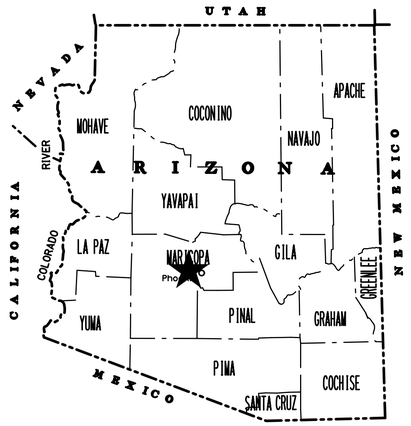

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T1N, R1W ⊕ T2N, R1W

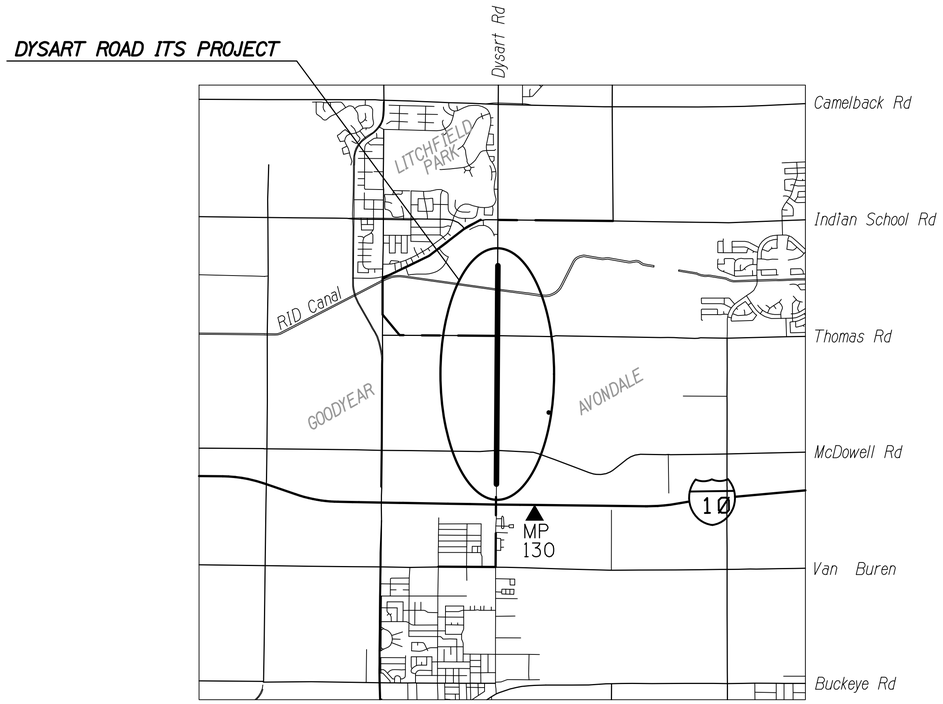
Sec 2 & 3
Sec 26, 27, 34, & 35

STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION

ADOT

PROJECT PLANS

URBANIZED AREA
CITY OF AVONDALE



DYSART ROAD
RANCHO SANTA FE BOULEVARD TO INDIAN SCHOOL ROAD
PROJECT NO. 0000 MA AVN SZ079 01C
FEDERAL AID NO. CM-AVN-0(216)T

Constructed by:

Construction Company

Completion Date

Red-Lines by:

Construction Administrator Name & Company

Completion Date

Record Drawings by:

Record Drawings Designer Name & Company

Completion Date

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
DALLAS HAMMIT, P.E., STATE ENGINEER

REC. DWGS. DATA	REC. DWG. DATE	_____ OF _____

NO.	DESCRIPTION OF REVISION	MADE BY	DATE
1	REVISED STDS 1-2, 1-11, 2-7, 4-22, 5-0, 6-4.	L. LOPEZ	03/15
2	UPDATED BORDER TITLE BLOCK.	L. LOPEZ	05/15

ADOT STANDARD DRAWINGS

TRAFFIC SIGNAL AND LIGHTING STANDARDS
(SHEET 1 OF 2)
EFFECTIVE MAY 2015

REVISION DATE	STANDARD NUMBER		SUBJECT: TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S. 0		**ABBREVIATIONS, SYMBOLS AND DEFINITIONS**
05/15	0-1		STANDARD ABBREVIATIONS
01/12	0-2	SHT 1	PLAN SYMBOLS
01/12	0-2	SHT 2	PLAN SYMBOLS
01/12	0-2	SHT 3	PLAN SYMBOLS
03/10	0-3	SHT 1	STANDARD DEFINITIONS
03/10	0-3	SHT 2	STANDARD DEFINITIONS
03/10	0-4		REFERENCE DOCUMENTS AND GENERAL REQUIREMENTS
	T.S. 1		**PULL BOXES**
09/11	1-1	SHT 1	LIGHT DUTY - LIGHT WEIGHT NO. 5 AND NO. 7 PULL BOX
09/11	1-1	SHT 2	LIGHT DUTY - LIGHT WEIGHT NO. 5 AND NO. 7 SLOPE WALL BODY PULL BOX DETAILS
03/15	1-2		HEAVY DUTY NO. 5 AND NO. 7 STRAIGHT BODY WALL PULL BOX DETAILS
09/11	1-3		REPLACEMENT LID SIZING FOR EXISTING NO. 5 AND NO. 7 PULL BOXES
09/11	1-4	SHT 1	TYPICAL PULL BOX INSTALLATION AND WIRING DETAILS
09/11	1-4	SHT 2	TYPICAL PULL BOX INSTALLATION AND WIRING DETAILS
09/11	1-4	SHT 3	TYPICAL PULL BOX INSTALLATION DETAILS
09/11	1-5	SHT 1	ELECTRICAL CONDUIT COVER AND TRENCH REQUIREMENTS
09/11	1-5	SHT 2	CONDUIT EXPANSION COUPLINGS
09/11	1-6		CONDUCTOR REQUIREMENTS
03/10	1-7		TRAFFIC SIGNAL IMSA CABLE COLOR CODES
09/11	1-8	SHT 1	FRONT OF BARRIER JUNCTION BOX
09/11	1-8	SHT 2	BACK OF BARRIER JUNCTION BOX
09/11	1-9		TOP OF BARRIER JUNCTION BOX DETAILS
09/11	1-10		TOP OF BARRIER JUNCTION BOX DETAILS
10/13	1-11	SHT 1	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX
10/13	1-11	SHT 2	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX
03/15	1-11	SHT 3	HEAVY DUTY LIGHTING NO. 4 AND NO. 6 PULL BOX LID
03/15	1-12	SHT 1	PRECAST HEAVY DUTY LIGHTING NO. 4B AND NO. 6B PULL BOX
03/15	1-12	SHT 2	PRECAST HEAVY DUTY LIGHTING NO. 4B AND NO. 6B PULL BOX
	T.S. 2		**FOUNDATIONS**
03/10	2-1		FOUNDATION FOR TYPE II LOAD CENTER CABINET
03/10	2-2		FOUNDATION FOR TYPE IV LOAD CENTER CABINET
03/10	2-3		FOUNDATION FOR TYPE III CONTROL CABINET
03/10	2-4		FOUNDATION FOR TYPE IV AND V CONTROL CABINETS
03/10	2-5		FOUNDATION FOR TYPE 340 CONTROL CABINET
03/10	2-6		METER PEDESTAL CABINET FOUNDATION AND BASE
03/15	2-7		TRAFFIC SIGNAL UPS CABINET FOUNDATION DETAIL
	T.S. 3		**CABINETS**
12/12	3-0		NOTES FOR TYPE II AND IV LOAD CENTER CABINETS
03/10	3-1		TYPE II LOAD CENTER CABINET
03/10	3-2		TYPE IV LOAD CENTER CABINET
03/10	3-3		TYPE II OR IV LOAD CENTER CABINET WIRING DETAILS 240/480 3W W/DISCONNECT
03/10	3-4	SHT 1	PHOTO ELECTRIC CELL MOUNTING DETAILS
03/10	3-4	SHT 2	PHOTO ELECTRIC CELL MOUNTING DETAILS
03/10	3-5	SHT 1	TYPE I AND II METER PEDESTAL CABINET
12/12	3-5	SHT 2	METER PEDESTAL CABINET
03/10	3-6		TYPE III CONTROL CABINET
03/10	3-7		POLE MOUNTED TYPE III CONTROL CABINET
03/10	3-8	SHT 1	POLE MOUNT DETAILS FOR TYPE III CONTROL CABINET
03/10	3-8	SHT 2	POLE MOUNT DETAILS FOR TYPE III CONTROL CABINET
03/10	3-9	SHT 1	TYPE IV AND V CONTROL CABINET NOTES
03/10	3-9	SHT 2	TYPE IV CONTROL CABINET
03/10	3-9	SHT 3	TYPE V CONTROL CABINET
03/10	3-10		CABINET EXTENSION OR ELEVATOR BASE
03/10	3-11		CONTROL CABINET MOUNTED SERVICE ENCLOSURE
03/10	3-12	SHT 1	120/240 OR 240/480 VOLT, SINGLE PHASE UTILITY PULL SECTION AND SERVICE DISCONNECT DETAILS
03/10	3-12	SHT 2	120/240 OR 240/480 VOLT, SINGLE PHASE UTILITY PULL SECTION AND SERVICE DISCONNECT DETAILS
03/10	3-13	SHT 1	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET DETAILS
03/10	3-13	SHT 2	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET DETAILS
03/10	3-13	SHT 3	TRAFFIC SIGNALS AND LIGHTING MODEL 345 CABINET CAGE DETAILS

REVISION DATE	STANDARD NUMBER		SUBJECT: TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S. 4		**POLES AND POSTS**
10/13	4-1		TYPE "A" POLE
10/13	4-2		TYPE "E" POLE
10/13	4-3		TYPE "F" POLE
10/13	4-4		TYPE "G" POLE
10/13	4-5		ALUMINUM TYPE "G" POLE
10/13	4-6		ALUMINUM TYPE "H" POLE
10/13	4-7		ALUMINUM TYPE "I" POLE
10/13	4-8		TYPE "J" POLE
10/13	4-9		TYPE "K" POLE
10/13	4-10		TYPE "Q" POLE
10/13	4-11		TYPE "R" POLE
10/13	4-12		TYPE "S" POLE
10/13	4-13		ALUMINUM TYPE "S" POLE
10/13	4-14	SHT 1	TYPE "T" POLE
10/13	4-14	SHT 2	TYPE "S" AND "T" STEEL TWIN LUMINAIRE MOUNTING BRACKET AND EXTENSIONS
10/13	4-15		ALUMINUM TYPE "T" POLE
10/13	4-16		TYPE "U" POLE ELLIPTICAL BASE DETAILS
10/13	4-17	SHT 1	TYPE "U" POLE SQUARE BASE
10/13	4-17	SHT 2	TYPE "U" POLE ROUND POLE / SQUARE BASE
03/10	4-17	SHT 3	TYPE "U" POLE ROUND POLE / SQUARE BASE
10/13	4-17	SHT 4	TYPE "U" POLE ROUND POLE / SQUARE BASE
10/13	4-17	SHT 5	TYPE "U" POLE ROUND POLE / SQUARE BASE
10/13	4-17	SHT 6	TYPE "U" POLE ROUND POLE / SQUARE BASE
10/13	4-18		TYPE "V" POLE AND 60' OR 65' MAST ARM
10/13	4-19		TYPE "W" POLE AND 60' OR 65' MAST ARM
03/10	4-20		POLE HAND HOLE DETAIL
03/10	4-21		EQUIPMENT MOUNTING HEIGHT DETAILS
03/15	4-22		PEDESTRIAN PUSH BUTTON POST "TYPE PB POLE"
10/13	4-23		POLE FOUNDATION ANCHOR BOLTS
03/10	4-26		STEEL MAST ARM DETAILS LUMINAIRE AND SIGNAL ARMS TO 20'
03/10	4-27		ALUMINUM TRUSS ARM DETAILS TYPE G, H, AND I POLES
03/10	4-28		SIGNAL MAST ARM CONNECTION DETAIL TYPE J AND Q POLES
03/10	4-29		SIGNAL MAST ARM CONNECTION DETAIL TYPE K AND R POLES
03/10	4-30		MAST ARM CONNECTION DETAIL TYPE V AND W POLES
03/10	4-31		SIGNAL MAST ARM TENON DETAIL
12/12	4-32		TYPICAL HIGHWAY LIGHTING OFFSETS IN CUT AND FILL SECTIONS
	T.S. 5		**POLE BASES - SPECIAL**
03/15	5-0		TYPE 2 AND 3 CAST ALUMINUM BREAK-AWAY BASES
12/12	5-1		TYPE 2 CAST ALUMINUM BREAK-AWAY BASE
12/12	5-2		TYPE 3 CAST ALUMINUM BREAK-AWAY BASE
12/12	5-3		INSTALLATION DETAILS FOR POLE FOUNDATIONS WITH TYPE 2 AND 3 BREAK-AWAY BASES
	T.S. 6		**HIGHWAY TRAFFIC DATA DETECTORS**
03/10	6-1		TYPE C VEHICLE DETECTOR LOOPS FOR TRAFFIC COUNTERS
03/10	6-2	SHT 1	TYPE SA AND SB SPEED/VEHICLE CLASSIFICATION SYSTEMS
03/10	6-2	SHT 2	TYPE SA SPEED/VEHICLE CLASSIFICATION SYSTEMS
03/10	6-2	SHT 3	TYPE SB SPEED/VEHICLE CLASSIFICATION SYSTEMS
12/12	6-3		PIEZOELECTRIC WEIGHT SENSOR AND LOOP LANE LAYOUT
12/12	6-4	SHT 1	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS
12/12	6-4	SHT 2	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS
03/15	6-4	SHT 3	DETAIL A PIEZOELECTRIC SENSOR DETAILS
12/12	6-4	SHT 4	DETAIL B DETECTOR LOOP DETAILS
12/12	6-4	SHT 5	DETECTOR LOOPS AND PIEZOELECTRIC SENSOR DETAILS
03/10	6-5		MICROLOOPS FOR SPEED/VEHICLE CLASSIFICATION
03/10	6-6		QUARTZ PIEZOELECTRIC WEIGHT SENSOR AND LOOP LANE LAYOUT
03/10	6-7		TRAFFIC DATA COLLECTION CABINET INSTALLATION DETAILS
03/10	6-8		TYPE MPD CABINET POLE, BASE AND FOUNDATION INSTALLATION DETAILS

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW		
	NAME	DATE
TRAFFIC SIGNAL & LIGHTING STANDARDS	R. Craig Hoffman	July 27, 2016
PROJECT NO. 0000 MA AVN SZ079 01C	1C-1	OF
RECORD DRAWING DATA — FEDERAL AID NO. CM-AVN-0(216)T — REC. DWG. DATE		OF

ADOT STANDARD DRAWINGS

TRAFFIC SIGNAL AND LIGHTING STANDARDS
(SHEET 2 OF 2)
EFFECTIVE MAY 2015

REVISION DATE	STANDARD NUMBER		SUBJECT: TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S. 7		**TRAFFIC SIGNAL DETECTORS**
03/10	7-1	SHT 1	LOOP DETECTOR LOCATION SAWCUT PATTERNS AND INSTALLATION DETAILS
03/10	7-1	SHT 2	SAW CUT AND CORING DETAILS
03/15	7-1	SHT 3	SAW CUT AND CORING DETAILS
03/10	7-1	SHT 4	TYPICAL DETECTOR LOOP LEAD-IN ROAD TO PULL BOX DETAIL
03/10	7-1	SHT 5	LOOP DETECTOR LOCATION AND INSTALLATION DETAILS
03/10	7-2		PRE-FORMED LOOP DETECTORS FOR RAMP METERING AND COUNTING
03/10	7-3		PRE-FORMED LOOP DETECTORS IN BRIDGE DECK
03/10	7-4		PRE-FORMED LOOP DETECTORS IN PCCP
03/10	7-5		TYPICAL PRE-FORMED LOOP DETECTOR STUB-OUT DETAIL
	T.S. 8		**SIGNAL ASSEMBLIES**
01/12	8-0		TRAFFIC SIGNAL VEHICLE FACE ASSEMBLY REQUIREMENTS AND DETAILS
01/12	8-1		VEHICLE TRAFFIC SIGNAL FACE ASSEMBLY
01/12	8-2		VEHICLE TRAFFIC SIGNAL FACE ASSEMBLY
01/12	8-3		VEHICLE TRAFFIC SIGNAL FACE ASSEMBLY
10/13	8-4	SHT 1	12-INCH VEHICLE TRAFFIC SIGNAL HOUSING/SECTION
01/12	8-4	SHT 2	12-INCH VEHICLE TRAFFIC SIGNAL HOUSING/SECTION NOTES
01/12	8-4	SHT 3	VEHICLE TRAFFIC SIGNAL HOUSING/SECTION DETAILS
03/10	8-4	SHT 4	VISORS FOR 8-INCH AND 12-INCH VEHICLE TRAFFIC SIGNAL FACE ASSEMBLIES
01/12	8-5		FLASHING BEACON SIGNAL FACE ASSEMBLY
01/12	8-6		LED LAMP FOR PROGRAMMED VISIBILITY SIGNAL
01/12	8-7	SHT 1	PEDESTRIAN SIGNAL ASSEMBLY REQUIREMENTS AND DETAILS
01/12	8-7	SHT 2	PEDESTRIAN SIGNAL ASSEMBLY HOUSING
01/12	8-7	SHT 3	PEDESTRIAN SIGNAL ASSEMBLY VISOR
	T.S. 9		**MOUNTING ASSEMBLIES - SIGNAL**
03/10	9-0	SHT 1	MOUNTING ASSEMBLY GENERAL REQUIREMENTS
03/10	9-0	SHT 2	MOUNTING ASSEMBLY GENERAL REQUIREMENTS
03/10	9-1		TYPE I AND II MOUNTING ASSEMBLIES
03/10	9-2		TYPE III AND IV MOUNTING ASSEMBLIES
10/13	9-3		TYPE V MOUNTING ASSEMBLY
03/10	9-4		TYPE VI MOUNTING ASSEMBLY
03/10	9-5		TYPE VII MOUNTING ASSEMBLY
03/10	9-6		TYPE VIII MOUNTING ASSEMBLY
03/10	9-7		TYPE IX MOUNTING ASSEMBLY
03/10	9-8		TYPE X MOUNTING ASSEMBLY
03/10	9-9		TYPE XI MOUNTING ASSEMBLY
	T.S. 10		**MOUNTING CASTINGS - SIGNAL**
03/10	10-1		MISCELLANEOUS SIGNAL MOUNTING PARTS
03/10	10-2		MAST ARM SIGNAL MOUNTING PLUMBIZER
03/10	10-3		SIGNAL MOUNTING POLE PLATE DETAILS
03/10	10-4		TERMINAL COMPARTMENT, SIDE MOUNTED AND POLE TOP MOUNTED
	T.S. 11		**PEDESTRIAN DETAILS**
03/15	11-1		TYPE I PEDESTRIAN PUSH BUTTON HOUSING ASSEMBLY
03/15	11-2		CAN STYLE PEDESTRIAN PUSH BUTTON
	T.S. 12		**FLASHERS**
03/10	12-1	SHT 1	ADVANCE WARNING FLASHER POLE DETAIL
03/10	12-1	SHT 2	ADVANCE WARNING FLASHER POLE SIGN MOUNTING DETAILS
03/10	12-1	SHT 3	ADVANCE WARNING FLASHER POLE DETAIL
	T.S. 13		**ILLUMINATION - SIGNS**
03/10	13-1		SIGN LIGHTING DETAIL FOR TUBULAR SIGN STRUCTURES
03/10	13-2		FUSE PANEL DETAILS FOR SIGN LIGHTING
03/15	13-3		PLACEMENT OF LIGHTING FIXTURES FOR OVERHEAD SIGNS
	T.S. 14		**ILLUMINATION - SPECIAL**
03/10	14-1	SHT 1	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-1	SHT 2	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-1	SHT 3	HIGH PRESSURE SODIUM (HPS) LAMPS
03/10	14-2		PEDESTRIAN BRIDGE LIGHTING DETAILS

REVISION DATE	STANDARD NUMBER		SUBJECT: TRAFFIC SIGNALS AND LIGHTING DETAILS
	T.S. 15		**SPAN WIRE SIGNALS AND LIGHTING**
01/12	15-0	SHT 1	GENERAL NOTES
01/12	15-0	SHT 2	GENERAL NOTES
01/12	15-0	SHT 3	GENERAL NOTES
01/12	15-1	SHT 1	STEEL POLE TYPICAL DETAILS
01/12	15-1	SHT 2	STEEL POLE FOUNDATION DETAILS
01/12	15-1	SHT 3	STEEL POLE ATTACHMENT DETAILS
01/12	15-1	SHT 4	WOOD POLE TYPICAL DETAILS
01/12	15-1	SHT 5	WOOD POLE TYPICAL DETAILS
01/12	15-1	SHT 6	TYPICAL DETAILS
01/12	15-2		HANGER AND BALANCE ADJUSTER TYPICAL DETAILS
01/12	15-3	SHT 1	SIGNAL ASSEMBLY DETAILS
01/12	15-3	SHT 2	CONDUCTOR ENTRANCE HEADS TYPE A, B AND C
01/12	15-3	SHT 3	ALUMINUM PIPE EXTENSION AND TYPICAL DETAILS
01/12	15-4	SHT 1	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-4	SHT 2	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-4	SHT 3	ADJUSTABLE SIGN HANGER TYPICAL DETAILS
01/12	15-5		ADJUSTABLE HANGER TOP AND EXTENSION DETAILS
01/12	15-6		SIGNAL TETHER CLAMP TYPICAL DETAILS
01/12	15-7		POLE BAND TYPICAL DETAILS
01/12	15-8		WEATHERHEAD TYPICAL DETAILS

NO.	DESCRIPTION OF REVISION	DATE	MADE BY
NO.1	REVISED STDS 7-1, 11-1, 11-2, 13-3, ADDED NEW STD 1-12.	3/15	L. LOPEZ
NO.2	REVISED TS 0-1 ON SHTL UPDATED BORDER TITLE BLOCK.	5/15	L. LOPEZ

ADOT STANDARD DRAWINGS REVISION DATES AND STANDARD NO.'s REVIEW		
	NAME	DATE
TRAFFIC SIGNAL AND LIGHTING STANDARDS	R. Craig Dillon	July 27, 2016
PROJECT NO. 0000 MA AVN SZ079 01C	1C-2	OF
RECORD DRAWING DATA / FEDERAL AID NO. CM-AVN-0(216)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS

ITS SYSTEM STANDARDS
EFFECTIVE AUGUST 2013

REVISION	STANDARD	SUBJECT: ITS DETAILS
Feb-13	FM-0.01	SYMBOLS AND ABBREVIATIONS
Feb-13	FM-1.01	TRENCH DETAILS, FMS TRUNKLINE
Feb-13	FM-1.02	TRENCH UNDER PAVEMENT, FMS TRUNKLINE
Feb-13	FM-1.03	BURIED CONDUIT AROUND OBSTRUCTION, DIRECTIONAL DRILLING
Feb-13	FM-1.04	CONDUIT REQUIREMENTS FOR DMS, RMC TO PVC CONDUIT CONNECTION, THROUGH WALL CONDUIT
Feb-13	FM-1.05	CONDUIT MOUNTING DETAILS
Feb-13	FM-1.06	CONDUIT EXPANSION, COUPLING AND JUNCTION BOX, INSTALLATION PLAN
Feb-13	FM-1.07	FMS TRUNK LINE IN BOX GIRDER BRIDGE
Feb-13	FM-1.08	FMS TRUNKLINE IN I-BEAM OR I-GIRDER BRIDGE
Feb-13	FM-2.01	PULL BOX ADJACENT TO FMS PULL BOX
Feb-13	FM-2.02	PULL BOX NO. 9 CABINET CONDUIT INTERFACE PLANS
Feb-13	FM-2.03	PULL BOX NO. 9 DETAILS
Feb-13	FM-2.04	NO. 9 PULL BOX CONDUIT ROUTING AND CABLE RACKING DETAILS
Feb-13	FM-2.05	No. 9 PULL BOX TORSION ASSIST COVER
Feb-13	FM-2.06	PULL BOX NO. 7 TYPICAL INSTALLATION
Feb-13	FM-2.07	BURIED PULL BOX NO. 7 TYPICAL INSTALLATION
Feb-13	FM-2.08	SPLIT NO. 9 PULL BOX
Feb-13	FM-3.01	RAMP METER CABINET DETAILS (SHEET 1 of 2)
Feb-13	FM-3.02	RAMP METER CABINET DETAILS (SHEET 2 of 2)
Feb-13	FM-3.03	RAMP METER CABINET SPECIAL DETAILS
Feb-13	FM-3.04	RAMP METER CABINET ACCESSORIES
Feb-13	FM-3.05	RAMP METER FIELD PANEL DETAILS
Feb-13	FM-3.06	RAMP METER FIELD PANEL CONNECTIONS
Feb-13	FM-3.07	RAMP METER SIGNAL POWER INTERRUPT RELAY AND PIN ASSIGNMENTS
Feb-13	FM-3.08	POWER DISTRIBUTION ASSEMBLY CONNECTOR AND INSTALLATION DETAILS
Feb-13	FM-3.09	POWER DISTRIBUTION ASSEMBLY #4 (PDA4) SCHEMATIC DIAGRAM
Feb-13	FM-3.10	RAMP METER CI HARNESS CONNECTIONS
Feb-13	FM-3.11	CCTV CABINET DETAILS (SHEET 1 of 2)
Feb-13	FM-3.12	CCTV CABINET DETAILS (SHEET 2 of 2)
Feb-13	FM-3.13	CABINET NUMBER DECAL DETAIL
Feb-13	FM-3.14	TRANSFORMER CABINET, EXTERNAL POWER DISCONNECT
Feb-13	FM-3.15	TRANSFORMER, 3kVA & 7.5kVA, DRY TYPE DETAILS AND WIRING DIAGRAMS
Feb-13	FM-3.16	TRANSFORMER, 10kVA & 25kVA, DRY TYPE DETAILS AND WIRING DIAGRAMS
Feb-13	FM-3.17	CLEAR ZONES, UNPROTECTED EQUIPMENT
Feb-13	FM-3.18	TYPE II LOAD CENTER
Feb-13	FM-3.19	TYPE IV LOAD CENTER FOUNDATION AND CABINET DETAIL
Feb-13	FM-3.20	TYPE IV MODIFIED LOAD CENTER
Feb-13	FM-3.21	RAMP METER CABINET FOUNDATION W/O TRANSFORMER
Feb-13	FM-3.22	RAMP METER CABINET WITH TRANSFORMER, FOUNDATION
Feb-13	FM-3.23	SKYLINE DMS CABINET FOUNDATION DETAILS
Feb-13	FM-3.24	SKYLINE DMS & TRANSFORMER CABINET FOUNDATION DETAILS
Feb-13	FM-3.25	DOOLEY SUMP DETAILS
Feb-13	FM-3.26	TRANSFORMER CABINET FOUNDATION
Feb-13	FM-3.27	DAKTRONICS DMS CABINET FOUNDATION DETAILS
Feb-13	FM-3.28	DAKTRONICS DMS & TRANSFORMER CABINET FOUNDATION DETAILS
Feb-13	FM-3.29	DMS CABINET ADPATER AND ELEVATOR BASE DETAILS
Feb-13	FM-4.01	CCTV CABINET BLOCK DIAGRAM
Feb-13	FM-4.02	FREEWAY MANAGEMENT SYSTEM CABINET BLOCK ETHERNET DIAGRAM
Feb-13	FM-4.03	DMS CABINET ETHERNET BLOCK DIAGRAM
Feb-13	FM-5.01	DETECTION DEFINITION
Feb-13	FM-5.02	TYPICAL DETECTOR LOOP INSTALLATION DETAILS
Feb-13	FM-5.03	TYPICAL PREFORMED DETECTOR LOOP INSTALLATION DETAILS
Feb-13	FM-5.04	DETECTOR LOOP IN AC PAVEMENT INSTALLATION LAYOUT
Feb-13	FM-5.05	DETECTOR LOOP IN PCCP PAVEMENT INSTALLATION LAYOUT
AUG-13	FM-5.06	DETECTOR LOOP TEST FORM 1
AUG-13	FM-5.07	DETECTOR LOOP TEST FORM 2 PART A
AUG-13	FM-5.08	DETECTOR LOOP TEST FORM 2 PART B
Feb-13	FM-6.01	RAMP METER DETAILS
Feb-13	FM-6.02	SINGLE-LANE RAMP METER
Feb-13	FM-6.03	SINGLE-LANE RAMP METER WITH FRONTAGE ROAD
Feb-13	FM-6.04	TWO-LANE RAMP METER
Feb-13	FM-6.05	TWO-LANE RAMP METER WITH FRONTAGE ROAD
Feb-13	FM-6.06	RAMP METER WITH OBSTRUCTION INSTALLATION DETAILS
Feb-13	FM-7.01	CCTV POLE CCTV CABINET MOUNTING DETAILS AND FIELD ORIENTATION
Feb-13	FM-7.02	CCTV POLE AND MOUNTING DETAILS
Feb-13	FM-7.03	CCTV POLE MOUNTING PLATE DETAILS

NO.	DESCRIPTION OF REVISION	MADE BY	DATE
1	REMVD M-26, REVISED M-4, M-12, M-15 SHT 1, M-16, M-17, 5-2 ADDED SHT 2, 5-3 SHT 1 AND SHT 2, 5-4, 5-4 SHT 2.	L. LOPEZ	8/11
2	REMVD M-26 SHT 1, REVISED M-26 SHT 1 & SHT 2, REVISED M-36, M-37, 5-4, 5-4 SHT 2.	L. LOPEZ	10/10

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW		
	NAME	DATE
ITS SYSTEM STANDARDS	R. Craig Dysart	July 27, 2016
PROJECT NO. 0000 MA AVN SZ079 01C	1E	OF
RECORD DRAWING DATA — FEDERAL AID NO. CM-AVN-0(216)T — REC. DWG. DATE		OF

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	2	23	
		0000 MA AVN			

MIDPOINT OF PROJECT

Central Zone
State Plane Coordinates

X=570,610
Y=896,715

INDEX OF SHEETS

Sheet No.	Sheet Type
1	Face Sheet
1C-1, 1C-2, 1E	ADOT Standard Drawings
2-3	Design Sheets
4	Typical Sections Sheet
5-6	Details
7	Conduit Elevation And Section At Canal
8-12	Plan Sheets
13-14	Traffic Control Plans
15	CCTV Camera Mounting Detail
16-22	Intersection Improvement Plans
23	Splicing Detail

LENGTH OF PROJECT

Sta 18+34.00 to 116+21.00 = 9,787 Feet

SYMBOLOGY LEGEND

	EXISTING	NEW
Duct With 96-Strand SMFO Cable		————
Duct With Single Mode 12 Strand Fiber		————
Light Pole With Mast Arm & Luminaire		
Pull Box/Cabinet		
Avondale No. 9 Pull Box/Vault		
No. 7 Pull Box		
Conduit Callout		(X)

GENERAL NOTES

The roadway plans have been designed utilizing the 2012 Construction Standard Drawings (C-Series) and current revisions. Refer to the 1A sheet for a listing of current revision dates.

Where only the horizontal location of an existing utility is shown, the location is approximate. Where both the horizontal and vertical location of an existing utility is shown, the location has been verified by field survey methods. The contractor shall comply with all current Blue Stake laws and Section 107.15 of the Specifications.

The average project elevation is 1009 ft.

New Right of Way and easements are not required.

Construction zone traffic control shall conform to the requirements of the "Manual on Uniform Traffic Control Devices" (MUTCD), 2009 Edition, the project plans and specifications.

The contractor shall obtain all permits required by all government agencies. The contractor shall obtain a seperate floodplain and/or grading permit prior to commencing such work.

All work not in conformance with these plans and specifications shall be removed at the contractor's expense.

All dimensions shown are to the back of existing curb unless otherwise noted.

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

DESIGN SHEET

Registered Professional Engineer — Certificate No. 13900 — R. CRAIG ALLISON — Date signed — ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD

SHEET G1 OF G2

TRACS NO. SZ079 01C | CM-AVN-0(216)T | ____ OF ____

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

7/27/2016 P:\11022.10 - Dysart\Cad\002_11022-10_GN01.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	3	23	
		0000 MA AVN			

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

ITS NOTES

1. *All work shall conform to the Arizona Department Of Transportation (ADOT) Standard Specifications For Road And Bridge Construction 2008, 2010 Standard Drawings For Traffic Signals And Lighting, these plans, and the special provisions including subsequent addenda prior to bid date.*

2. *The location of the utilities are approximate. The contractor shall be responsible, per Section 730-6 of the standard specifications, for contacting all utilities (including Bluestake) for the exact locations prior to the construction activity. The contractor is responsible for maintaining proper clearances as required by the utility company and adhering to the requirements stipulated in permits. The contractor shall coordinate all conduit installation requirements with other project trade groups.*

3. *The plans show the general path and location of the ITS conduit in relation to major physical features. The locations of other utilities and other secondary objects along the conduit path may not be as shown in the plans, but shall be identified by the contractor as the conduit route is marked just prior to installation. The information on the drawings concerning the type and location of existing underground and overhead utilities is approximate and has not been independently verified by the Engineer or engineer's agent. The contractor shall determine the exact location of all existing utilities and shall be fully responsible for any and all damages which might result from the contractor's failure to locate and preserve any and all underground and overhead utilities.*

4. *The contractor shall stake all pull box and conduit locations and obtain approval from the engineer prior to any excavation or trenching activities.*

5. *The contractor is to submit a request in writing to the ADOT Engineer when field adjustments are necessary to avoid conflict with utilities or construction.*

6. *The top of pull boxes shall be flush with surrounding final grade elevations. Refer to ADOT Standard Drawing T.S. 1-4, or as indicated on the plans.*

7. *The contractor shall place warning tape in all trenches in which new conduit is placed per Section 732-2.02 and 732-3.01 in the 2008 ADOT Specifications For Road And Bridge Construction. The cost of the warning tape and installation shall be included in the cost of the conduit and not paid for separately.*

8. *The contractor shall verify the correct version of all drawings that have revisions pending with the ADOT Engineer.*

9. *Materials and equipment shall be installed in accordance with the current standards and recommendations of the National Electrical Code, the National Electrical Safety Code and with local codes that apply. Where discrepancies arise between codes, the most restrictive regulation shall apply.*

10. *All pull boxes shall meet the requirements of HS20-44 truck traffic rating.*

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

eec Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 || Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS
GENERAL NOTES

Registered Professional Engineer Certificate No. 13900 R. CRAIG ALLISON Date signed 1/31/17 ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD

SHEET G2 OF G2

TRACS NO. SZ079 01C		CM-AVN-0(216)T	____ OF ____

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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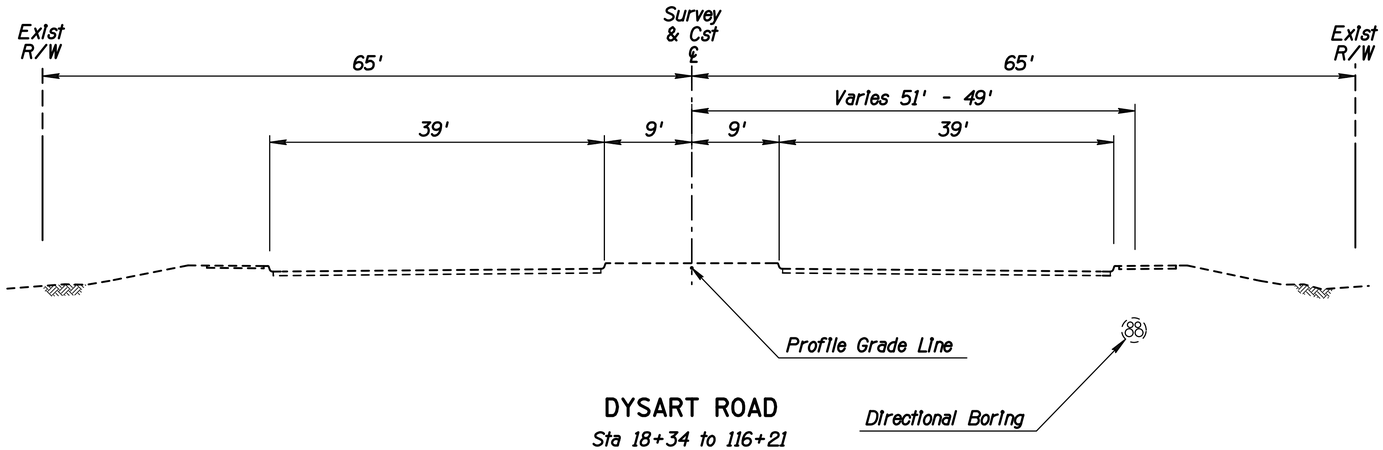
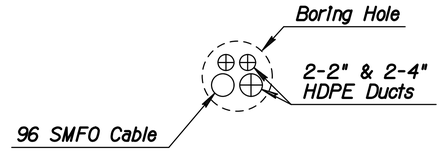
		0000 MA AVN			



DYSART ROAD
Sta 18+34 to 116+21



Legend

⊕ *Unused*

DIRECTIONAL BORING DETAIL

NTS

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

eec Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

TYPICAL SECTIONS SHEET

Registered Professional Engineer Certificate No. 13900 R. CRAIG ALLISON Date signed 7/27/16 ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION	SHEET D1 OF D4
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD	

TRACS NO. SZ079 01C		CM-AVN-0(216)T	___ OF ___

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

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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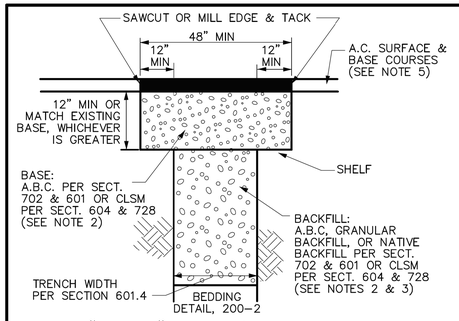
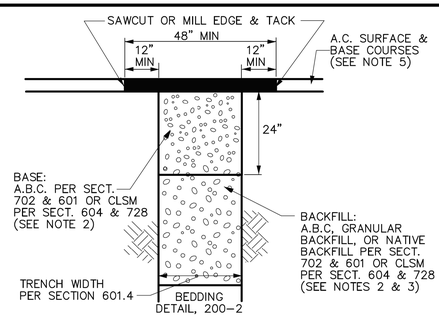
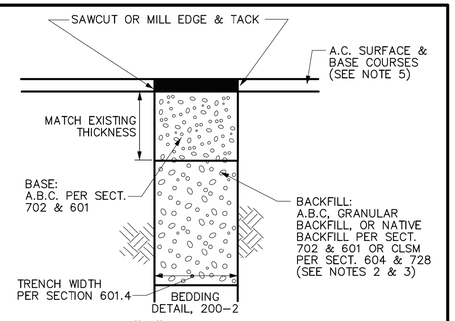
		0000 MA AVN			



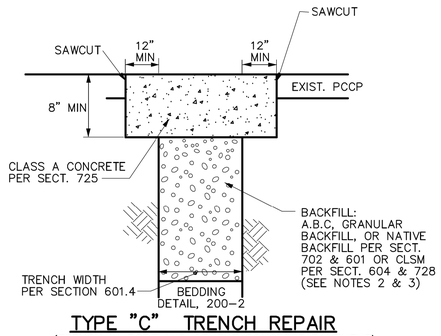
"T TOP" TRENCH REPAIR



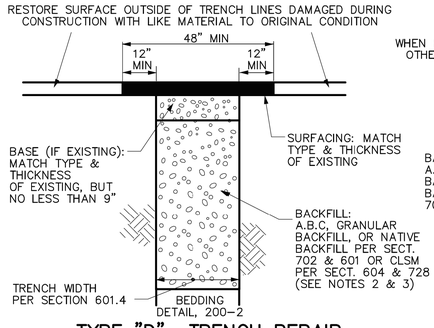
TYPE "A" TRENCH REPAIR



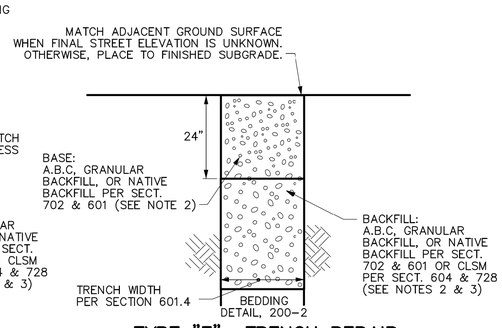
TYPE "B" TRENCH REPAIR



TYPE "C" TRENCH REPAIR
(TRENCH IN PORTLAND CEMENT CONCRETE PAVEMENT)



TYPE "D" TRENCH REPAIR
(TRENCH NOT UNDER CONCRETE OR ASPHALT PAVEMENT)



TYPE "E" TRENCH REPAIR
(TRENCH IN FUTURE ROADWAY PRISM OR ALLEY)

NOTES:

1. PAVEMENT MATCHING AND SURFACE REPLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 336.
2. TYPE OF BACKFILL AND BASE (IF APPLICABLE) SHALL BE AS NOTED HEREIN UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. IF NOT SPECIFIED, CLSM SHALL BE 1/2-SACK PER SECTIONS 604 AND 728.
3. TRENCHES LESS THAN 24" WIDE SHALL BE BACKFILLED FROM TOP OF BEDDING TO BOTTOM OF SURFACING MATERIALS WITH 1/2-SACK CLSM PER SECTIONS 604 AND 728.
4. BASE, BACKFILL, BEDDING AND FOUNDATION COMPACTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION 601.
5. ASPHALT CONCRETE SURFACE AND BASE COURSES SHALL COMPLY WITH SECTION 336.2.4.1 UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS.
6. USE TYPE "A" FOR LONGITUDINAL TRENCH REPAIR AND USE "T-TOP" FOR TRANSVERSE TRENCH REPAIR (SEE DETAIL 200-2) UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS. TYPE "B" TRENCH REPAIR MAY BE USED FOR TRANSVERSE TRENCH REPAIR IF SPECIFIED BY THE AGENCY.
7. PROVIDE MINIMUM 12" WIDE SHELF AS SHOWN IN "T-TOP" TRENCH REPAIR AT ENDS OF TYPE "A" TRENCH REPAIR EXCEPT WHERE EDGE ABUTS EXISTING CONCRETE.
8. USE "T-TOP" PAVEMENT REPLACEMENT WHERE A TRENCH IS NOT PARALLEL TO A STREET OR GOES THROUGH AN INTERSECTION.
9. SEE DETAIL 200-2 FOR REMNANT PAVEMENT REMOVAL REQUIREMENTS.
10. EXPOSED COPPER OR POLYETHYLENE WATER PIPE UP TO 2" IN DIAMETER IN TRENCHES TO BE BACKFILLED WITH CLSM SHALL BE WRAPPED WITH MINIMUM 3/4" THICK PREFORMED PIPE-COVERING FOAM INSULATION BEFORE PLACING CLSM.

DETAIL NO.			REVISED	DETAIL NO.
200-1	MARICOPA ASSOCIATION of GOVERNMENTS STANDARD DETAIL ENGLISH	BACKFILL, PAVEMENT AND SURFACE REPLACEMENT	01-01-2010	200-1

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS
TYPICAL TRENCH DETAILS

Registered Professional Engineer Certificate No. 13900 R. CRAIG ALLISON Date signed 7/27/16 ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD

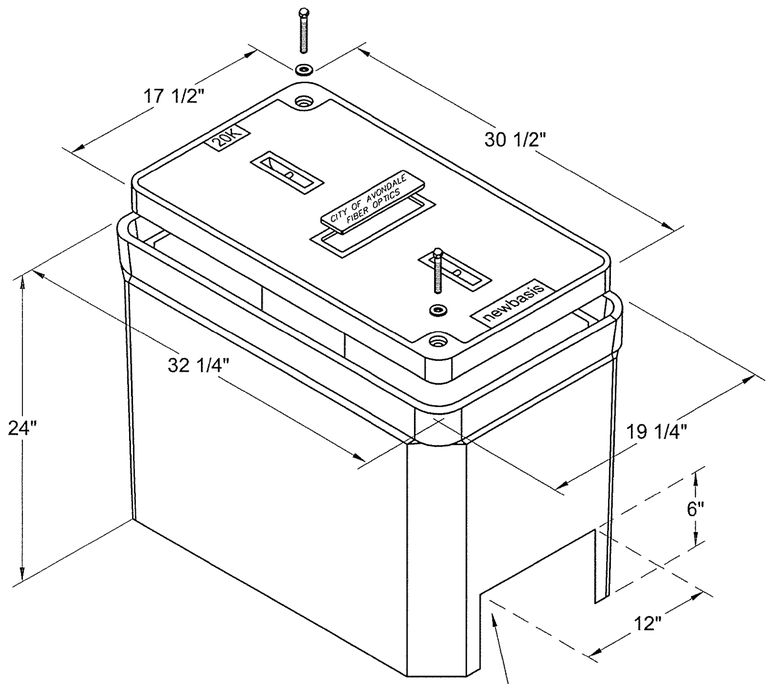
SHEET D2 OF D4

TRACS NO. SZ079 01C | CM-AVN-0(216)T | ___ OF ___

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

7/27/2016 P:\11022.10 - Dysart\Cad\005_11022-10_DTL01.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	6	23	
		0000 MA AVN			



WINDOW ONE EACH END, 6"x12"

INSIDE DIMENSIONS

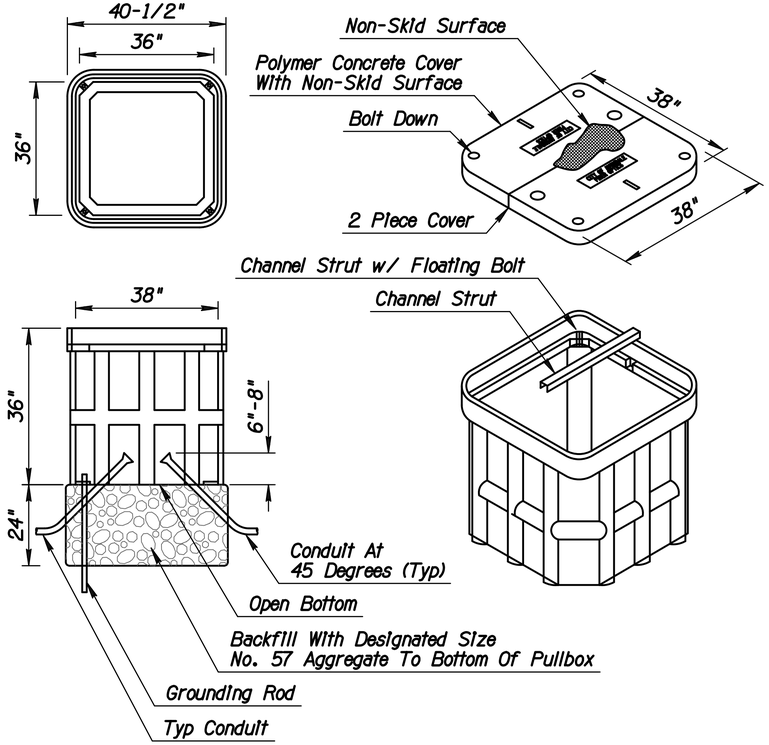
LENGTH	WIDTH	DEPTH
29 1/4"	16 1/4"	22"

NOTES:

1. TOPS OF PULL BOXS SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OR ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE PULL BOX IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE PULL BOX SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADE. WHERE PRACTICAL, PULL BOXS SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND PULL BOXES SHOWN ADJACENT TO POLES SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.
2. WHEN PULL BOX IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE BOX SHALL BE ADJUSTED SO THAT THE TOP OF THE BOX IS FLUSH WITH THE TOP OF THE SIDEWALK.
3. PULL BOX SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.
4. CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2-INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE CITY OF AVONDALE USE.
5. ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM. VARIATIONS ARE ALLOWABLE.
6. ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.
7. ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRAVIOLET EXPOSURE.
8. PLUG EACH CONDUIT END WITH APPROVED WATERPROOF DUCT PLUG.
9. UNSPLICED CABLE SHALL HAVE 100 FEET OF SLACK CABLE. EXCESS CABLES ARE TO BE COILED AND PLACED INSIDE THE PULL BOX.

PULLBOX NO. 7

REFER TO ITEM #7320420 PULLBOX NO. 7



AVONDALE NO. 9 VAULT

REFER TO ITEM #7320456 AVONDALE NO. 9 VAULT

NOTES:

1. *TOPS OF VAULTS SHALL BE FLUSH WITH SURROUNDING GRADE OR TOP OR ADJACENT CURB, EXCEPT IN UNPAVED AREAS WHERE VAULT IS NOT IMMEDIATELY ADJACENT TO AND PROTECTED BY A CONCRETE FOUNDATION, POLE OR OTHER PROTECTIVE CONSTRUCTION, THE VAULT SHALL BE PLACED WITH ITS TOP 0.75 INCH ABOVE SURROUNDING GRADE. WHERE PRACTICAL, VAULTS SHOWN IN THE VICINITY OF CURBS SHALL BE PLACED ADJACENT TO THE BACK OF CURB, AND VAULTS SHOWN ADJACENT TO POLES SHALL BE PLACED ON SIDE OF FOUNDATION FACING AWAY FROM TRAFFIC, UNLESS OTHERWISE NOTED.*
2. *WHEN VAULT IS INSTALLED IN SIDEWALK AREA, THE DEPTH OF THE VAULT SHALL BE ADJUSTED SO THAT THE TOP OF THE VAULT IS FLUSH WITH THE TOP OF THE SIDEWALK.*
3. *VAULT SHALL NOT BE WITHIN THE BOUNDARIES OF NEW OR EXISTING WHEELCHAIR RAMPS.*
4. *CONTRACTOR SHALL ADAPT CONDUIT STUBOUTS FOR SPECIFIC PROJECT REQUIREMENTS. AS A MINIMUM, ONE 2-INCH CONDUIT SHALL BE STUBBED OUT AND CAPPED FOR FUTURE USE.*
5. *ALL DIMENSIONS ARE NOMINAL AND SHALL BE CONSIDERED MINIMUM. VARIATIONS ARE ALLOWABLE.*
6. *ALL CONDUITS SHALL BE SEALED WITH COMPATIBLE SEALANT.*
7. *ALL CABLE STRAPS SHALL BE DESIGNED TO WITHSTAND ULTRAVIOLET EXPOSURE.*
8. *PLUG EACH CONDUIT END WITH APPROVED WATERPROOF DUCT PLUG.*
9. *UNSPLICED CABLE SHALL HAVE 100 FEET OF SLACK CABLE. EXCESS CABLES ARE TO BE COILED AND PLACED INSIDE*
10. *"CITY OF AVONDALE FIBER OPTICS" SHALL BE EMBOSSED ON THE LID*

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4420 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS
CITY OF AVONDALE DETAILS

Registered Professional Engineer
13900
R. CRAIG
ALLISON
Date signed 11/21/16
ARIZONA, U.S.A.
EXPIRES 3-31-17

ROUTE | LOCATION: DYSART RD, RANCHO SANTA FE TO INDIAN SCHOOL RD

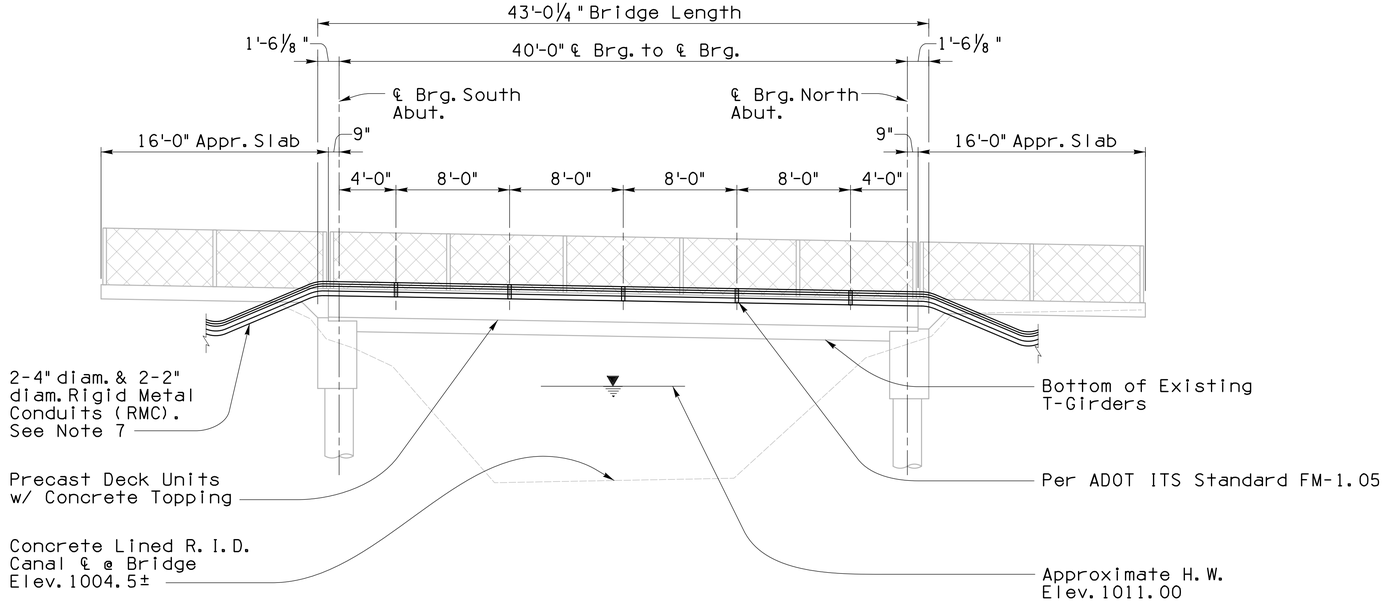
SHEET D3 OF D4

TRACS NO. SZ079 01C | CM-AVN-0(216)T | ___ OF ___

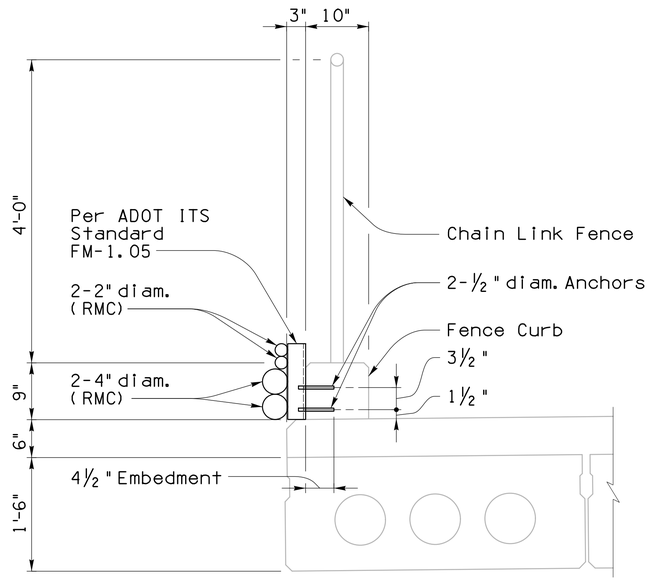
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE-

7/27/2016 P:\11022.10 - Dysart\Cad\006_11022-10_DTL02.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	AVN-0(216)T	7	23	
		0000 MA AVN			



ELEVATION (LOOKING WEST)
3/16" = 1'-0"



TYPICAL EAST SIDEWALK SECTION
1" = 1'-0"

General Notes:

1. Construction Specification - Arizona Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition.
2. Design Specifications - AASHTO LRFD Bridge Design Specifications, 6th edition 2012.
3. All dimensions of existing construction are approximate. The contractor shall verify all existing conditions and report any irregularities or discrepancies to the Engineer prior to proceeding with work and fabrication.
4. Dimensions shall not be scaled from drawings.
5. Attach channel to the outside of the bridge fence curb using AT-XP epoxy adhesive with F1554 Grade 36 anchors or approved equal. Use ½ inch diam. anchor bolts - 2 anchors per channel with a 4½ inch minimum embedment depth. If reinforcing is encountered during drilling operation, the location of the hole may be moved ±1 foot such that 10 foot maximum spacing shall be maintained.
6. Every effort shall be made to minimize impacts to the existing facilities (fencing, concrete, etc.). Damage to the facilities shall be repaired to equal or better condition than existing at no additional cost to the Department.
7. All underground RMC shall be wrapped in PVC tape and all transitions from RMC to PVC shall be in accordance with ADOT ITS Standard FM-1.04.

ROOSEVELT IRRIGATION DISTRICT APPROVAL

The Roosevelt Irrigation District (RID) has reviewed these plans solely for conformance to RID standards and specifications as related to RID irrigation and/or drainage facilities. RID makes no representations or warranties regarding the suitability, and/or adequacy, of the items being constructed to meet, fulfill, or otherwise satisfy, their intended purpose. RID approves these plans for concept only and accepts no liability for errors or omissions. RID Right-of-Way Crossing Permit required prior to construction.

ROOSEVELT IRRIGATION DISTRICT APPROVAL _____ DATE

RID PERMIT NUMBER _____

	NAME	DATE
DESIGN	NJP	7-16
DRAWN	JHS, MJL	7-16
CHECKED	CGP	7-16

Structural Grace, Inc
1430 E. Ft. Lowell Suite-200
Tucson, Arizona 85719 (520) 320-0156

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
BRIDGE GROUP

DYSART ROAD BRIDGE ITS IMPROVEMENTS
ELEVATION & SECTION

Registered Professional Engineer
48625
NATHAN J. PALMER
Date Signed 07/13/2016
ARIZONA, U.S.A.
Expires 09/30/17

ROUTE	LOCATION	DWG. NO. S-1.01
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD	
TRACS NO. SZ079 01C	CM-AVN-0(216)T	___ OF ___

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

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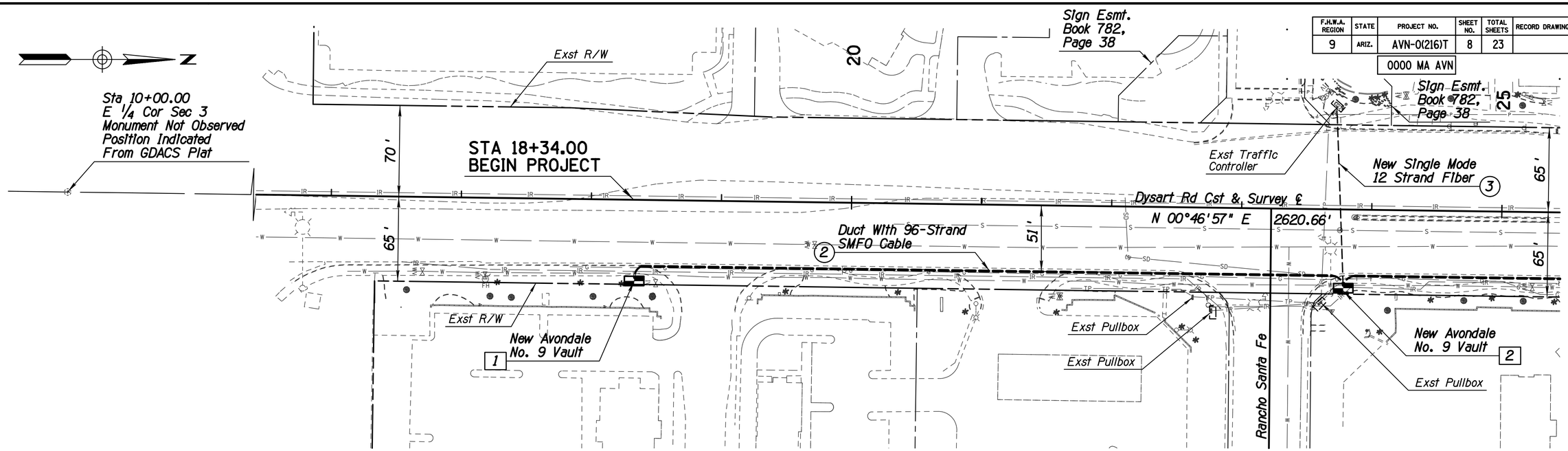
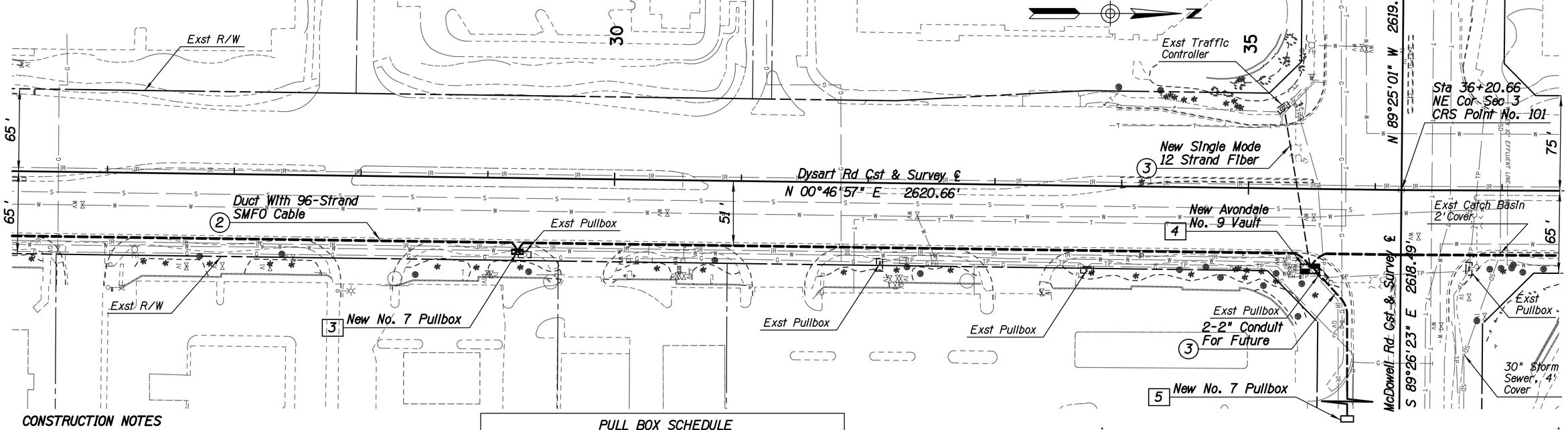
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	8	23	
		0000 MA AVN			





CONSTRUCTION NOTES

1. Occupied Conduit Will Include SMFO Cable
2. Duct (2-2" & 2-4" HDPE Conduits), Directional Drill
3. 2-2" HDPE Conduits, Directional Drill
4. Install New No. 7 Pull Box Per COA Detail 1067
5. Install New Avondale No. 9 Vault

PULL BOX SCHEDULE			
#	TYPE (4) (5)	STATION	OFFSET
1	Avondale No. 9 Vault	18+34	60' Rt
2	Avondale No. 9 Vault	23+79	60' Rt
3	Pullbox No. 7	29+24	58' Rt
4	Avondale No. 9 Vault	35+49	63' Rt
5	Pullbox No. 7	35+73	236' Rt

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

eec Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS PLAN SHEET
STA 18+34 TO STA 37+50

Registered Professional Engineer — 13900 R. CRAIG ALLISON — Date signed 11/8/16 — ARIZONA, U.S.A.

EXPIRES 3-31-17

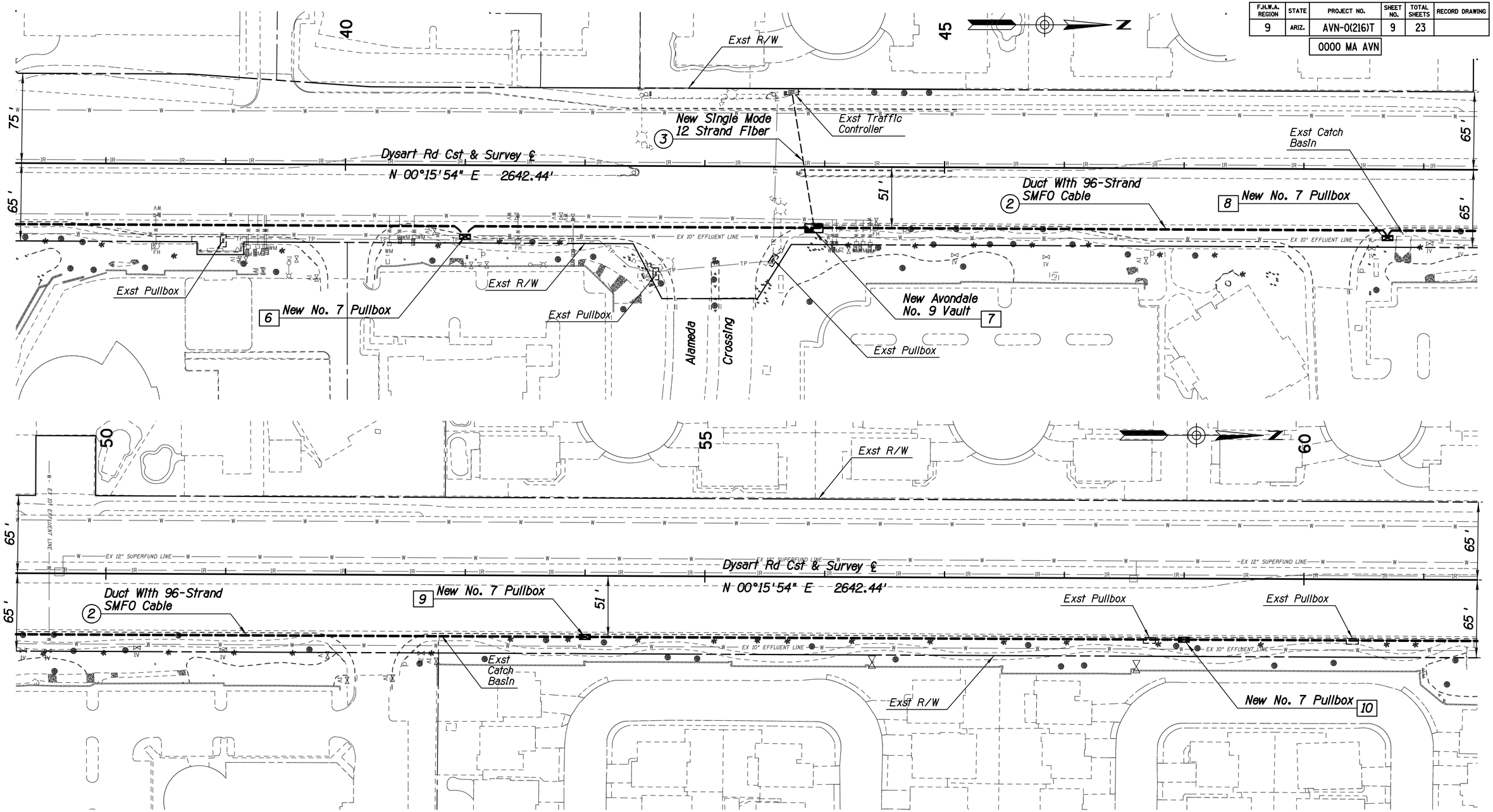
ROUTE	LOCATION
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD

TRACS NO. SZ079 01C | CM-AVN-0(216)T | SHEET C1 OF C5 | ___ OF ___

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

7/27/2016 P:\11022.10 - Dysart\Cad\008_11022-10_PN01.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	9	23	
		0000 MA AVN			



CONSTRUCTION NOTES

1. Occupied Conduit Will Include SMFO Cable
2. Duct (2-2" & 2-4" HDPE Conduits), Directional Drill
3. 2-2" HDPE Conduits, Directional Drill
4. Install New No. 7 Pull Box Per COA Detail 1067
5. Install New Avondale No. 9 Vault

PULL BOX SCHEDULE

#	TYPE (4) (5)	STATION	OFFSET
6	Pullbox No. 7	41+00	60' Rt
7	Avondale No. 9 Vault	43+91	51' Rt
8	Pullbox No. 7	48+70	57' Rt
9	Pullbox No. 7	54+00	51' Rt
10	Pullbox No. 7	59+00	51' Rt

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS PLAN SHEET
STA 37+50 TO STA 61+50

ROUTE | LOCATION: DYSART RD, RANCHO SANTA FE TO INDIAN SCHOOL RD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

Registered Professional Engineer
13900
R. CRAIG ALLISON
Date Signed 7/27/16
ARIZONA, U.S.A.
EXPIRES 3-31-17

SHEET C2 OF C5

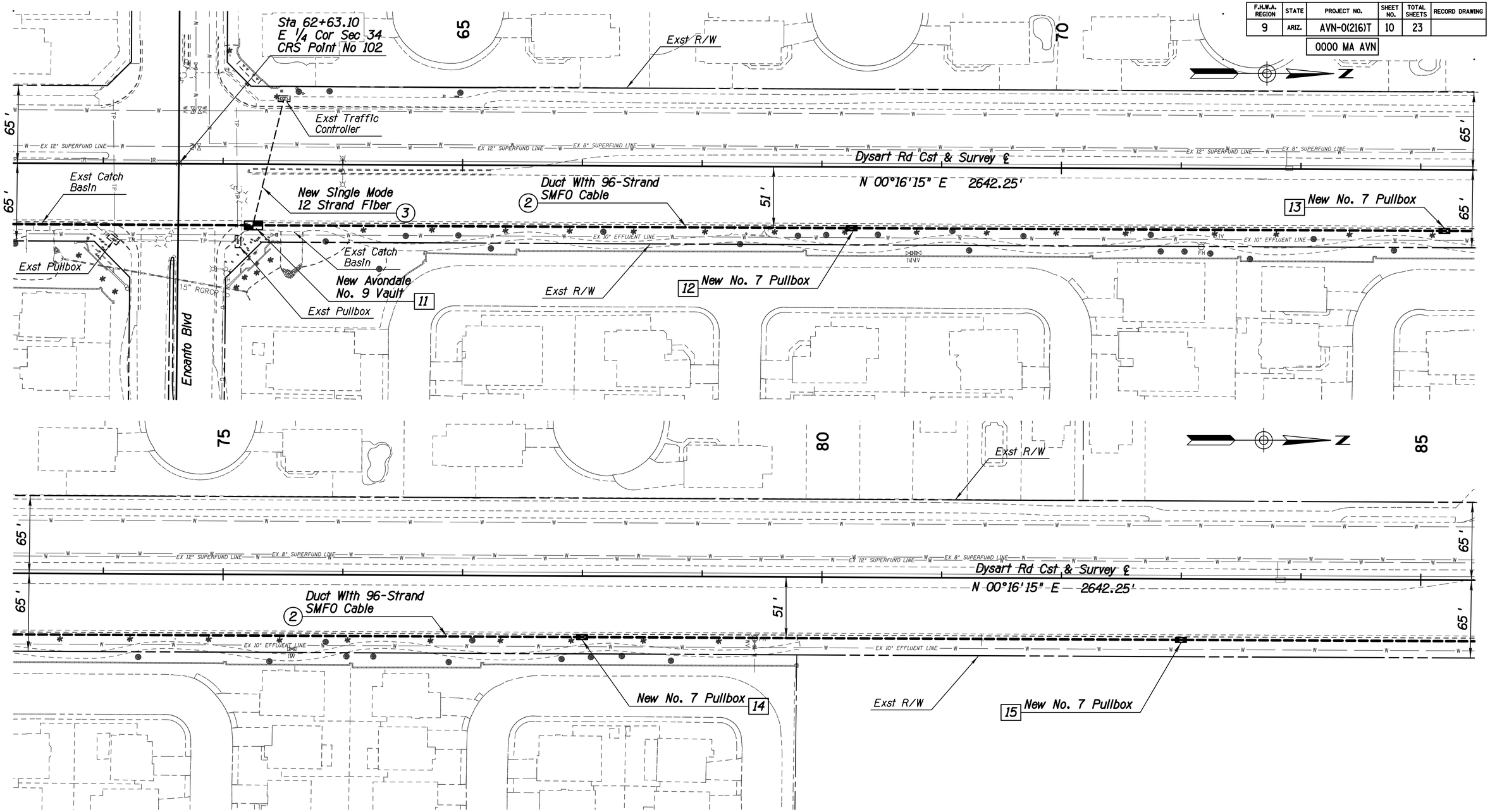
___ OF ___

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

7/27/2016 P:\11022.10 - Dysart\Cad\009_11022-10_PN02.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	10	23	
		0000 MA AVN			

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



CONSTRUCTION NOTES

1. Occupied Conduit Will Include SMFO Cable
2. Duct (2-2" & 2-4" HDPE Conduits), Directional Drill
3. 2-2" HDPE Conduits, Directional Drill
4. Install New No. 7 Pull Box Per COA Detail 1067
5. Install New Avondale No. 9 Vault

PULL BOX SCHEDULE

#	TYPE (4)(5)	STATION	OFFSET
11	Avondale No. 9 Vault	63+25	51' Rt
12	Pullbox No. 7	68+25	51' Rt
13	Pullbox No. 7	73+20	51' Rt
14	Pullbox No. 7	78+00	51' Rt
15	Pullbox No. 7	83+00	51' Rt

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS PLAN SHEET
STA 61+50 TO STA 85+50

ROUTE | LOCATION: DYSART RD, RANCHO SANTA FE TO INDIAN SCHOOL RD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

Registered Professional Engineer
Certificate No. 13900
R. CRAIG ALLISON
Date signed 11/9/16
ARIZONA, U.S.A.
EXPIRES 3-31-17

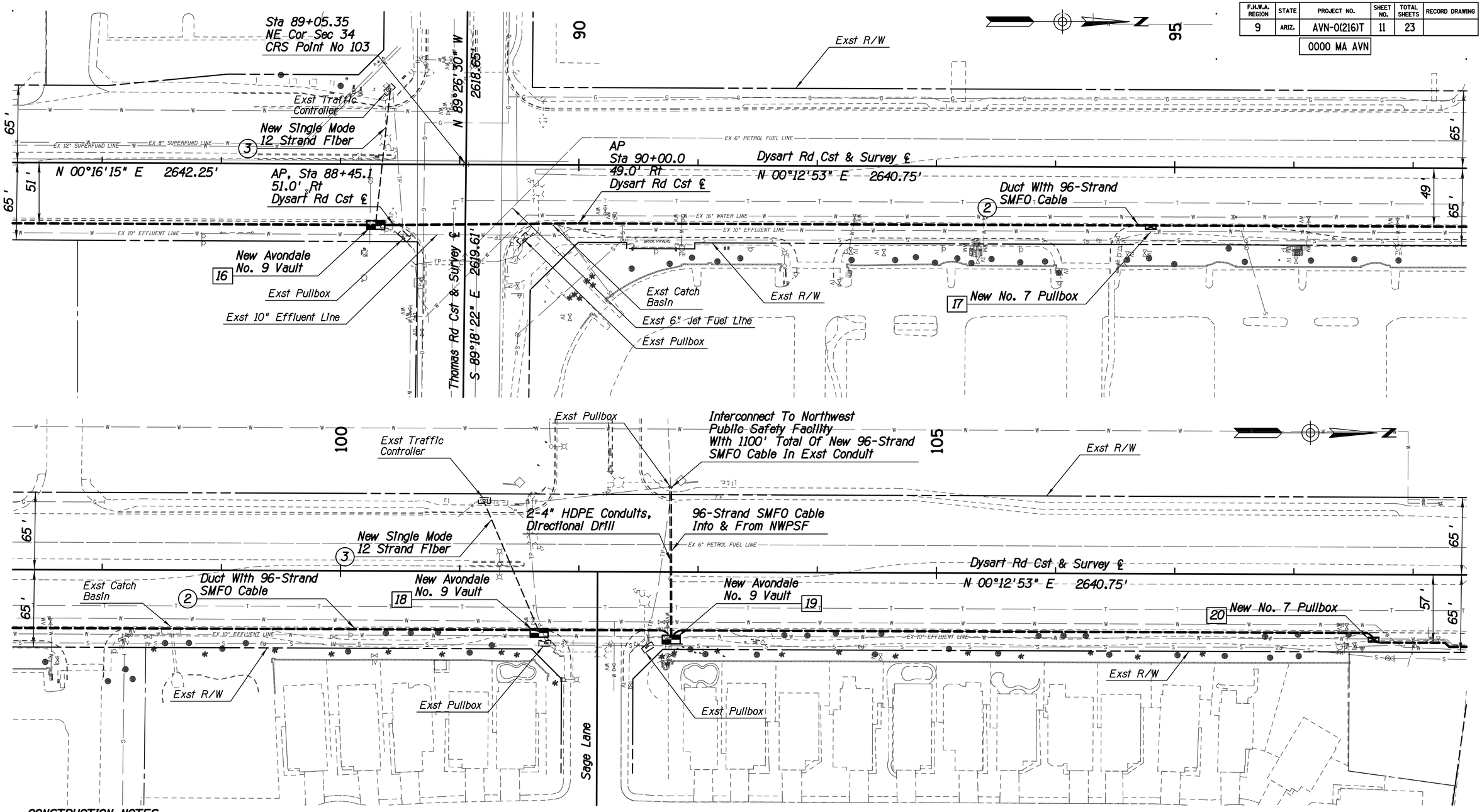
SHEET C3 OF C5

___ OF ___

7/27/2016 P:\11022.10 - Dysart\Cad\010_11022-10_PN03.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	11	23	
		0000 MA AVN			

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



CONSTRUCTION NOTES

1. Occupied Conduit Will Include SMFO Cable
2. Duct (2-2" & 2-4" HDPE Conduits), Directional Drill
3. 2-2" HDPE Conduits, Directional Drill
4. Install New No. 7 Pull Box Per COA Detail 1067
5. Install New Avondale No. 9 Vault

PULL BOX SCHEDULE

#	TYPE (4) (5)	STATION	OFFSET
16	Avondale No. 9 Vault	88+30	51' Rt
17	Pullbox No. 7	94+80	52' Rt
18	Avondale No. 9 Vault	101+66	52' Rt
19	Avondale No. 9 Vault	102+78	57' Rt
20	Pullbox No. 7	108+68	56' Rt

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
TEL 520.321.4625 | FAX 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS PLAN SHEET
STA 85+50 TO STA 109+50

ROUTE | LOCATION: DYSART RD, RANCHO SANTA FE TO INDIAN SCHOOL RD

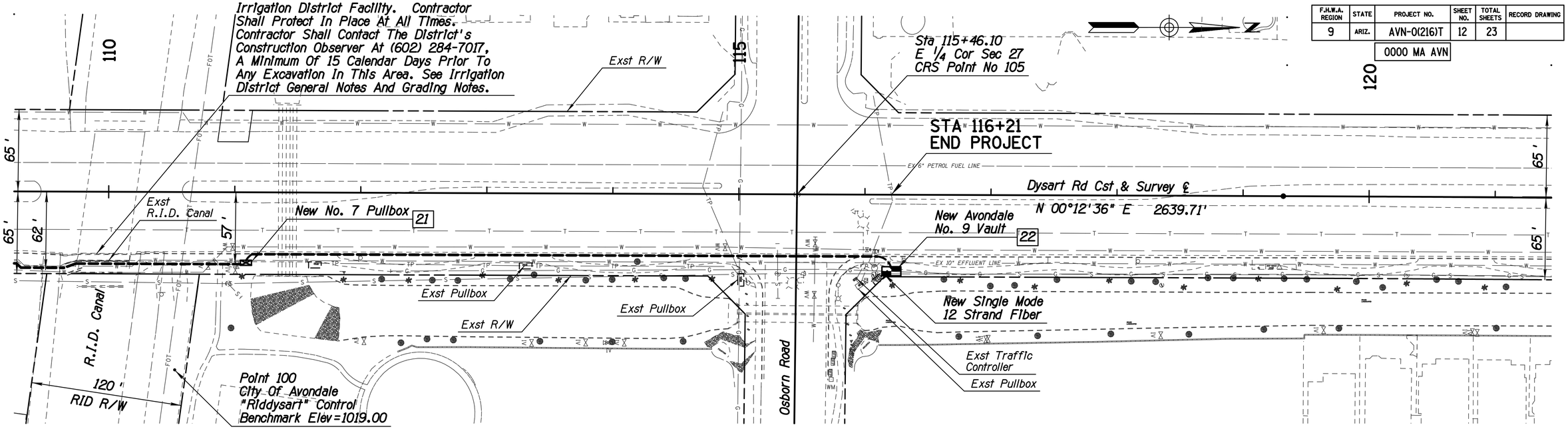
TRACS NO. SZ079 01C | CM-AVN-0(216)T

Registered Professional Engineer (Civil)
13900
R. CRAIG ALLISON
Date signed 11/15/16
ARIZONA, U.S.A.
EXPIRES 3-31-17

SHEET C4 OF C5

___ OF ___

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	12	23	
		0000 MA AVN			



PULL BOX SCHEDULE			
#	TYPE (4)(5)	STATION	OFFSET
21	Pullbox No. 7	111+09	57' Rt
22	Avondale No. 9 Vault	116+21	61' Rt

CONSTRUCTION NOTES

1 Occupied Conduit Will Include SMFO Cable

(2) Duct (2-2" & 2-4" HDPE Conduits), Directional Drill

(3) 2-2" HDPE Conduits, Directional Drill

(4) Install New No. 7 Pull Box Per COA Detail 1067

(5) Install New Avondale No. 9 Vault

ROOSEVELT IRRIGATION DISTRICT GENERAL NOTES

1. The Term District As Used In These Notes (This Sheet) Shall Refer To The Roosevelt Irrigation District (RID).

2. The District Construction Observer Must Approve The Scheduling Of All Construction Activities Within The District Right-Of-Way. The District May Require That Some Or All Of The Construction For The Project Be Completed Only During A Scheduled Dry-Up Of The Main Canal.

3. All Construction Plans Affecting District Facilities Must Be Reviewed And Approved By The Irrigation District.

4. The Contractor Shall Contact The Districts Construction Observer At (602) 284-7017, A Minimum Of 15 Calendar Days Prior To Commencement Of Construction.

5. The Contractor Is Responsible For Obtaining A Right-Of-Way Crossing Permit From The District Before Any Work Can Commence Within District Right-Of-Way.

6. The Contractor Shall Provide Shop Drawings For Review By The Districts Engineer As May Be Necessary For The Execution Of The Work And As Required By The Drawings And Specifications.

7. Stations Shown Are Approximate And May Be Varied As Directed By The Developers Engineer.

8. All Existing Irrigation Facilities Disturbed By New Construction Shall Be Reconstructed To Current RID Standards.

9. All Construction Including, But Not Limited To: Equipment,Fencing, Spoils, Etc. Must Remain Outside Of District Right-Of-Way Unless Otherwise Approved By The District Construction Observer.

10. Existing Irrigation Facilities Must Remain Operational, And Shall Not Be Disturbed Or Rendered Inaccessible To RID Operations And Maintenance Staff.

ROOSEVELT IRRIGATION DISTRICT GRADING NOTES

1. The Contractor Shall Provide Smoothly And Evenly Graded Finished Ground Surfaces About All District Facilities Within The Project Area.

2. The Contractor Shall Import Additional Fill Material Or Export Excess Cut Material As Required To Provide Satisfactory Finished Grading About District Facilities As Indicated On The Approved Plans Or As Directed By The District Construction Observer.

3. Finished Grading Shall Blend Smoothly Into Existing Grades.

4. Finished Surfaces Shall Be Graded To Direct Drainage Away From District Facilities.

5. O&M Roads Shall Be Constructed With A Minimum Elevation 6 Inches Above Adjacent Fields And A 2 Percent Cross Slope Unless Otherwise Noted.

6. O&M Roads Adjacent To Canal Prism Shall Be Constructed With A Minimum Elevation 6 Inches Above Adjacent Fields And A 2 Percent Cross Slope Away From Canal Prism Area Unless Othewise Noted.

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

ITS PLAN SHEET
STA 109+50 TO STA 133+50

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
TEL 520.321.4625 | FAX 520.321.0333

Registered Professional Engineer — 13900 — R. CRAIG ALLISON — Date signed 11/21/16 — ARIZONA, U.S.A.
EXPIRES 3-31-17

ROUTE	LOCATION	SHEET
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD	C5 OF C5

TRACS NO. SZ079 01C | CM-AVN-0(216)T | ___ OF ___

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

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F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	13	23	
		0000 MA AVN			

SIGNS

1. All existing signs in conflict with the construction signs shall be removed, relocated, or covered in place, as directed by the Engineer. The contractor shall store and reinstall items which have been removed or relocated in a manner approved by the Engineer.
2. The retroreflective sheeting on all construction signs shall meet criteria established in Section 1007 of ADOT Specifications and in Section 380 of the ADOT Traffic Engineering Policies, Guidelines and Procedures.
3. All signs shown on the plans shall be mounted on embedded posts. Signs installed on embedded posts shall be mounted at a minimum height of 7 feet as measured from the bottom of the sign to the near edge of the pavement. All other short-term signs may be installed on spring stands, at the height recommended by the spring stand manufacturer.
4. The nearest edge or corner of a sign shall be approximately 12 feet from the nearest edge of pavement for all signs mounted on embedded posts.
5. Flags shall be mounted on top of all construction signs except the "END ROAD WORK THANK YOU" sign.
6. Type A flashing warning lights shall be required on all nighttime construction signs except the "END ROAD WORK THANK YOU" sign.
7. Type C steady-burning yellow lights shall be mounted on every barricade.
8. Channelizing devices shall be placed 40 feet on center in tapers and 80 feet on center in tangents, except as otherwise noted on plans.
9. Construction signs shall not be displayed to traffic more than 24 hours prior to the actual start of construction. These signs may be installed sooner but they must be covered or turned away from traffic. The cost for covering or turning them shall be considered part of the sign installation cost. No further compensation will be made. These signs shall be removed within 24 hours after the completion of construction activities.
10. All construction signs shall have black letters on an orange background, except as otherwise noted.
11. Speed limit signing is preliminary and is subject to review and change by the Engineer as dictated by field conditions.
12. Where no closure is necessary but where there is construction alongside a roadway under construction, the contractor shall place a 48 x 48 inch "ROAD WORK AHEAD" and "SHOULDER WORK AHEAD" sign as directed by the Engineer to alert the public to the construction activities.

DEVICES

1. The contractor may substitute Type I barricades for Type II barricades as long as the reflective area on the top panel of each Type I barricade is equivalent or greater than the reflective area of a Type II barricade.
2. When traffic control devices are not in use, they shall be moved at least 30 feet from the roadway.
3. The contractor shall maintain two-way traffic at night, on weekends, on holidays, and as directed by the Engineer.
4. The contractor shall utilize a flashing arrow panel in the sequential chevron mode for each closure of a through lane. The contractor shall not utilize a flashing arrow panel in connection with any shifting taper.

PLAN NOTES

1. All drawings are schematic only and not to scale.
2. The traffic control plans represent a suggested method for traffic control during construction. The contractor may prepare another traffic control plan in accordance with Section 701 of the Standard Specifications. All traffic control plans are subject to the approval of the Engineer before beginning construction.
3. Adjustments to the details of these traffic control plans and requirements may be necessary due to construction activities or as directed by the Engineer.

GENERAL NOTES

1. The contractor shall maintain traffic on paved surfaces at all times.
2. The schedule and the related traffic control shall be developed such that access is maintained to all abutting roadways. The layout, format and content of the schedule shall be suitable for public release and acceptable to the Engineer. Local emergency services providers shall be informed of the location and duration of lane restrictions. The schedule and related traffic control shall be updated as necessary.

ADVANCE WARNING SIGNS

1. Coordinate Advance Warning Sign with the Engineer.
2. The Advance Signing shown on the Advance Warning Sign Detail is for complete project limits. Actual work location and cross street geometry may vary.
3. Provide and install changeable message signs on crossroads as directed by the Engineer.
4. Install changeable message sign on each approach to the work zone as directed by the Engineer.

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

eec Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
TEL 520.321.4425 | FAX 520.321.0333

TRAFFIC CONTROL PLAN
GENERAL NOTES

Registered Professional Engineer Certificate No. 13900 R. CRAIG ALLISON Date signed 11/21/16 ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION	SHEET TC1 OF TC2
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD	
TRACS NO. SZ079 01C	CM-AVN-0(216)T	___ OF ___

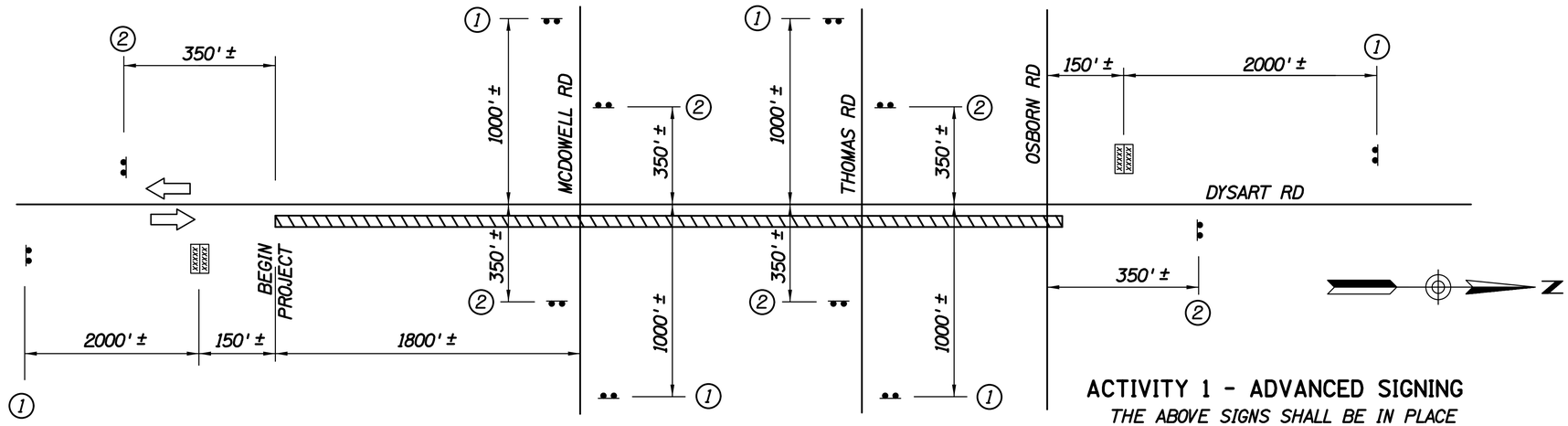
SURVEY NO. | FINISHED PLANS- | REVISIONS- | LOCATION- | DATE- | SURVEY NO.

7/27/2016 P:\11022.10 - Dysart\Cad\013_11022-10_TC01.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	AVN-0(216)T	14	23	
		0000 MA AVN			

MAINTENANCE OF TRAFFIC

ACTIVITY NO.	CONSTRUCTION ACTIVITY	TRAFFIC CONTROL	COMMENTS
1.	ADVANCED SIGNING	PROVIDE STANDARD SIGNING FOR LANE CLOSURE AS SHOWN ON FIGURE SA-5(R) OF THE ADOT TRAFFIC CONTROL GUIDELINES.	LOCATE SIGNS AT PROPER DISTANCES TO THE BEGINNING OF THE TAPER ACCORDING TO THE GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS IN THE MUTCD. WARNING LIGHTS SHALL BE INSTALLED ONLY IF NIGHT WORK IS PERMITTED.
2.	WORKZONE SIGNING, MISCELLANEOUS ACTIVITIES	MAINTAIN AT LEAST ONE LANE TRAFFIC THROUGH THE CONSTRUCTION AREA. TRAFFIC CONTROL SHALL BE AS SHOWN ON FIGURE SA-5(R) OF THE ADOT TRAFFIC CONTROL GUIDELINES.	WORKZONE TRAFFIC CONTROL SIGNAGE SHALL BE INSTALLED AT EACH LOCATION FOR THE DURATION OF THE WORK ALONG THE EAST SIDE OF DYSART ROAD.

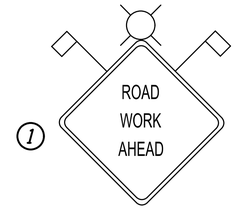


ACTIVITY 1 - ADVANCED SIGNING

THE ABOVE SIGNS SHALL BE IN PLACE FOR THE DURATION OF THE PROJECT

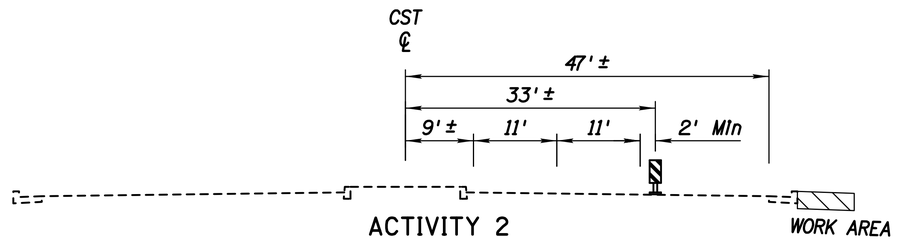
SYMBOL LEGEND:

- SIGN ON EMBEDDED POSTS
- CHANGEABLE MESSAGE BOARD
- WORK AREA
- DIRECTION OF TRAVEL



W20-1aAZ
36"x 36"
TYPE "A"
LIGHT AND FLAGS

G20-2AZ
48"x 36"



ACTIVITY 2 — WORK AREA

ESTIMATED QUANTITIES FOR TRAFFIC CONTROL

ITEM NO	ITEM DESCRIPTION	UNITS	ACTIVITY 1	ACTIVITY 2	TOTAL
	ESTIMATED DURATION		120 CALENDAR DAYS	60 WORKING DAYS	
7016030	BARRICADE (TYPE II, VERT PANEL, TUBULAR MARKER)	EACH-DAY	0	3300	3300
7016033	PORTABLE SIGN STANDS (SPRING TYPE)	EACH-DAY	0	540	540
7016035	WARNING LIGHTS (TYPE A)	EACH-DAY	720	0	720
7016037	WARNING LIGHTS (TYPE C)	EACH-DAY	0	3300	3300
7016039	EMBEDDED SIGN POST	EACH-DAY	2880	0	2880
7016050	TRUCK MOUNTED ATTENUATOR	EACH-DAY	0	60	60
7016051	TEMPORARY SIGN (LESS THAN 10 S.F.)	EACH-DAY	720	540	1260
7016052	TEMPORARY SIGN (10 S.F. OR MORE)	EACH-DAY	720	0	720
7016061	FLASHING ARROW PANEL	EACH-DAY	0	60	60
7016067	CHANGEABLE MESSAGE BOARD	EACH-DAY	250	60	310

NOTE: TRAFFIC CONTROL FOR MISCELLANEOUS ACTIVITIES IS NOT INCLUDED IN THE ABOVE TABLE

	NAME	DATE
DESIGN	JKA	06-16
DRAWN	JKA	06-16
CHECKED	RCA	06-16

Engineering and Environmental Consultants, Inc.
4625 East Fort Lowell Road | Tucson, Arizona 85712
Tel 520.321.4625 | Fax 520.321.0333

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SERVICES

TRAFFIC CONTROL PLAN
MAINTENANCE OF TRAFFIC
& ESTIMATED QUANTITIES

Registered Professional Engineer — 13900 — R. CRAIG ALLISON — Date signed 11/1/16 — ARIZONA, U.S.A.

EXPIRES 3-31-17

ROUTE	LOCATION	SHEET
	DYSART RD RANCHO SANTA FE TO INDIAN SCHOOL RD	TC2 OF TC2
TRACS NO. SZ079 01C	CM-AVN-0(216)T	___ OF ___

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

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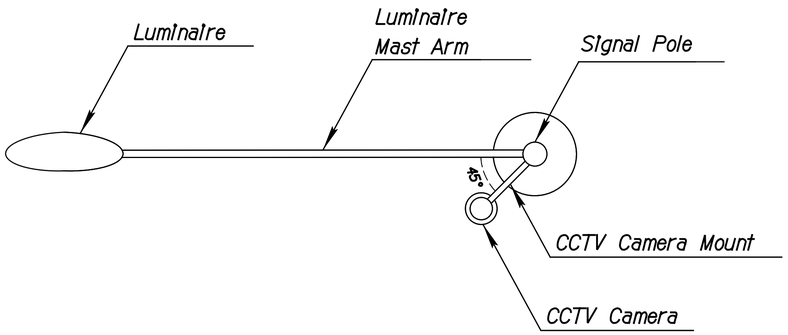
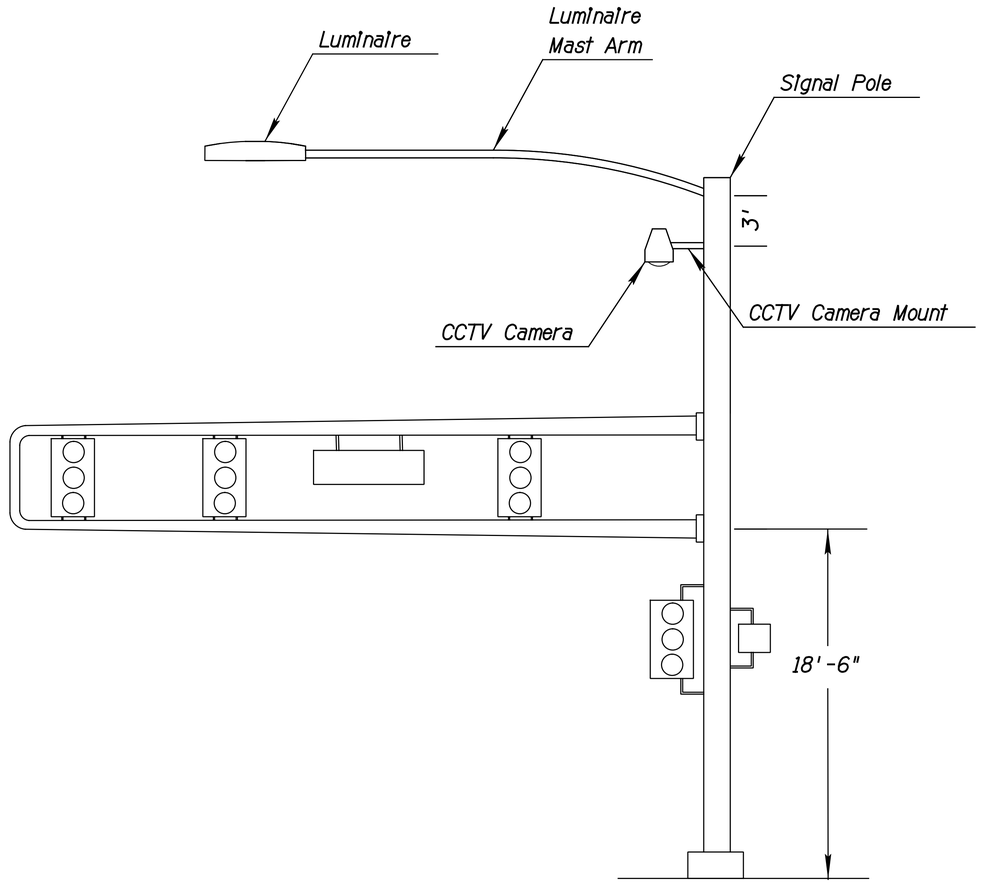
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	15	23	
		-			

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



PLAN VIEW



PROFILE VIEW

CCTV CAMERA MOUNTING DETAIL

N.T.S.

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smiglelski	6/16

SWTE SOUTHWEST TRAFFIC ENGINEERING, LLC
3838 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

CCTV CAMERA MOUNTING DETAIL

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636
CHRISTOPHER B. WILLIAMS
Date Signed 6/17/16
ARIZONA, U.S.A.
Expires 6-30-17

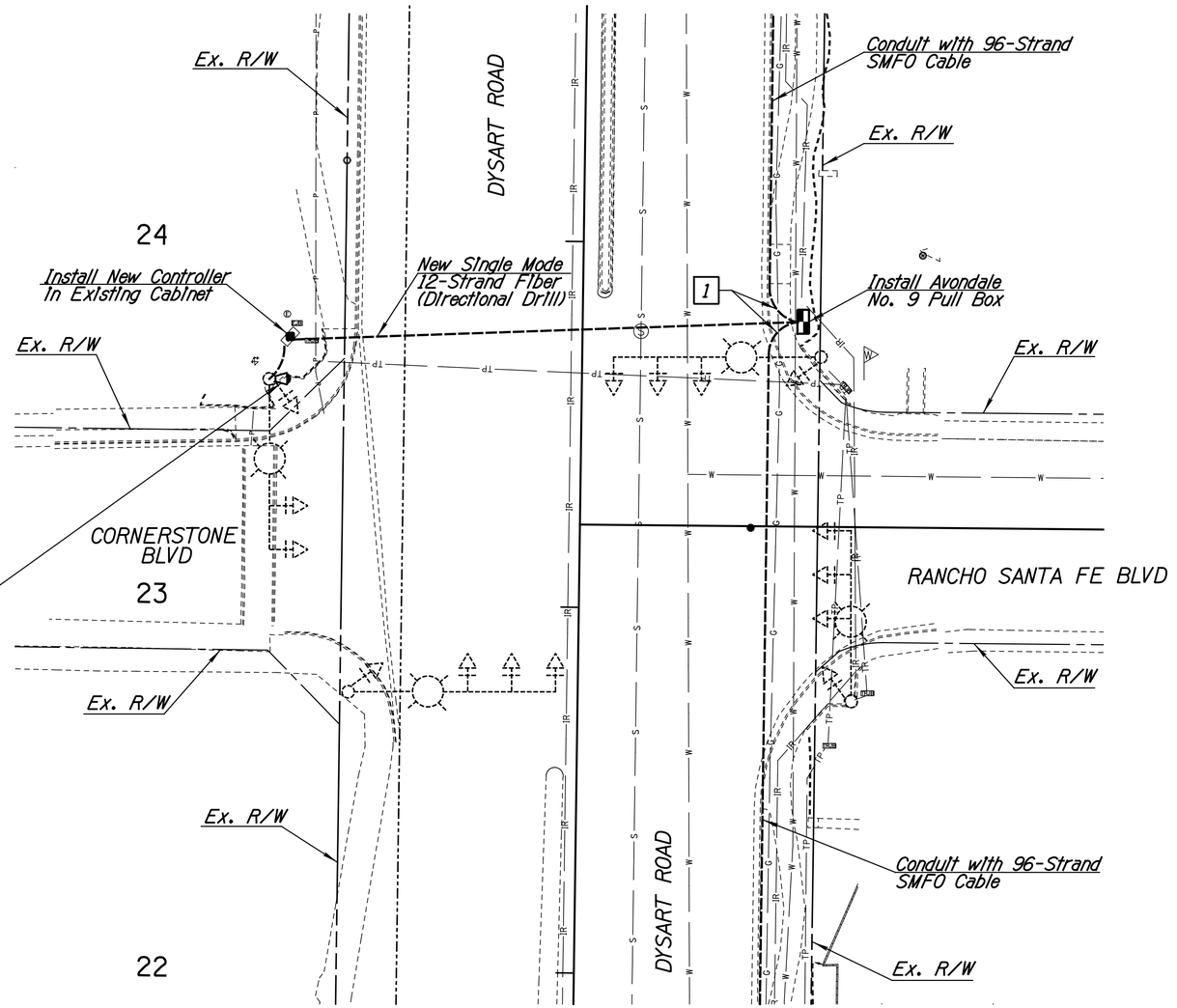
SHEET 1 OF 9

___ OF ___

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_01 CCTV Detail.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	16	23	
		-			

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



Install City furnished CCTV on pole on southwest corner. CCTV cables shall run unspliced from controller to camera. Engineer to approve location prior to installation. See Special Provisions. See Detail on Sheet 15.

Service Address:
13102 W Rancho Santa Fe

LEGEND	
------	Fiber Optic Cable (96-Strand Single Mode) SMFO Cable
------	New Single Mode 12-Strand Fiber (Directional Drill)
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

CONSTRUCTION NOTES:

1. Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).

Per ADOT FMS Design Guidelines Section 4.5.2.3

* All existing signal equipment to remain and be protected in place unless otherwise noted.

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smiglelski	6/16

SWTE Southwest Traffic Engineering, LLC
3838 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel: 602.266.SWTE (7983) Fax: 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
RANCHO SANTA FE

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636 CHRISTOPHER B. WILLIAMS — Expires 6-30-17

SHEET 2 OF 9

___ OF ___

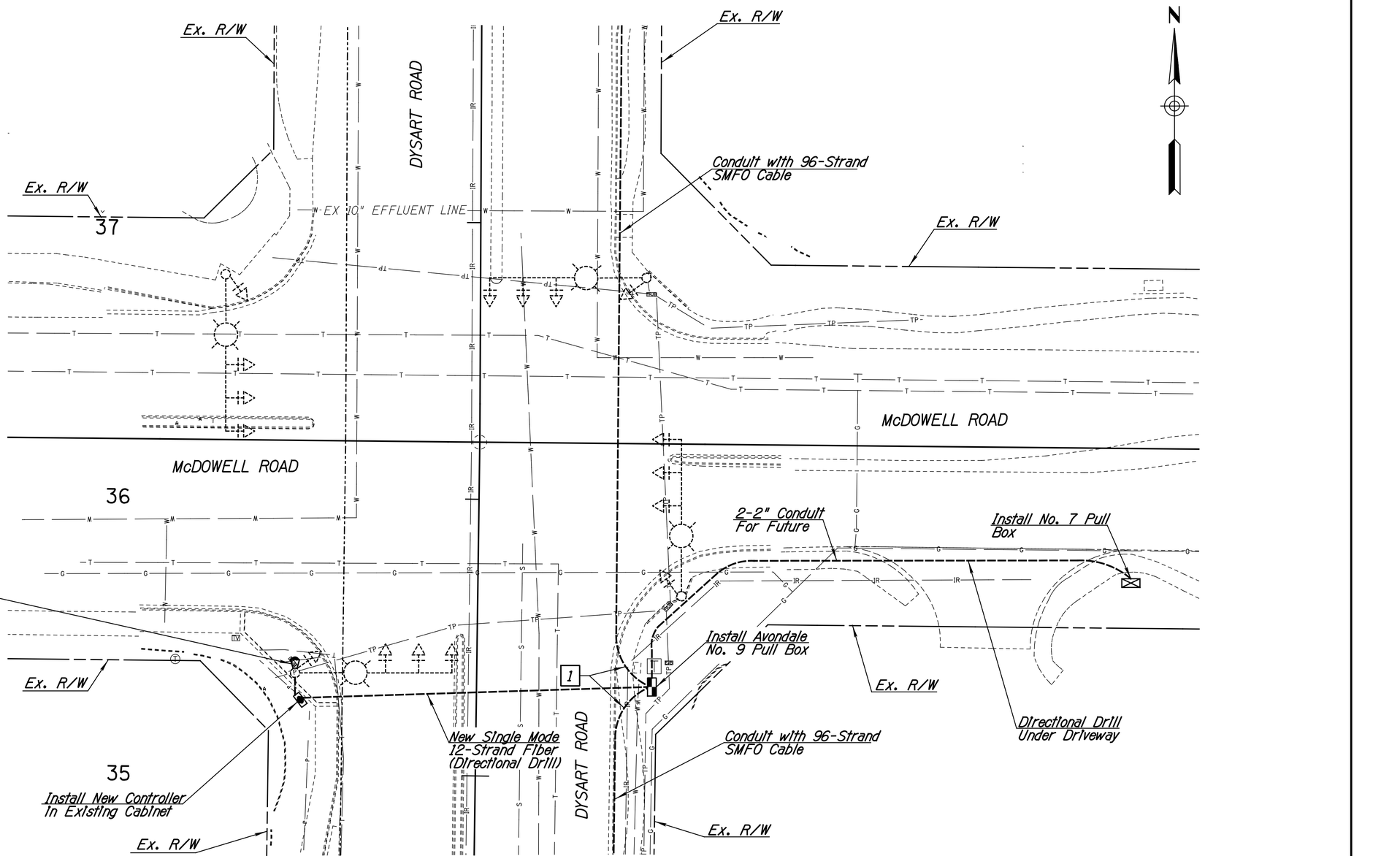
6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_02 Santa Fe Blvd.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	17	23	
		-			

CONSTRUCTION NOTES:

1 *Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).*

Per ADOT FMS Design Guidelines Section 4.5.2.3



Service Address:
1602 N Dysrat Road

LEGEND	
-------	*Fiber Optic Cable (96-Strand Single Mode) SMFO Cable*
-------	*New Single Mode 12-Strand Fiber (Directional Drill)*
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

* *All existing signal equipment to remain and be protected in place unless otherwise noted.*

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE Southwest Traffic Engineering, LLC
3030 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
McDOWELL ROAD

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636
CHRISTOPHER B. WILLIAMS
Date Signed 6/12/16
ARIZONA, U.S.A.
Expires 6-30-17

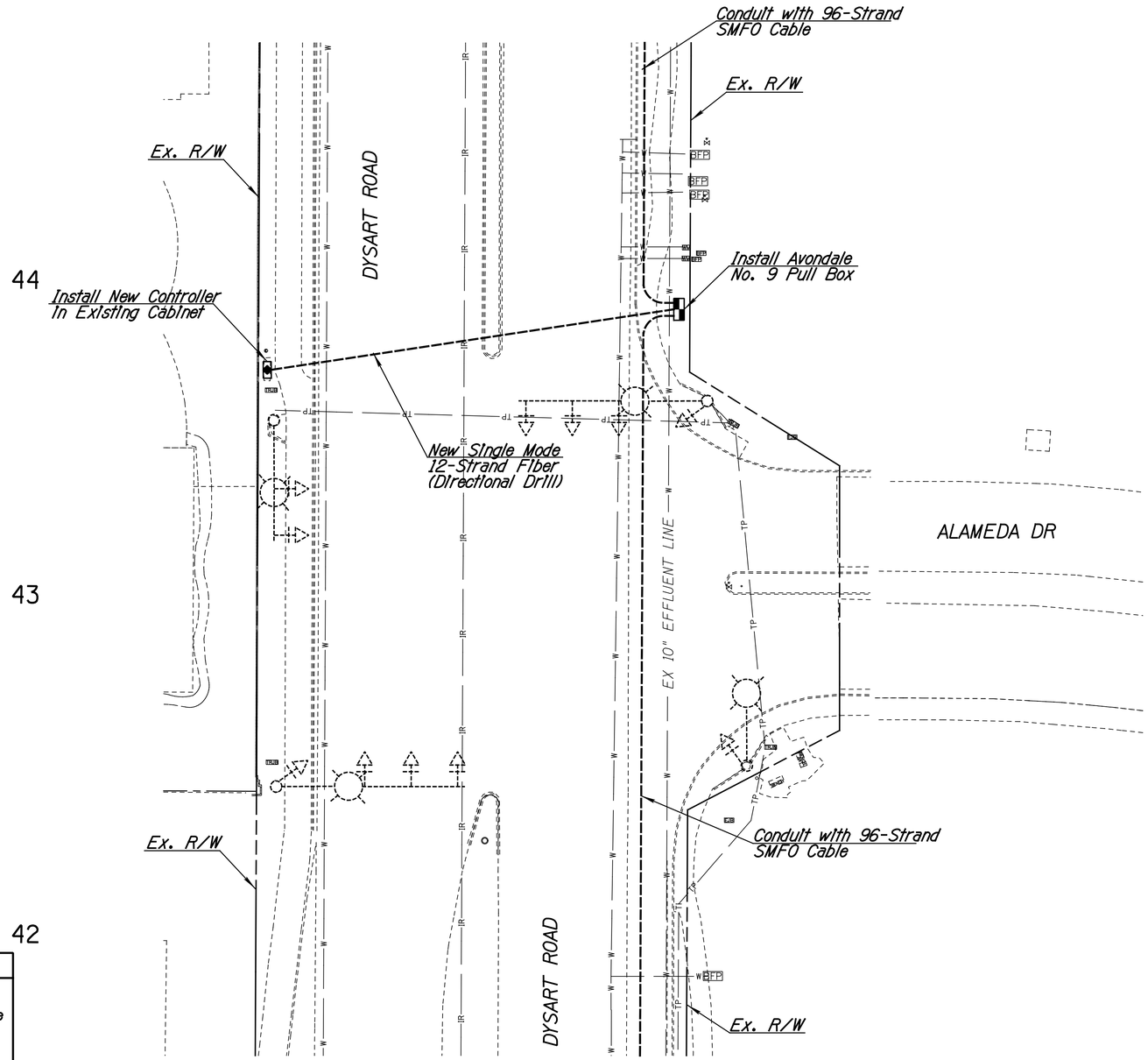
SHEET 3 OF 9

____ OF ____

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_03 McDowell Rd.dgn

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

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	18	23	
		-			



CONSTRUCTION NOTES:

1 *Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).*

Per ADOT FMS Design Guidelines Section 4.5.2.3

LEGEND	
------	*Fiber Optic Cable (96-Strand Single Mode) SMFO Cable*
------	*New Single Mode 12-Strand Fiber (Directional Drill)*
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

* *All existing signal equipment to remain and be protected in place unless otherwise noted.*

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE SOUTHWEST TRAFFIC ENGINEERING, LLC
3638 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
ALAMEDA DRIVE

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | | CM-AVN-0(216)T

42636
CHRISTOPHER B. WILLIAMS
Registered Professional Engineer
ARIZONA, U.S.A.
Expires 6-30-17

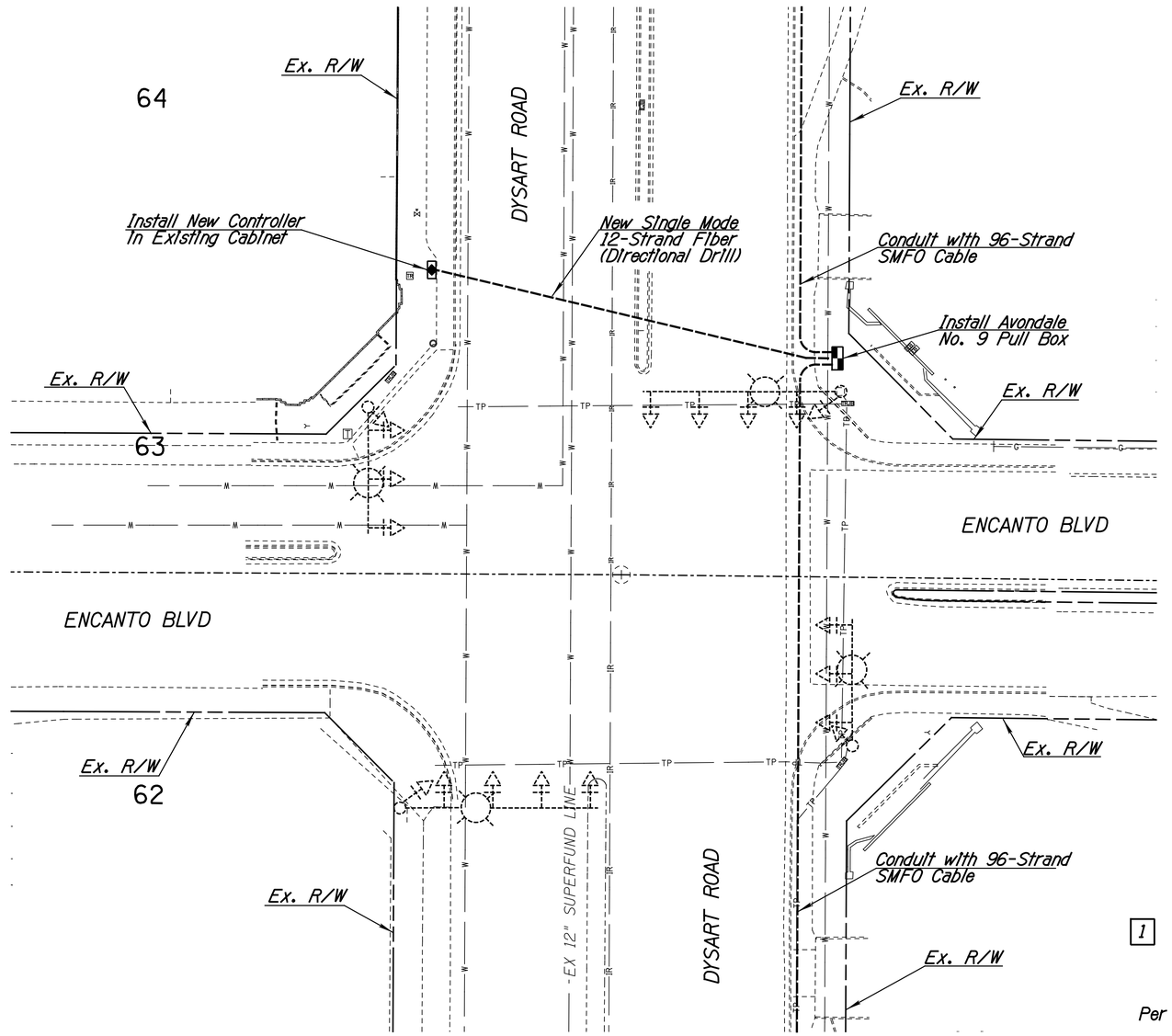
SHEET 4 OF 9

____ OF ____

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

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_04 Alameda Dr.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	19	23	
		-			



N

CONSTRUCTION NOTES:

1. *Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).*

Per ADOT FMS Design Guidelines Section 4.5.2.3

LEGEND	
------	*Fiber Optic Cable (96-Strand Single Mode) SMFO Cable*
------	*New Single Mode 12-Strand Fiber (Directional Drill)*
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

** All existing signal equipment to remain and be protected in place unless otherwise noted.*

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SOUTHWEST TRAFFIC ENGINEERING, LLC
3838 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
ENCANTO BLVD

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636
CHRISTOPHER B. WILLIAMS
Date Signed 6/24/16
REGISTERED PROFESSIONAL ENGINEER
ARIZONA, U.S.A.
Expires 6-30-17

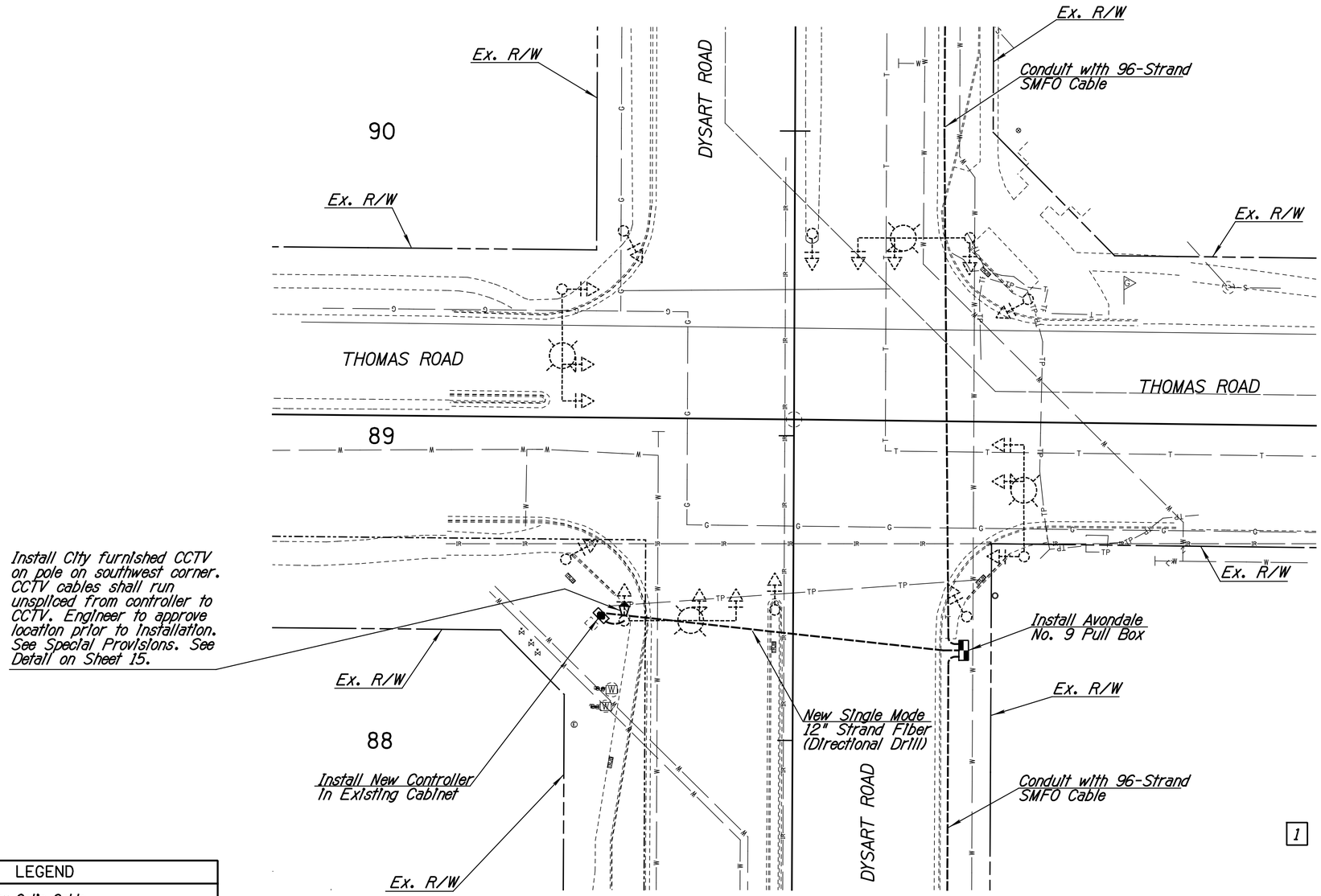
SHEET 5 OF 9

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

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_05 Encanto Blvd.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	20	23	
		-			

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



LEGEND	
------	Fiber Optic Cable (96-Strand Single Mode) SMFO Cable
------	New Single Mode 12-Strand Fiber (Directional Drill)
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

CONSTRUCTION NOTES:

[1] Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).

Per ADOT FMS Design Guidelines Section 4.5.2.3

* All existing signal equipment to remain and be protected in place unless otherwise noted.

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE SOUTHWEST TRAFFIC ENGINEERING, LLC
3030 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
THOMAS ROAD

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636
CHRISTOPHER B. WILLIAMS
Date Signed 12/16
ARIZONA, U.S.A.
Expires 6-30-17

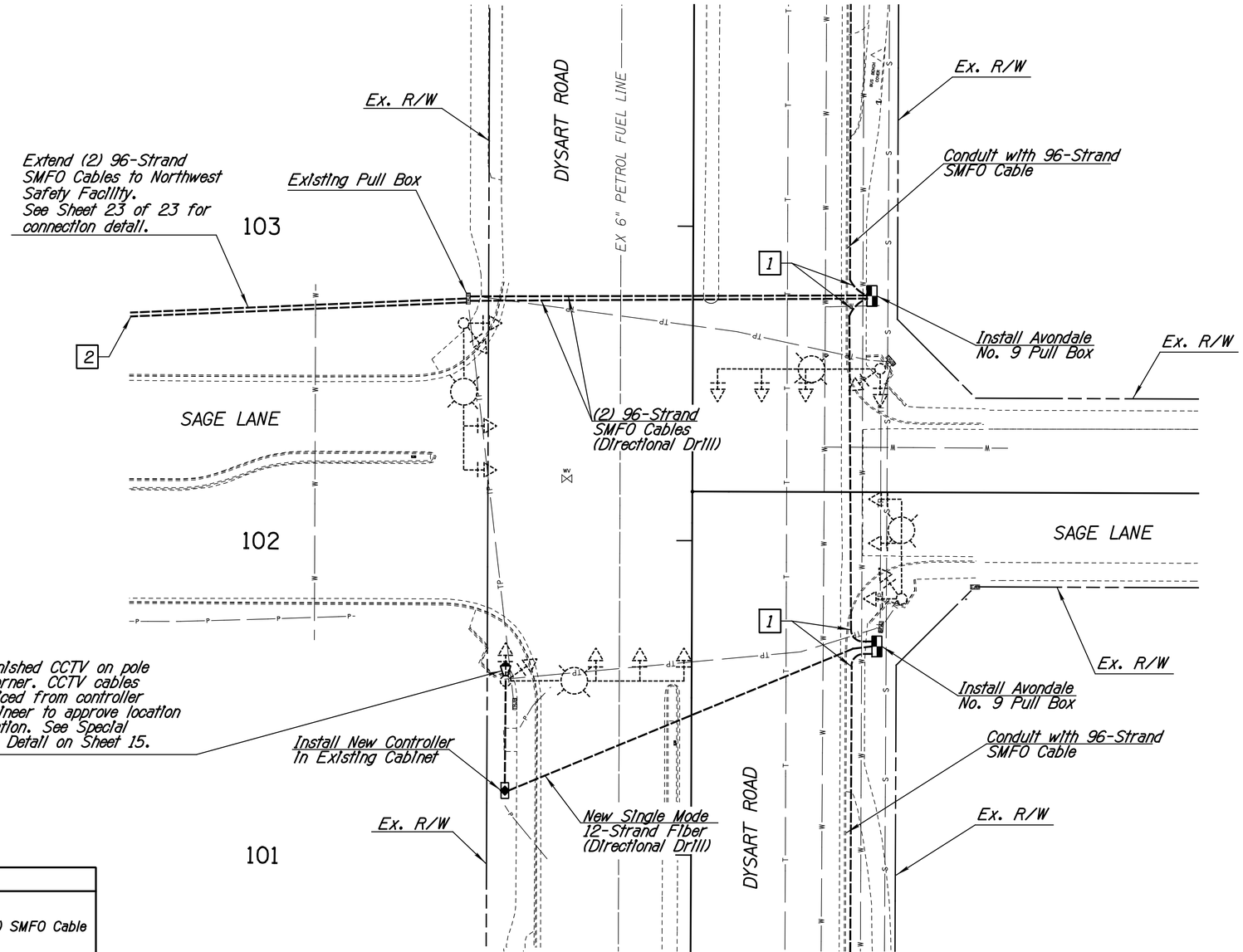
SHEET 6 OF 9

___ OF ___

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_06 Thomas Rd.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	21	23	
		-			

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



N

LEGEND

------	Fiber Optic Cable (96-Strand Single Mode) SMFO Cable
------	New Single Mode 12-Strand Fiber (Directional Drill)
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

CONSTRUCTION NOTES:

1 Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).

Per ADOT FMS Design Guidelines Section 4.5.2.3

2 The Contractor shall coordinate access to the Northwest Safety Facility (NSF) with the City of Avondale. All work within the NSF shall require an escort by City of Avondale authorized personnel and shall be scheduled at least 7 days in advance. Contact Michael Reese (623) 333-5019 in order to make arrangements.

* All existing signal equipment to remain and be protected in place unless otherwise noted.

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE Southwest Traffic Engineering, LLC
3636 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
SAGE LANE

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

42636 CHRISTOPHER B. WILLIAMS — Traffic Signal Engineer — ARIZONA, U.S.A. — Expires 6-30-17

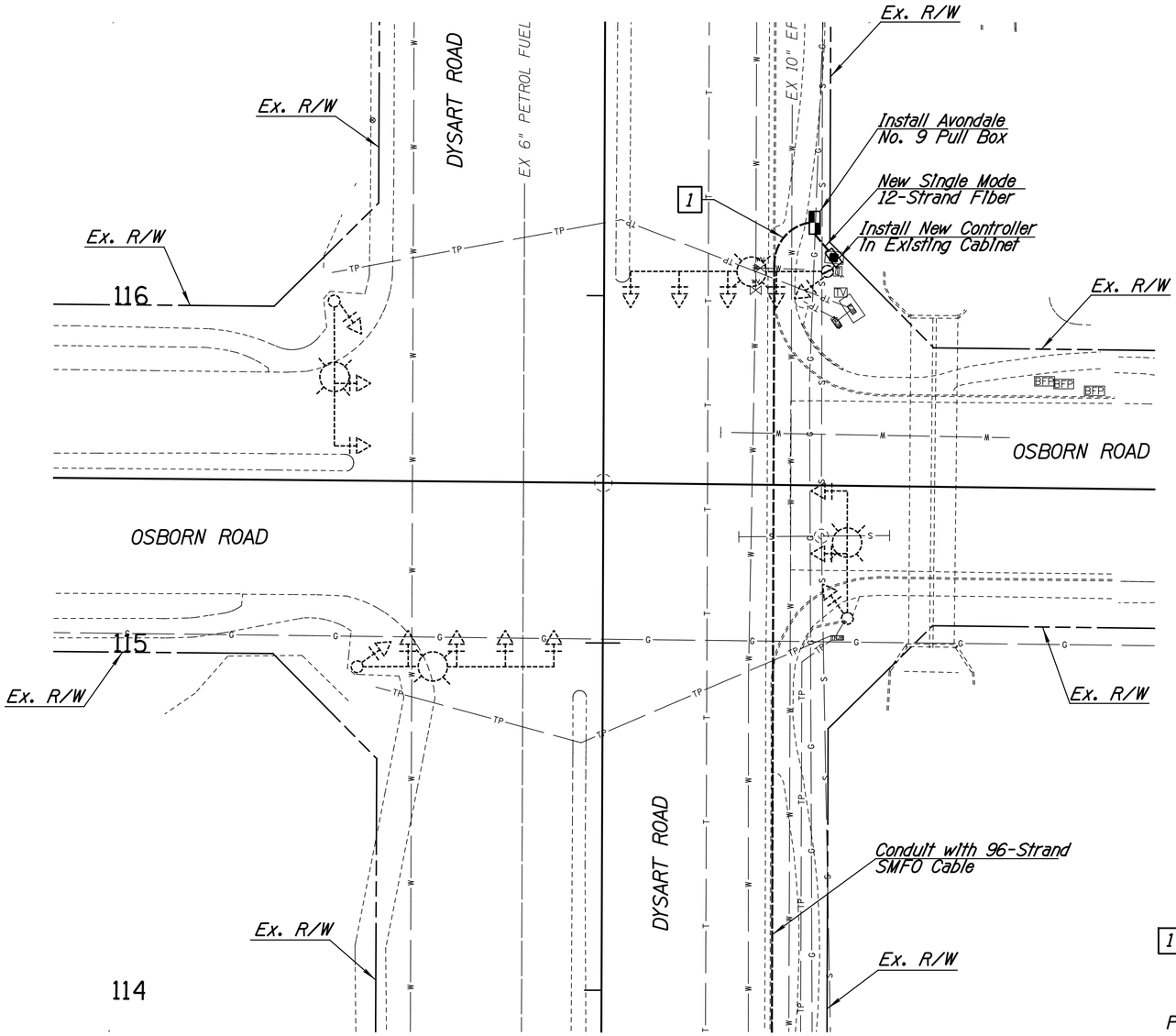
SHEET 7 OF 9

____ OF ____

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_07 Sage Ln.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	22	23	
		-			

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



Service Address:
3401 N. Dysart Road

LEGEND	
------	Fiber Optic Cable (96-Strand Single Mode) SMFO Cable
------	New Single Mode 12-Strand Fiber (Directional Drill)
	Controller Cabinet
	No. 7 Pull Box
	Avondale No. 9 Pull Box
	CCTV Camera

CONSTRUCTION NOTES:

1. Trunkline conduit deflection shall not deviate more than one inch horizontally and/or vertically per 12 inches of running length of conduit (1:12 rule).

Per ADOT FMS Design Guidelines Section 4.5.2.3

* All existing signal equipment to remain and be protected in place unless otherwise noted.

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE SOUTHWEST TRAFFIC ENGINEERING, LLC
3838 N. Central Ave., Suite 1810, Phoenix, AZ 85012
Tel 602.266.SWTE (7983) Fax 602.266.1115
www.swte.us

ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

DYSART ROAD
AT
OSBORN ROAD

ROUTE: DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

Registered Professional Engineer
CERTIFICATE
42636
CHRISTOPHER B. WILLIAMS
Date Signed 12/16
ARIZONA, U.S.A.
Expires 6-30-17

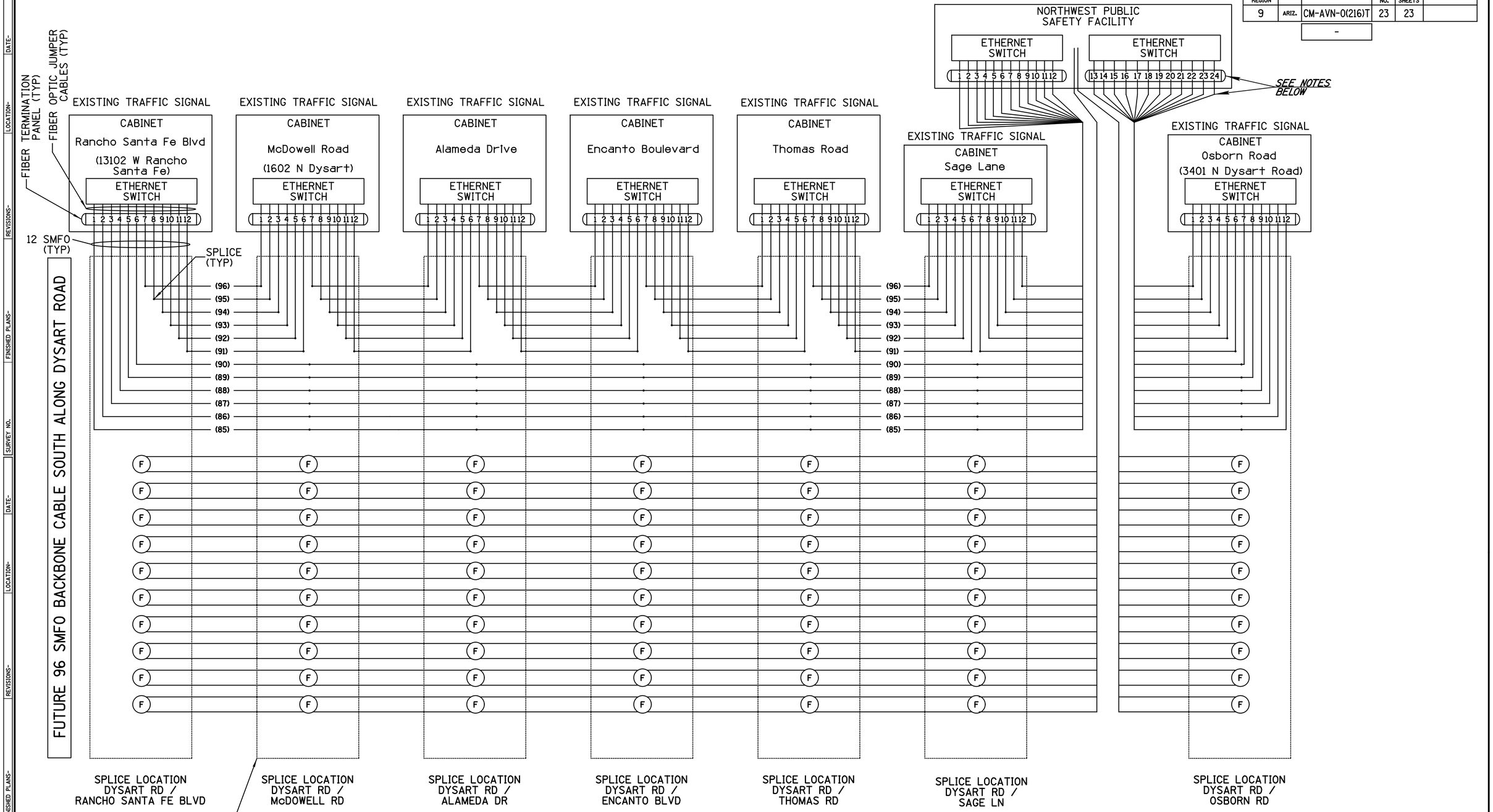
SHEET 8 OF 9

___ OF ___

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_08 Osborn Rd.dgn

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	CM-AVN-0(216)T	23	23	
		-			

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



NOTES:

1. *LC Fiber Termination Panel*
2. *Contractor to provide and install 24 SM Fiber Patch Cable Termination LC (3 meter).*

	NAME	DATE
DESIGN	C. Williams	6/16
DRAWN	R. Hicks	6/16
CHECKED	A. Smigielski	6/16

SWTE Southwest Traffic Engineering, LLC
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ARIZONA DEPARTMENT OF TRANSPORTATION
INTERMODAL TRANSPORTATION DIVISION
TRAFFIC DESIGN SERVICES

SPLICING DETAIL

ROUTE
DYSART ROAD
RANCHO SANTE FE TO INDIAN SCHOOL ROAD

TRACS NO. SZ079 01C | CM-AVN-0(216)T

Certified Professional Traffic Engineer
42636
CHRISTOPHER B. WILLIAMS
Date Signed 12/16
ARIZONA, U.S.A.
Expires 6-30-17

SHEET 9 OF 9

___ OF ___

6/2/2016 P:\projects 2014\14035 - dysart rd its (avondale)\design\cadd\dwg\SGpl_10 Wiring Detail.dgn