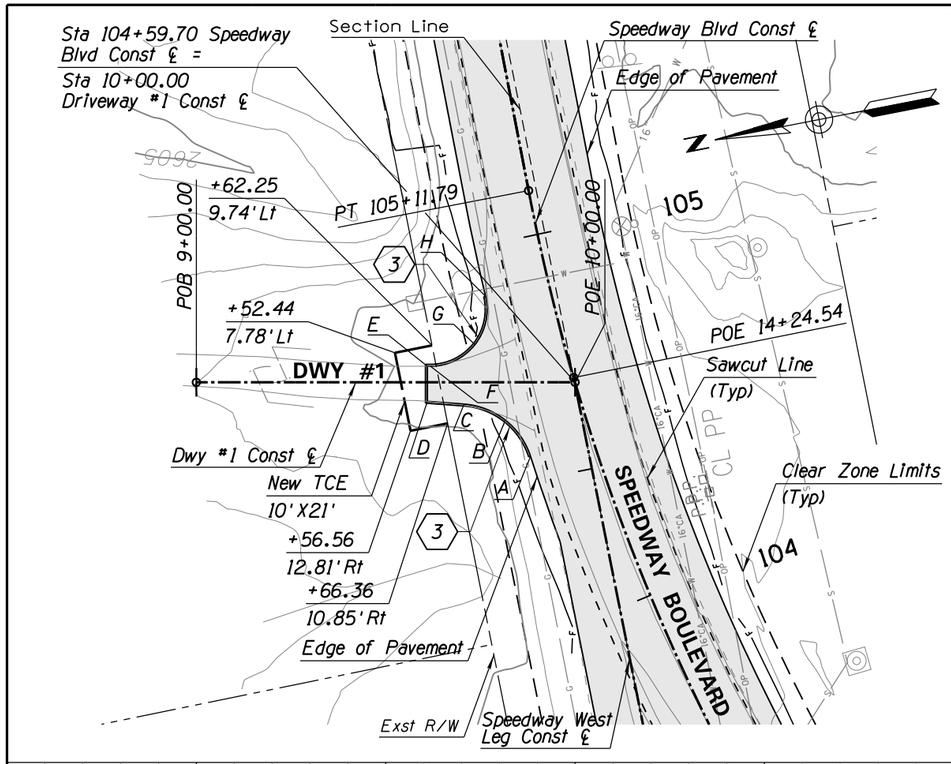
PROJECT NO. CTR.4HSBSP

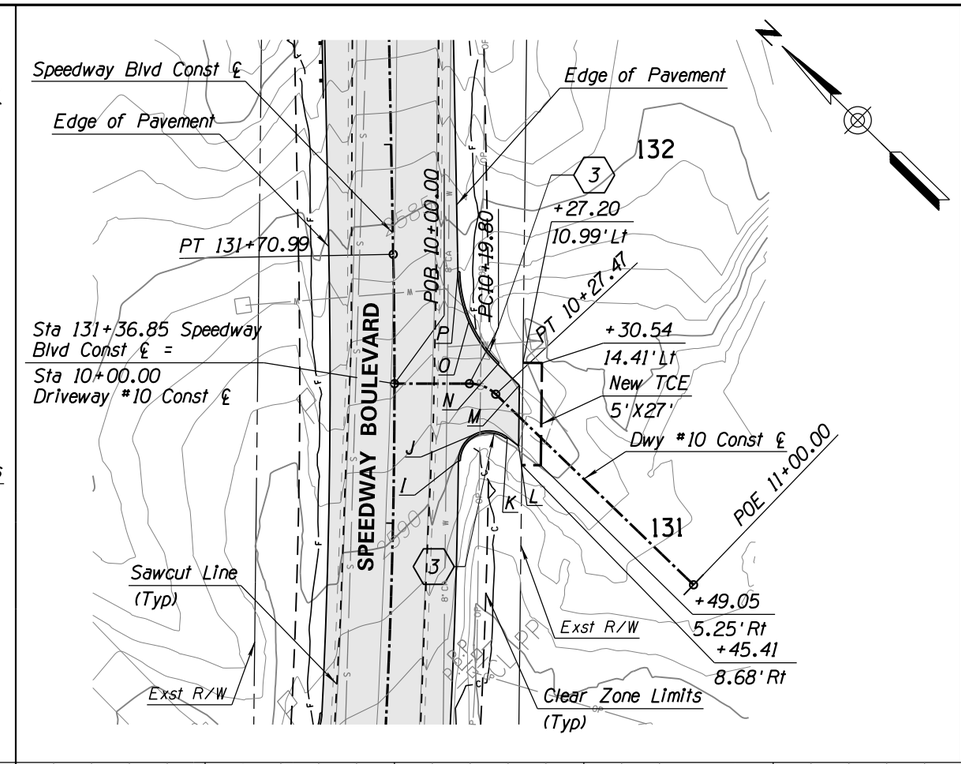
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

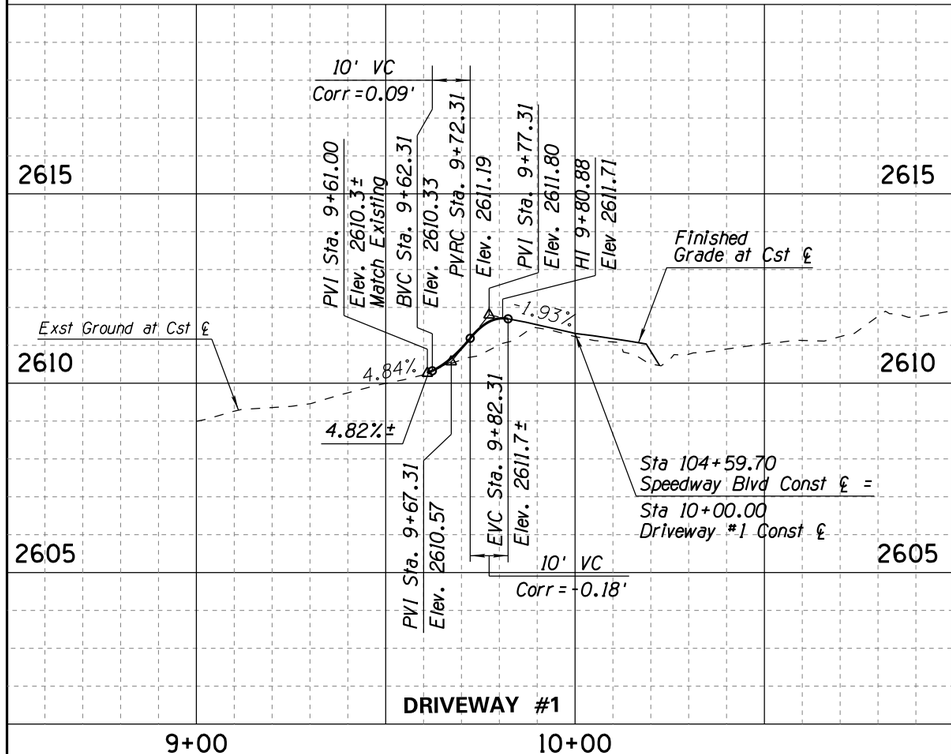
Scale: 1"=20' Horiz. | Sheet SS06 of SS06 | Page 40 of 95

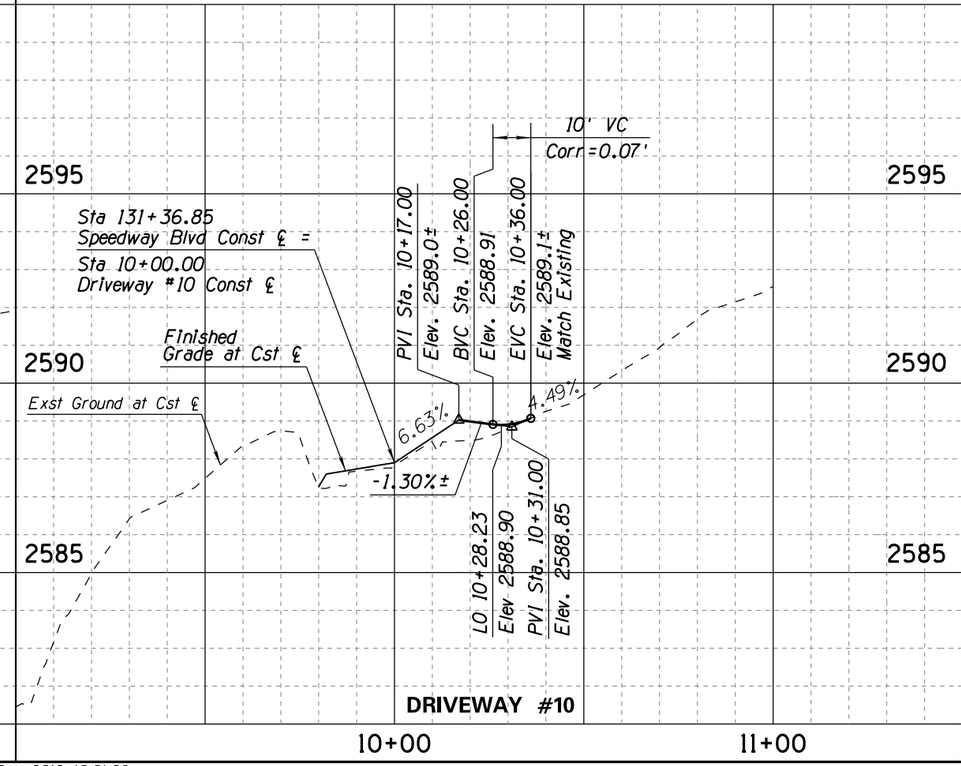
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-CivSS06.dgn

Wed 13 Feb 2019, 13:57:47









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

ROADWAY KEYNOTES

(3) Construct 117 LF Concrete Header Curb per PAG Std Dtl 213.

PT	STATION	OFFSET	ELEV	DESC
A	9+88.24	19.56'RT	2611.89	BCR
B	9+81.57	9.99'RT	2611.81	MP
C	9+70.70	5.76'RT	2611.09	ECR
D	9+61.00	5.04'RT	2610.4	MATCH EXST
E	9+61.00	4.23'LT	2610.2	MATCH EXST
F	9+61.80	4.23'LT	2610.26	ECR
G	9+73.56	9.95'LT	2611.21	MP
H	9+76.37	22.73'LT	2611.39	BCR
I	10+32.57	19.50'RT	2589.98	BCR
J	10+30.89	11.24'RT	2589.91	MP
K	10+37.55	6.06'RT	2589.84	ECR
L	10+41.33	5.65'RT	2589.8	MATCH EXST
M	10+30.31	6.04'LT	2589.3	MATCH EXST
N	10+24.41	6.87'LT	2588.80	ECR
O	10+19.61	16.30'LT	2587.89	MP
P	10+16.76	29.58'LT	2586.98	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

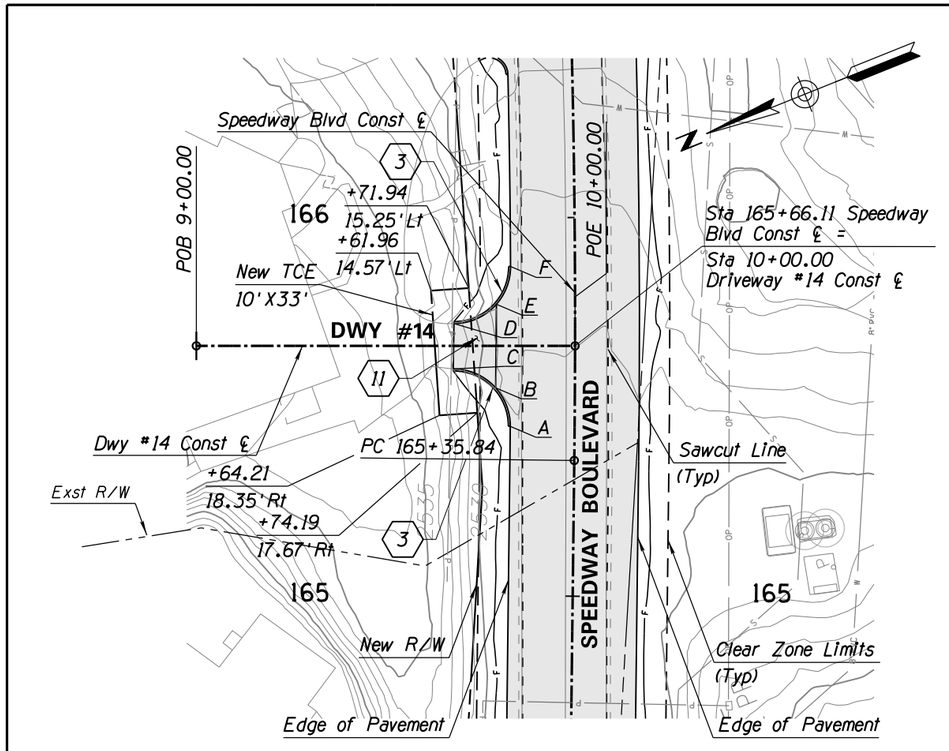
DRIVEWAY PLAN & PROFILE

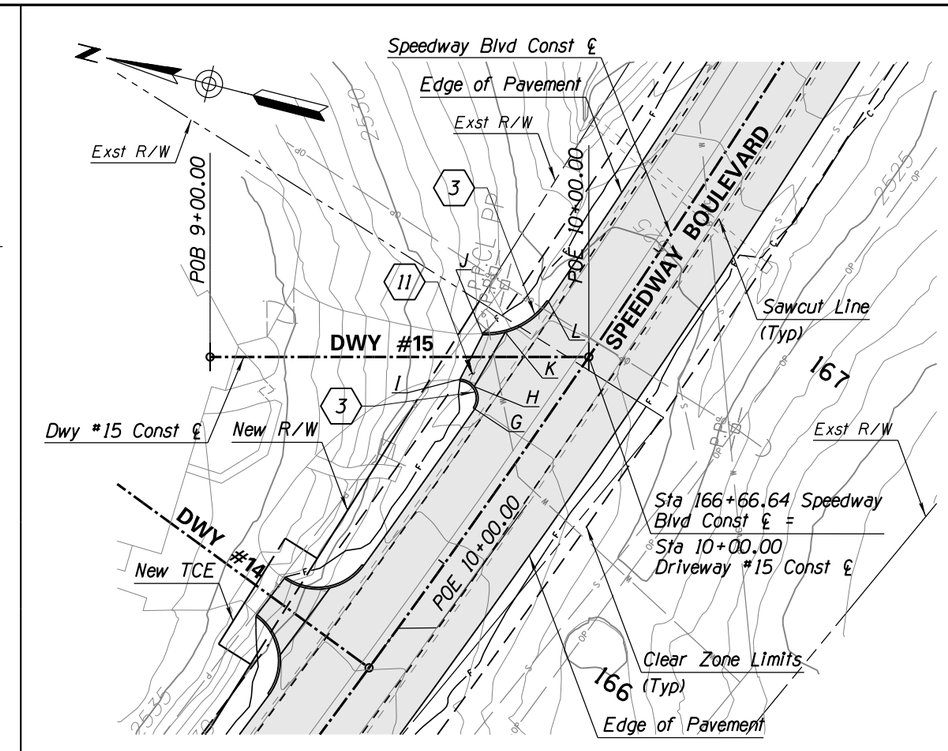
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

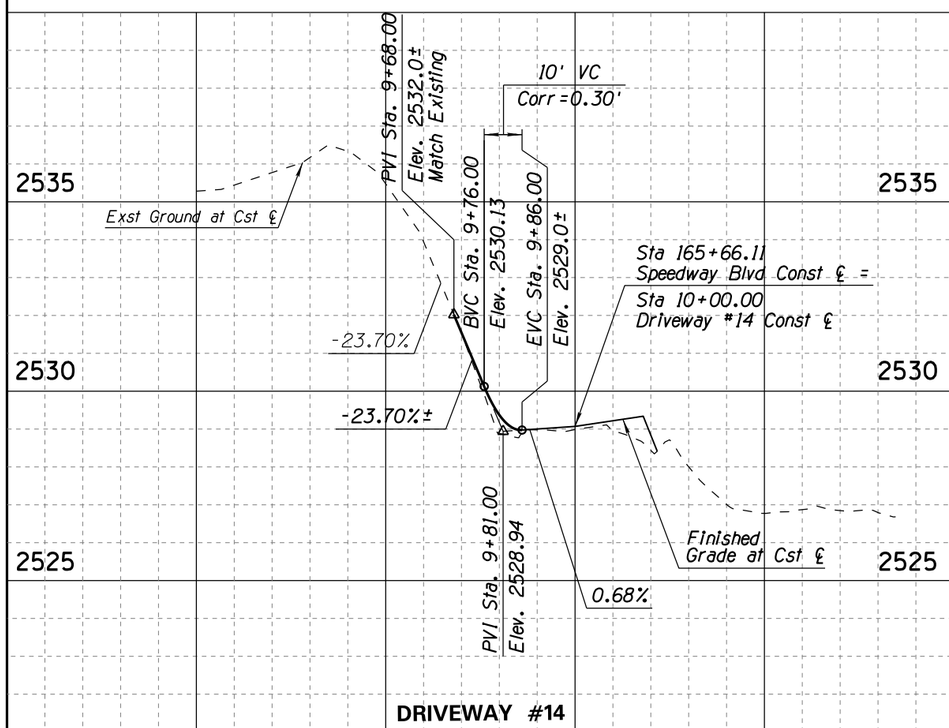
PROJECT NO. CTR.4HSBSP

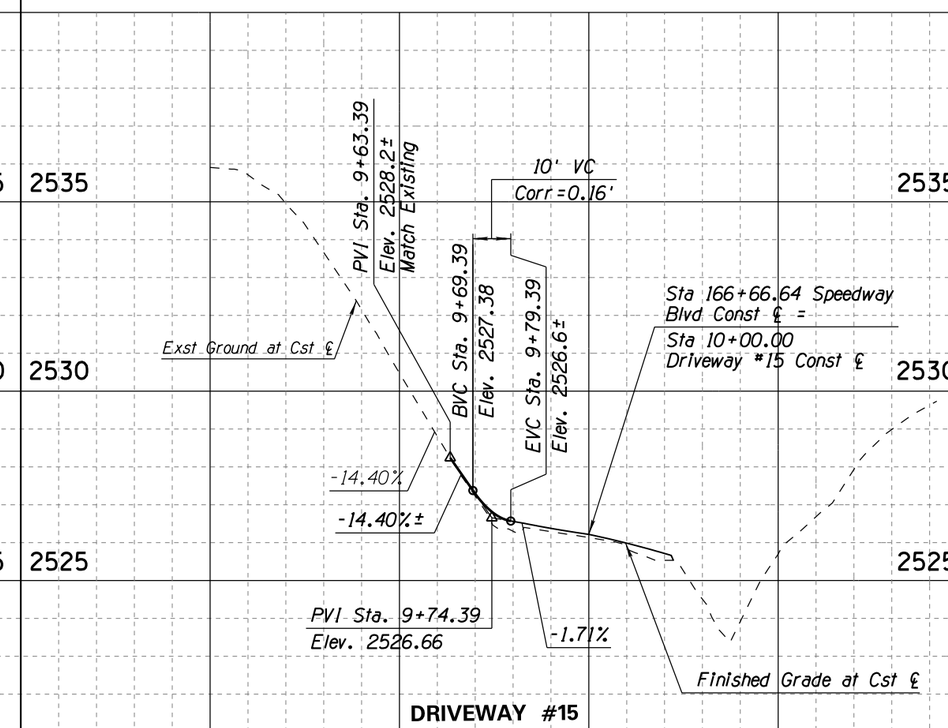
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=20' Horiz. | Sheet DW01 of DW02 | Page 41 of 95









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

3. Construct 78 LF Concrete Header Curb per PAG Std Dtl 213.
11. Construct 235 SF Concrete Driveway Apron.

PT	STATION	OFFSET	ELEV	DESC
A	9+82.89	21.25' RT	2529.28	BCR
B	9+78.04	11.08' RT	2529.90	MP
C	9+67.83	6.19' RT	2531.9	ECR/MATCH EXST
D	9+68.02	5.88' LT	2531.6	ECR/MATCH EXST
E	9+79.23	10.98' LT	2529.90	MP
F	9+82.96	20.96' LT	2528.48	BCR
G	9+69.89	13.74' RT	2527.10	BCR
H	9+69.73	7.82' RT	2527.35	MP
I	9+65.99	5.89' RT	2527.5	ECR/MATCH EXST
J	9+72.00	5.87' LT	2527.2	ECR/MATCH EXST
K	9+77.95	6.52' LT	2526.85	MP
L	9+89.39	14.62' LT	2525.96	BCR

Notes:

1. See Roadway Plan Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1.520.882.5424

Pima County Department of Transportation

DRIVEWAY PLAN & PROFILE
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

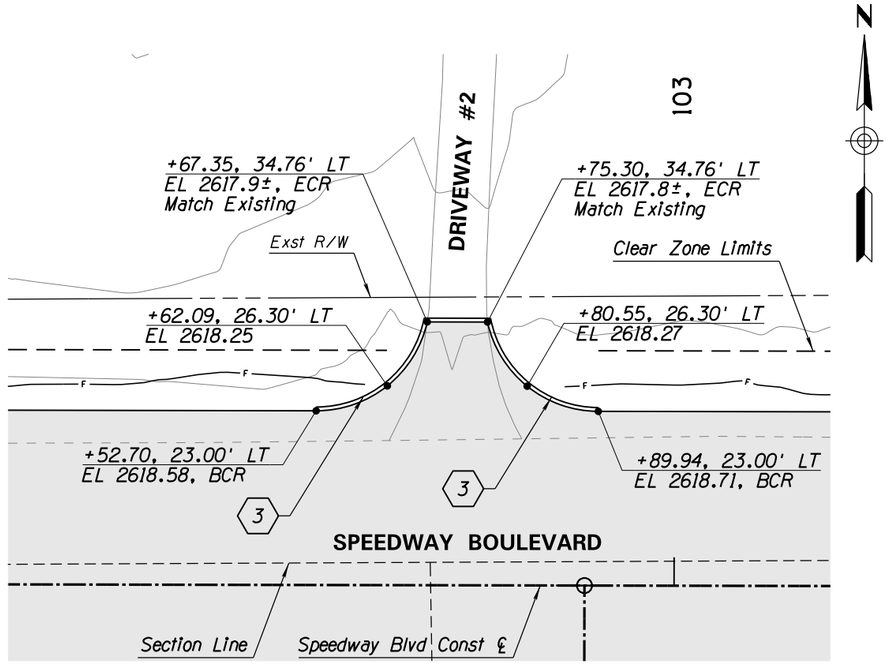
PROJECT NO. CTR.4HSBSP

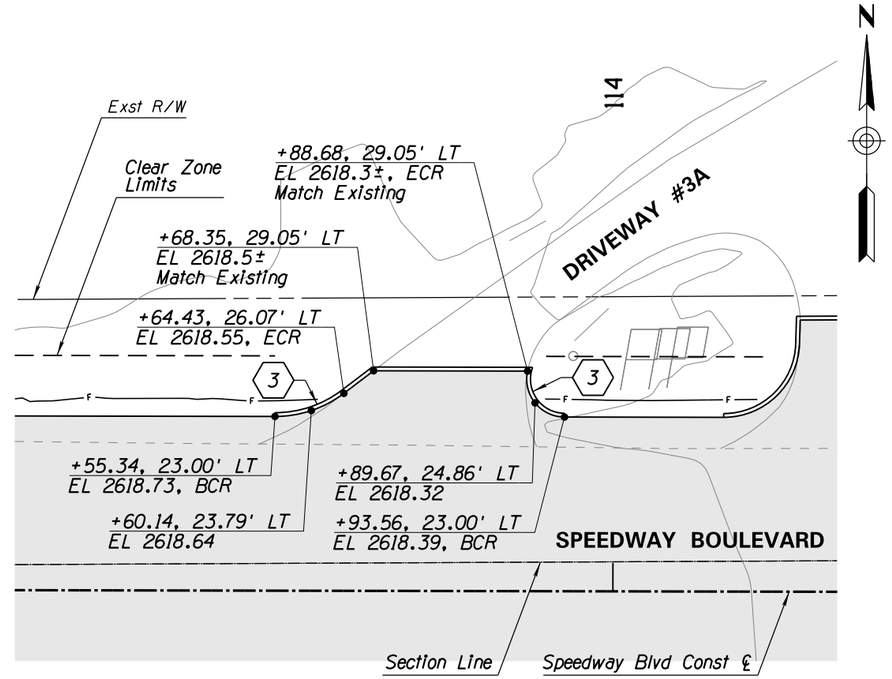
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

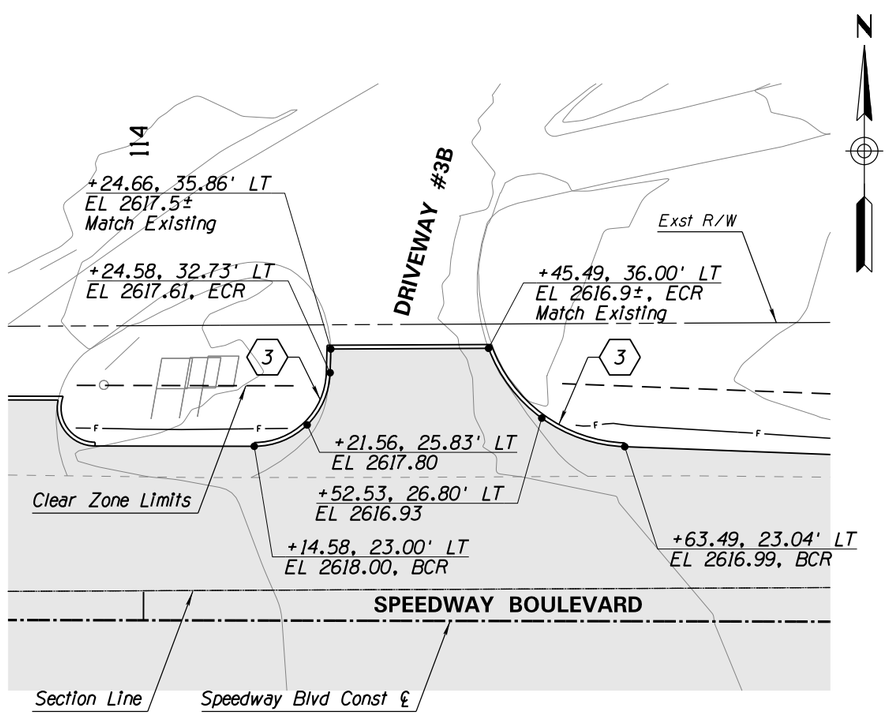
Scale: 1"=20' Horiz. | Sheet DW02 of DW02 | Page 42 of 95

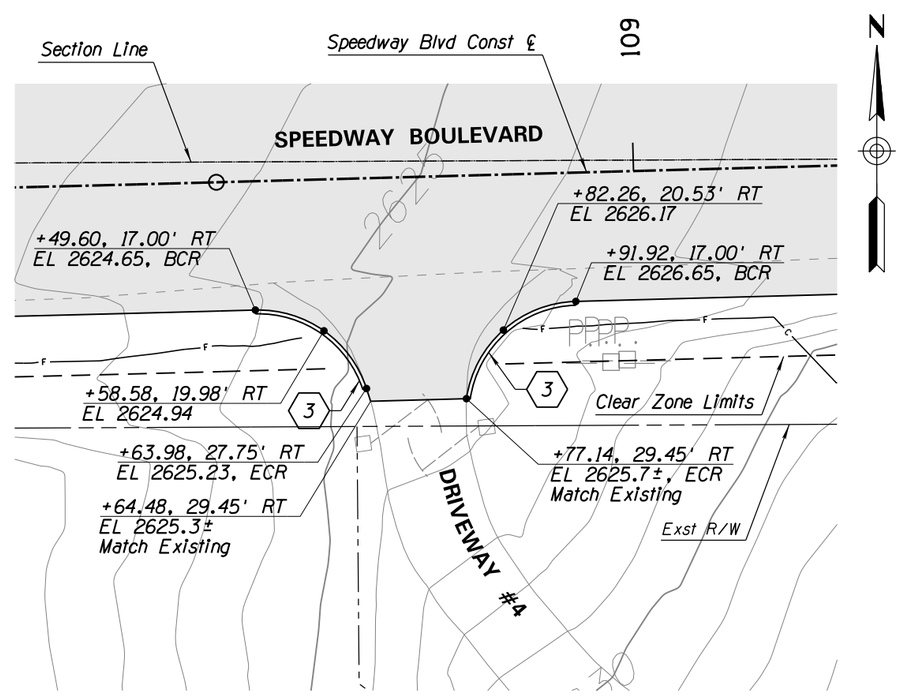
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Civil\4HSBSP-CivDW02.dgn

Wed 13 Feb 2019, 10:01:34









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 198 LF Concrete Header Curb per PAG Std Dtl 213.

Notes:

1. See Roadway Plan and Profile Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

DRIVEWAY GRADING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

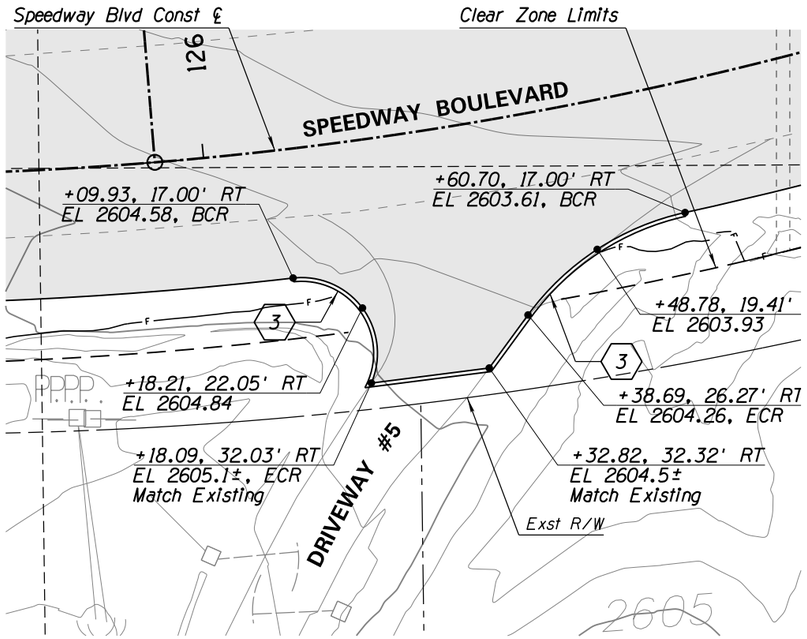
PROJECT NO. CTR.4HSBSP

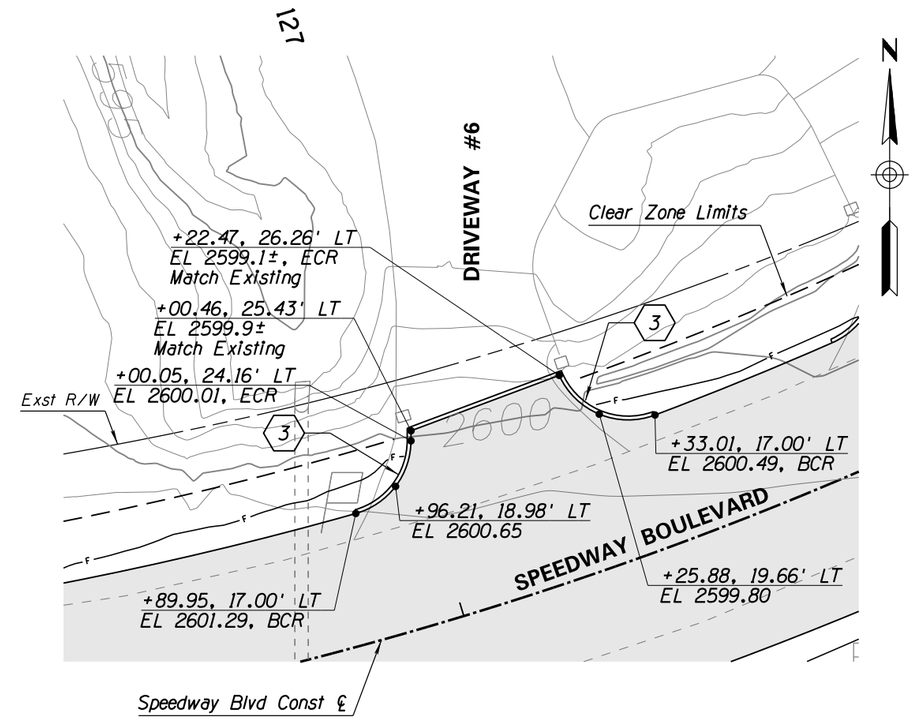
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

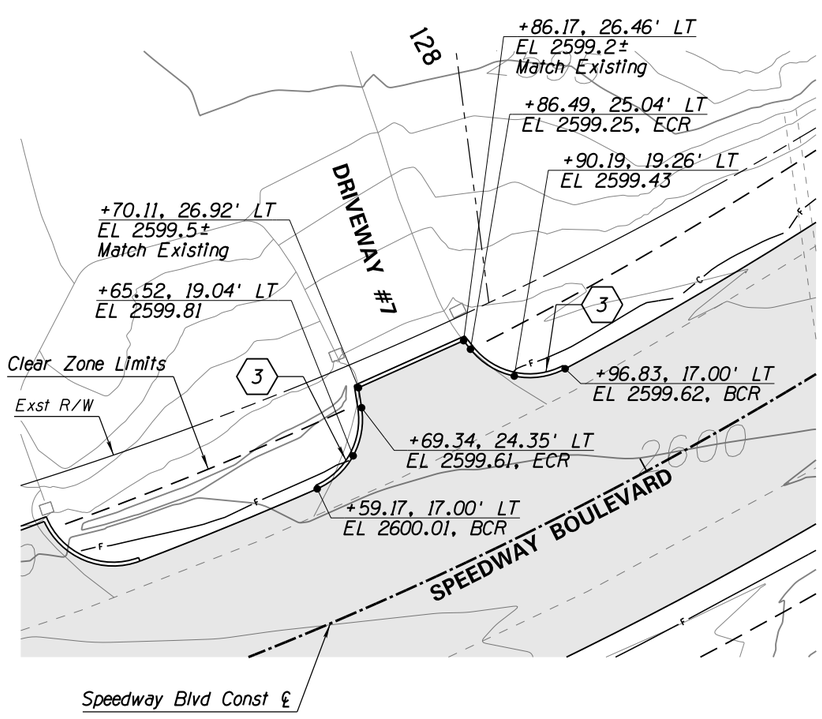
Scale:	1"=10' Horiz.	Sheet G1 of G4	Page 43 of 95

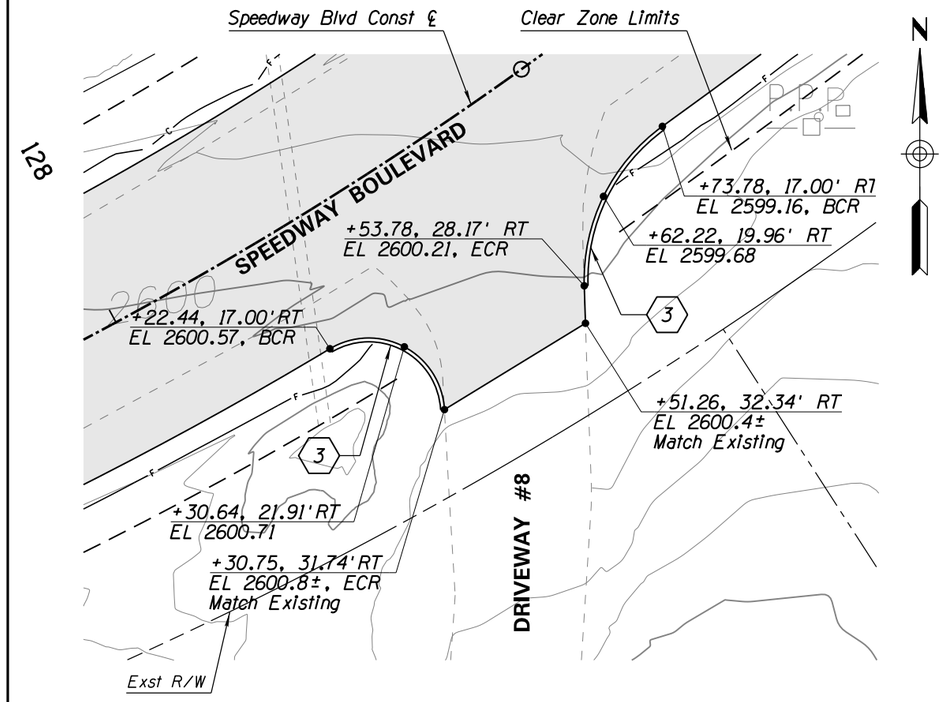
FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Grading\4HSBSP-Grad01.dgn

Wed 13 Feb 2019, 09:57:56









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

(3) Construct 215 LF Concrete Header Curb per PAG Std Dtl 213.

Notes:

1. See Roadway Plan and Profile Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

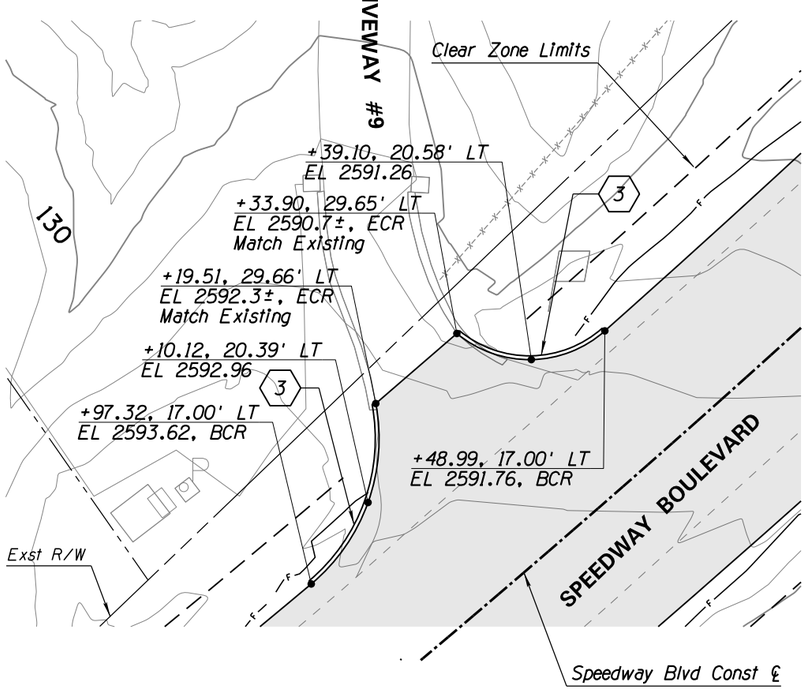
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

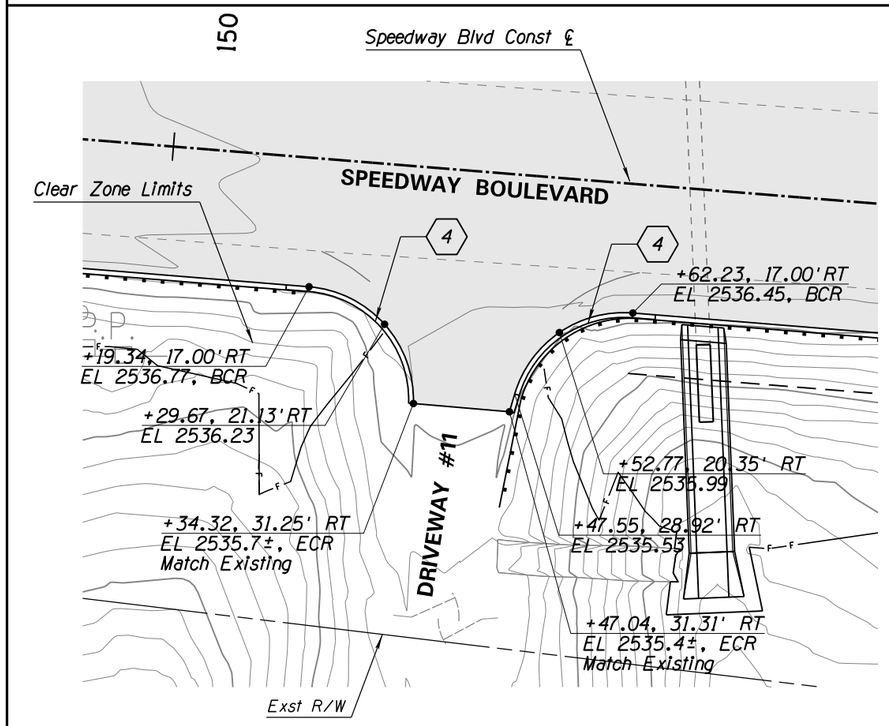
DRIVEWAY GRADING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

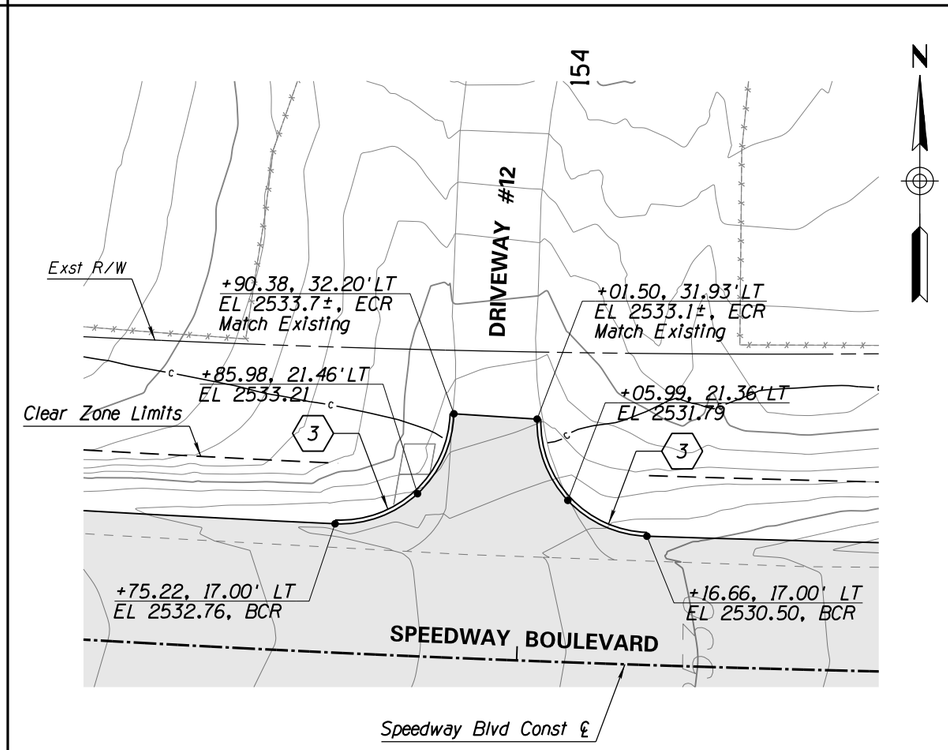
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale:	1"=10' Horiz.	Sheet G2 of G4	Page 44 of 95



SPACE INTENTIONALLY LEFT BLANK





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

3 Construct 95 LF Concrete Header Curb per PAG Std Dtl 213.

4 Construct 46 LF Concrete Vertical Curb per PAG Std Dtl 209 and 2 EA Concrete Curb Terminal Sections per PAG Std Dtl 212.

Notes:

1. See Roadway Plan and Profile Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

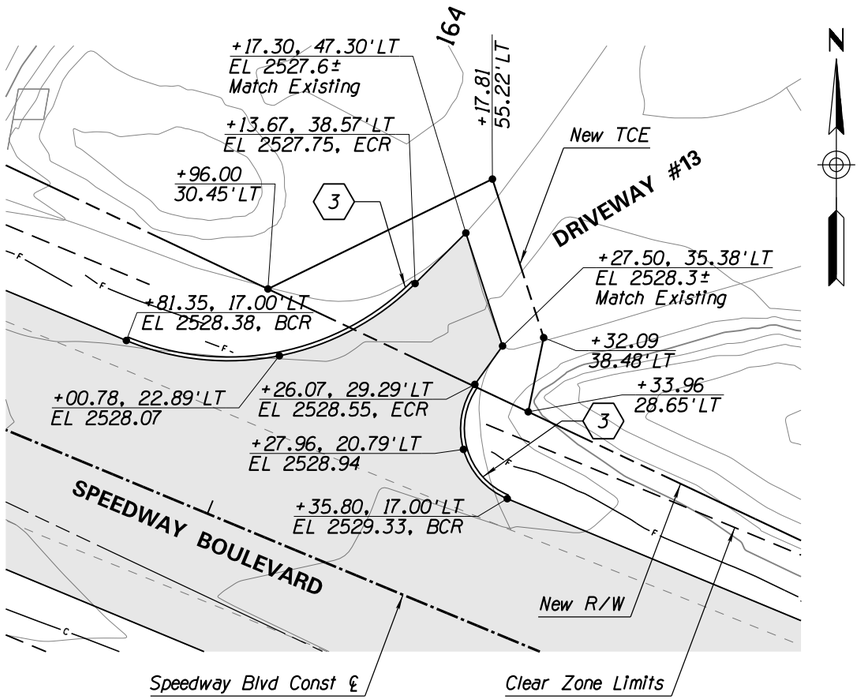
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

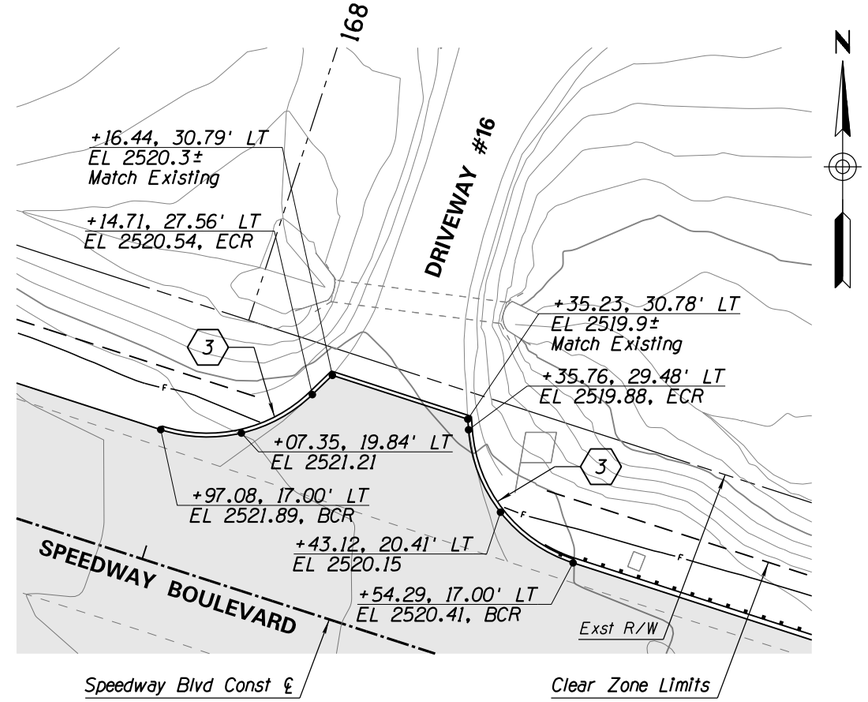
Pima County Department of Transportation

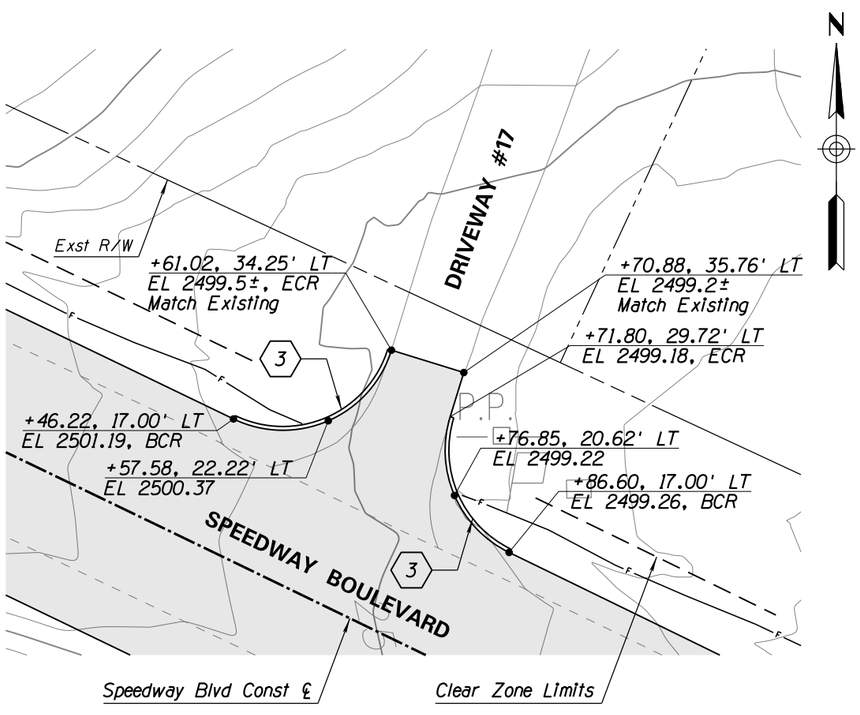
DRIVEWAY GRADING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

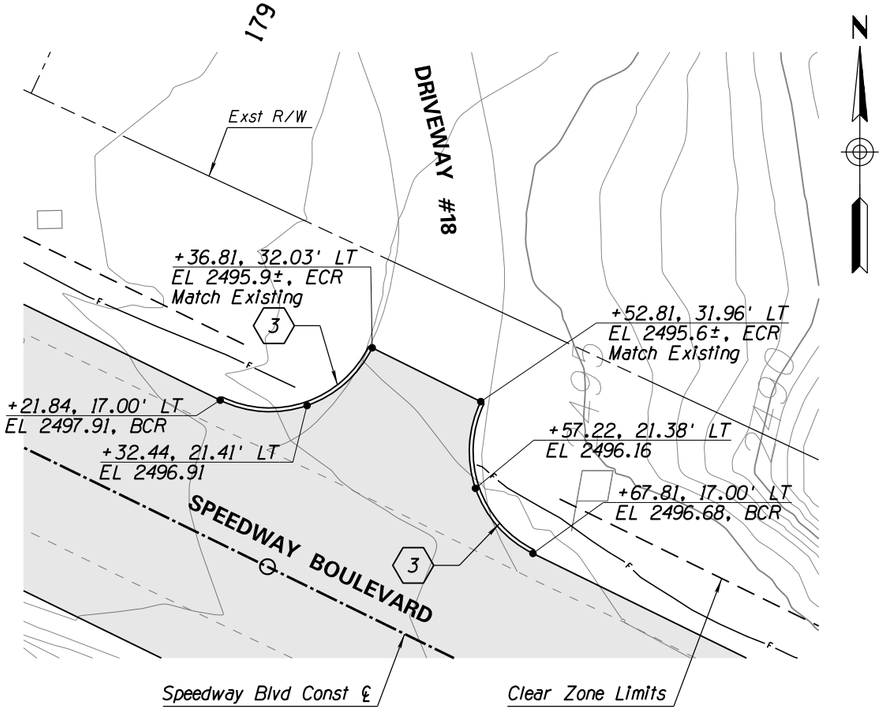
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale:	1"=10' Horiz.	Sheet G3 of G4	Page 45 of 95









F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

3 Construct 223 LF Concrete Header Curb per PAG Std Dtl 213.

Notes:

1. See Roadway Plan and Profile Sheets for Pavement Quantities.
2. See Horizontal Control Sheets for Curb Return Curve Data.
3. Supplemental survey was not acquired for cross road, side street, nor driveway match points to existing ground. The contractor surveyor shall stake match point locations and submit existing ground elevations to the engineer for review and approval, prior to finished construction at all match points to existing ground.

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

DRIVEWAY GRADING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=10' Horiz. | Sheet G4 of G4 | Page 46 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Grading\4HSBSP-Grad04.dgn

Wed 13 Feb 2019, 09:58:17

PAVEMENT MARKINGS GENERAL NOTES

1. All equipment/materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) Standard Specifications and the Standard Details for Public Improvements, the Special Provisions and the approved plans. All pavement marking shall be installed in accordance with the PC/COT Pavement Marking Design Manual and applicable ammendments.

2. The striping contractor shall contact the Pima County Pavement Marking Supervisor (520-724-2624) at least 3 working days in advance of any pavement marking layout being installed to schedule inspection and approval of pavement markings during normal business hours Monday through Friday, State Holidays excluded.

3. Upon approval of the pavement marking layout, the Pima County Pavement Marking Supervisor will issue written authorization to the contractor to proceed with installing all pavement markings and associated reflective raised pavement markings.

4. The permanent pavement markings may be modified as directed and approved by the Traffic Engineer or their designee.

5. The design speed for Speedway Blvd is 40 mph. The design vehicle is WB-62. The posted speed limit for Speedway Blvd between Camino De Oeste and Indigo Dr is 35 mph and 40 mph between Indigo Dr and Painted Hills Rd.

6. All lane dimensions are measured from the center of lane line, center of double lane line, or edge of pavement unless otherwise noted.

7. The pavement marking drawings are schematic only. The contractor shall follow all dimensions, applicable marking details, and specified Pima County standards when installing pavement striping, symbols, legends, and markers.

8. Painted layout striping shall be 15 mils (0.015") thick, water based paint placed on the final pavement surface with 8 pounds per gallon of AASHTO M 247-13 Type I glass beads with adhesion/moisture proof coating. Painted layout striping shall be installed within five (5) working days of the final pavement surface being completed.

9. Painted symbols and legends shall be applied at the same time as the painted striping, with the exception of bike lane symbols and words (such as STOP, AHEAD, ONLY, etc.).

10. The final longitudinal markings shall be 90 mil (0.090") thick ribbon extruded thermoplastic reflectorized striping placed over the painted layout striping with a single drop of 10 pounds per 100 square feet of ASSHTO M 247-13 glass beads. The final longitudinal striping shall be placed within 21 to 30 calendar days of the final pavement surface being completed. All previously exempted longling markings shall be applied during the final longitudinal striping.

11. All final transverse markings, including symbols and legends, shall be 90 mil (0.090") ALKYD hand cart extruded thermoplastic with 10 pounds per 100 square feet of AASHTO M 247-13 Type I glass beads.

12. The Contractor shall be responsible for the layout and installation of pavement markings on the final surface course following one control line per direction of travel consisting of control points that have been set to no more than 50 feet apart on curve sections and 200 feet in tangent sections where the pavement marking pattern does not change.

13. It is the Contractor's responsibility to ensure that the final surface course is placed so that the construction joint is no more than one foot offset from the final striping.

14. All retroreflective raised pavement markers (RRPMs or RPMs) shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow. Type C or G pavement markers shall be installed so that the clear (or white) reflective face of each marker is facing approaching traffic and perpendicular to the direction of traffic flow to which it applies.

15. All retroreflective raised pavement markers (RRPMs or RPMs) shall be installed per the current edition of the PC/COT pavement marking manual and applicable amendments.

16. All removal of existing pavement markings shall be accomplished in accordance with Section 701 of the PAG Standard Specifications. Painting over existing striping does not constitute approved striping obliteration.

17. Not used.

18. Unless otherwise noted, all pavement markings shall be installed by the Contractor.

19. Upon final inspection, a written acceptance or itemized punchlist of missing or unacceptable pavement markings shall be submitted to the Contractor and Pima County by the Traffic Engineer or designated representative.

20. The Contractor shall be responsible for maintaining all striping until project is approved for "Construction Acceptance" by Pima County (fully open to traffic, all punchlist items are completed, and the one year minimum warranty begin). If the pavement marking material manufacturer offers a longer warranty, the Contractor shall transfer that warranty to Pima County.

21. The PC/COT Pavement Marking Manual is available online.

SIGNING GENERAL NOTES

1. All equipment, materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) Standard Specifications and the Standard Details for Public Improvements, the Special Provisions and the approved plans.

2. The signing contractor shall contact the Pima County signing supervisor at (520)724-2630 at least three (3) working days in advance of sign installation to schedule inspection and approval of sign locations. sign shop hours are Monday through Thursday 6:00 AM to 3:30 PM, state holidays excluded.

3. All signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD), the latest edition of the Pima County/City of Tucson Traffic Signing Design Manual, these plans, the Special Provisions and applicable ammendments.

4. Signs may be modified and locations adjusted to fit conditions at the discretion of the Engineer.

5. The design speed for Speedway Blvd is 40 mph. The posted speed limit for Speedway Blvd between Camino De Oeste and Indigo Dr is 35 mph and 40 mph between Indigo Dr and Painted Hills Rd. Sign placement shall be based on the posted speed limit.

6. Post lengths indicated on sign summary sheets are approximate. The Contractor shall verify actual post lengths.

7. All perforated posts shall be installed in a concrete foundation, unless otherwise directed by the Traffic Engineer.

8. All sign station locations are approximate. The Contractor shall verify actual sign locations with the Traffic Engineer prior to the installation of any signs.

9. The Contractor shall be responsible for coordinating all work with Blue Stake for installing all traffic signs in the field and for maintaining all signing until project is approved for "Construction Acceptance" by Pima County (fully open to traffic, all punch list items are completed, and one year warranties begin).

10. All warning, regulatory, guide and overhead mounted signs shall be Type XI sheeting or an equivalent. All warning signs having yellow backgrounds shall use fluorescent yellow sheeting. All School signs shall use flourescent yellow-green sheeting. All ground mounted signs shall have an anti-graffiti coating applied to sign face, 3M #1160 Film or equivalent..

11. A 3" x 2" pressure sensitive, UV resistant label indicating the sign manufacturers name and date of manufacture shall be placed in the upper right corner of the back of all signs except street name signs at the time of installation. Street name signs shall include a sign identification decal as shown on Pima County Signing Detail 9-22A.

12. All new signs shall have 0.080 gauge, radius corner, aluminum backing unless otherwise noted.

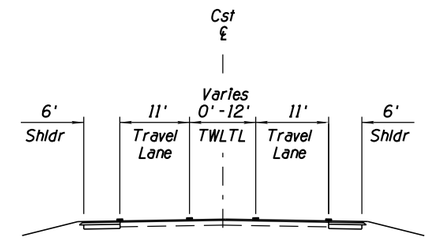
13. The contractor shall be responsible for coordinating all work with Arizona 811 for installing all traffic signs in the field and for maintaining all signs until project is approved for "Construction Acceptance" by Pima County (fully open to traffic, all punch list items are completed, and the one year warranties begin).

14. Prior to disturbing any traffic signs, a sign condition inventory of all existing signing shall be conducted by the Contractor and provided to the Sign Shop Supervisor (520-724-2611). Inventory shall indicate current sign location and condition, including any existing damage or deficiencies.

15. Any signs and posts being re-used on this project shall be stockpiled in a manner to avoid damage and maintain the integrity of the signs. Safe storage of stockpile and payment for damage to the stockpile shall be the responsibility of the Contractor.

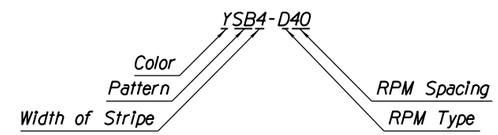
16. All signs and posts not being re-used on this project shall be dismantled, stacked and delivered to the owner (city or county) by the Contractor. The Contractor is responsible for the safe storage at the construction site until delivery, and the safe unloading of the salvaged material. Notification of delivery shall be made at least two working days (48 hours) prior to delivery. Pima County Sign Shop 1313 S. Mission Road (520-724-2367). No Friday deliveries.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



SPEEDWAY BOULEVARD

PAVEMENT MARKING TYPICAL SECTION



LINE STYLE DESIGNATION

See 2008 Pima County and City of Tucson Pavement Marking Design Manual, Sheet 2-3 for Further Descriptions.

SIGNING QUANTITIES - SHEETS SM2-SM6			
	Description	UNIT	QUANTITY
6070010	Sign Post (Perforated) (Single)	L.F.	640
6070110	Foundation for Sign Post (Perforated)	Each	76
6080014	Sign Panel (Traffic Control) (Permanent) (Type XI)	S.F.	446

PAVEMENT MARKING QUANTITIES - SHEETS SM16-SM20			
BID ITEM	ITEM	UNIT	QUANTITY
7040005	Pavement Marking (White Extruded Thermoplastic) (0.090")	L.F.	25,400
7040006	Pavement Marking (Yellow Extruded Thermoplastic) (0.090")	L.F.	17,500
7040130	Pavement Marking (White Extruded Thermoplastic) (Transverse) (0.090")	L.F.	381
7060025	Raised Pavement Marker (Type D)	Each	230
7060040	Raised Pavement Marker (Type F)	Each	1
7080001	Pavement Marking Painted	L.F.	34,500

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.5424

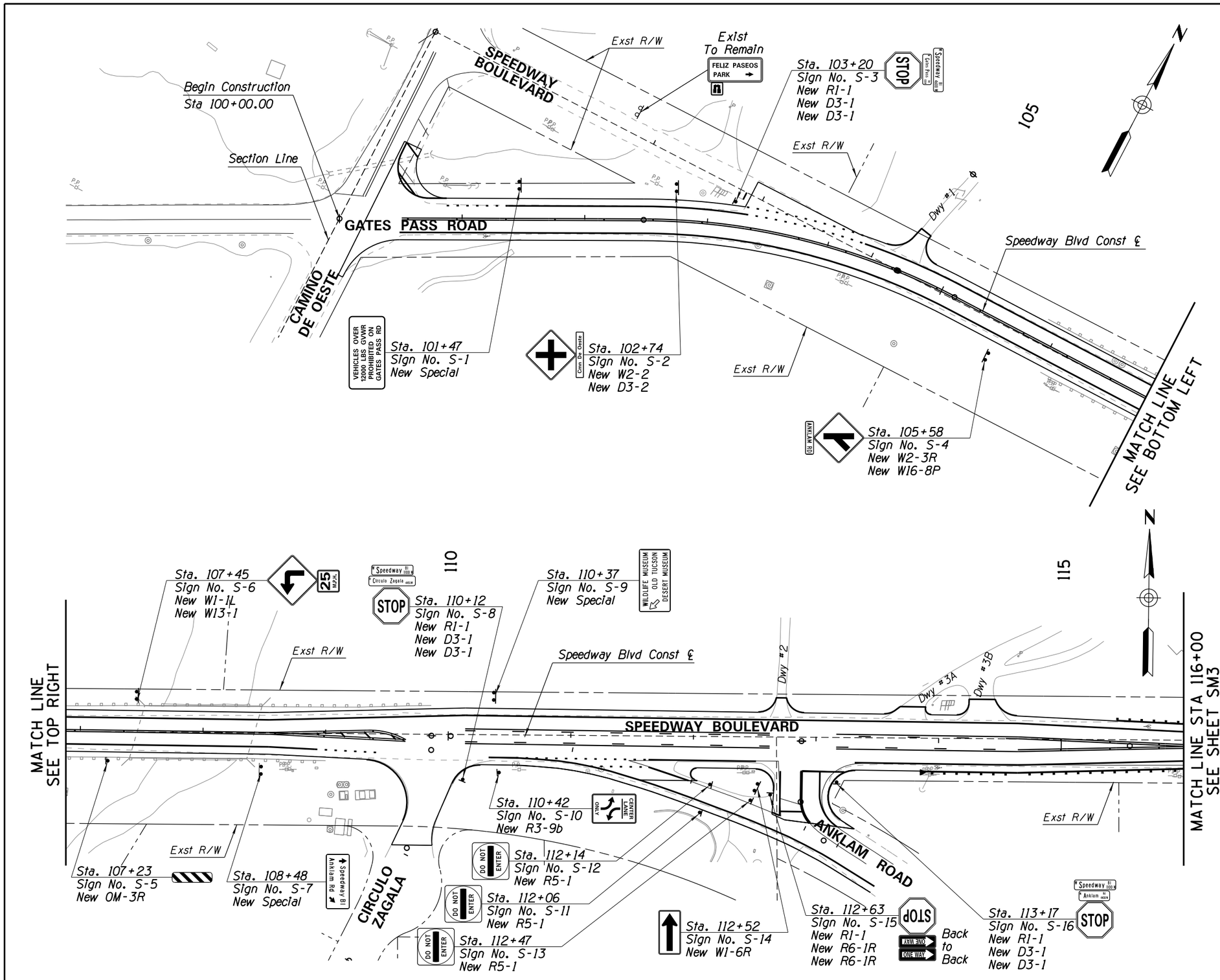
Pima County Department of Transportation

PAVEMENT MARKING AND SIGNING GENERAL NOTES
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet SMI of SM20	Page 47 of 95



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Notes:

1. See Sheets SM7-SM11 for Sign Summary Tables.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

Ana M. Olivares, P.E., Director

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

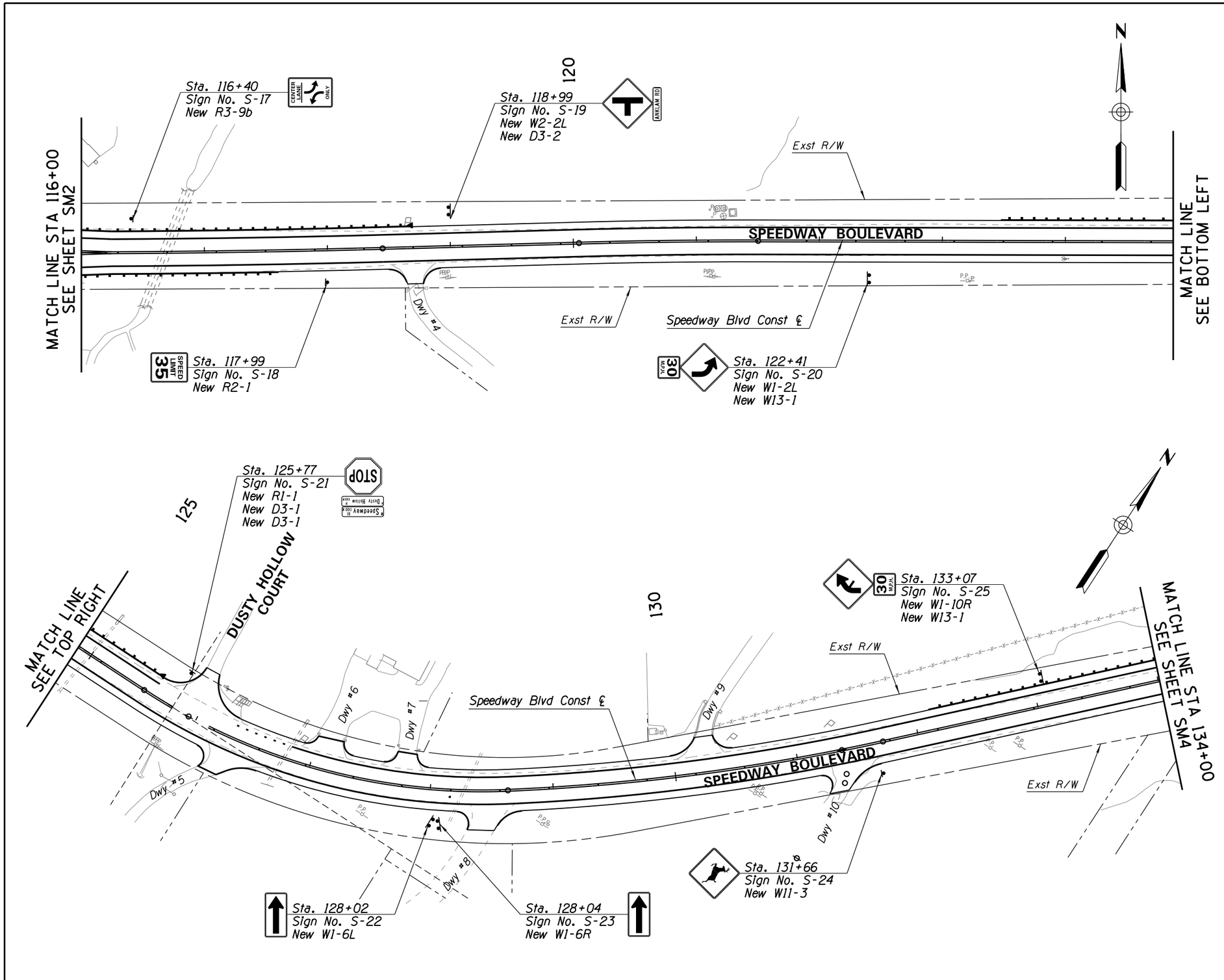
SIGNING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet SM2 of SM20 | Page 48 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Sign01.dgn

Wed 13 Feb 2019, 13:20:11



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 OIC			

Notes:

1. See Sheets SM7-SM11 for Sign Summary Tables.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1"=40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL
PS&E
NOT FOR CONSTRUCTION
PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

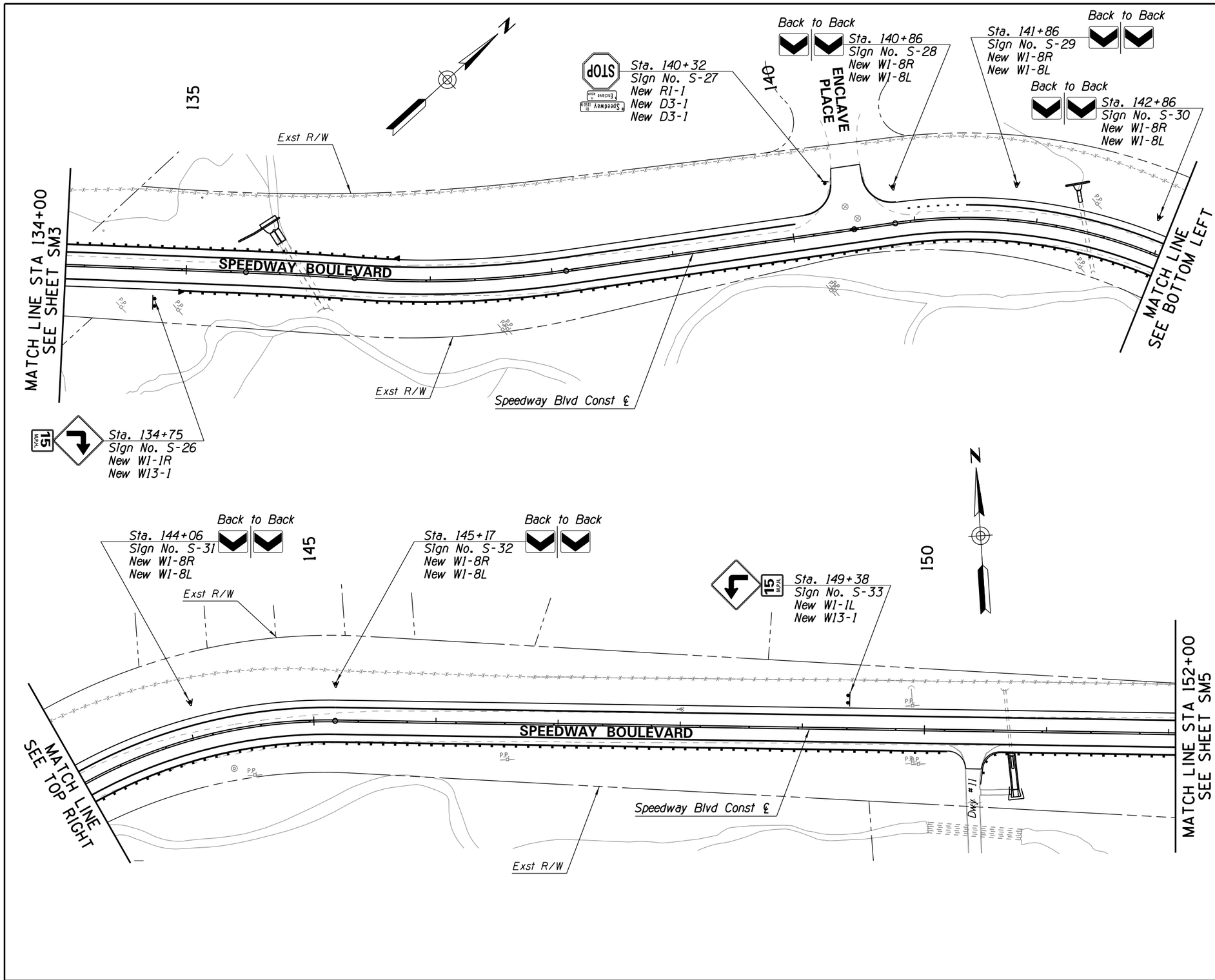
SIGNING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet SM3 of SM20 | Page 49 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Sign02.dgn

Wed 13 Feb 2019, 13:20:17



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Notes:

1. See Sheets SM7-SM11 for Sign Summary Tables.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

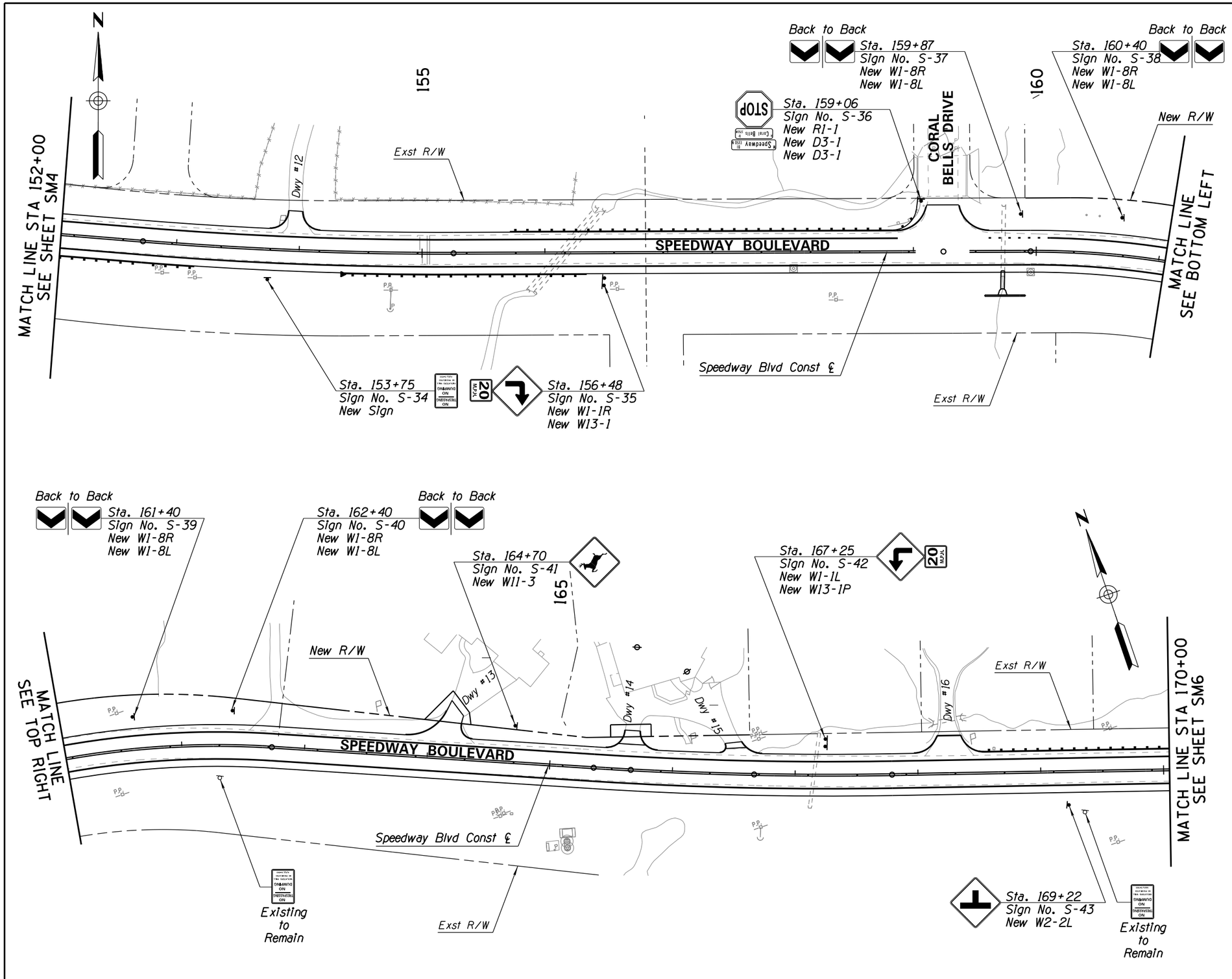
SIGNING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	1"=40' Horiz.	Sheet SM4 of SM20	Page 50 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Sign03.dgn

Wed 13 Feb 2019, 13:20:23



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Notes:

1. See Sheets SM7-SM11 for Sign Summary Tables.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Scale:	1"=40' Horiz.	Sheet SM5 of SM20	Page 51 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION
PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.5424

Pima County Department of Transportation

SIGNING PLAN

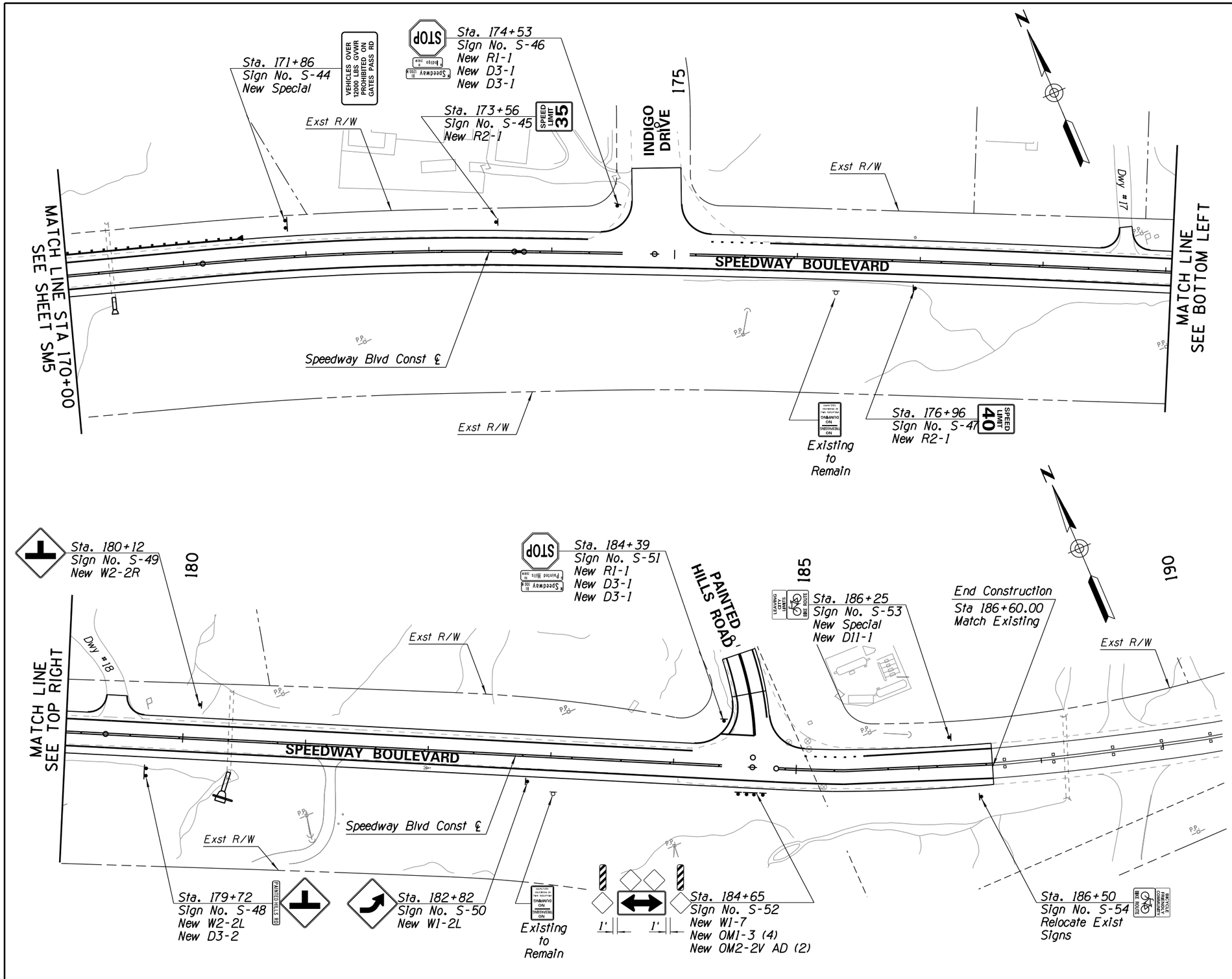
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Sign04.dgn

Wed 13 Feb 2019, 13:20:29



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Notes:

1. See Sheets SM7-SM11 for Sign Summary Tables.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

Ana M. Olivares, P.E., Director

	Date
Designed FF	2/2009
Drawn CPC	2/2009
Checked JAV	2/2009
Proj. Engr. FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIGNING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet SM6 of SM20 | Page 52 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Sign05.dgn

Wed 13 Feb 2019, 13:20:35

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Relocate	Work: Existing: See Remarks	Offset (ft)	Panel: Legend	Panel: Provider	Panel: Width (ft)	Panel: Height (ft)	Panel: Area (sq. ft.)	Panel: Type	Panel: Min Sheeting Type	Panel: Bid Item Number	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft)	Overhead: Structure Type	Overhead: Number of Lights	Location / Remarks
S-1	Special	X						VEHICLES OVER		4	2.5	10.0	FYP	XI		2	P	16							STA 101+47
								12000 LBS GVWR																	
								PROHIBITED ON																	
								GATES PASS RD																	
S-2	W2-2	X						Cross Road - Ahead (Symbol)		3	3	9	FYP	XI		2	P	18							STA 102+74
+	D3-2	X						Cmo De Oeste		5	1	5	RWM	XI		-	-	-							Mount Below W2-2
S-3	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 103+20
+	D3-1	X						N Speedway Bl 4600 W		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						W Gates Pass Rd 100 N		3.8	0.75	3.1	RWM	XI		-	-	-							
S-4	W2-3R	X						Side Road- Diagnal (Symbol)		3	3	9.0	FYP	XI		2	P	18							STA 105+58
+	D3-2	X						ANKLAM RD		3.7	1	3.7	RWM	XI		-	-	-							Mount Below W2-3R
S-5	OM-3R	X						Object Marker		1	3	3.0	FYP	XI		1	P	8							STA 107+23
S-6	W1-1L	X						Left Turn		3	3	9.0	FYP	XI		2	P	19							STA 107+45
+	W13-1	X						25 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-1L
S-7	Special	X						⇧ Speedway Bl		3.5	1.5	5.3	RWM	XI		2	P	14							STA 108+48
								Anklam Rd ⇗																	
S-8	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 110+12
+	D3-1	X						W Speedway Bl 1100 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						N Circulo Zagala 4450 W		4.2	.75	3.4	RWM	XI		-	-	-							
S-9	Special	X						Wildlife Museum		4	2	8.0	RWM	XI		2	P	14							STA 110+37
								⇘ Old Tucson																	
								Desert Museum																	
S-10	R3-9b	X						Two-Way Left Turn Only		2	3	6.0	RWM	XI		1	P	8							STA 110+42
S-11	R5-1	X						Do Not Enter		2.5	2.5	6.3	RWM	XI		1	P	8							STA 112+06

NOTE: ALL PI POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:
1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:
RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied or silk-screened characters
F-Dem: Flat-sheet aluminum with demountable characters
Ext: Aluminum extrusions
Incr: Aluminum sheet increment
Over: Overhead (New overlaid extrusions)
FYP: Flourescent Yellow Panel

Stringer Types:
P: Square-tube post
T: T-section (WT 3x6)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIGN SUMMARY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NO SCALE | Sheet SM7 of SM20 | Page 53 of 95

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Relocate	Work: Existing: See Remarks	Offset (ft)	Panel: Legend	Panel: Provider	Panel: Width (ft)	Panel: Height (ft)	Panel: Area (sq. ft.)	Panel: Type	Panel: Min Sheeting Type	Panel: Bid Item Number	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft)	Overhead: Structure Type	Overhead: Number of Lights	Location / Remarks
S-12	R5-1	X						Do Not Enter		2.5	2.5	6.3	RWM	XI		1	P	8							STA 112+14
S-13	R5-1	X						Do Not Enter		2.5	2.5	6.3	RWM	XI		1	P	8							STA 112+47
S-14	W1-6R	X						One Way - Right (Symbol)		4	2	8.0	FYP	XI		1	P	8							STA 112+52
S-15	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	9							STA 112+63
+	R6-1R	X						One Way - Right		3	1	3.0	RWM	XI		-	-	-							Mount R6-1's Back to Back
+	R6-1L	X						One Way - Right		3	1	3.0	RWM	XI		-	-	-							
S-16	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 113+17
+	D3-1	X						W Speedway Bl 1100 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						W Anklam Rd 4400 W		3.3	.75	3.1	RWM	XI		-	-	-							
S-17	R3-9b	X						Two-Way Left Turn Only		2	3	6.0	RWM	XI		1	P	8							STA 116+40
S-18	R2-1	X						Speed Limit 35		2	2.5	5.0	RWM	XI		1	P	8							STA 117+99
S-19	W2-2L	X						Side Road Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	18							STA 118+99
+	D3-2	X						Anklam Rd		3.7	1	3.7	RWM	XI		-	-	-							Mount Below W2-2L
S-20	W1-2L	X						Left Curve Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 122+41
+	W13-1	X						30 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-2L
S-21	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 125+77
+	D3-1	X						W Speedway Bl 1100 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						W Dusty Hollow Dr 4300 W		4.3	.75	3.4	RWM	XI		-	-	-							
S-22	R6-1L	X						One Way - Left		3	1	3.0	RWM	XI		1	P	6							STA 128+02
S-23	R6-1L	X						One Way - Left		3	1	3.0	RWM	XI		1	P	6							STA 128+04
S-24	W11-3	X						Deer Crossing (Symbol)		3	3	9.0	FYP	XI		1	P	8							STA 131+66

NOTE: ALL P1 POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:
1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:
RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied or silk-screened characters
F-Dem: Flat-sheet aluminum with demountable characters
Ext: Aluminum extrusions
Incr: Aluminum sheet increment
Over: Overhead (New overlaid extrusions)
FYP: Flourescent Yellow Panel

Stringer Types:
P: Square-tube post
T: T-section (WT 3x6)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIGN SUMMARY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet SM8 of SM20 | Page 54 of 95

Sign Number		Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Relocate	Work: Existing: See Remarks	Offset (ft)	Panel:	Panel: Provider	Panel: Width (ft)	Panel: Height (ft)	Panel: Area (sq. ft.)	Panel: Type	Panel: Min Sheeting Type	Panel: Bid Item Number	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft)	Overhead: Structure Type	Overhead: Number of Lights	Location / Remarks
S-25	W1-10R	X						Right Curve with Intersection (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 133+07
+	W13-1	X						30 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-10R
S-26	W1-1R	X						Right Turn Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 134+75
+	W13-1	X						15 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-1R
S-27	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 140+32
+	D3-1	X						W Speedway Bl 1350 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						N Enclave Pl 4050 W		3.3	.75	2.6	RWM	XI		-	-	-							
S-28	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 140+86, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-29	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 141+86, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-30	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 142+86, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-31	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 144+06, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-32	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 145+17, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-33	W1-1L	X						Left Turn Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 149+38
+	W13-1	X						15 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-1L
S-34	-	X						No Tresspassing - No Dumping		1	1.5	1.5	RWM	XI		1	P	8							STA 153+75
S-35	W1-1R	X						Right Turn Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 156+48
+	W13-1	X						20 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-8R

NOTE: ALL P1 POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:
1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:
RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied or silk-screened characters
F-Dem: Flat-sheet aluminum with demountable characters
Ext: Aluminum extrusions
Incr: Aluminum sheet increment
Over: Overhead (New overlaid extrusions)
FYP: Flourescent Yellow Panel

Stringer Types:
P: Square-tube post
T: T-section (WT 3x6)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIGN SUMMARY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet SM9 of SM20 | Page 55 of 95

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Relocate	Work: Existing: See Remarks	Offset (ft)	Panel: Legend	Panel: Provider	Panel: Width (ft)	Panel: Height (ft)	Panel: Area (sq. ft.)	Panel: Type	Panel: Min Sheeting Type	Panel: Bid Item Number	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft)	Overhead: Structure Type	Overhead: Number of Lights	Location / Remarks
S-36	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 159+06
+	D3-1	X						W Speedway Bl 1350 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						N Coral Bells Dr 3750 W		3.8	.75	3.0	RWM	XI		-	-	-							
S-37	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 159+87, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-38	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 160+40, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-39	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 161+40, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-40	W1-8R	X						Chevron - Right (Symbol)		1.5	2	3.0	FYP	XI		1	P	7							STA 162+40, Mount Back to Back
+	W1-8L	X						Chevron - Left (Symbol)		1.5	2	3.0	FYP	XI		-	-	-							
S-41	W11-3	X						Deer Crossing (Symbol)		3	3	9.0	FYP	XI		1	P	8							STA 164+70
S-42	W1-1L	X						Left Turn Ahead (Symbol)		3	3	9.0	FYP	XI		2	P	19							STA 167+25
+	W13-1	X						20 MPH (Plaque)		1.5	1.5	2.3	FYP	XI		-	-	-							Mount Below W1-1L
S-43	W2-2L	X						Side Road Ahead - Left (Symbol)		3	3	9.0	FYP	XI		1	P	8							STA 169+22
S-44	Special	X						VEHICLES OVER		4	2.5	10.0	FYP	XI		2	P	16							STA 171+86
								12000 LBS GVWR																	
								PROHIBITED ON																	
								GATES PASS RD																	
S-45	R2-1	X						Speed Limit 35		2	2.5	5.0	RWM	XI		1	P	8							STA 173+56
S-46	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 174+53
+	D3-1	X						W Speedway Bl 1200 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						W Indigo Dr 3500 W		2.8	.75	2.2	RWM	XI		-	-	-							
S-47	R2-1	X						Speed Limit 40		2	2.5	5.0	RWM	XI		1	P	8							STA 176+96

NOTE: ALL P1 POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:
1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:
RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied or silk-screened characters
F-Dem: Flat-sheet aluminum with demountable characters
Ext: Aluminum extrusions
Incr: Aluminum sheet increment
Over: Overhead (New overlaid extrusions)
FYP: Flourescent Yellow Panel

Stringer Types:
P: Square-tube post
T: T-section (WT 3x6)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

SIGN SUMMARY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet SM10 of SM20 | Page 56 of 95

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Relocate	Work: Existing: See Remarks	Offset (ft)	Panel: Legend	Panel: Provider	Panel: Width (ft)	Panel: Height (ft)	Panel: Area (sq. ft.)	Panel: Type	Panel: Min Sheeting Type	Panel: Bid Item Number	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft)	Overhead: Structure Type	Overhead: Number of Lights	Location / Remarks
S-48	W2-2L	X						Side Road Ahead - Left (Symbol)		3	3	9.0	FYP	XI		2	P	18							STA 179+72
+	D3-2	X						Painted Hills Dr		5.5	1	5.5	RWM	XI		-	-	-							Mount Below W2-2L
S-49	W2-2R	X						Side Road Ahead - Right (Symbol)		3	3	9.0	FYP	XI		3	P	24							STA 180+12
S-50	W2-2L	X						Left Curve Ahead (Symbol)		3	3	9.0	FYP	XI		3	P	24							STA 180+82
S-51	R1-1	X						STOP		2.5	2.5	6.3	RWM	XI		1	P	10							STA 184+39
+	D3-1	X						W Speedway Bl 100 N		3	0.5	1.5	RWM	XI		-	-	-							
+	D3-1	X						N Painted Hills Rd 3300 W		4.3	.75	3.4	RWM	XI		-	-	-							
S-52	W1-7	X						Two Direction Arrow (Symbol)		2	4	8.0	FYP	XI		2	P	16							STA 184+65
+	OM1-3	X						Object Marker - Solid Yellow Diamond		1.5	1.5	2.3	FYP	XI		-	-	-							Mount on Left Post
+	OM1-3	X						Object Marker - Solid Yellow Diamond		1.5	1.5	2.3	FYP	XI		-	-	-							Mount on Right Post
+	OM1-3	X						Object Marker - Solid Yellow Diamond		1.5	1.5	2.3	FYP	XI		1	P	8							Install Post Left of W1-7
+	OM2-2V AD	X						Object Marker - Vertical		2	0.3	0.7	FYP	XI		-	-	-							Mount Under OM1-3
+	OM1-3	X						Object Marker - Solid Yellow Diamond		1.5	1.5	2.3	FYP	XI		1	P	8							Install Post Right of W1-7
+	OM2-2V AD	X						Object Marker - Vertical		2	0.3	0.7	FYP	XI		-	-	-							Mount Under OM1-3
S-53	-	X						Leaving City Limits					RWM	XI		1	P	11							STA 186+25
+	D11-1	X						Bike Route		2	1.5	3.0	RWM	XI		-	-	-							
S-54	-	X						Bicycle Friendly Community		2	1	2.0	RWM	XI		1	P	11							STA 186+50
+	D11-1	X						Bike Route		2	1.5	3.0	RWM	XI		-	-	-							

NOTE: ALL P1 POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:
1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:
RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied or silk-screened characters
F-Dem: Flat-sheet aluminum with demountable characters
Ext: Aluminum extrusions
Incr: Aluminum sheet increment
Over: Overhead (New overlaid extrusions)
FYP: Flourescent Yellow Panel

Stringer Types:
P: Square-tube post
T: T-section (WT 3x6)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

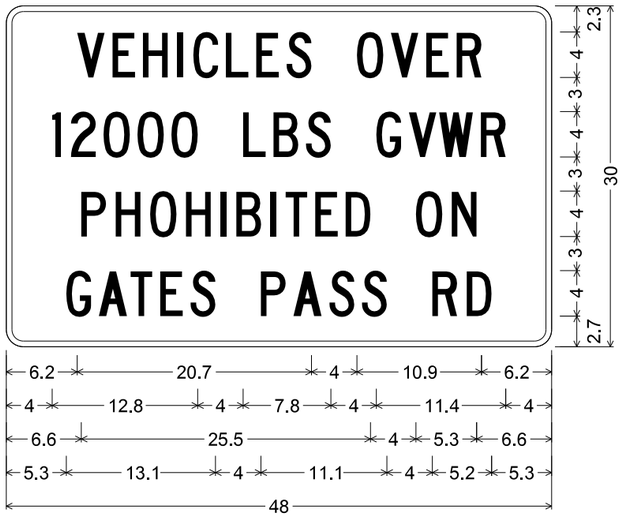
Pima County Department of Transportation

SIGN SUMMARY PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet SM11 of SM20 | Page 57 of 95

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 OIC			



1.5" Radius, 0.5" Border, Black on Fluorescent orange;
[VEHICLES OVER] C; [12000 LBS GVWR] C;
[PHOHIBITED ON] C; [GATES PASS RD] C;
Table of letter and object lefts.

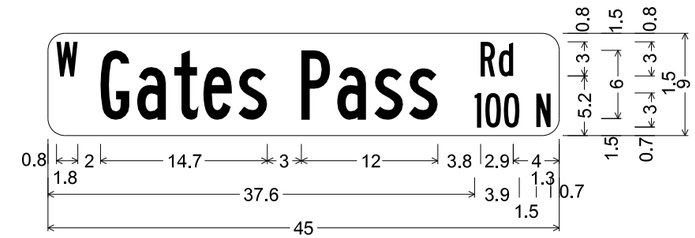
V 6.2	E 9.4	H 12.0	I 15.1	C 16.5	L 19.3	E 22.0	S 24.7
	O 30.9	V 33.9	E 37.0	R 39.6			
I 4.0	2 5.7	0 8.6	0 11.5	0 14.5	L 20.8	B 23.5	S 26.4
	G 32.6	V 35.4	W 38.1	R 41.8			
P 6.6	H 9.6	O 12.7	H 15.8	I 18.8	B 20.3	I 23.3	T 24.5	E 27.2	D 29.9
	O 36.1	N 39.2							
G 5.3	A 8.1	T 10.9	E 13.5	S 16.2	P 22.4	A 25.3	S 28.4	S 31.3	R 37.5	D 40.5

Sta 101+47
Sta 171+86

1.5" Radius, 0.5" Border, Black on Fluorescent yellow;
[CMO DE OESTE] C;
Table of letter and object lefts.

C 3.5	M 7.8	O 12.9	D 22.4	E 27.0
	O 36.0	E 40.7	S 44.7	T 49.0	E 53.0

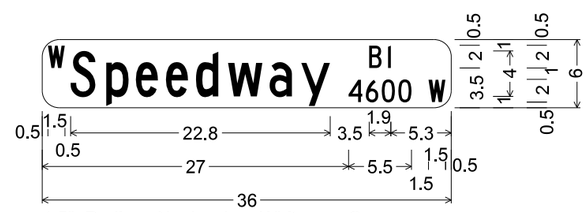
Sta 102+74



1.5" Radius, No border, White on Green;
[W] B 70% spacing; [Gates] B 60% spacing;
[Pass] B 60% spacing; [Rd] B 60% spacing;
[100] B 60% spacing; [N] B 90% spacing;
Table of letter and object lefts.

W 0.8	G 4.6	a 7.8	t 11.1	e 13.7	s 16.8	P 22.3	a 25.5	s 28.7	s 31.8
	R 38.1	d 39.7							
I 37.6	O 38.5	O 40.1	N 43.0						

Sta 103+20



1.5" Radius, No border, White on Green;
[W] C 70% spacing;
[Speedway] C 90% spacing;
[Bl] C 90% spacing; [4600] C 90% spacing;
[W] C 90% spacing;
Table of letter and object lefts.

W 0.5	S 2.5	p 5.6	e 8.2	e 10.9	d 13.5	w 16.4	a 20.0	y 22.8
	B 28.8	l 30.4						
4 27.0	6 28.5	0 29.9	0 31.3	W 34.0				

Sta 103+20

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

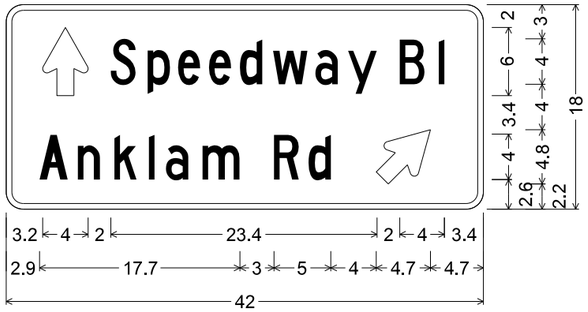
SIGN FORMATS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet SM12 of SM20	Page 58 of 95

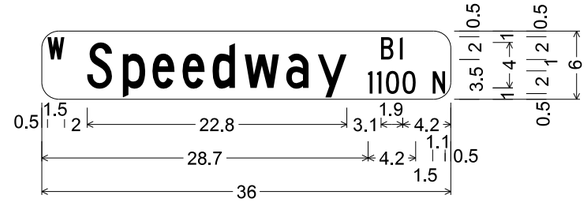
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 OIC			



1.5" Radius, 0.5" Border, White on Green;
Standard Arrow Custom 6.0" X 4.0" 90°;
[Speedway] C; [Bl] C; [Anklam] C; [Rd] C;
Standard Arrow Custom 6.0" X 4.0" 45°;
Table of letter and object lefts.

3.2	S 9.2	p 12.4	e 15.1	e 17.8	d 20.6	w 23.5	a 27.2	y 30.1
	B 34.6	l 38.0						
A 2.9	n 6.3	k 9.5	l 12.5	a 14.1	m 17.3	R 23.6	d 26.6	32.6

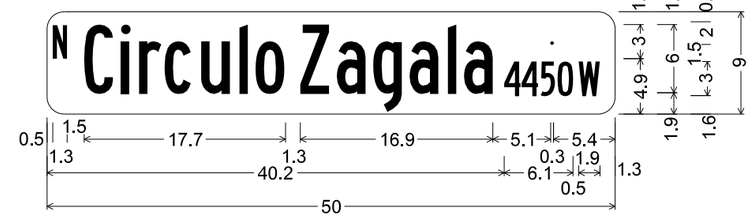
Sta 108+48



1.5" Radius, No border, White on Green;
[W] C 70% spacing;
[Speedway] C 90% spacing;
[Bl] C 90% spacing; [1100] C 90% spacing;
[N] C 90% spacing;
Table of letter and object lefts.

W 0.5	S 4.0	p 7.1	e 9.7	e 12.4	d 15.0	w 17.9	a 21.5	y 24.3
	B 29.9	l 31.5						
l 28.7	l 29.5	0 30.3	0 31.8	N 34.4				

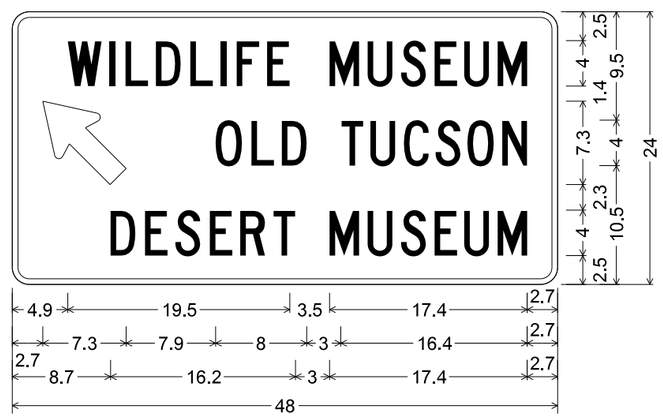
Sta 110+12
Sta 113+17
Sta 125+77



1.5" Radius, No border, White on Green;
[N] B 30% spacing; [Circulo] B 50% spacing;
[Zagala] B 50% spacing; [.] B 25% spacing;
[4450] B 50% spacing; [W] B;
Table of letter and object lefts.

N 0.5	C 3.3	i 6.5	r 8.1	c 10.3	u 13.6	l 16.9	o 18.4
	Z 22.3	a 25.5	g 28.7	a 31.9	l 35.3	a 36.7	. 44.3
4 40.2	4 41.8	5 43.4	0 44.9	W 46.8			

Sta 110+12



1.5" Radius, 0.5" Border, White on Brown;
[WILDLIFE] C; [MUSEUM] C 90% spacing;
Standard Arrow Custom 9.4" X 5.4" 135°; [OLD] C;
[TUCSON] C 90% spacing; [DESERT] C;
[MUSEUM] C 90% spacing;
Table of letter and object lefts.

W 4.9	I 8.6	L 10.0	D 12.6	L 15.7	I 18.3	F 19.8	E 22.4		
	M 27.9	U 31.3	S 34.2	E 37.2	U 39.8	M 42.7			
2.7	O 17.9	L 21.1	D 23.7	T 28.9	U 31.5	C 34.5	S 37.3	O 40.1	N 43.1
D 8.7	E 11.7	S 14.4	E 17.4	R 20.1	T 22.9				
	M 27.9	U 31.3	S 34.2	E 37.2	U 39.8	M 42.7			

Sta 110+37

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

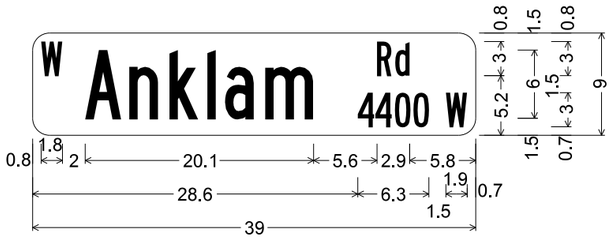
SIGN FORMATS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: NTS | Sheet SM13 of SM20 | Page 59 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP_sign-formats02.dgn
Wed 13 Feb 2019, 13:21:07

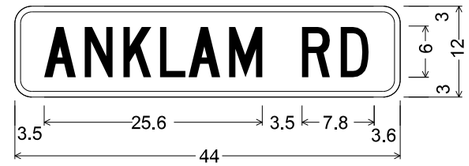
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 OIC			



1.5" Radius, No border, White on Green;
[W] B 70% spacing; [Anklam] B 60% spacing;
[Rd] B 60% spacing; [4400] B 60% spacing;
[W] B 90% spacing;
Table of letter and object lefts.

W 0.8	A 4.6	n 8.5	k 12.0	l 15.4	a 16.9	m 20.5	R 30.3	d 31.9
4 28.6	4 30.2	0 31.9	0 33.5	W 36.4				

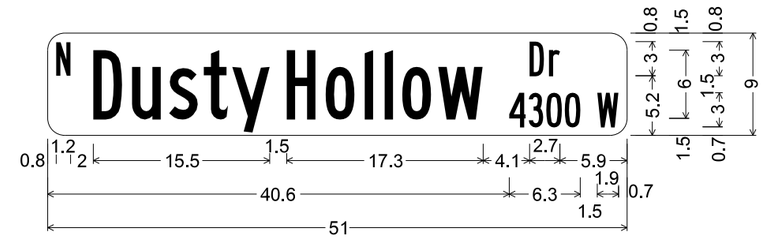
Sta 113+17



1.5" Radius, 0.5" Border, Black on Fluorescent yellow;
[ANKLAM] C; [RD] C;
Table of letter and object lefts.

A 4.0	N 8.8	K 13.3	L 17.6	A 20.9	M 25.7	R 33.1	D 37.6

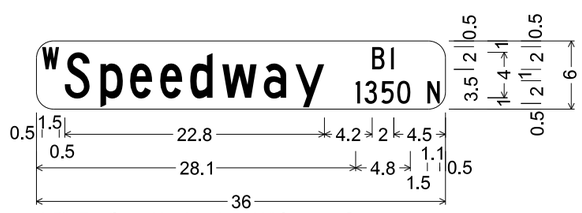
Sta 105+58
Sta 118+99



1.5" Radius, No border, White on Green;
[N] B 70% spacing; [Dusty] B 60% spacing;
[Hollow] B 60% spacing; [Dr] B 60% spacing;
[4300] B 60% spacing; [W] B 90% spacing;
Table of letter and object lefts.

N 0.8	D 4.0	u 7.4	s 10.7	t 13.7	y 16.2	H 21.0	o 24.5	l 27.9	l 29.7	o 31.2	W 34.4
	D 42.4	r 44.1									
4 40.6	3 42.4	0 43.9	0 45.5	W 48.4							

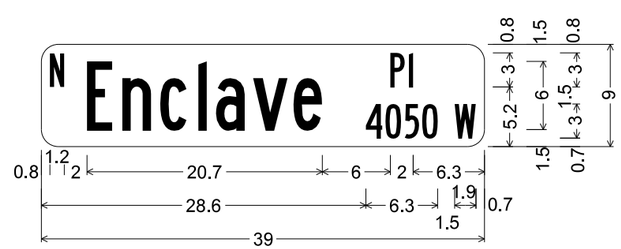
Sta 125+77



1.5" Radius, No border, White on Green;
[W] C 70% spacing;
[Speedway] C 90% spacing;
[Bl] C 90% spacing; [1350] C 90% spacing;
[N] C 90% spacing;
Table of letter and object lefts.

W 0.5	S 2.5	p 5.6	e 8.2	e 10.9	d 13.5	w 16.4	a 20.0	y 22.8
	B 29.5	l 31.2						
l 28.1	3 28.9	5 30.4	0 31.8	N 34.4				

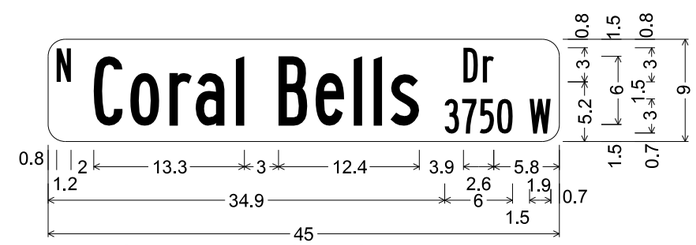
Sta 140+32
Sta 159+06



1.5" Radius, No border, White on Green;
[N] B 70% spacing; [Enclave] B 60% spacing;
[Pl] B 60% spacing; [4050] B 60% spacing;
[W] B 90% spacing;
Table of letter and object lefts.

N 0.8	E 4.0	n 7.1	c 10.5	l 13.8	a 15.4	v 18.6	e 22.2
	P 30.7	l 32.3					
4 28.6	0 30.3	5 32.0	0 33.5	W 36.4			

Sta 140+32



1.5" Radius, No border, White on Green;
[N] B 70% spacing; [Coral] B 60% spacing;
[Bells] B 60% spacing; [Dr] B 60% spacing;
[3750] B 60% spacing; [W] B 90% spacing;
Table of letter and object lefts.

N 0.8	C 4.0	o 7.2	r 10.7	a 13.0	l 16.5	B 20.3	e 23.5	l 26.9	l 28.7	s 30.1	
	D 36.6	r 38.3									
3 34.9	7 36.4	5 38.0	0 39.5	W 42.4							

Sta 159+06

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

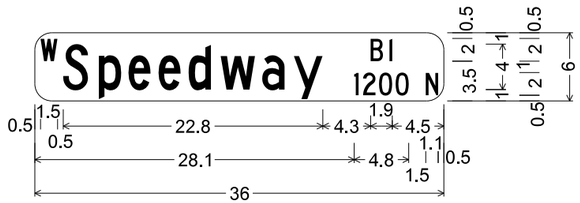
SIGN FORMATS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet SM14 of SM20	Page 60 of 95

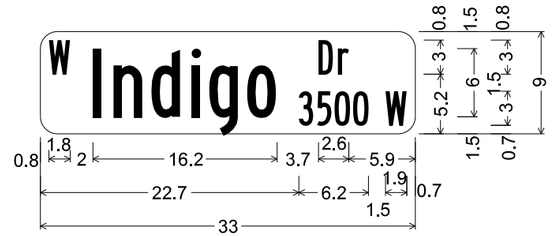
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



1.5" Radius, No border, White on Green;
[W] C 70% spacing;
[Speedway] C 90% spacing;
[Bl] C 90% spacing; [1200] C 90% spacing;
[N] C 90% spacing;
Table of letter and object lefts.

W 0.5	S 2.5	p 5.6	e 8.2	e 10.9	d 13.5	w 16.4	a 20.0	y 22.8
	B 29.6	l 31.2						
1 28.1	2 28.9	0 30.3	0 31.8	N 34.4				

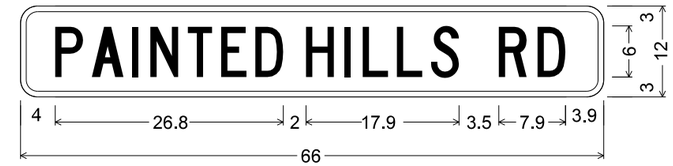
Sta 174+53



1.5" Radius, No border, White on Green;
[W] B 70% spacing;
[Indigo] B 60% spacing;
[Dr] B 60% spacing;
[3500] B 60% spacing;
[W] B 90% spacing;
Table of letter and object lefts.

W 0.8	I 4.6	n 6.4	d 9.8	i 13.3	g 14.9	o 18.2
	D 24.5	r 26.2				
3 22.7	5 24.4	0 25.9	0 27.5	W 30.4		

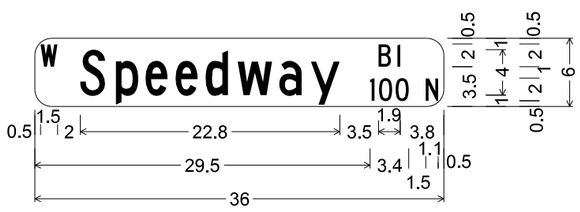
Sta 174+53



1.5" Radius, 0.5" Border, Black on Fluorescent yellow;
[PAINTED] C; [HILLS] C; [RD] C;
Table of letter and object lefts.

P 4.0	A 8.3	I 13.1	N 15.2	T 19.5	E 23.5	D 27.5	H 32.8	I 37.3	L 39.4	L 43.4	S 47.4
	R 54.2	D 58.8									

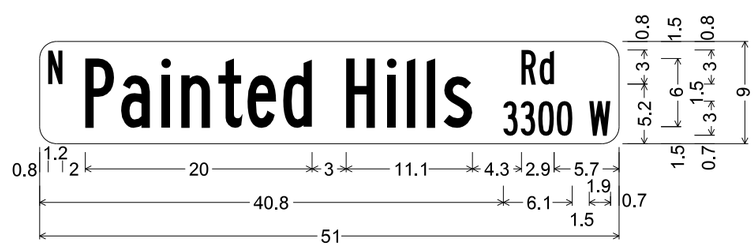
Sta 179+72



1.5" Radius, No border, White on Green;
[W] C 70% spacing;
[Speedway] C 90% spacing;
[Bl] C 90% spacing; [100] C 90% spacing;
[N] C 90% spacing;
Table of letter and object lefts.

W 0.5	S 4.0	p 7.1	e 9.7	e 12.4	d 15.0	w 17.9	a 21.5	y 24.3
	B 30.3	l 31.9						
1 29.5	0 30.3	0 31.8	N 34.4					

Sta 184+39



1.5" Radius, No border, White on Green;
[N] B 70% spacing; [Painted] B 60% spacing;
[Hills] B 60% spacing; [Rd] B 60% spacing;
[3300] B 60% spacing; [W] B 90% spacing;
Table of letter and object lefts.

N 0.8	P 4.0	a 7.2	i 10.7	n 12.5	t 15.7	e 18.3	d 21.4	
	H 27.0	i 30.6	l 32.3	l 34.1	s 35.6	R 42.4	d 44.0	
3 40.8	3 42.4	0 43.9	0 45.5	W 48.4				

Sta 184+39

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

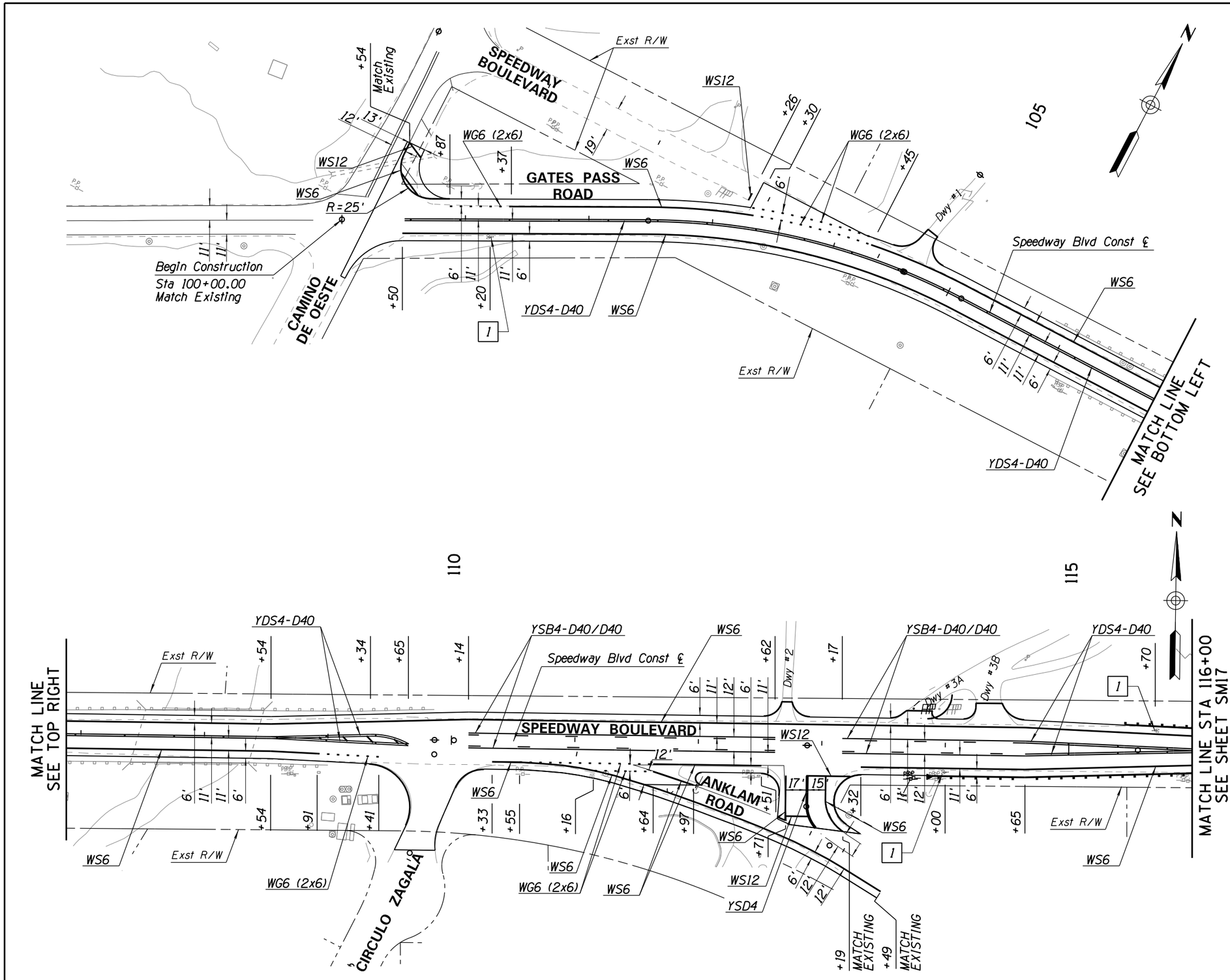
Pima County Department of Transportation

SIGN FORMATS
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet SM15 of SM20	Page 61 of 95



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1 Install Bike Legend See PCDOT STD Dtl 2-9.1.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1"=40'

Scale:	1"=40' Horiz.	Sheet SM16 of SM20	Page 62 of 95

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

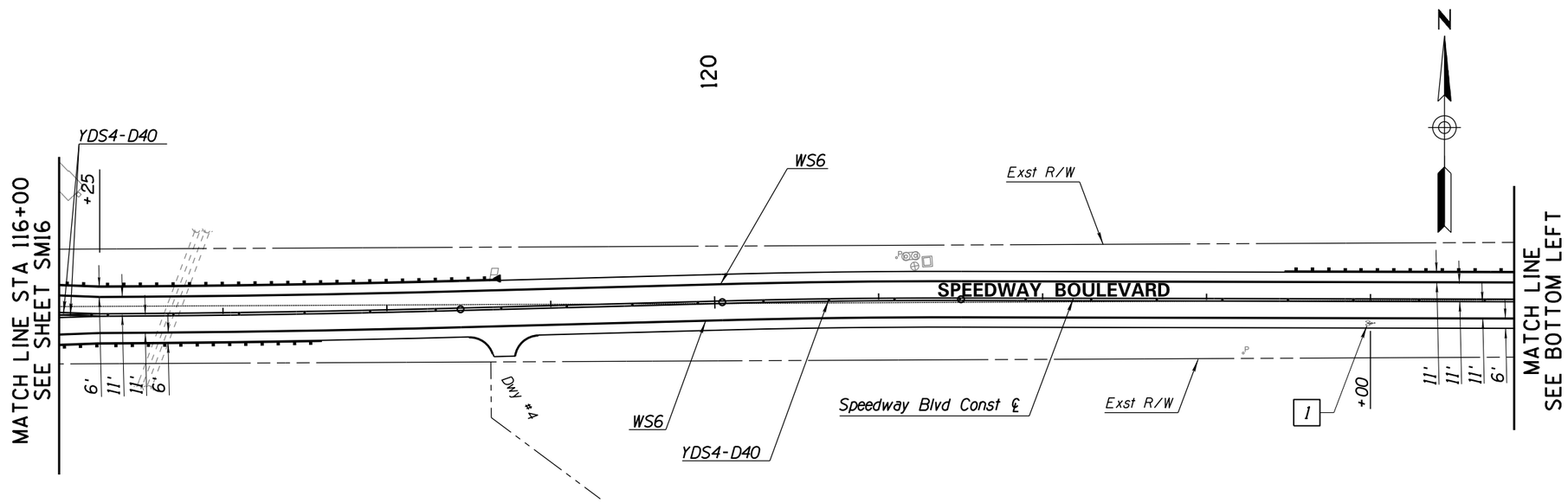
Pima County Department of Transportation

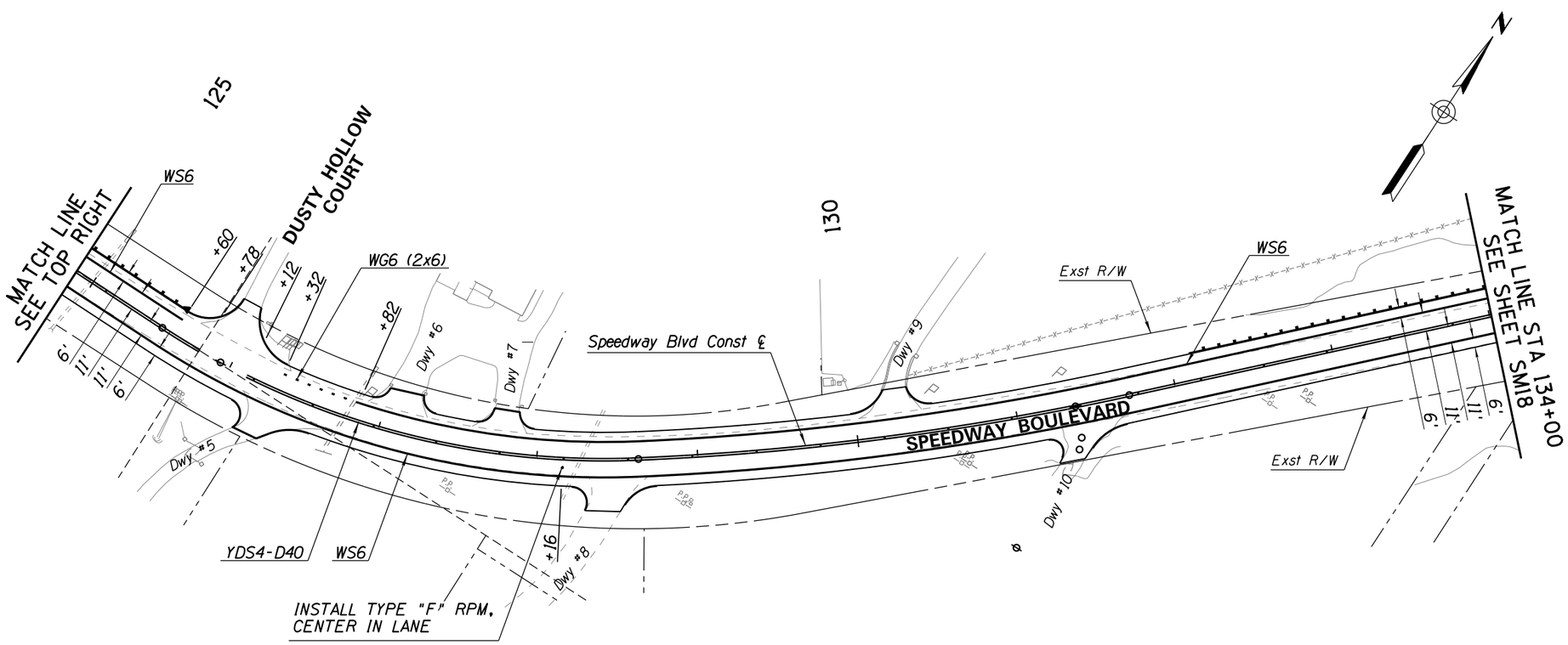
PAVEMENT MARKING PLAN
SPEEDWAY BLVD.
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Tssp01.dgn

Wed 13 Feb 2019, 13:21:22





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 OIC			

ROADWAY KEYNOTES

1 Install Bike Legend See PCDOT STD Dtl 2-9.1.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL
PS&E
NOT FOR CONSTRUCTION
PROOF COPY

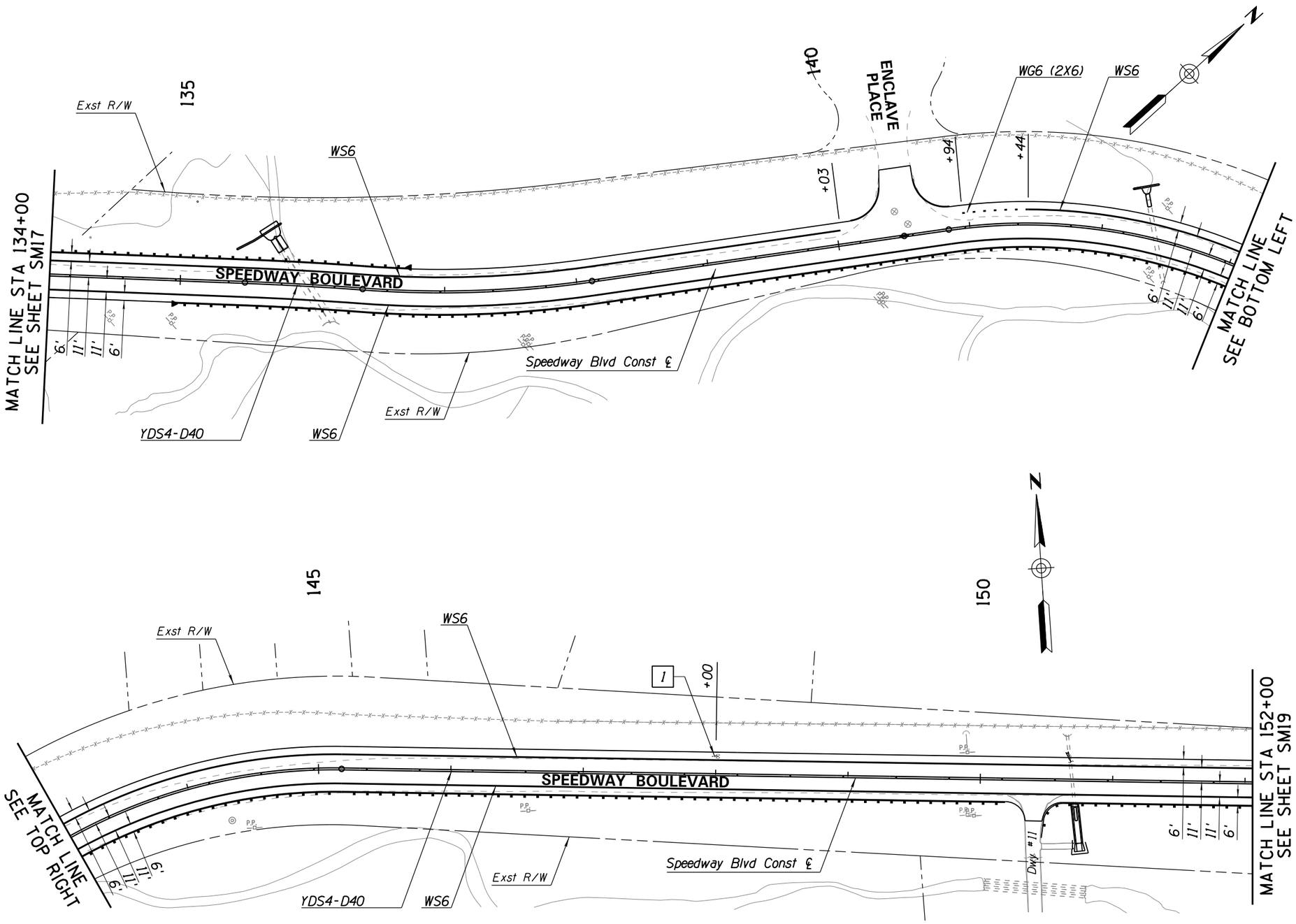
WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

PAVEMENT MARKING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet SM17 of SM20 | Page 63 of 95



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1 Install Bike Legend See PCDOT STD Dtl 2-9.1.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

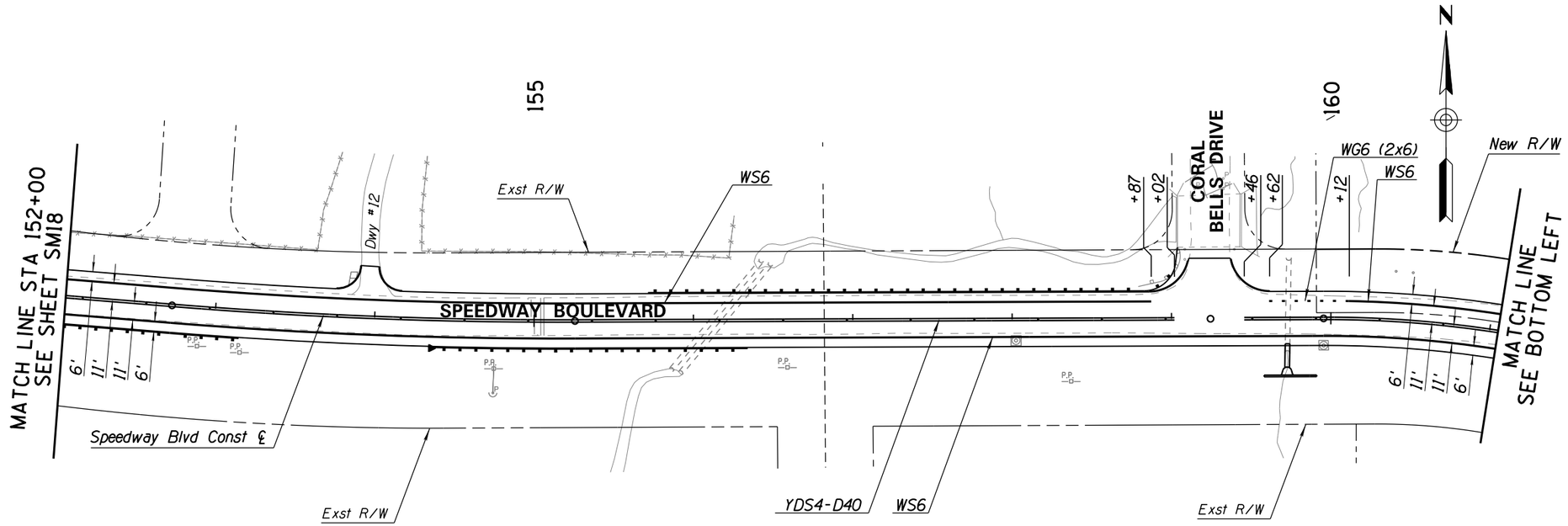
PAVEMENT MARKING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

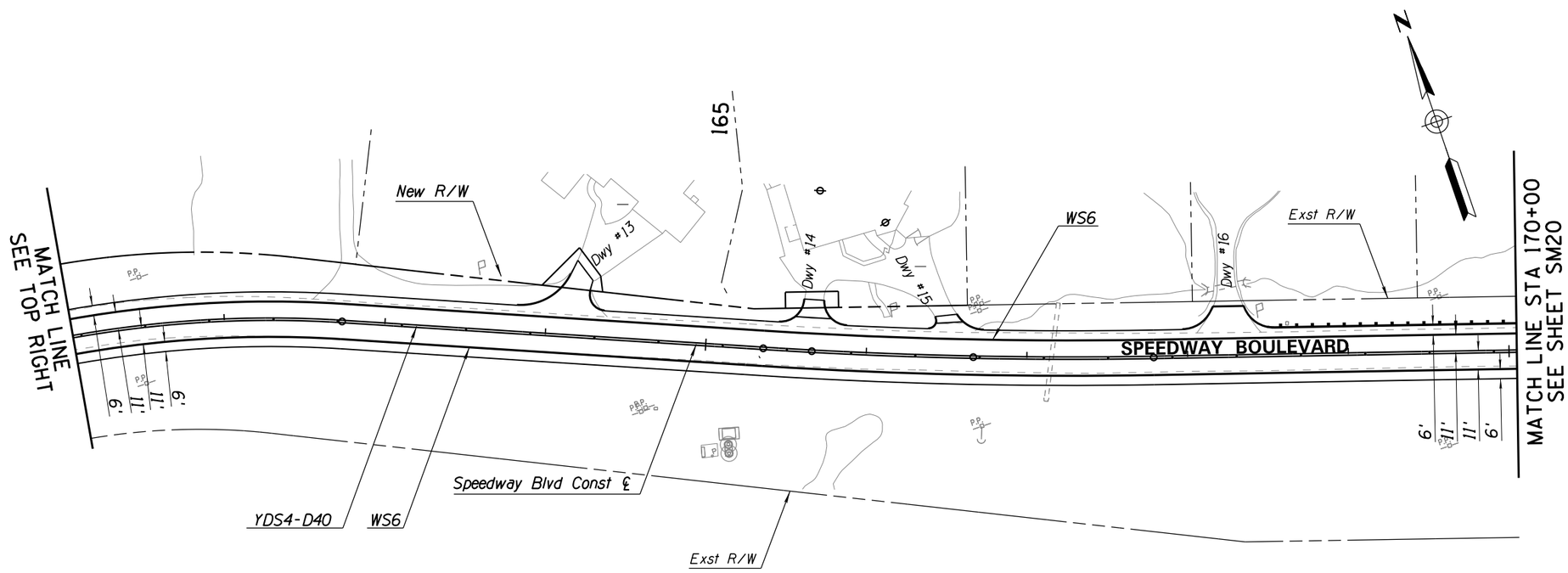
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet SM18 of SM20 | Page 64 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Tssp03.dgn

Wed 13 Feb 2019, 13:21:33





F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

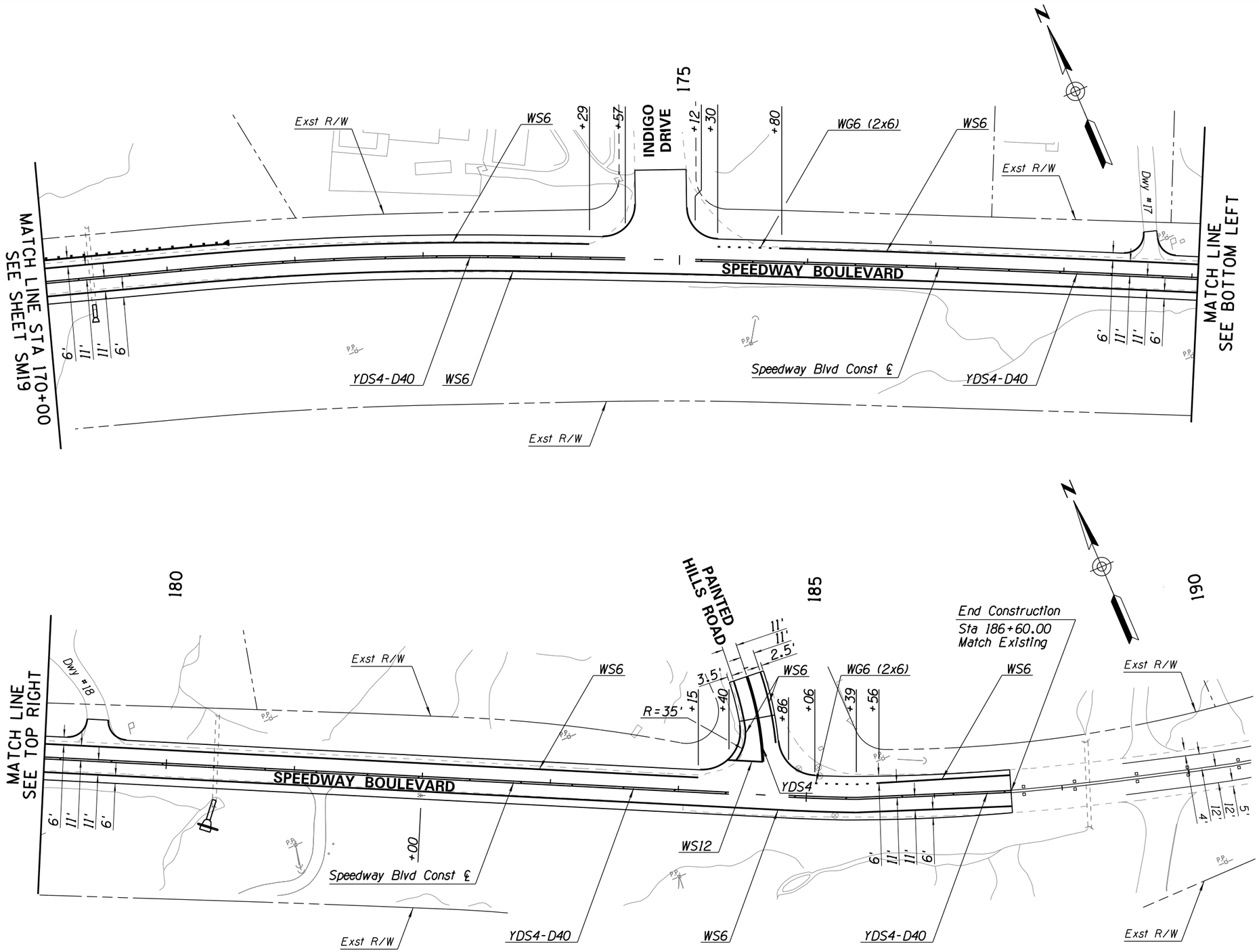
Pima County Department of Transportation

PAVEMENT MARKING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	1"=40' Horiz.	Sheet SM19 of SM20	Page 65 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Tssp04.dgn
Wed 13 Feb 2019, 13:21:39



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

ROADWAY KEYNOTES

1. Install Bike Legend See PCDOT STD Dtl 2-9.1.

Note:
All Stationing Based on Speedway Blvd Construction Centerline.

40' 0 40' 80'
SCALE: 1" = 40'

Scale: 1"=40' Horiz. | Sheet SM20 of SM20 | Page 66 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

PAVEMENT MARKING PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Traffic\4HSBSP-Tssp05.dgn
Wed 13 Feb 2019, 13:36:02

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

KEYNOTE	SYMBOL	BMP	UNIT	QTY.	BID ITEM NO.
No Keynote	N/A	Seeding (Class II) (Permanent Stabilization)	AC	4	8050004

NOTE:
See sheet L1 for Seed Mix Schedule.

KEYNOTE	SYMBOL	BMP	UNIT	QTY.	BID ITEM NO.
ES1-20"		20" Dia. Sediment Log	L.F.	1850 L.F.	8100001
ES2		Rock Protection at Pipes	C.Y.	8 C.Y.	8030031
ES3-9"		9" Dia. Sediment Wattle	L.F.	3950 L.F.	8100001
ES4		Rock at Cut & Fill Transitions	C.Y.	30 C.Y.	8030031
ES5-B		Sediment Control Berm	L.F.	8650 L.F.	8100001
ES6-CE		Stabilized Constuction Entrance	E.A.	3	8100001

GENERAL NOTES:

1. Areas outside of the Project Disturbance Limits and/or Right of Way shall remain undisturbed. Should additional areas require disturbance, the Engineer, Owner and appropriate parties must be notified. Contractor SHALL NOT encroach upon Pima County Preserve areas for any purpose.
2. No existing storm drain inlets or drywells exist within 1/4 mile of the project limits.
3. All disturbed soils shall be stabilized. Apply seed mix to disturbed soils, including all Temporary Construction Easements.
4. Seeding limits shown on plans are estimated on anticipated limits of soil disturbance. Seeding shall be field adjusted to match actual limits of soil disturbance. Seeding limits shall extend to the existing Right of Way unless otherwise shown on the Project Plans.
5. No Erosion Control Measures shall be installed inside the temporary fencing areas for existing preserve in place cactii.
6. Refer to Drainage Plan and Profile sheets, Roadway plans, and Riprap details for Permanent Erosion Control Measures.
7. All Erosion Control Measures shall be installed within 14 days of establishing rough grade. Disturbed areas where construction is delayed for more than 14 days will require Temporary Erosion Control Measures.
8. Erosion Control Measures shall be installed at perimeter of Limits of Disturbance, as shown on plans.
9. Sediment Control Measures shall be installed on all side slope boundaries. Sediment Controls shall be placed on side slope boundaries when adjacent side slope is at lower elevation than project area with potential to receive stormwater runoff. Adjacent slopes at higher elevation than project area do not require perimeter control.

GENERAL NOTES (CONTINUED):

1. Sediment Wattles shall be installed on slopes, per Erosion & Pollution Control plans, and per Detail ES2. Ends of Wattles shall be turned upslope at a 45-degree angle, 3-foot minimum, Typical.
2. The Contractor shall determine the final location of Stabilized Construction Entrance/Exit Gravel Pad according to site conditions and/or construction sequencing, with approval from the Engineer. All ingress/egress and Laydown Yards shall be approved by the Engineer.
3. Staging/Laydown Yards must be kept on-site as shown on plans. No staging outside the established, cleared footprint.
4. Sweeping and/or vacuuming may be required as a secondary measure if trackout is visible.
5. Containment Areas shall be identified on the Contractor's Stormwater Pollution Prevention Plan.
6. Spill response equipment shall be accessible in case of a spill, and located within/near the Containment Area.
7. Quantities shown in Summary of Quantities are for Contractor convenience. The Contractor shall verify all quantities.

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

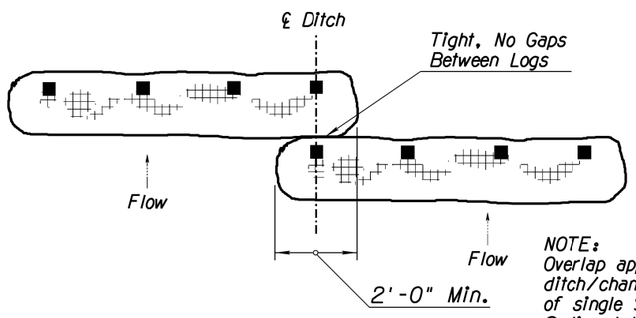
Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

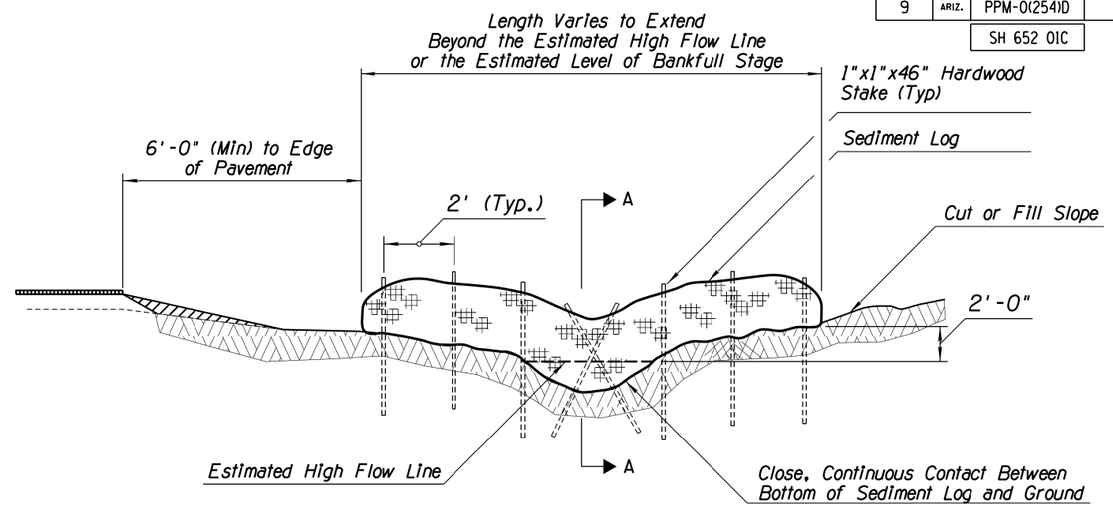
Scale:	NTS	Sheet EC1 of EC12	Page 75 of 95

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



TYPICAL OVERLAP PLAN (NTS)

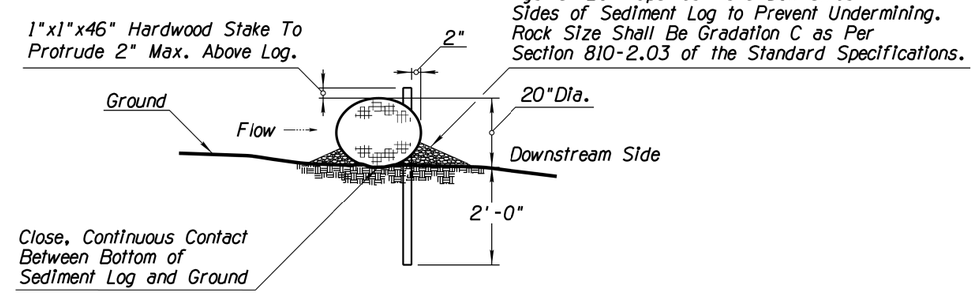
NOTE:
Overlap applies to situations where ditch/channel is wider than length of single Sediment Log. Two or multiple Sediment Logs may be necessary.



SEDIMENT LOG IN DITCH/CHANNEL SECTIONAL ELEVATION (NTS)

NOTES:

1. Sediment Logs shall not be installed in the urban freeway medians, nor where cable barrier systems are employed.
2. Locate Sediment Logs as indicated in plans, SWPPP or as directed by the Engineer.
3. Select, install and maintain Logs per manufacturers' specifications and good engineering practices.
4. Lay Sediment Log across prepared roadside ditch or channel. Trenching or burial of Sediment Logs is not required. The close, continuous contact between the bottom of the Log and the ground is mandatory. The Logs shall be installed in the roadside ditch, swale or channel bottom perpendicular to the flow of water as shown on detail this sheet.
5. Stake Log as shown. Stakes shall be placed through downstream side only as shown.
6. DO NOT drive stakes through center of the Log. Stakes must be driven into the ground as shown.
7. Ensure that no gaps exist between soil and bottom of Sediment Log. Repair any rills or undercuts promptly.
8. Placement of Sediment Logs shall be evaluated by the Engineer in rocky soil conditions.
9. Remove Sediment Log BMPs within the ditches/channels and around the storm drain inlets as per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
10. Dispose of Sediment Logs and trapped sediment material and fill trench created by Sediment Log.
11. The installation and maintenance of Sediment Log BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Sediment Logs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
12. Make field adjustments and corrections of Sediment Log BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
13. Rock mulch/riprap may be required for channel/ditch lining or rock check dams for longitudinal ditch slopes that exceed 5% and/or for soil conditions not suitable for Log installation.
14. The Sediment Log BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
15. Refer to Standard Specification Section 810-2.06(B) for Sediment Log material specifications.
16. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
17. Construct Rock Wedge with angular-shaped Gradation C Rock Mulch as defined in Section 810-2.03 of the Standard Specifications and these special provisions. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.



SECTION A-A (NTS)

DETAIL ES1

SEDIMENT LOG

Scale:	NTS	Sheet EC2 of EC12	Page 76 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.5424

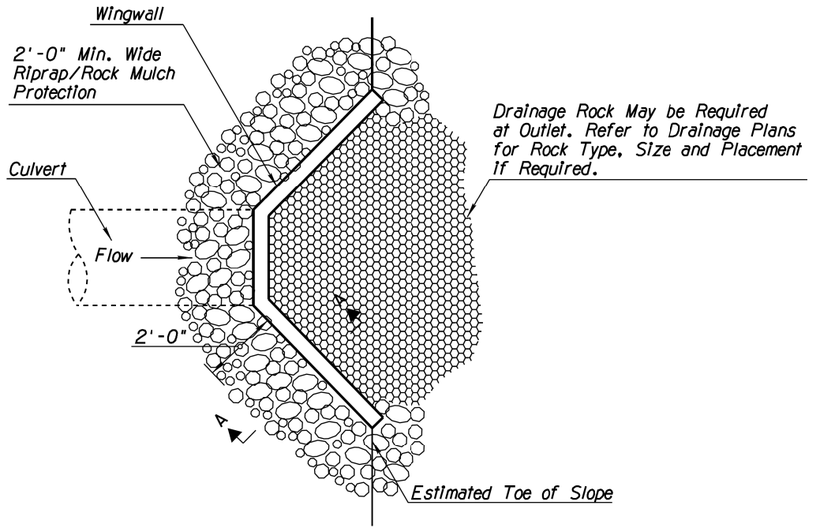
Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

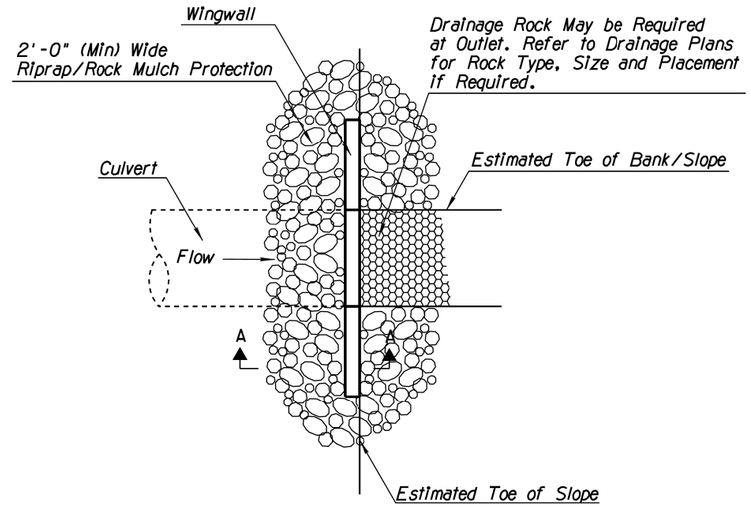
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

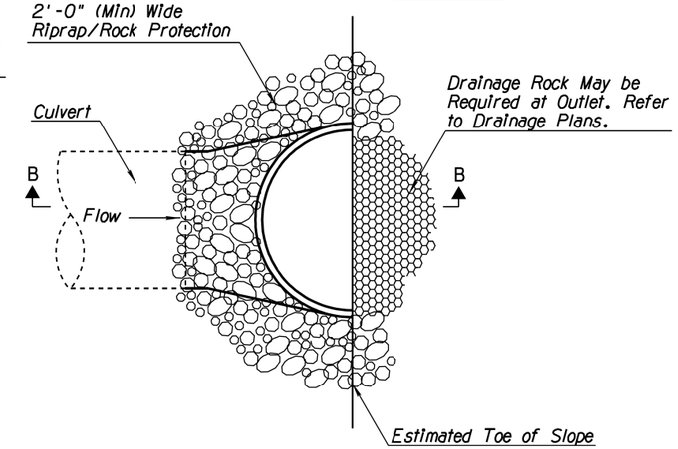
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



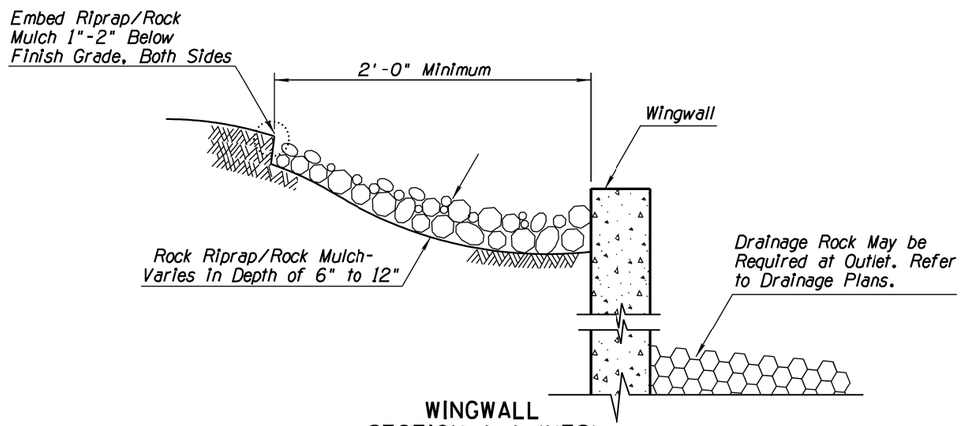
ANGLED HEADWALL
PLAN VIEW (NTS)



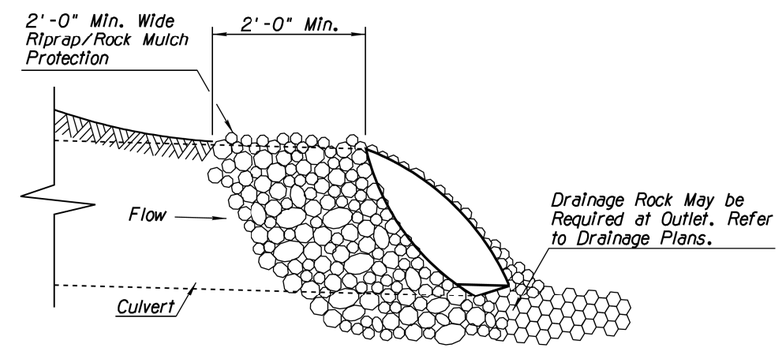
FLUSH HEADWALL
PLAN VIEW (NTS)



FLARED END
PLAN VIEW (NTS)



WINGWALL
SECTION A-A (NTS)



FLARED END
SECTION B-B (NTS)

Notes:

1. Rock Mulch shall be angular shaped, crushed rock materials.
2. Rock Mulch within the traffic Clear Zone shall conform to the Gradation Table provided on this sheet.
3. Imbed rock within traffic recovery area/clear zone into the finished grade so that any portion of the rock above the grade will be less than ½" in height.
4. The installation and maintenance of Rock Mulch BMPs shall not negatively impact traffic safety, nor the designed function of the roadway or bridge drainage facilities. Rock Mulch BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
5. Field adjust and correct Rock Mulch BMPs immediately if it is causing flooding, erosion, and/or affecting roadway safety.
6. The Rock Mulch BMPs Bid Item Number 8030031 shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintaining as well as returning the area to an acceptable condition as approved by the Engineer.

Rock Mulch Gradation	
% Passing	Sieve Size
90-100	6"
70-85	4"
30-50	3"
5-15	2"
0-5	1"

DETAIL ES2

ROCK MULCH FOR
INLETS, OUTLETS AND
HEADWALL TRANSITION

Scale:	NTS	Sheet EC3 of EC12	Page 77 of 95

Ana M. Olivares, P.E., Director

Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

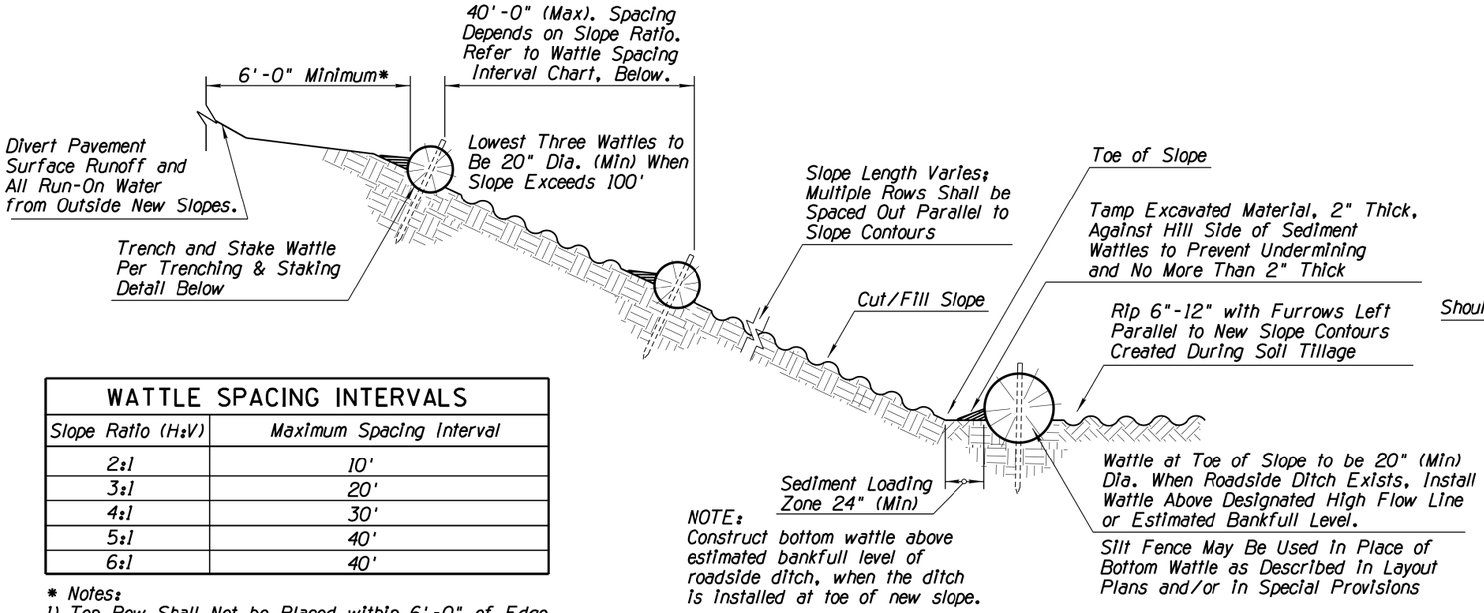
Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

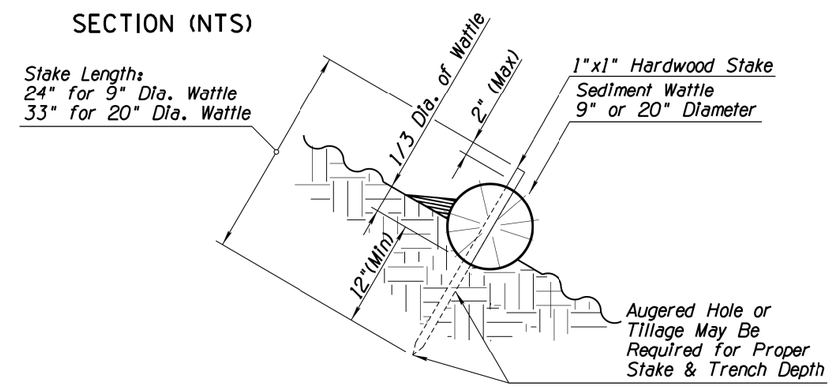


NOTE:
Construct bottom wattle above estimated bankfull level of roadside ditch, when the ditch is installed at toe of new slope.

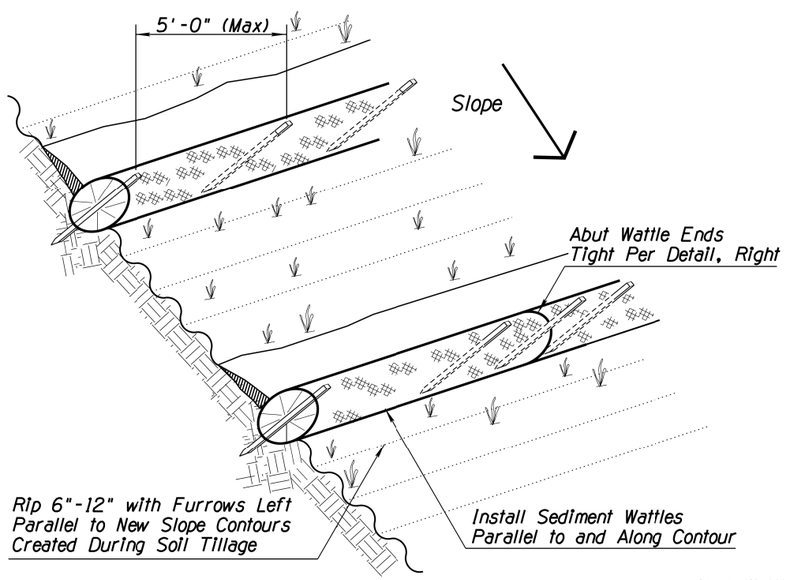
SECTION (NTS)

WATTLE SPACING INTERVALS	
Slope Ratio (H:V)	Maximum Spacing Interval
2:1	10'
3:1	20'
4:1	30'
5:1	40'
6:1	40'

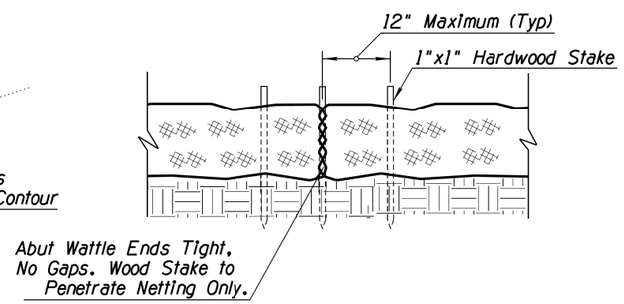
* Notes:
1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
2) For erosive soils, place rows of wattles closer together.
3) For soils with low erosive potential, place rows of wattles further apart.



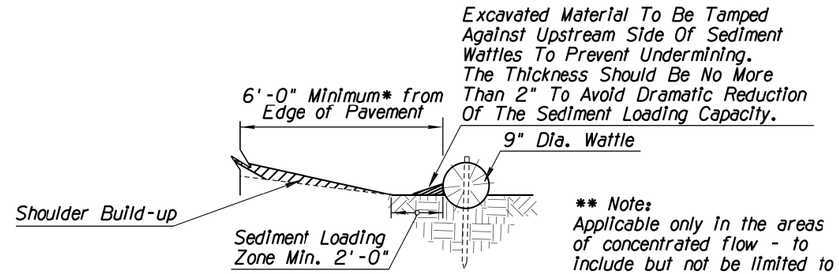
SEDIMENT WATTLE STAKING DETAIL (NTS)



SEDIMENT WATTLE LAYOUT (NTS)



SEDIMENT WATTLE OVERLAP (NTS)



NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)

** Note:
Applicable only in the areas of concentrated flow - to include but not be limited to roadway sag spots and drop-off repair locations as per the direction of the Engineer.

NOTES:

1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Project Specifications.
6. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
7. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
8. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
9. Refer to Project Specification Section 810 for Sediment Wattle material specifications.
10. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES3
SEDIMENT WATTLE

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1102
Tucson, AZ 85701
TEL: +1 520.882.6424

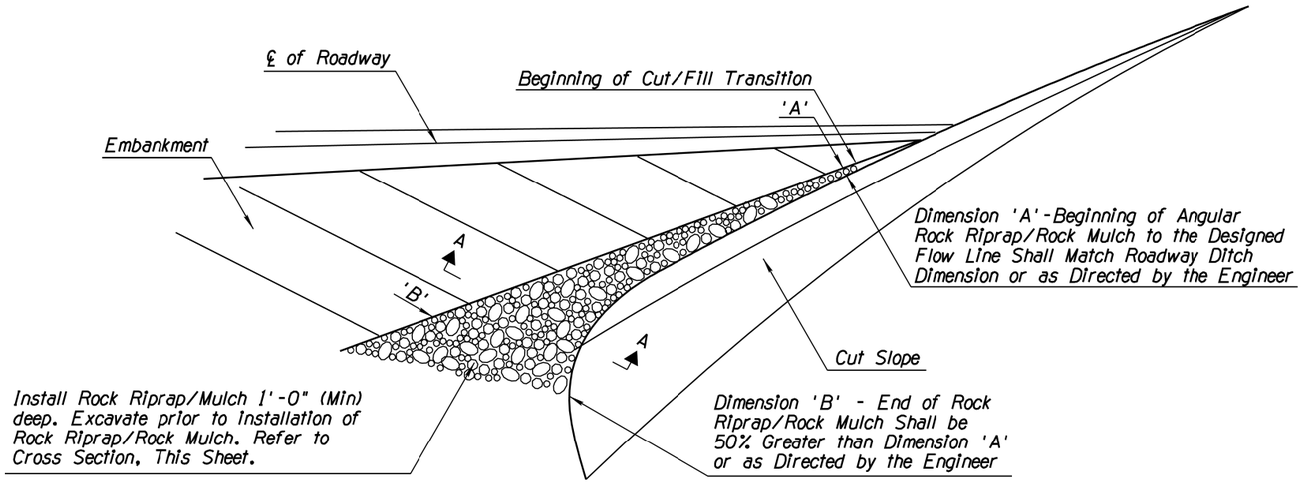
Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

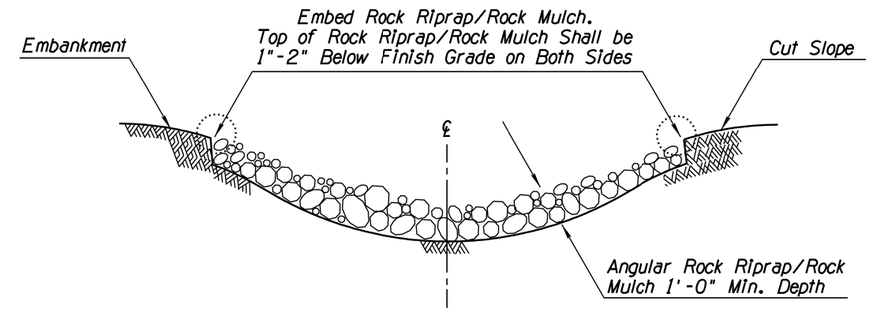
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet EC4 of EC12	Page 78 of 95

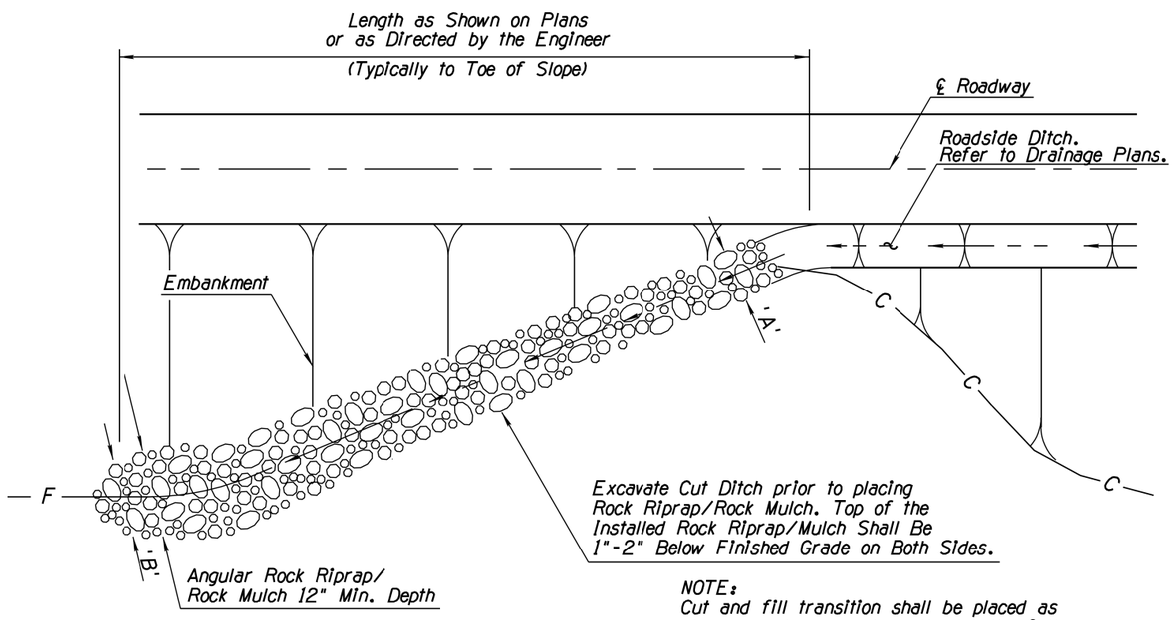
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



PERSPECTIVE (NTS)



ROCK RIPRAP/ROCK MULCH EMBEDMENT
SECTION A-A (NTS)



NOTE:
Cut and fill transition shall be placed as shown on plans or where the length of the roadside ditch is 50 feet or greater. Field adjust per direction of Engineer.

PLAN VIEW (NTS)

NOTES:

1. Rock Riprap/Rock Mulch shall be angular shaped. crushed rock materials.
2. Rock Riprap/Rock Mulch within the traffic Clear Zone/Recovery Area shall conform to the requirements of Section 810-2.03 Sieve Size Gradation A and/or Gradation C, and Section 913 of the Standard Specifications.
3. Install Rock Riprap/Rock Mulch to a minimum depth of 12" for Channel Lining and Cut/Fill Transition. Excavate ground surface to a depth that the top of Rock is 1"-2" below the grade of the ditch.
4. Imbed any Rock into the finished grade so that any portion of the Rock is less than 4" above grade, within traffic recovery area/clear zone.
5. The installation and maintenance of Rock Protection BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Rock Protection BMPs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
6. Field adjust and correct Rock Protection BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
7. Field adjust to ensure the top surface of Rock Riprap/Rock Mulch is graded lower than the surrounding finished grade to collect surface stormwater runoff and concentrated flow.
8. The Rock Protection BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintaining, as well as returning the area to an acceptable condition as approved by the Engineer.

DETAIL ES4

ROCK PROTECTION FOR
CUT & FILL TRANSITION
AND CHANNEL LINING

Scale:	NTS	Sheet EC5 of EC12	Page 79 of 95

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL
PS&E
NOT FOR CONSTRUCTION
PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

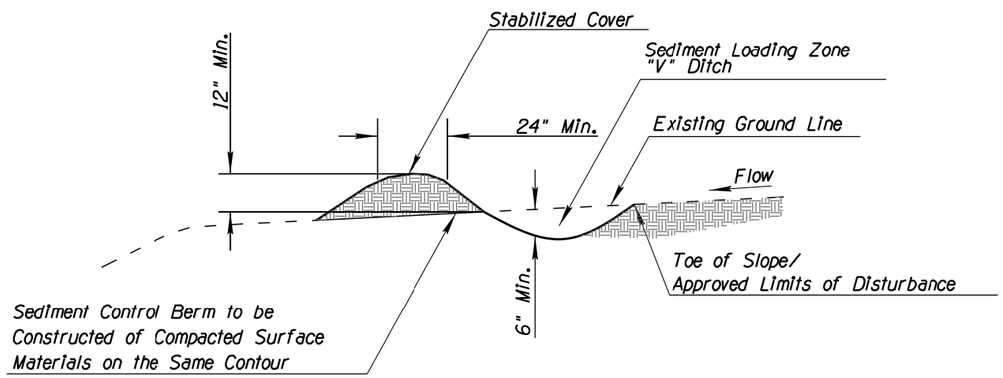
Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



SEDIMENT CONTROL BERM
SECTION (NTS)

NOTES:

1. Locate Sediment Control Berms as indicated on plans or as directed by the Engineer.
2. Surface materials i.e. soil, rack. branches, leaves. slash and chips shall be scraped from the existing grade as needed to construct the berm prior to placement of roadway embankment. After scraping material into berm, compact berm as shown. Rock and slash shall extend no more than 4" above the surface.
3. Construct Sediment Control Berm an the same contour as the toe of new slope and a miniumum of 2'-0" beyond the toe of new slope. For the seeded areas. till to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Standard Specifications and the Special Provisions.
4. The installation and maintenance of Sediment Control Berm BMPs shall not negatively impact traffic safety. nor the designed function of roadway or bridge drainage facilities. For erosion/sediment control purposes, Sediment Control Berm BMPS shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
5. Remove Sediment Control Berms per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
6. Make field adjustments and corrections of Sediment Control Berm BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
7. Sediment Control Berms may be paid as a part of slope construction/ roadway excavation. When paid separately, the Sediment Control Berm BMF"s pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
8. OPTION TO SEDIMENT CONTROL BERM: When shown on layout plans and/or called for in Special Provisions. for urban situations. or where surface materials are not available. use wattles. Wattles shall be selected. installed. and maintained in accordance with monufacturers' specifications and good engineering practices. Refer to Sediment Wattle BMP detail.
9. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
10. Sediment berms shall not be used where they could block conveyances across the project site. A sediment log should be used instead.

DETAIL ES5

SEDIMENT BERM

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

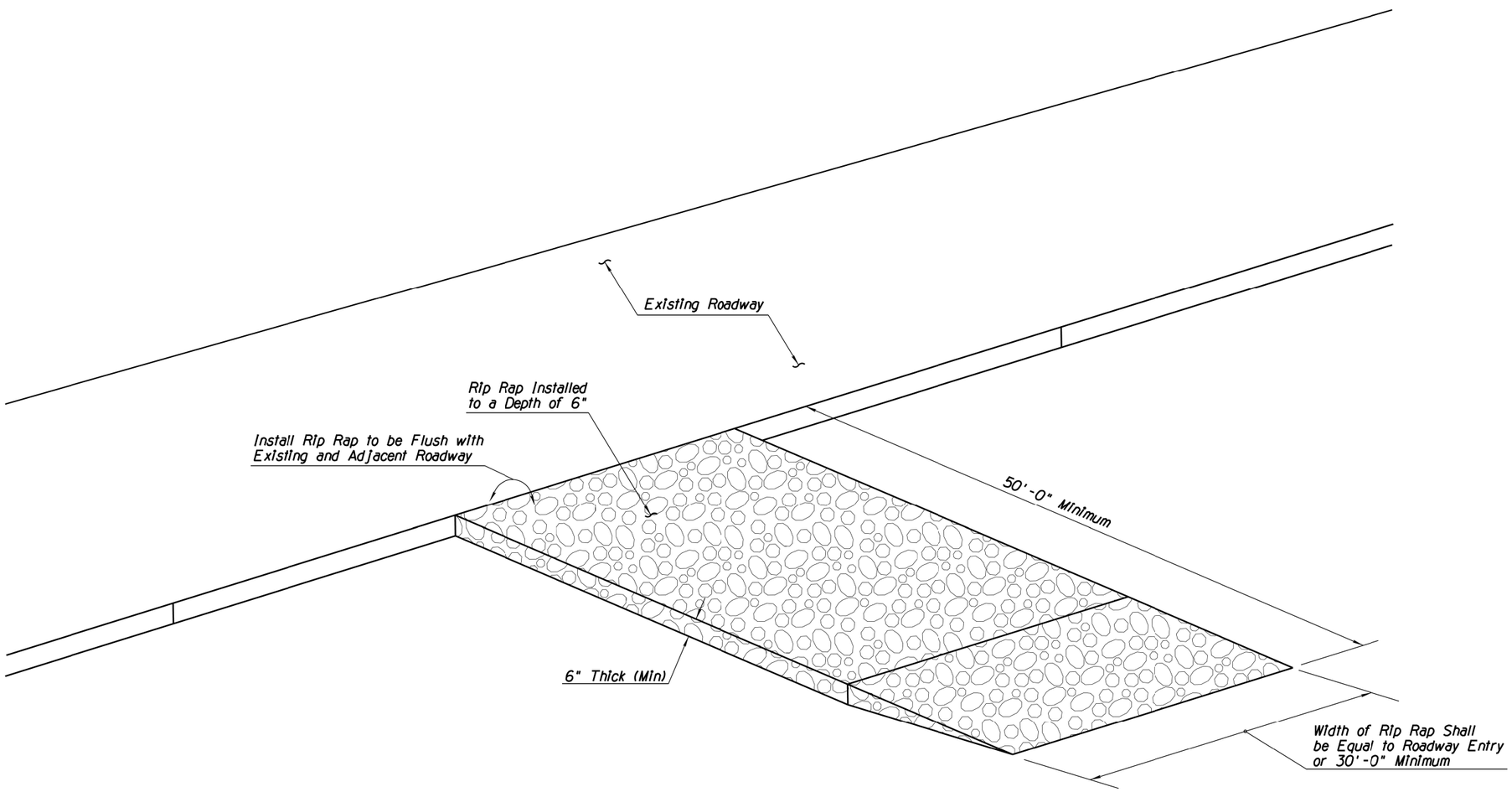
SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale:	NTS	Sheet EC6 of EC12	Page 80 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 06.dgn

Wed 13 Feb 2019, 12:21:59

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			



BIRD'S EYE VIEW (NTS)

NOTES:

1. Install Stabilized Construction Entrance/Exit Gravel Pad BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad BMP as needed as project progresses. Replace Rip Rap materials in drive paths when dirt or mud accumulates.
3. Rip Rap materials shall be fractured/crushed rocks in angular shape as defined in Section 810 of the Project Specifications. Natural river-run materials, especially rounded natural river rocks, are not acceptable.
4. Field adjust and correct Construction Entrance/Exit Rip Rap Pad BMP immediately if it is causing flooding and/or affecting roadway safety.
5. Recycled asphalt can be used instead of rip rap if available.
6. Paid for under Bid Item Number 8100001/8100012.
7. Contractor shall remove Stabilized Construction Entrance/Exit gravel pad BMP at the completion or at as approved by the egineer. There shall be no payment for the removal of this BMP.

DETAIL ES6

STABILIZED CONSTRUCTION ENTRANCE/EXIT

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E

NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.892.6424

Pima County Department of Transportation

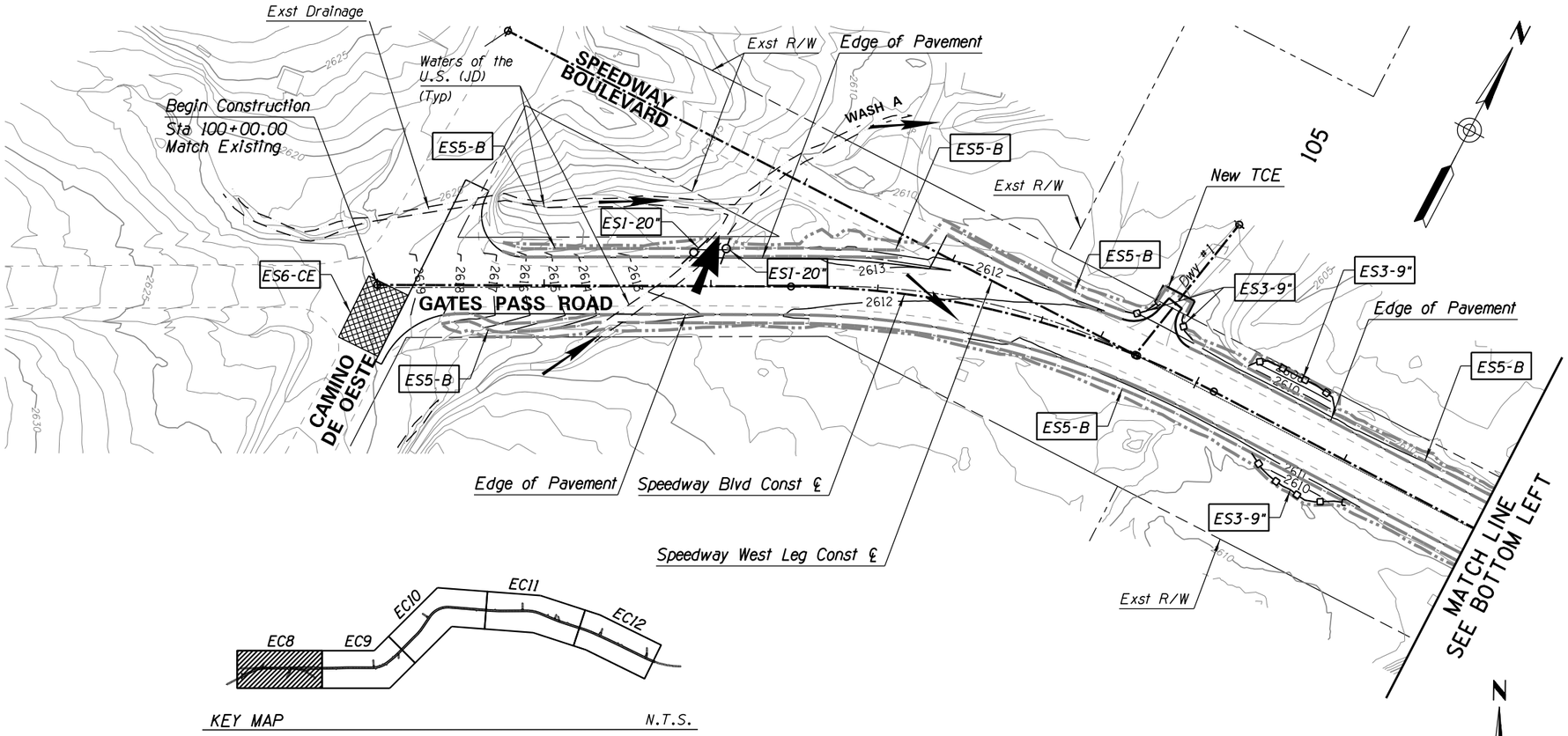
EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

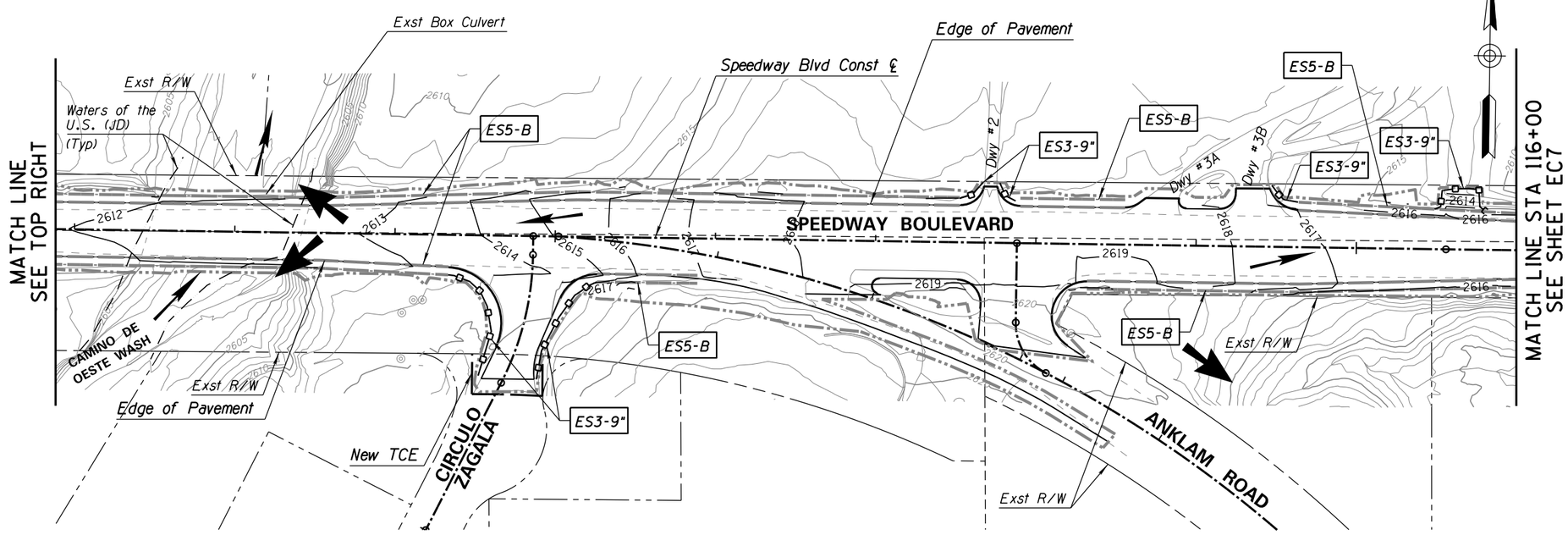
Scale:	NTS	Sheet EC7 of EC12	Page 81 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 07.dgn

Wed 13 Feb 2019, 11:57:56



KEY MAP N.T.S.



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

EROSION CONTROL LEGEND

KEYNOTE	BMP	SYMBOL
ES1-20"	20" Dia. Sediment Log	
ES2	Rock Protection at Pipes	
ES3-9"	9" Dia. Sediment Wattle	
ES4	Rock at Cut & Fill Transitions	
ES5-B	Sediment Control Berm	
ES6-CE	Stabilized Constuction Entrance	
	Flow Arrow	
	Limits of Disturbance	
	Flow Entering/ Leaving Project	

NOTES:

1. All Disturbed Areas Shall Receive Seeding (Class II) for Permanent Stabilization Unless an Alternate Slope Stabilization is Identified in the Roadway Plans.
2. Refer Sheet EC01, for quantities and General Notes.
3. Refer to Special Provisions for additional information.
4. Staging/Laydown Yard must be kept on-site as shown on plans. No staging outside the established cleared footprint.
5. No drywells are present within 1/4 mile of project site.
6. Exact location of Stabilized Construction Entrance to be determined by Contractor.

40' 0 40' 80'
SCALE: 1" =40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

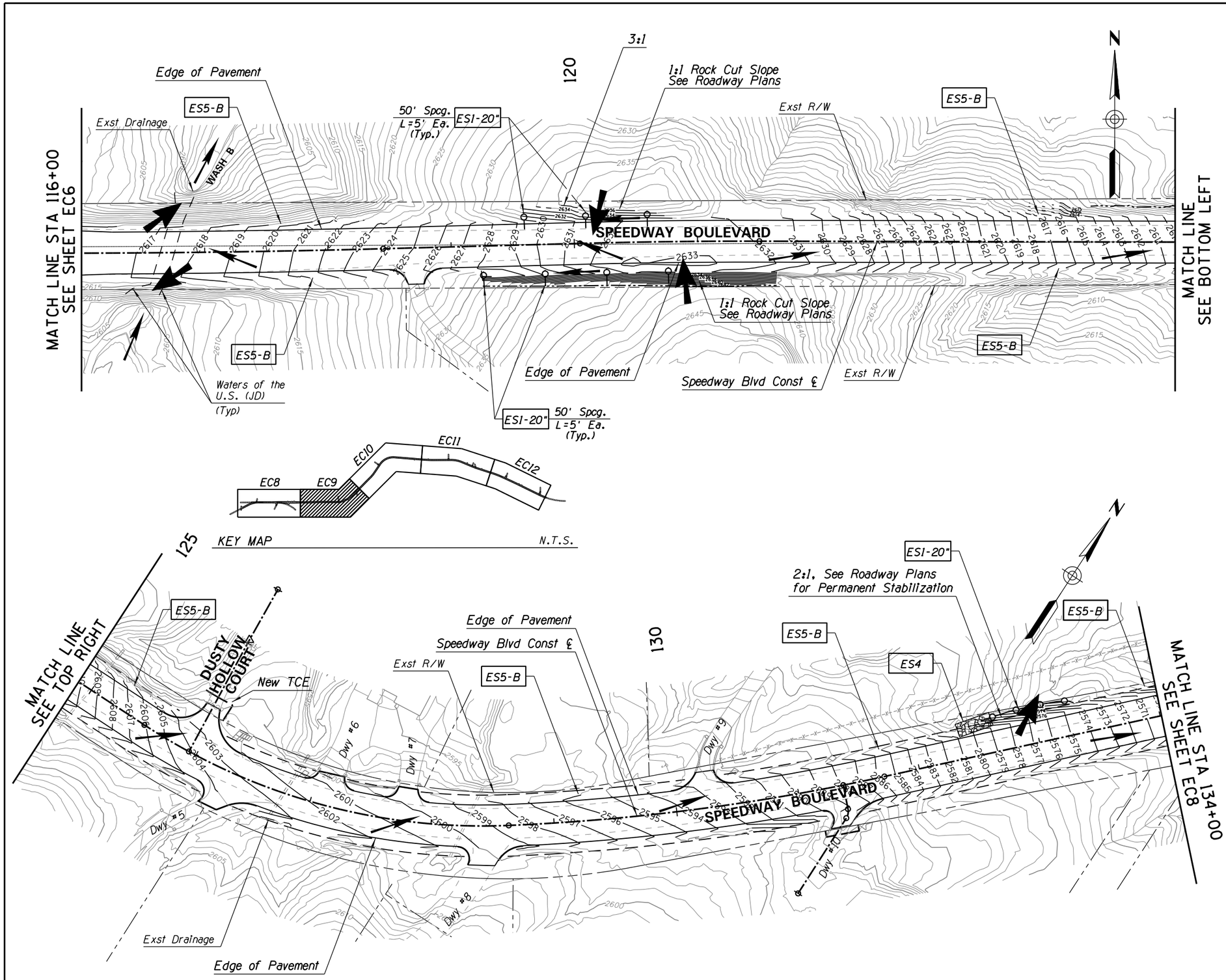
EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet EC8 of EC12 | Page 82 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 08.dgn

Wed 13 Feb 2019, 09:25:21



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

EROSION CONTROL LEGEND

KEYNOTE	BMP	SYMBOL
ES1-20"	20" Dia. Sediment Log	
ES2	Rock Protection at Pipes	
ES3-9"	9" Dia. Sediment Wattle	
ES4	Rock at Cut & Fill Transitions	
ES5-B	Sediment Control Berm	
ES6-CE	Stabilized Constuction Entrance	
	Flow Arrow	
	Limits of Disturbance	
	Flow Entering/ Leaving Project	

NOTES:

1. All Disturbed Areas Shall Receive Seeding (Class II) for Permanent Stabilization Unless an Alternate Slope Stabilization is Identified in the Roadway Plans.
2. Refer Sheet EC01, for quantities and General Notes.
3. Refer to Special Provisions for additional information.
4. Staging/Laydown Yard must be kept on-site as shown on plans. No staging outside the established cleared footprint.
5. No drywells are present within 1/4 mile of project site.
6. Exact location of Stabilized Construction Entrance to be determined by Contractor.

40' 0 40' 80'
SCALE: 1" = 40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL
PS&E
NOT FOR CONSTRUCTION
PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

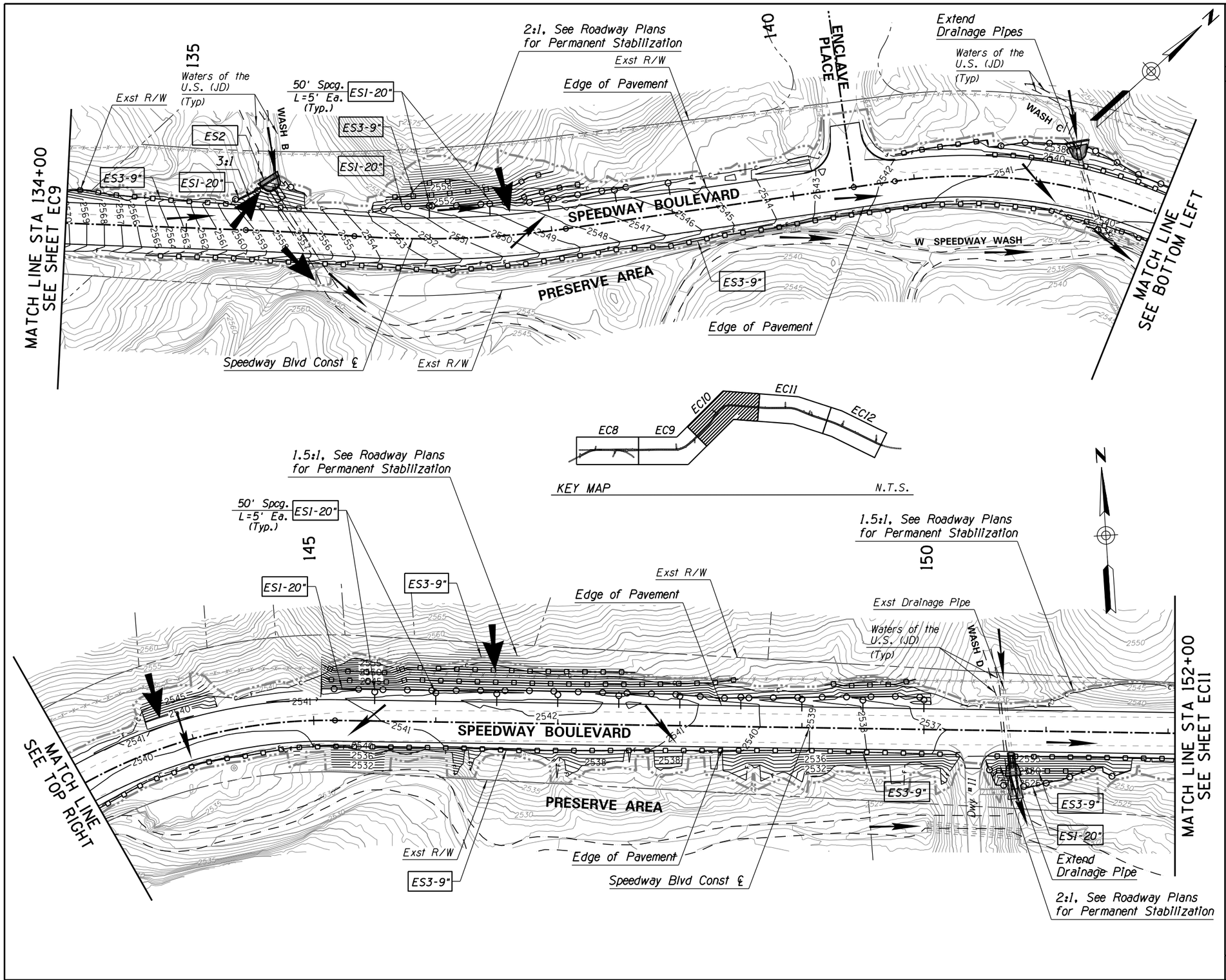
EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet EC9 of EC12 | Page 83 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 09.dgn

Wed 13 Feb 2019, 09:25:28



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

EROSION CONTROL LEGEND

KEYNOTE	BMP	SYMBOL
ES1-20"	20" Dia. Sediment Log	
ES2	Rock Protection at Pipes	
ES3-9"	9" Dia. Sediment Wattle	
ES4	Rock at Cut & Fill Transitions	
ES5-B	Sediment Control Berm	
ES6-CE	Stabilized Constuction Entrance	
	Flow Arrow	
	Limits of Disturbance	
	Flow Entering/ Leaving Project	

NOTES:

1. All Disturbed Areas Shall Receive Seeding (Class II) for Permanent Stabilization Unless an Alternate Slope Stabilization is Identified in the Roadway Plans.
2. Refer Sheet EC01, for quantities and General Notes.
3. Refer to Special Provisions for additional information.
4. Staging/Laydown Yard must be kept on-site as shown on plans. No staging outside the established cleared footprint.
5. No drywells are present within 1/4 mile of project site.
6. Exact location of Stabilized Construction Entrance to be determined by Contractor.

40' 0 40' 80'
SCALE: 1" =40'

Ana M. Olivares, P.E., Director

No.	Revision Description	Engineer	Date

		Date
Designed	FF	2/2009
Drawn	CPC	2/2009
Checked	JAV	2/2009
Proj. Engr.	FF	2/2009

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

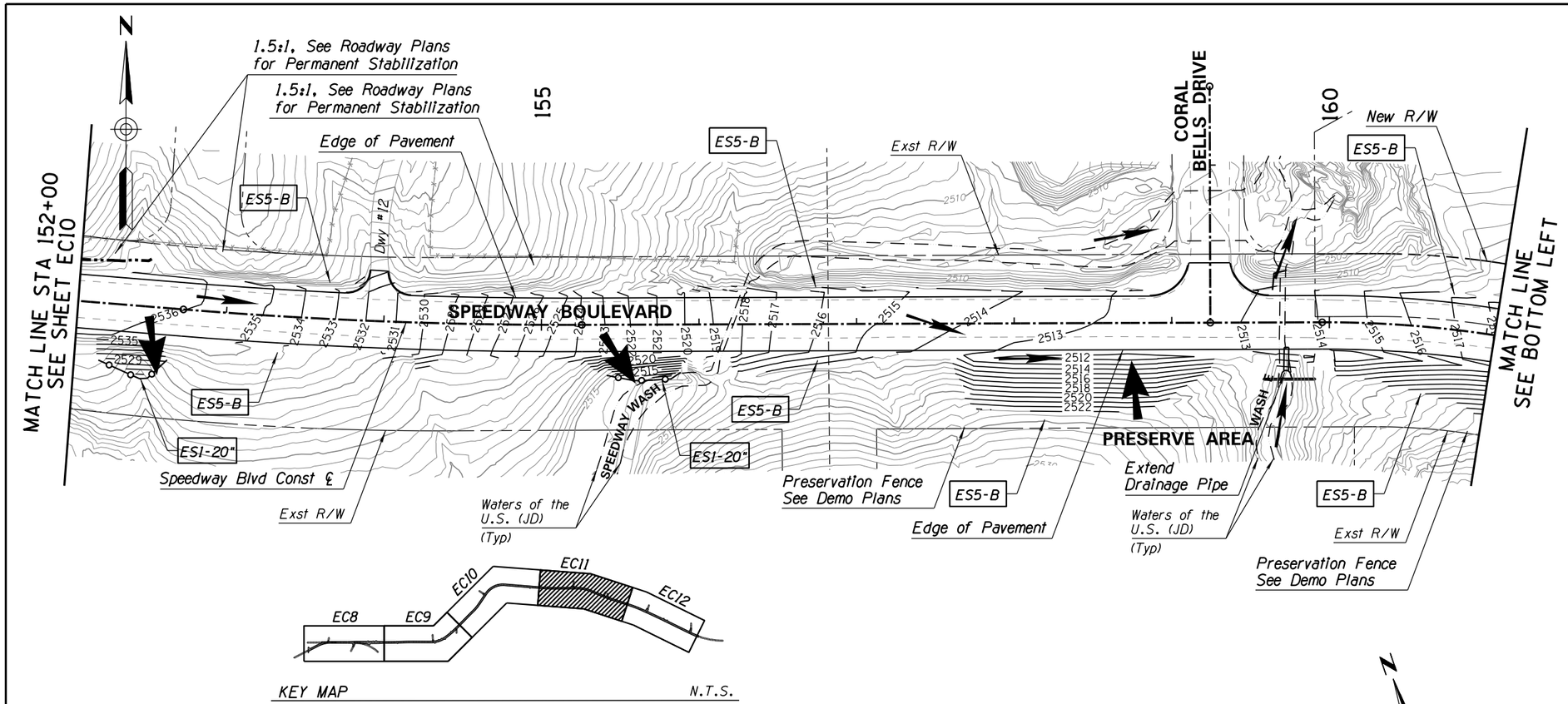
EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS – PAVED SHOULDERS – PROJECT NO. CTR.4HSBSP

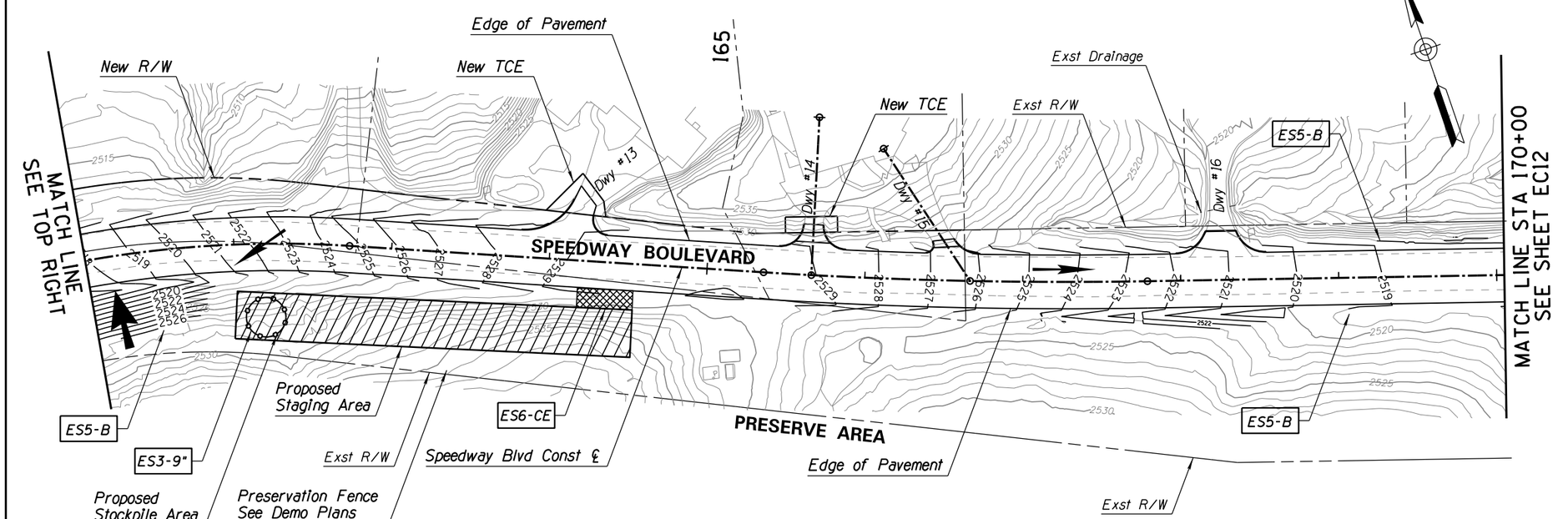
Scale: 1"=40' Horiz. | Sheet EC10of EC12 | Page 84 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 10.dgn

Wed 13 Feb 2019, 11:43:10



KEY MAP N.T.S.



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			

SH 652 01C

EROSION CONTROL LEGEND

KEYNOTE	BMP	SYMBOL
ES1-20"	20" Dia. Sediment Log	
ES2	Rock Protection at Pipes	
ES3-9"	9" Dia. Sediment Wattle	
ES4	Rock at Cut & Fill Transitions	
ES5-B	Sediment Control Berm	
ES6-CE	Stabilized Constuction Entrance	
	Flow Arrow	
	Limits of Disturbance	
	Flow Entering/ Leaving Project	

NOTES:

1. All Disturbed Areas Shall Receive Seeding (Class II) for Permanent Stabilization Unless an Alternate Slope Stabilization is Identified in the Roadway Plans.
2. Refer Sheet EC01, for quantities and General Notes.
3. Refer to Special Provisions for additional information.
4. Staging/Laydown Yard must be kept on-site as shown on plans. No staging outside the established cleared footprint.
5. No drywells are present within 1/4 mile of project site.
6. Exact location of Stabilized Construction Entrance to be determined by Contractor.

40' 0 40' 80'
SCALE: 1"=40'

Ana M. Olivares, P.E., Director

Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

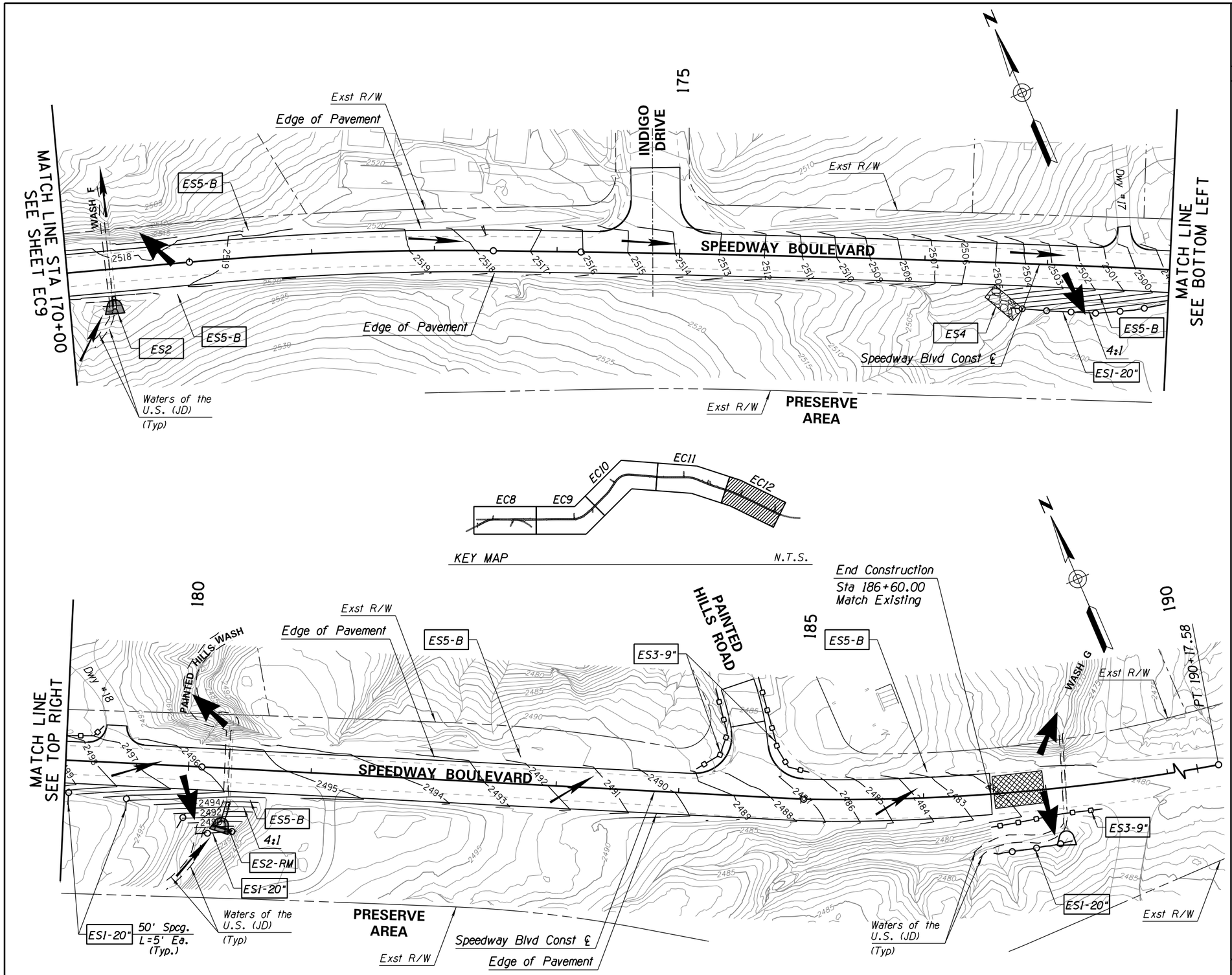
EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS
PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

Scale: 1"=40' Horiz. | Sheet EC11 of EC12 | Page 85 of 95

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 11.dgn

Wed 13 Feb 2019, 09:25:43



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(254)D			
		SH 652 01C			

EROSION CONTROL LEGEND

KEYNOTE	BMP	SYMBOL
ES1-20"	20" Dia. Sediment Log	
ES2	Rock Protection at Pipes	
ES3-9"	9" Dia. Sediment Wattle	
ES4	Rock at Cut & Fill Transitions	
ES5-B	Sediment Control Berm	
ES6-CE	Stabilized Constuction Entrance	
	Flow Arrow	
	Limits of Disturbance	
	Flow Entering/ Leaving Project	

NOTES:

1. All Disturbed Areas Shall Receive Seeding (Class II) for Permanent Stabilization Unless an Alternate Slope Stabilization Is Identified In the Roadway Plans.
2. Refer Sheet EC01, for quantities and General Notes.
3. Refer to Special Provisions for additional information.
4. Staging/Laydown Yard must be kept on-site as shown on plans. No staging outside the established cleared footprint.
5. No drywells are present within 1/4 mile of project site.
6. Exact location of Stabilized Construction Entrance to be determined by Contractor.

40' 0 40' 80'
SCALE: 1" =40'

Scale:	1"=40' Horiz.	Sheet EC12 of EC12	Page 86 of 95

Ana M. Olivares, P.E., Director

		Date
Designed	FF	2/2019
Drawn	CPC	2/2019
Checked	JAV	2/2019
Proj. Engr.	FF	2/2019

No.	Revision Description	Engineer	Date

FINAL PS&E
NOT FOR CONSTRUCTION PROOF COPY

WSP USA Inc.
177 N. Church Ave.
Suite 1105
Tucson, AZ 85701
TEL: +1 520.882.6424

Pima County Department of Transportation

EROSION CONTROL PLAN
SPEEDWAY BLVD
CAMINO DE OESTE TO PAINTED HILLS
PAVED SHOULDERS

PROJECT NO. CTR.4HSBSP

SPEEDWAY BLVD: CAMINO DE OESTE TO PAINTED HILLS - PAVED SHOULDERS - PROJECT NO. CTR.4HSBSP

FILE NAME: T:\11583_PCDOTSpeedwayBlvd\Erosion Control\4HSBSP-EC 12.dgn

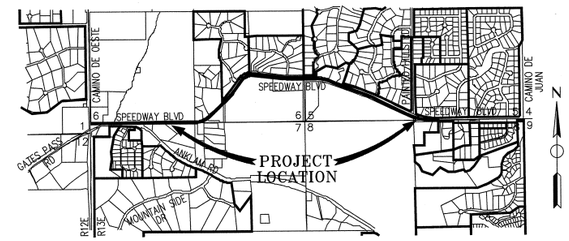
Wed 13 Feb 2019, 09:25:51

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP

N

300 0 300 600

SCALE: 1" = 300'

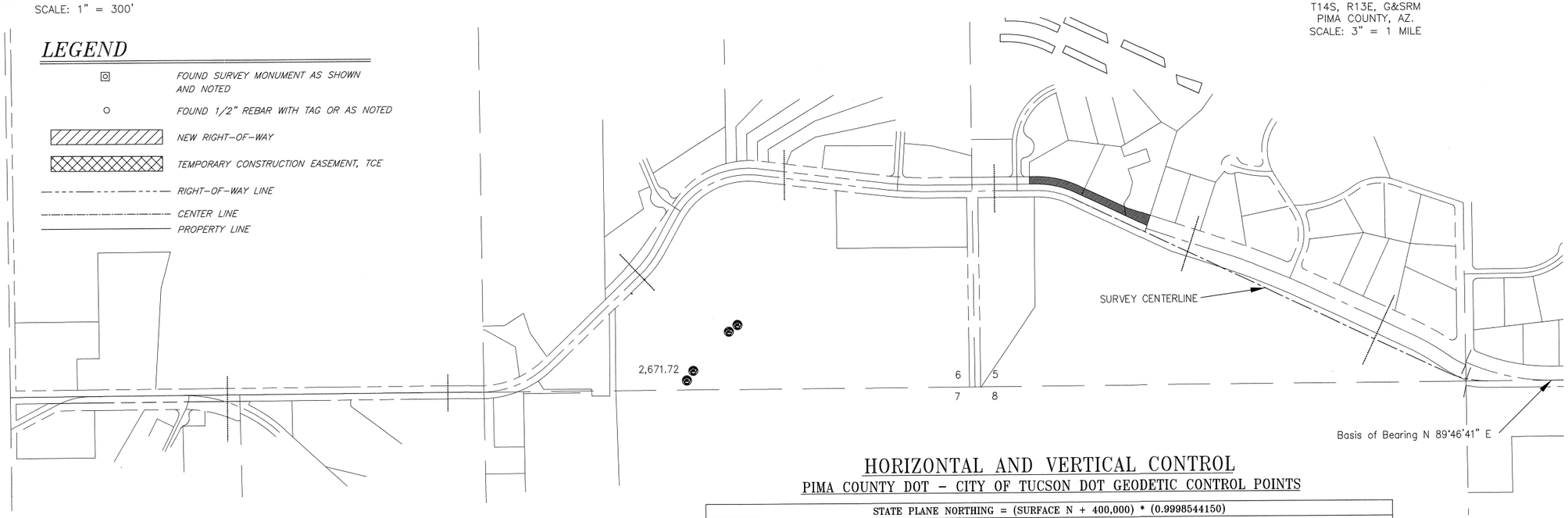


LOCATION MAP

PORTION OF SECTIONS 5, 6, 7 & 8,
T14S, R13E, G&SRM
PIMA COUNTY, AZ.
SCALE: 3" = 1 MILE

LEGEND

- FOUND SURVEY MONUMENT AS SHOWN AND NOTED
- FOUND 1/2" REBAR WITH TAG OR AS NOTED
- NEW RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT, TCE
- RIGHT-OF-WAY LINE
- CENTER LINE
- PROPERTY LINE



HORIZONTAL AND VERTICAL CONTROL

PIMA COUNTY DOT – CITY OF TUCSON DOT GEODETIC CONTROL POINTS

STATE PLANE NORTHING = (SURFACE N + 400,000) * (0.9998544150)
STATE PLANE EASTING = (SURFACE E + 900,000) * (0.9998544150)
HORIZONTAL PER NAD83 AZ CENTRAL VERTICAL PER NAVD88 (U.S. SURVEY FEET)

	SURFACE	SURFACE	NAVD88	
POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
E01	50,725.559	64162.557	2,621.90	2" BCSM PUNCH ONLY
E07	50,761.054	71,975.275	2,489.90	2.5" BCSM ON 1" PIPE "T14S R13E S1/4 S 5 8 P.C.H.D."
E09	50,771.255	74,610.038	2,446.860	2" BCSM IN CASTING "T14S R13E S5S4S8S9 1994 RLS 20373"
G01	48,065.772	64,179.510	2,671.72	2.5" U.S. GLO BCSM "1/4 S7 1925"

GENERAL NOTES

1. **IN ACCORDANCE WITH ARIZONA STATE LAW** IT IS UNLAWFUL TO DISTURB OR DESTROY A LAND SURVEY MONUMENT THAT BEARS A LAND SURVEYOR'S REGISTRATION NUMBER OR AN AGENCY'S NAME.
2. **SURVEY MONUMENTS** DESTROYED DURING CONSTRUCTION WILL BE REPLACED BY AN ARIZONA REGISTERED LAND SURVEYOR.
3. **THE RIGHT-OF-WAY/PROPERTY** LINES WERE ESTABLISHED USING CURRENT RECORDS OF SURVEY, PAST RIGHT OF WAY DRAWINGS AND SUBDIVISION PLATS. NO TITLE REPORTS WERE ORDERED OR UTILIZED FOR INDIVIDUAL PARCELS.

CERTIFICATION

I HEREBY CERTIFY THAT THIS MAP OR PLAT WAS PREPARED BY ME OR UNDER MY SUPERVISION, AND THAT ALL MONUMENTS ARE CORRECTLY DESCRIBED HEREIN.

THAT ALL MONUMENTS EXIST AND THAT THEIR LOCATION, SIZE AND MATERIAL ARE CORRECTLY SHOWN HEREIN.

REGISTERED LAND SURVEYOR CERTIFICATE NO. 51413 ERIK C. MORRIS ARIZONA U.S.A. 1/10/19

Erik C. Morris, RLS
CERTIFICATE NO. 51413

BASIS OF BEARING

BASIS OF BEARING FOR THIS PROJECT IS SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 5, TOWNSHIP 14 SOUTH, RANGE 13 EAST, G&SRM, PIMA COUNTY. **SAID BEARING BEING NORTH 89°46'41" EAST.** (BASED ON NAD83 STATE PLANE COORDINATES PER PIMA COUNTY DOT - CITY OF TUCSON DOT GEODETIC CONTROL POINTS E07 AND E09).

BASIS OF ELEVATION

BASIS OF ELEVATION FOR THIS PROJECT IS PIMA COUNTY DOT - CITY OF TUCSON DOT GEODETIC CONTROL POINT E01, BEING A 2" BRASS CAP WITH PUNCH ONLY IN CONCRETE FLUSH WITH PAVEMENT LOCATED AT THE INTERSECTION OF SPEEDWAY BOULEVARD AND CAMINO DE OESTE. SAID ELEVATION BEING 2,621.90 FEET (NADV88).

SURVEY CENTERLINE

Construction centerline for survey purposes is the original Right-of-way centerline as depicted on Road Map Book 3, Page 33.

HORIZONTAL CONTROL

THE PROJECT COORDINATE SYSTEM FOR THIS PROJECT IS BASED ON NAD83, ARIZONA STATE PLANE COORDINATES, CENTRAL ZONE, BASED ON PIMA COUNTY DOT - CITY OF TUCSON DOT GEODETIC CONTROL POINTS E01, E07, E09, AND G01 USING COMBINED SCALE FACTOR FOR E01. PROJECT COORDINATES CAN BE CONVERTED TO STATE PLAN VALUES BY ADDING 400,000 TO NORTHINGS AND 900,000 TO EASTINGS AND MULTIPLYING BY 0.9998544150.

ANA M. OLIVARES, P.E., DIRECTOR

REGISTERED LAND SURVEYOR CERTIFICATE NO. 51413 ERIK C. MORRIS ARIZONA U.S.A. 12/21/18

		DATE
DESIGNED		
DRAWN	MJL	12/21/18
CHECKED	EM	12/21/18
PROJ. ENGR.		

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

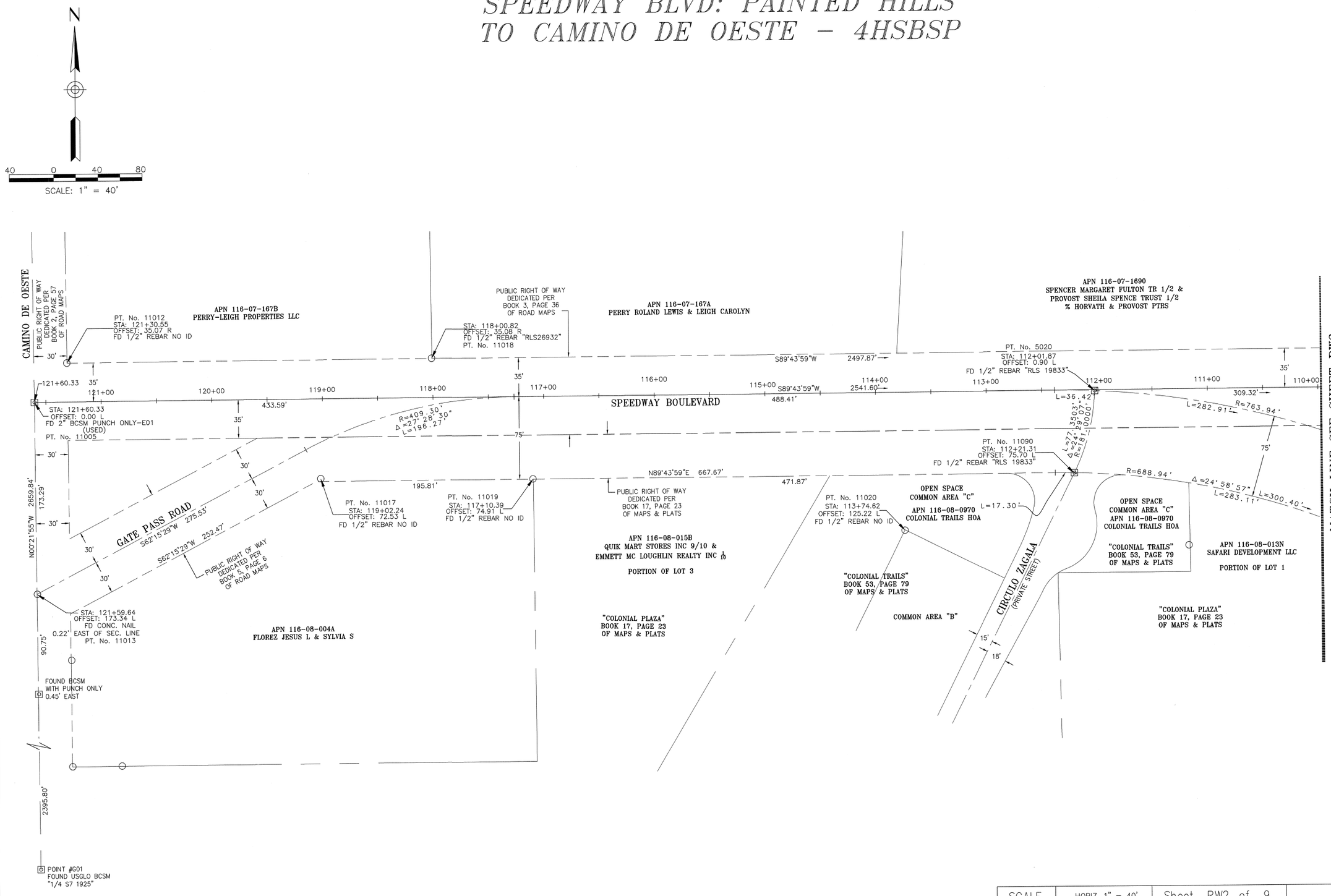
MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, Az. 85748
520.861.5378

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 300'	Sheet RW1 of 9	87 of 95

File Name: Right-of-Way Exhibit2K.dwg File Path: G:\Contson Projects\W Speedway ROW\Right-of-Way Exhibit2K
Plot Date: 1/4/2019 Plot Time: 2:16 PM

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



DESIGNED	
DRAWN	M.J.L.
CHECKED	EM
PROJ. ENGR.	

DATE: 12/19/18, 12/19/18

ANA M. OLIVARES, P.E., DIRECTOR

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

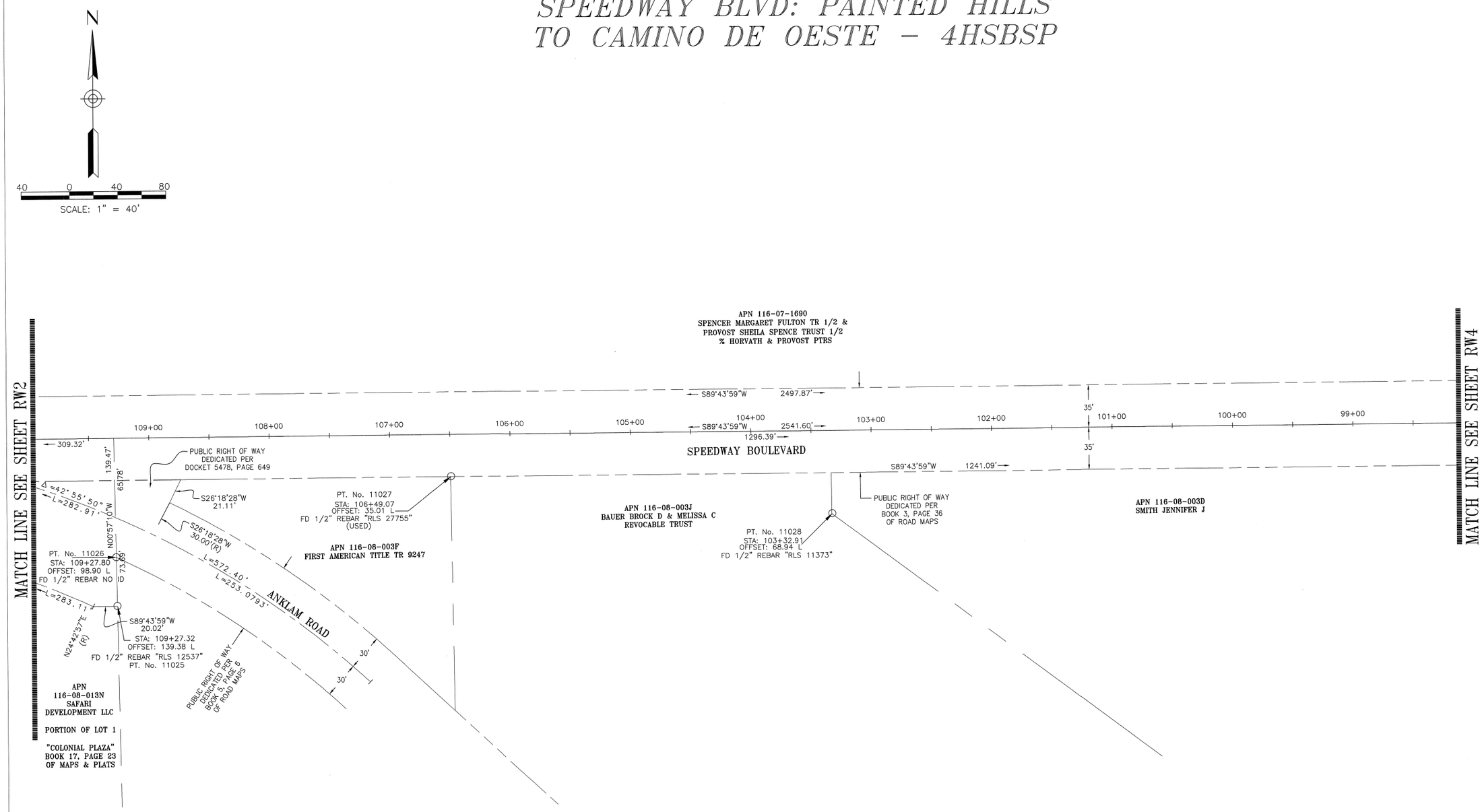
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, Az. 85748
520.891.3795

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW2 of 9	88 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



ANA M. OLIVARES, P.E., DIRECTOR

		DATE
DESIGNED		
DRAWN	M.J.L.	12/19/18
CHECKED	EM	12/19/18
PROJ. ENGR.		

REGISTERED LAND SURVEYOR
CERTIFICATE NO. 35415
ERIK G. MORRIS
Date Signed 12/19/18
ARIZONA U.S.A.

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

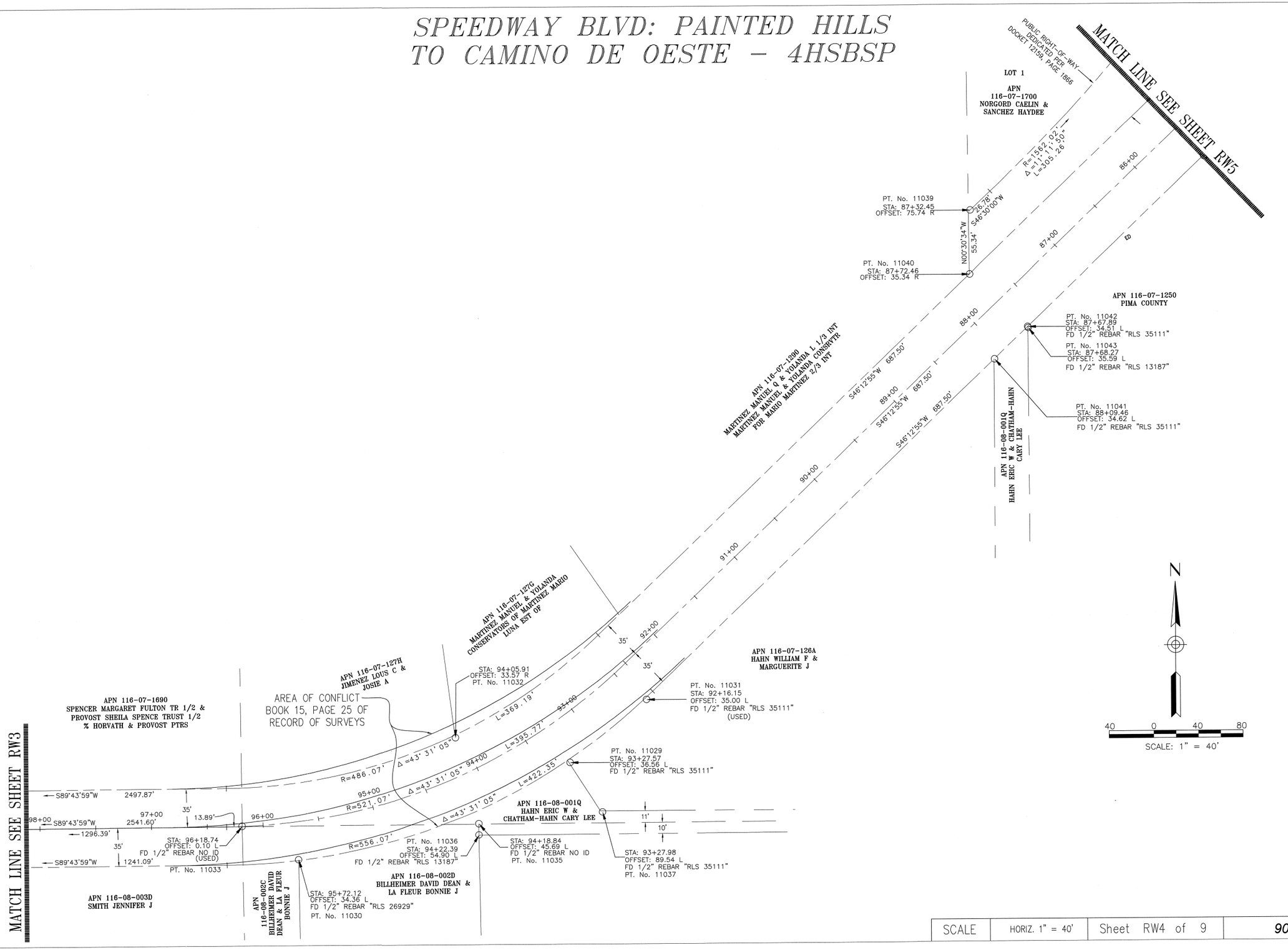
PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, AZ. 85748
520.861.5376

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW3 of 9	89 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



ANA M. OLIVARES, P.E., DIRECTOR

		DATE
DESIGNED		
DRAWN	M.G.L.	12/19/18
CHECKED	EM	12/19/18
PROJ. ENGR.		

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

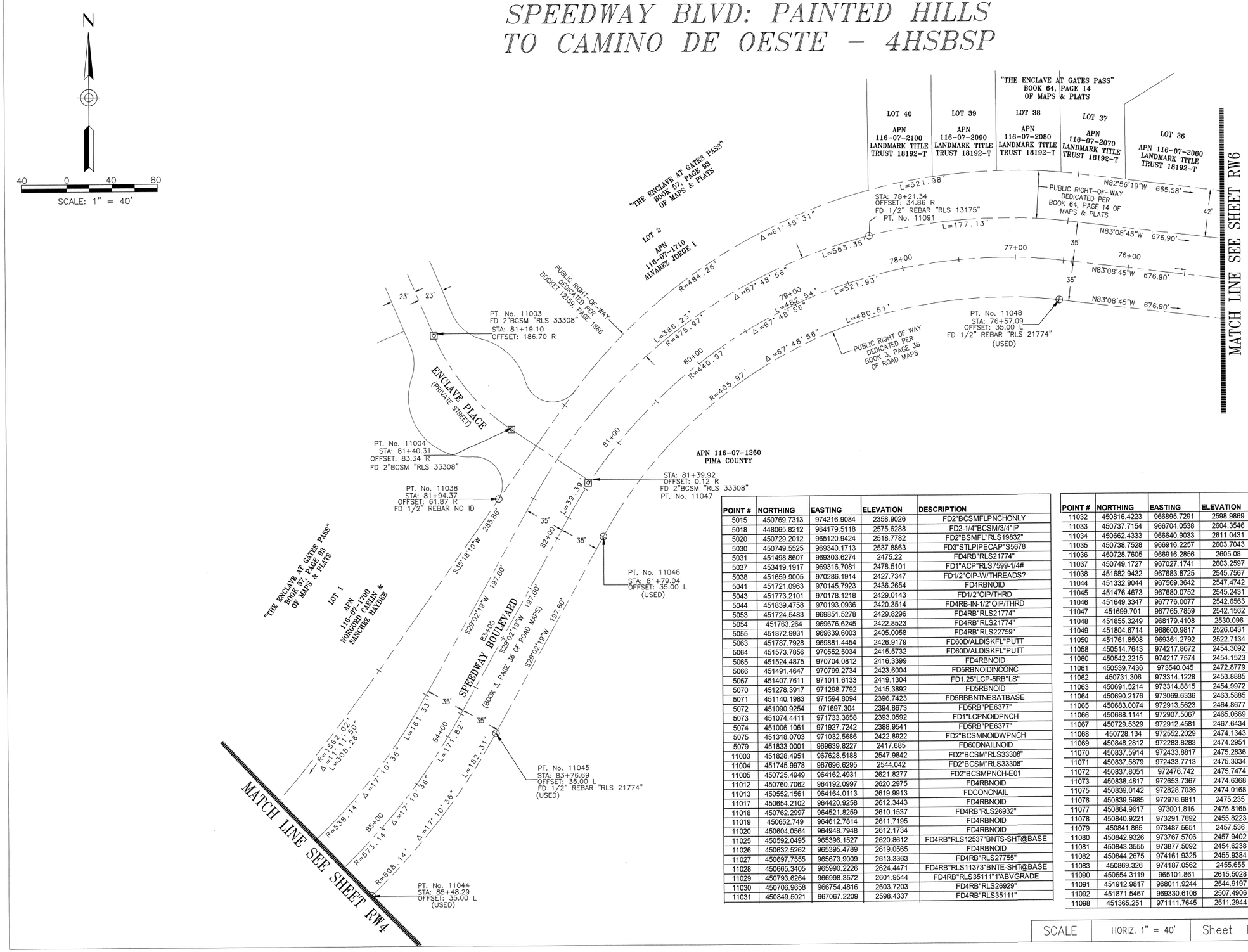
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
946 N. Rancho Del Jefe Loop
Tucson, Az. 85748
520-647-1376

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW4 of 9	90 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
5015	450769.7313	974216.9084	2358.9026	FD2"BCSMFLPNCHONLY
5018	448065.8212	964179.5118	2575.6288	FD2-1/4"BCSM/3/4"IP
5020	450729.2012	965120.9424	2518.7782	FD2"BSMFL"RLS19832"
5030	450749.5525	969340.1713	2537.8863	FD3"STLPIPECAP"S5678
5031	451498.8607	969303.6274	2475.22	FD4RB"RLS21774"
5037	453419.1917	969316.7081	2478.5101	FD1"ACP"RLS7599-1/4#
5038	451659.9005	970286.1914	2427.7347	FD1/2"OIP-W/THREADS?
5041	451721.0963	970145.7923	2436.2654	FD4RBNOID
5043	451773.2101	970178.1218	2429.0143	FD1/2"OIP/THRD
5044	451839.4758	970193.0936	2420.3514	FD4RB-IN-1/2"OIP/THRD
5053	451724.5483	969851.5278	2429.8296	FD4RB"RLS21774"
5054	451763.264	969676.6245	2422.8523	FD4RB"RLS21774"
5055	451872.9931	969639.6003	2405.0058	FD4RB"RLS22759"
5063	451787.7928	969881.4454	2426.9179	FD60D/ALDISKFL"PUTT
5064	451573.7856	970552.5034	2415.5732	FD60D/ALDISKFL"PUTT
5065	451524.4875	970704.0812	2416.3399	FD4RBNOID
5066	451491.4647	970799.2734	2423.6004	FD5RBNOIDINCONC
5067	451407.7611	971011.6133	2419.1304	FD1.25"LCP-5RB"LS"
5070	451278.3917	971298.7792	2415.3892	FD5RBNOID
5071	451140.1983	971594.8094	2396.7423	FD5RBBNTNESATBASE
5072	451090.9254	971697.304	2394.8673	FD5RB"PE6377"
5073	451074.4411	971733.3658	2393.0592	FD1"LCPNOIDPNCH
5074	451006.1061	971927.7242	2388.9541	FD5RB"PE6377"
5075	451318.0703	971032.5686	2422.8922	FD2"BCSMNOIDWPNCH
5079	451833.0001	969639.8227	2417.685	FD60DNAILNOID
11003	451828.4951	967628.5188	2547.9842	FD2"BCSM"RLS33308"
11004	451745.9978	967696.6295	2544.042	FD2"BCSM"RLS33308"
11005	450725.4949	964162.4931	2621.8277	FD2"BCSMPNCH-E01
11012	450760.7062	964192.0997	2620.2975	FD4RBNOID
11013	450552.1561	964164.0113	2619.9913	FDCONCNAIL
11017	450654.2102	964420.9258	2612.3443	FD4RBNOID
11018	450762.2997	964521.8259	2610.1537	FD4RB"RLS26932"
11019	450652.749	964612.7814	2611.7195	FD4RBNOID
11020	450604.0564	964948.7948	2612.1734	FD4RBNOID
11025	450592.0495	965396.1527	2620.8612	FD4RB"RLS12537"BNTS-SHT@BASE
11026	450632.5262	965395.4789	2619.0565	FD4RBNOID
11027	450697.7555	965673.9009	2613.3363	FD4RB"RLS27755"
11028	450665.3405	965990.2226	2624.4471	FD4RB"RLS11373"BNTE-SHT@BASE
11029	450793.6264	966998.3572	2601.9544	FD4RB"RLS35111"1'ABVGRADE
11030	450706.9658	966754.4816	2603.7203	FD4RB"RLS26929"
11031	450849.5021	967067.2209	2598.4337	FD4RB"RLS35111"

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
11032	450816.4223	966895.7291	2598.9869	FD4RB"RLS23379"
11033	450737.7154	966704.0538	2604.3546	FD4RBNOID-0.1'BLWAC
11034	450662.4333	966640.9033	2611.0431	FD4RBNOID
11035	450738.7528	966916.2257	2603.7043	FD4RBNOID
11036	450728.7605	966916.2856	2605.08	FD4RB"RLS13187"
11037	450749.1727	967027.1741	2603.2597	FD4RB"RLS35111"
11038	451682.9432	967683.8725	2545.7567	FD4RBNOID
11044	451332.9044	967569.3642	2547.4742	SHT@BASE
11045	451476.4673	967680.0752	2545.2431	FD4RB"RLS21774"
11046	451649.3347	967776.0077	2542.6563	FD4RB"RLS21774"
11047	451699.701	967765.7859	2542.1562	FD2"BCSM"RLS33308"
11048	451855.3249	968179.4108	2530.096	FD4RB"RLS21774"
11049	451804.6714	968600.9817	2526.0431	FD4RB"RLS21774"
11050	451761.8508	969361.2792	2522.7134	FD4RB"RLS21774"
11058	450514.7643	974217.8672	2454.3092	FD2"BCSMFL"RLS12537"
11060	450542.2215	974217.7574	2454.1523	FD2"BCSMFL"RLS12537"
11061	450539.7436	973540.045	2472.8779	FD2"BCSMFL"RLS12537"
11062	450731.306	973314.1228	2453.8885	FD4RB"RLS23379"
11063	450691.5214	973314.8815	2454.9972	FD4RBNOID
11064	450690.2176	973069.6336	2463.5885	FD4RBNOID
11065	450683.0074	972913.5623	2464.8677	6.56'ST2N-FD4RBNOID
11066	450688.1141	972907.5067	2465.0669	6.56'ST2N-FD4RBNOID
11067	450729.5329	972912.4581	2467.6434	FD4RB"RLS23379"
11068	450728.134	972552.2029	2474.1343	FD4RB"RLS12122"
11069	450848.2812	972283.8283	2474.2951	FD4RBNOID-BHTNE-SHT@BASE
11070	450837.5914	972433.8817	2475.2836	FD4RB"PE8424"
11071	450837.5879	972433.7713	2475.3034	FD1.25"ACP"RLS7599SETTLEMEYER"
11072	450837.8051	972476.742	2475.7474	FD1.25"ACP"RLS7599SETTLEMEYER"
11073	450838.4817	972653.7367	2474.6368	D4RB"PE10011"-BNTSE-SHT@BASE
11075	450839.0142	972828.7036	2474.0168	FD4RBNOID
11076	450839.5985	972976.6811	2475.235	FD4RB"RLS12537"
11077	450864.9617	973001.816	2475.8165	FD4RB"PE10011"
11078	450840.9221	973291.7692	2455.8223	FD4RBNOID
11079	450841.865	973487.5651	2457.536	FD3/4"OIP-NOID
11080	450842.9326	973767.5706	2457.9402	FD4RB"RLS24530"
11081	450843.3555	973877.5092	2454.6238	FD4RB"RLS24530"
11082	450844.2675	974161.9325	2455.9384	FD.75"OIPNOID
11083	450869.326	974187.0562	2455.655	FD.75"OIPNOID
11090	450654.3119	965101.861	2615.5028	FD4RBFL"RLS19833"
11091	451912.9817	968011.9244	2544.9197	FD4RB"RLS13175"BNT-S-SHT@BASE
11092	451871.5467	969330.6106	2507.4906	FD4RBNOID
11098	451365.251	971111.7645	2511.2944	FD|"LCPPNCH

ANA M. OLIVARES, P.E., DIRECTOR

		DATE
DESIGNED		
DRAWN	MJL	12/19/18
CHECKED	EM	12/19/18
PROJ. ENGR.		

REGISTERED ENGINEER AND LAND SURVEYOR ERIK C. MORRIS ARIZONA U.S.A.

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

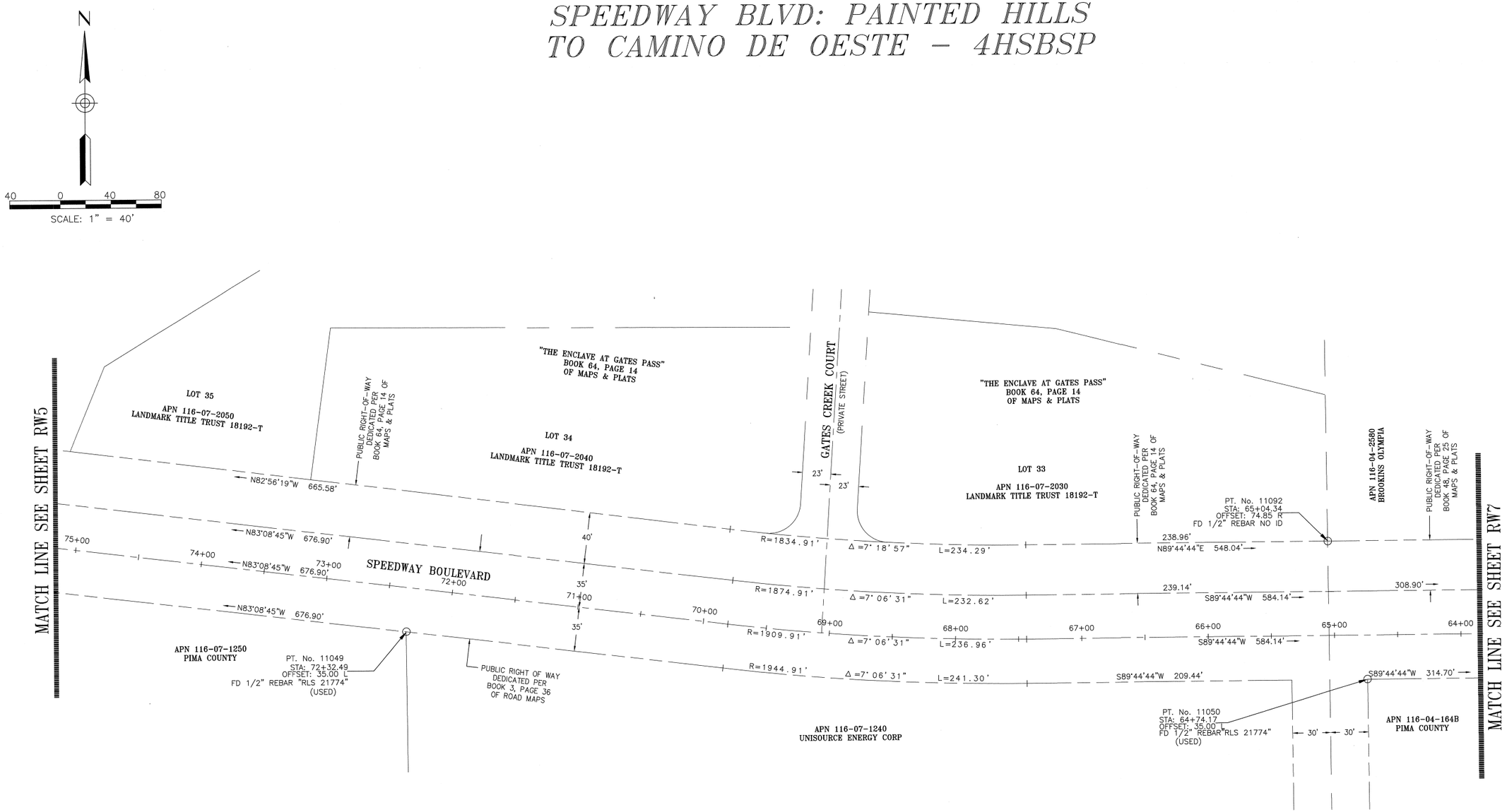
PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, AZ. 85748
520.891.5235

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW5 of 9	91 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



ANA M. OLIVARES, P.E., DIRECTOR

		DATE
DESIGNED		
DRAWN	M.J.L.	12/19/18
CHECKED	ERIK C. MORRIS	12/19/18
PROJ. ENGR.	EM	

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

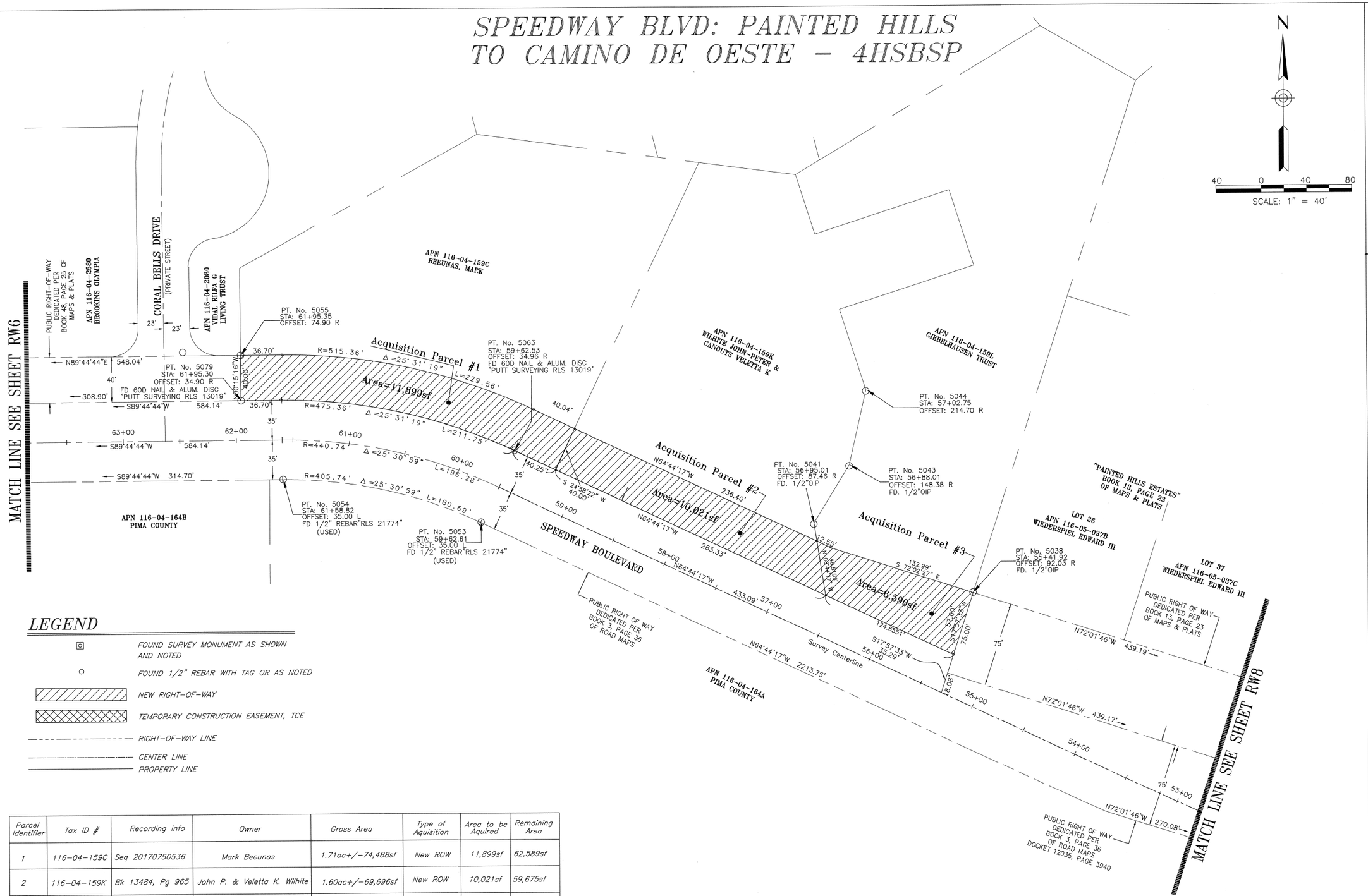
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
946 N. Rancho Del Jefe Loop
Tucson, AZ. 85748
520-647-1376

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW6 of 9	92 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



LEGEND

- FOUND SURVEY MONUMENT AS SHOWN AND NOTED
- FOUND 1/2" REBAR WITH TAG OR AS NOTED
- NEW RIGHT-OF-WAY
- TEMPORARY CONSTRUCTION EASEMENT, TCE
- RIGHT-OF-WAY LINE
- CENTER LINE
- PROPERTY LINE

Parcel Identifier	Tax ID #	Recording info	Owner	Gross Area	Type of Aquisition	Area to be Aquired	Remaining Area
1	116-04-159C	Seq 20170750536	Mark Beeunas	1.71ac+/-74,488sf	New ROW	11,899sf	62,589sf
2	116-04-159K	Bk 13484, Pg 965	John P. & Veletta K. Wilhite	1.60ac+/-69,696sf	New ROW	10,021sf	59,675sf
3	116-04-159L	Seq 20162000400	Giebelhausen Trust	1.97ac+/-85,813sf	New ROW	6,590sf	79,223sf

DESIGNED	
DRAWN	MJL
CHECKED	EM
PROJ. ENGR.	
DATE	12/19/18
DATE	12/19/18

ANA M. OLIVARES, P.E., DIRECTOR

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

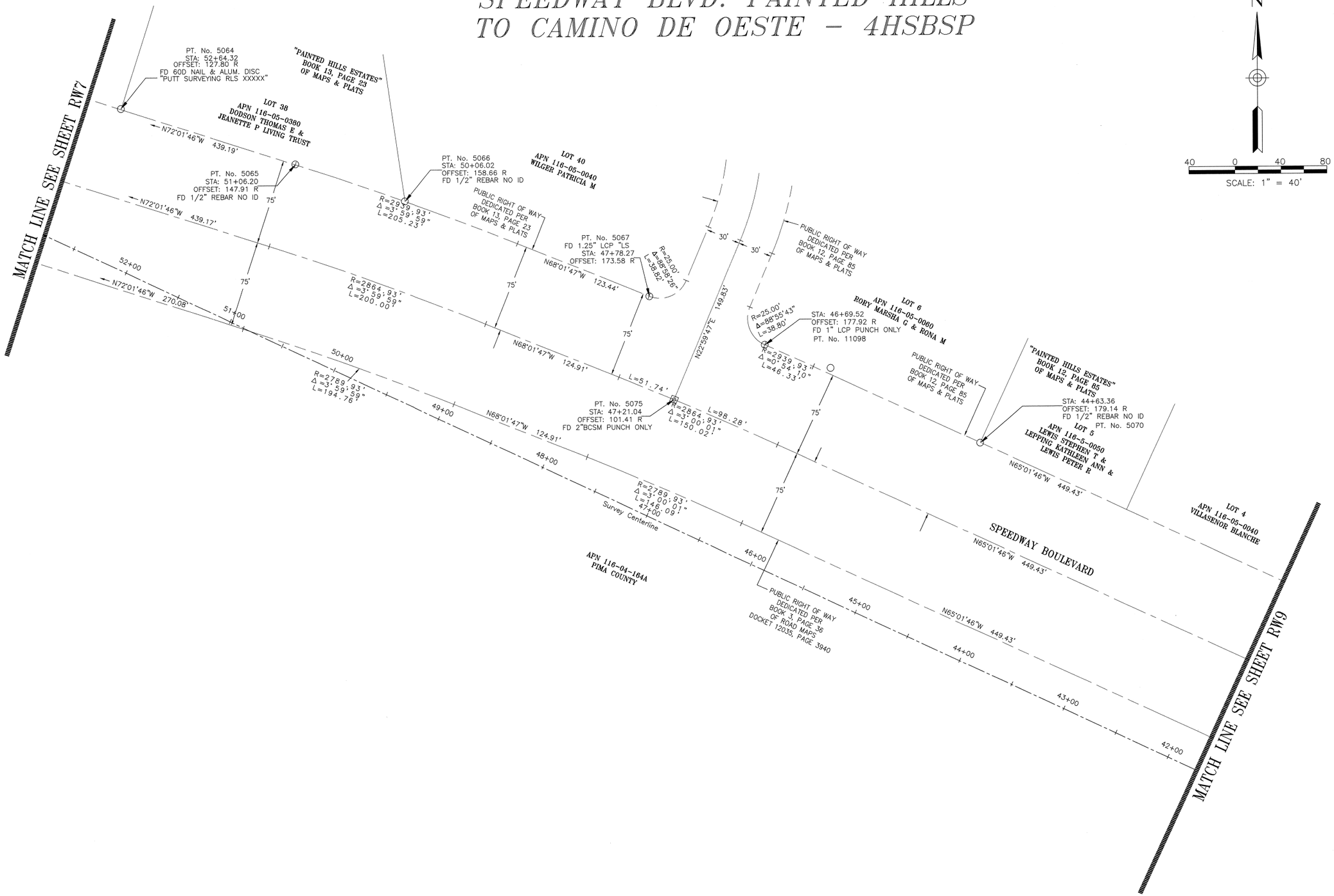
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, Az. 85748
520.591.3376

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SCALE	HORIZ. 1" = 40'	Sheet RW7 of 9	93 of 95

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



SCALE	HORIZ. 1" = 40'	Sheet RW8 of 9	94 of 95

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

ANA M. OLIVARES, P.E., DIRECTOR

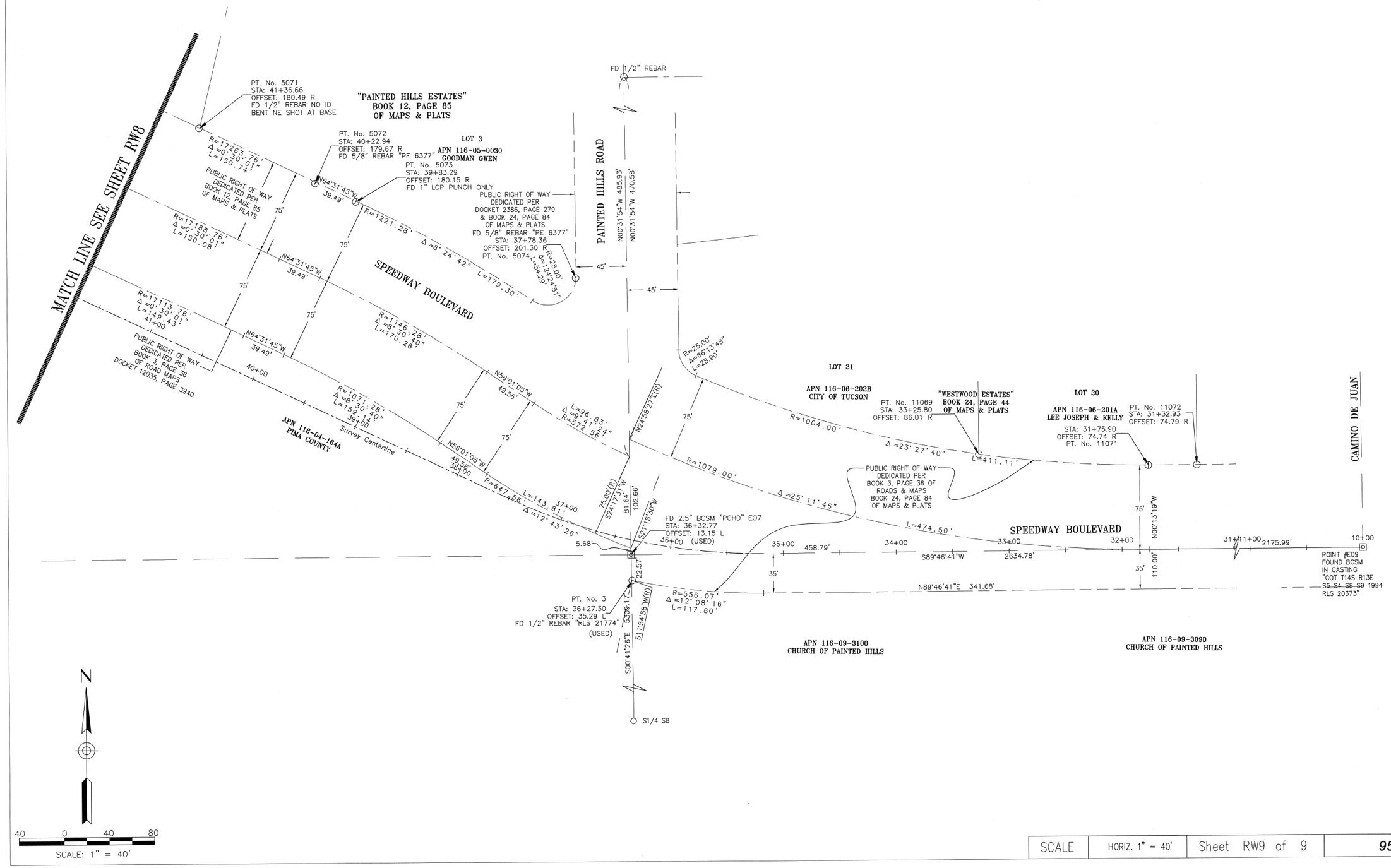
		DATE
DESIGNED		
DRAWN	MJL	12/19/18
CHECKED	EM	12/19/18
PROJ. ENGR.		

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, AZ. 85748
520.883.5726

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE – 4HSBSP



SCALE	HORIZ. 1" = 40'	Sheet RW9 of 9	95 of 95

ANA M. OLIVARES, P.E., DIRECTOR

		DATE
DESIGNED		
DRAWN	M.J.L.	12/19/18
CHECKED	EM	12/19/18
PROJ. ENGR.		

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 31415 EMMETT MORRIS Date Signed ARIZONA U.S.A.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL DISTRICT

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

MORRIS SURVEYING PLLC
966 N. Rancho Del Jefe Loop
Tucson, Ariz. 85748
(520) 825-3376

SPEEDWAY BLVD: PAINTED HILLS TO CAMINO DE OESTE
RIGHT OF WAY
W.O. #4HSBSP