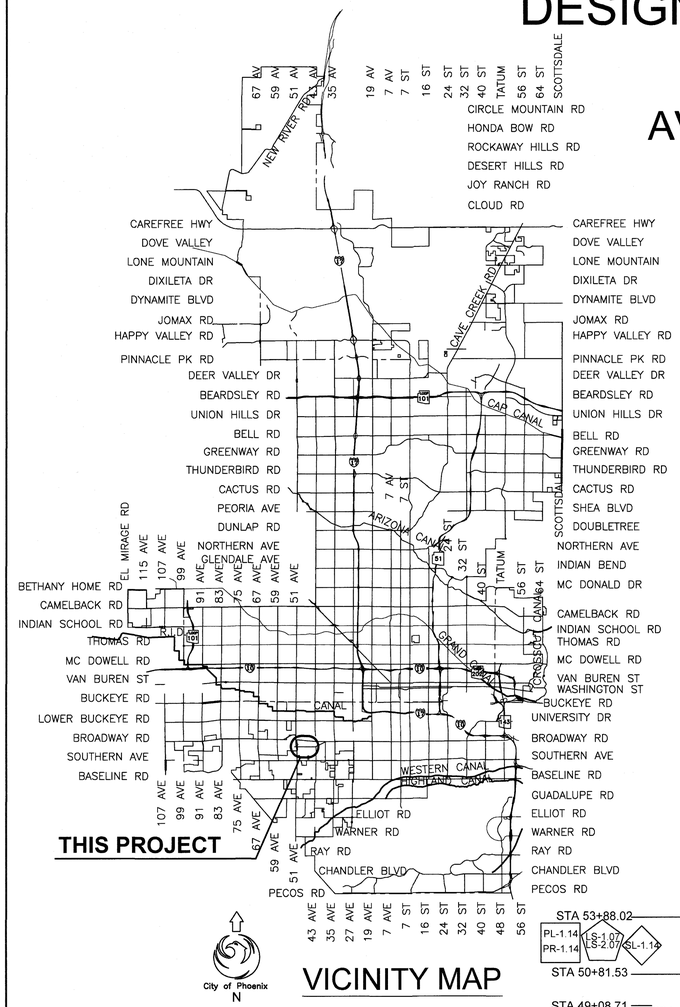
CITY OF PHOENIX
STREET TRANSPORTATION DEPARTMENT
DESIGN & CONSTRUCTION MANAGEMENT DIVISION
PAVING AND STORM DRAIN

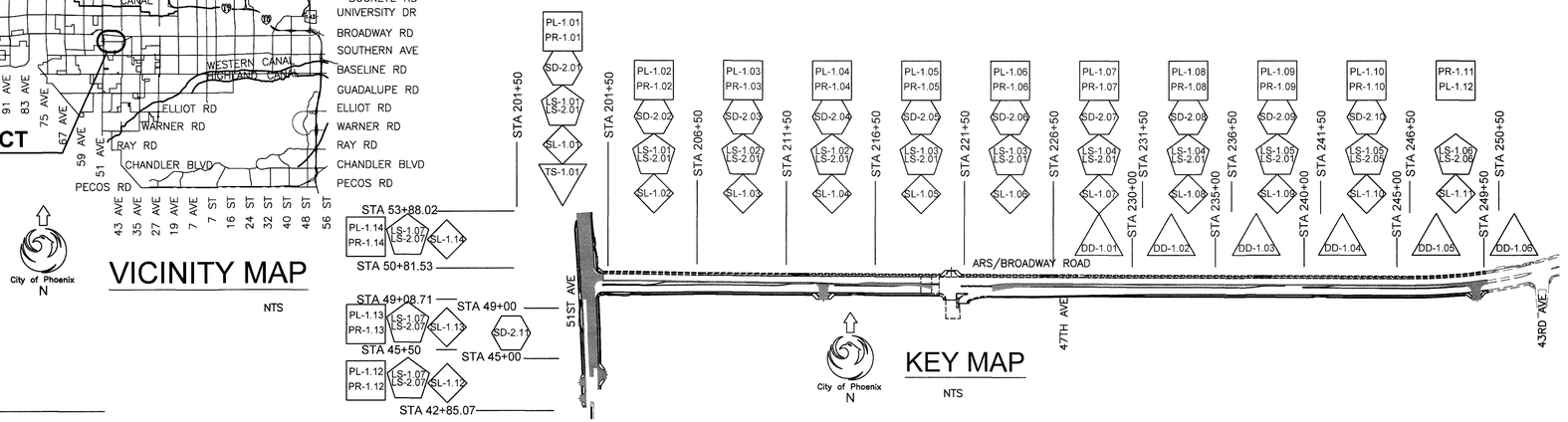
AVENIDA RIO SALADO/BROADWAY ROAD - PHASE II
51ST AVENUE TO 43RD AVENUE
ST85100371(003)



City of Phoenix N

VICINITY MAP
NTS

2016



City of Phoenix N

KEY MAP
NTS

Project Benchmarks:
Point #5 (AZTEC #30032)
25' West of Curb @
Vulcan Materials office
Found 1 1/4" rebar
Elevation=1019.43
Northing=874320.9662'
Easting=626078.182'

Point #12 (AZTEC #1006)
39th Ave. and Broadway Rd
Found 2" Maricopa County
Aluminum Cap
Elevation=1027.74
Northing=875684.4381'
Easting=631252.1622'

COP INSPECTION STAMP

CITY PROJECT MANAGER _____

CITY INSPECTOR _____

CONTRACTOR _____

DATE OF FINAL COMPLETION _____

APPROVED _____ 12-2-16
for ASSISTANT STREET TRANSPORTATION DIRECTOR — DATE

APPROVED _____ 12-2-16
DEPUTY STREET TRANSPORTATION DIRECTOR — DATE

- PAVING PLAN/PROFILE SHEETS
- STORM DRAIN PLAN/PROFILE SHEETS
- LANDSCAPE & LANDSCAPE IRRIGATION PLAN SHEETS
- STREET LIGHT PLAN SHEETS
- TRAFFIC SIGNAL PLAN SHEETS
- SALT RIVER BANK PROTECTION PLAN

CITY BENCHMARKS:
1. C.O.P. B.C. IN NORTH H.H., ABOUT 15' NORTH OF SECOND C.O.P. B.C. IN H.H. AT THE INTERSECTION OF 35TH AVE. AND BROADWAY RD. EL. 1034.893

2. C.O.P B.C. IN H.H. AT THE INTERSECTION OF 27TH AVE AND BROADWAY RD. EL. 1046.695

LENGTH OF PROJECT = 6,154 LF = 1.1655 MILES

AREA OF DISTURBANCE =34.02 ACRES

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

*PER CITY OF PHOENIX, CITY CODE CHAPTER 2, SECTION 2028, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX.

21705 ROGER W. MILES REG. 9 PROFESSIONAL ENGINEER (CIVIL) Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	01	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

MAYOR
GREG STANTON

ACTING CITY MANAGER
ED ZUERCHER

CITY COUNCIL

DISTRICT NO 1.	THELDA WILLIAMS
DISTRICT NO 2.	JIM WARING
DISTRICT NO 3.	DEBRA STARK
DISTRICT NO 4.	LAURA PASTOR
DISTRICT NO 5.	DANIEL VALENZUELA
DISTRICT NO 6.	SAL DICICCIO
DISTRICT NO 7.	MICHAEL NOWAKOWSKI
DISTRICT NO 8.	KATE GALLEGO

INDEX OF SHEETS

SHEET No.	DWG SERIES No.	SHEET TITLE
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02	G-1.02	LEGEND & NOTES SHEET
03-04	G-1.03 - G-1.04	QUANTITY SUMMARY SHEET
05-08	G-2.01 - G-2.04	TYPICAL SECTIONS
09	G-3.01	SURVEY CONTROL SHEET
10	G-4.01	STAMPED ASPHALT DETAILS
11	G-4.02	MEDIAN DETAILS
12 - 14	G-5.01 - G-5.03	MEDIAN GEOMETRY
15 - 41	PL-1.01 - PL-1.14	PAVING PLAN (ODD)
16 - 42	PR-1.01 - PR-1.14	PAVING PROFILE (EVEN)
43	PL-2.01	JOINTING PLAN
44	DT-1.01	PAVING DETAILS
45	DT-1.02	BUS PAD DETAIL
46	PR-2.01	DRIVEWAY PROFILES
47	IX-1.01	INTERSECTION DETAIL
48	ST-1.01	CBC GENERAL NOTES & QUANTITIES
49	ST-1.02	CBC PLAN &ELEVATION
50	DT-2.01	STRUCTURAL DETAILS
51 - 56	XS-1.01 - XS-1.06	ROADWAY CROSS SECTIONS
57	DS-1.01	STORM DRAIN DESIGN SUMMARY SHEET
58	SD-1.01	HYDRAULIC & ENERGY GRADE LINE
59 - 69	SD-2.01 - SD-2.11	STORM DRAIN PLAN & PROFILE
70	DT-3.01	DRAINAGE DETAIL
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ST85100371(003): QS 4-17: AVENIDA RIO SALADO/BROADWAY ROAD - 51ST AVENUE TO 43RD AVENUE

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

LEGEND AND NOTES

LEGEND

- BENCHMARK
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "B"
- NEW SURVEY MONUMENT – M.A.G. DETAIL 120–1 TYPE "A"
- COMBINED CURB & GUTTER – M.A.G. DETAIL 220 TYPE "A"
- BACKFILL TYPE & SQ. YD. PVMT. REPLACEMENT – C.O.P. DETAIL P1200
- EXISTING CONCRETE PAVEMENT OR SIDEWALK
- NEW CONCRETE SIDEWALK – STD. DETAIL P1230
- NEW CONCRETE DRIVEWAY OR ALLEY ENT. PER DETAIL NO. ON PLANS
- NEW CONCRETE SIDEWALK RAMP PER DETAIL ON PLANS
- AVERAGE GROUND ELEVATION AT R/W LINE
- BACKFILL COMPACTION TYPE
- EXISTING DITCH
- 24" IRR (SRP) EXISTING IRRIGATION LINE W/SIZE (NOTE PRIVATE, SALT RIVER OR R.I.D.)
- EXISTING IRRIGATION STRUCTURE
- EXISTING IRRIGATION STANDPIPE
- NEW IRRIGATION STANDPIPE – M.A.G. DETAIL 503
- NEW IRRIGATION VALVE – M.A.G. DETAIL 506 W/ CONC. SCOURING BASIN
- IRRIGATION BERM
- NEW IRRIGATION STRUCTURE PER DETAIL ON PLANS
- 12" DIP W EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
- 36" DIP W EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
- ADJUST EXIST. WATER VALVE BOX – C.O.P. DETAIL P1391
- 3/4" W WATER SERVICE W/SIZE AND WATER METER BOX
- EXISTING FIRE HYDRANT
- NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
- T.N.= EXISTING WATER VALVE W/TOP OF OPERATING NUT ELEVATION
- 8" VCP S EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
- 30" VCP S EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
- EXISTING MANHOLE
- NEW MANHOLE
- CATCH BASIN, GUTTER INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB INLET (LENGTH TO SCALE)
- CATCH BASIN, CURB & GUTTER INLET (LENGTH TO SCALE)
- 30" SD (RCP) EXISTING STORM DRAIN LINE W/SIZE & TYPE (GREATER THAN 12")
- NEW PIPE FOR STORM DRAIN OR IRRIGATION LINE
- 4"G EXISTING GAS LINE W/SIZE
- E EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
- E–4D EXISTING UNDERGROUND ELECTRIC DUCT (SPECIFY NUMBER)
- T EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
- T–4D EXISTING UNDERGROUND TELEPHONE DUCT (SPECIFY NUMBER)
- CATV EXISTING UNDERGROUND CABLE TV
- FO EXISTING UNDERGROUND FIBER OPTIC LINE
- EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
- EXISTING STREET OR TRAFFIC SIGN
- EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
- EXISTING WIRE FENCE
- EXISTING BLOCK FENCE
- EXISTING WOOD FENCE
- MAIL BOX
- EXISTING POWER POLE DOWN GUY ANCHOR
- EXISTING STREET LIGHT & POLE
- EXISTING TREE OR STUMP TO BE REMOVED – MORE THAN 12" DIA.
- EXISTING TREE TO BE TRANSPLANTED BY CONTRACTOR
- EASEMENT LINE
- EXISTING OR NEW R/W LINE
- PAVEMENT CENTER LINE OR MONUMENT LINE
- PROPERTY LINE
- SECTION LINE
- EXISTING TREE OR STUMP TO BE REMOVED 12" DIA. OR LESS (NON PAY ITEM)
- EXISTING TREE TO REMAIN
- EXISTING AC PAVEMENT TO BE REMOVED

NOTES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CONTRACT SPECIFICATIONS; PLANS; CITY OF PHOENIX SUPPLEMENTS TO MAG STANDARD SPECIFICATIONS AND DETAILS; AND MAG STANDARD SPECIFICATIONS AND DETAILS, IN THAT ORDER OF PRECEDENCE, AT THE TIME OF CONSTRUCTION BID.

ALL STORM SEWER MANHOLES ARE TO BE CONSTRUCTED WITHOUT STEPS.

PIPE CONNECTIONS TO EXISTING CONCRETE PIPE MAINS SHALL BE MADE IN ACCORDANCE WITH DETAILS CALLED OUT ON THE PLANS. CONNECTION TO MAINS SHALL NOT BE CLOSER THAN 5', CENTER TO CENTER.

PIPE CONNECTIONS TO NEW PRECAST CONCRETE PIPE MAINS, SHALL BE MADE WITH FACTORY MADE WYES OR TEES. THE DETAIL OF THE FITTINGS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. PIPE CONNECTIONS TO NEW CAST IN PLACE CONCRETE PIPE MAINS SHALL BE MADE PER C.O.P. DETAIL P1576.

CATCH BASIN CONNECTOR PIPES SHALL BE LAID ON A STRAIGHT ALIGNMENT AND SLOPE UNLESS OTHERWISE SPECIFIED. IF BREAKS IN ALIGNMENT OR SLOPE ARE NECESSARY TO MEET FIELD CONDITIONS. THE MAXIMUM DEFLECTION SHALL BE 22–1/2°. THE BEND SHALL BE COLLARED ACCORDING TO C.O.P. DETAIL P1505. ANY ANGLE BENDS GREATER THAN 22–1/2° SHALL BE PREFABRICATED.

CONNECTOR PIPES SHALL CONNECT TO CATCH BASIN WALLS AT AN ANGLE NOT TO EXCEED 22–1/2° FROM PERPENDICULAR.

FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS, ARE LOCATED ONLY APPROXIMATELY AND TO THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION AND COMPLETENESS OF THIS INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INITIATION OF CONSTRUCTION.

AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION, THE CONTRACTOR SHALL CONTACT BLUESTAKE TO FIND AND FLAG UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT OTHER APPROPRIATE UTILITIES DIRECTLY IF THEY ARE NOT ON BLUESTAKE SYSTEM.

VERTICAL CONTROL IS BASED ON NATIONAL GEODETIC SURVEY.

UNLESS OTHERWISE NOTED, STATIONS SHOWN ON PIPE PROFILES ARE ALONG CENTERLINE OF PIPE.

UNLESS OTHERWISE NOTED, PIPE SHALL BE BEDDED IN ACCORDANCE WITH CITY OF PHOENIX DETAIL P1200.

CATCH BASINS ARE STATIONED PERPENDICULAR TO THE CENTERLINE OF THE STREET AT THE CENTERLINE OF THE MAINTENANCE BASIN.

SANITARY SEWER MAINS AND TAPS CROSSING OVER STORM DRAIN MAINS SHALL BE SUPPORTED PER M.A.G. DETAIL 403–1, 403–2, OR 403–3.

ALL EXISTING PRECAST CONCRETE SAFETY CURBS AND ALL EXISTING WOODEN PARKING CURBS, WHICH ARE INSIDE THE RIGHT OF WAY AND APPROXIMATELY PARALLEL TO THE NEW CURB LINE, SHALL BE RESET ON THE RIGHT OF WAY DIRECTLY OPPOSITE THEIR EXISTING LOCATION, WITH THE BACK EDGE ON THE RIGHT OF WAY LINE. ALL OTHER PRECAST CONCRETE SAFETY CURBS INSIDE THE STREET RIGHT OF WAY SHALL BE SALVAGED AND STOCK PILED FOR THE OWNER AT THE RIGHT OF WAY LINE.

EXISTING PRECAST CONCRETE SAFETY CURBS OUTSIDE THE RIGHT OF WAY, WHICH ARE DISTURBED BY NEW CONSTRUCTION SHALL BE RESET IN THEIR ORIGINAL POSITION BY THE CONTRACTOR.

ALL EXISTING DRIVEWAYS AND ALL EXISTING ALLEYS SHALL BE GRADED TO MATCH THE NEW WORK IN ACCORDANCE WITH STD. DETAIL P1164, UNLESS OTHERWISE SPECIFIED. EXISTING SURFACING SHALL BE REMOVED AND REPLACED AS NECESSARY.

ADDITIONAL SYMBOLS

- C CUT LINE
- F FILL LINE
- NEW BLOCK WALL
- DECORATIVE PAVEMENT
- S SAWCUT & MATCH EXISTING
- M MATCH EXISTING
- 3231 PROPERTY ADDRESS NUMBER
- PCC PAVEMENT

NOTES (cont.)

UNLESS OTHERWISE PROVIDED ON THE PLANS:

- THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING A.C. DRIVEWAYS SHALL BE FILLED WITH A MINIMUM OF 3" A.C.S.C. ON 100% COMPACTED NATIVE SOIL. WHERE EXISTING PAVEMENT AND BASE THICKNESS EXCEED THE MINIMUMS, MATCH THE EXISTING.
- THE SPACE BETWEEN THE BACK OF NEW SIDEWALKS AND EXISTING PRIVATE SIDEWALKS, AND THE SPACE BETWEEN THE BACK OF NEW DRIVEWAY ENTRANCES AND EXISTING P.C.C. DRIVEWAYS SHALL BE FILLED WITH P.C.C.. THE THICKNESS AND CLASS SHALL MATCH THAT OF THE NEW SIDEWALK OR DRIVEWAY ENTRANCE.
- THE SPACE BETWEEN THE BACK OF THE NEW SIDEWALKS, AND EXISTING A.C. PARKING LOTS, WHICH FALL WITHIN OR ABUT THE R/W SHALL BE FILLED WITH 2" A.C.S.C. ON 100% COMPACTED NATIVE SOIL.

EXISTING IRRIGATION BERMS DISTURBED BY NEW CONSTRUCTION SHALL BE RECONSTRUCTED AS SHOWN ON PLANS.

CATCH BASIN ACCESS FRAME AND COVERS SHALL BE CONSTRUCTED PER C.O.P. DETAIL P1561.

STRUCTURAL NOTES

"CLEAR" DIMENSIONS FOR DEPTH OF REINFORCING STEEL ARE FROM FACE OF CONCRETE TO FACE OF BARS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE BEVELED OR ROUNDED.

ALL EXPOSED CONCRETE SURFACES SHALL BE FINISHED IN ACCORDANCE WITH ARIZONA DEPT. OF TRANSPORTATION STANDARD SPECIFICATION 601–3.05 – FINISHING CONCRETE, UNLESS OTHERWISE SPECIFIED.

UTILITY COMPANY EMERGENCY CONTACT INFORMATION

COMPANY	NAME	EMAIL	EMERGENCY NUMBER
CITY OF PHOENIX STREET TRANSPORTATION UTILITY COORDINATION	CATHERINE RODGERS	CATHERINE.RODGERS@PHOENIX.GOV	602–262–4972
CITY OF PHOENIX WATER SERVICES DEPARTMENT	JAMI ERICKSON	JAMI.ERICKSON@PHOENIX.GOV	602–261–8229
SRP TRANSMISSION	BEN COX	BENJAMIN.COX@SRPNET.COM	602–236–3725
SRP ELECTRIC (SRPP)/DISTRIBUTION	KEITH FAULKNER	KEITH.FAULKNER@SRPNET.COM	602–653–1387
COX COAXIAL CABLE	BEN BAICH	BENJAMIN.BAICH@COX.COM	623–328–3538
COX FIBER OPTIC CABLE	RANDY SIMS	RANDY.SIMS@COX.COM	623–328–4058
KINDER MORGAN ENERGY, NATURAL GAS PIPELINE (FORMERLY EPNG)	NICKEY LOWDER	NICKEY_LOWDER@KINDERMORGAN.COM	602–438–4229
KINDER MORGAN ENERGY, (PETROLEUM PIPELINE)	BRICE BOX	BRICE_BOX@KINDERMORGAN.COM	623–734–3700
CENTURY LINK	KAREN BROWN	KAREN.BROWN1@CENTURYLINK.COM	480–768–4398
SRP IRRIGATION (SRPI)	SUSANA ORTEGA	SUSANA.ORTEGA@SRPNET.COM	602–236–5799
COP STREET LIGHTING	JASON FERNANDEZ	JASON.FERNANDEZ@PHOENIX.GOV	602–256–4168

ABBREVIATIONS

AP	ANGLE POINT	INV	INVERT	VNAE	VEHICULAR NON–ACCESS EASEMENT
BC	BRASS CAP	JB	JUNCTION BOX	WBV	WATER BLOW–OFF VALVE
BCF	BRASS CAP FLUSH	L	LIP OF GUTTER	WE	WATER EASEMENT
BCR	BEGIN CURB RETURN	LT	LEFT	WM	WATER METER
B/C	BACK OF CURB	℄	MONUMENT LINE	WMH	WATER MANHOLE
BM	BENCHMARK	PGL	PROFILE GRADE LINE	WV	WATER VALVE
BOL	BOLLARD / GUARD POST	POE	POINT OF ENDING		
CB	CATCH BASIN	POT	POINT OF TANGENT		
CONN	CONNECTOR	PVMT	PAVEMENT		
CST	CONSTRUCTION	RCBC	REINFORCED CONCRETE BOX CULVERT		
℄	CENTERLINE	RE	ROADWAY EASEMENT		
DE	DRAINAGE EASEMENT	RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE		
DNGY	DOWN GUY	RT	RIGHT		
EC	ELECTRICAL CABINET	R/W	RIGHT OF WAY		
ECR	END CURB RETURN	SCPR	SCUPPER		
EE	ELECTRICAL EASEMENT	SDMH	STORM DRAIN MANHOLE		
EM	ELECTRICAL METER	SGN	SIGN		
EMH	ELECTRICAL MANHOLE	SE	SUPERELEVATION		
EOP	EDGE OF PAVEMENT	SLE	SLOPE EASEMENT		
EPB	ELECTRICAL PULL BOX	SSMH	SANITARY SEWER MANHOLE		
EX, EXST	EXISTING	STLT	STREET LIGHT		
F	FENCE	STA	STATION		
F/B	FACE OF BARRIER	S/W	SIDEWALK		
F/C	FACE OF CURB	SWE	SIDEWALK EASEMENT		
FF	FACE TO FACE	TBM	TEMPORARY BENCHMARK		
FL	FLOW LINE	TC	TOP OF CURB		
FO	FIBER OPTIC	TCE	TEMPORARY CONSTRUCTION EASEMENT		
G	GUTTER	TE	TELEPHONE EASEMENT		
GM	GAS METER	TMH	TELEPHONE MANHOLE		
GMK	GAS MARKER SIGN	TON	TOP OF NUT		
GRATE	STORM DRAIN GRATE	TPED	TELEPHONE PEDESTAL		
GV	GAS VALVE	TS	TRAFFIC SIGNAL		
HH	HANDHOLE	TSC	TRAFFIC SIGNAL CABINET		
IBX	IRRIGATION CONTROL BOX	TSPB	TRAFFIC SIGNAL PULL BOX		
ICV	IRRIGATION CONTROL VALVE	TVPB	TV PULL BOX		
		TYP	TYPICAL		

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	02	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480–829–6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

LEGEND □ NOTES SHEET

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G–1.02
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: NONE			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ROADWAY SUMMARY

ITEM No.	DESCRIPTION	CONST. NO.	UNIT	SHEET NUMBERS															TOTAL QTY
	(DESCRIPTION)	(NO.)	(UNIT)	15	17	19	21	23	25	27	29	31	33	35	37	39	41	44	(TOTAL QTY)
M3010001	SUBGRADE PREPARATION	1 19	SY	2642	2697	2183	2346	995	2192	2455	2141	2367	2111	1669	2178	3152	1805	–	30933
M3100000	AGGREGATE BASE COURSE	7 19	TON	3.5	15.4	2.2	16	86	9.6	102	–	18.2	–	–	10.3	19.3	12.3	–	294.8
M3210100	ASPHALT CONCRETE SURFACE COURSE, TYPE D 1/2 FOR DRIVEWAY, SIDEWALK AND PARKING LOT CONNECTIONS	37	TON	–	–	–	–	–	–	–	–	–	–	7	22	–	–	–	29
M3210120	ASPHALT CONCRETE SURFACE COURSE, TYPE D 1/2, 2" THICK	1	TON	302	308	249	268	114	250	280	245	270	241	191	249	360	206	–	3533
M3210125	ASPHALT CONCRETE SURFACE COURSE, TYPE D 1/2, 2–1/2" THICK	7	TON	2.2	9.6	1.4	10.0	7.5	6.0	–	–	11.4	–	–	6.4	12.1	7.7	–	74.3
M3210355	ASPHALT CONCRETE BASE COURSE, TYPE A 1–1/2, 5–1/2" THICK	1	TON	829	846	685	736	312	688	770	672	742	662	524	683	989	566	–	9704
M3240090	PORTLAND CEMENT CONCRETE PAVEMENT, 9" THICK	19	SY	–	–	–	–	338	–	467	–	–	–	–	–	–	–	–	805
M3290100	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	1	TON	1.8	1.8	1.5	1.6	0.7	1.5	1.6	1.4	1.6	1.4	1.1	1.5	2.1	1.2	–	20.8
M3362100	MICROSEAL COAT, TYPE II	36	SY	273	2077	2075	2238	888	1844	2030	2031	2030	2031	1607	1743	780	–	–	21647
M3400000	CONCRETE MEDIAN NOSE	6	SF	42	–	–	84	84	–	–	–	84	–	–	42	42	84	–	462
M3400406	CONCRETE SIDEWALK, STD DETAIL P1230, MODIFIED (6" THICK), CLASS A CONCRETE	5	SF	1509	2267	2500	1950	2071	2550	2500	2500	2125	2498	1539	2487	3364	2400	656	32916
M3400405	DECORATIVE CONCRETE SIDEWALK, STD, DETAIL P1230, MODIFIED, (6" THICK)	24	SF	–	–	30	570	–	300	–	–	572	28	–	–	–	–	–	1500
M3400409	CONCRETE SIDEWALK, STD, DETAIL P1230, MODIFIED, 9" THICK; CLASS A CONCRETE	8 31	SF	1142	–	–	–	–	–	–	–	–	–	–	–	–	–	671	1813
M3400415	TRUNCATED DOMES FOR SIDEWALK RAMPS	25	SF	48	–	–	–	–	–	–	–	–	–	–	–	–	–	–	48
M3400543	CONCRETE DRIVEWAY ENTRANCE, STD DETAIL P1243	10	SF	–	–	–	3999	–	–	–	–	–	–	3388	6925	–	–	–	14312
M3400657	CONCRETE BUS BAY PAVEMENT PER DETAILS	29	SF	204	–	–	–	–	–	–	–	–	–	–	–	–	1567	–	1771
M3401256	CONCRETE BUS BAY PAVEMENT, STD DETAIL P–1256–1, 9" THICK, CLASS "A" CONCRETE	9 24	SF	255	1237	–	–	–	–	–	–	–	–	–	–	1687	–	–	3179
M3401261	CONCRETE BUS/ACCESSORY PAD, STD DETAIL P–1260	11	SF	–	625	–	–	–	–	–	–	–	–	–	–	622	607	–	1854
M3401262	BUS SHELTER PAD, C.O.P. DET. P1260	24	SF	–	–	–	692	–	346	–	–	692	–	–	–	–	–	–	1730
M3402201	COMBINED CURB & GUTTER, MAG STD DET. 220 TYPE A, H=6"	3	LF	358	383	500	379	219	377	500	500	500	500	400	98	532	323	–	5569
M3402215	COMBINED CURB & GUTTER, MAG STD DET 220, TYPE "A", MODIFIED REVERSE PAN	27	LF	–	–	–	–	–	–	–	–	–	201	295	–	–	–	–	496
M3402220	COMBINED CONCRETE CURB & GUTTER, STD DET. 220, TYPE A, H=6", MODIFIED 9" GUTTER PAN, CLASS A CONCRETE	26	LF	110	–	–	100	–	–	–	–	–	–	109	240	–	214	–	773
M3402221	CONCRETE SINGLE CURB, MAG DET. 222 TYPE A	4	LF	63	1006	1001	764	550	754	1000	1000	805	797	399	545	721	568	–	9973
M3402222	CONCRETE SINGLE CURB, MAG DET. 222 TYPE B	16	LF	4	5	5	11	5	5	–	–	8	–	–	19	8	6	–	76
M3402223	CONCRETE SINGLE CURB, MAG DET. 222, TYPE A MODIFIED	23	LF	69	119	–	–	–	–	–	–	–	–	–	–	187	–	–	375
M3420000	DECORATIVE PAVEMENT PER DETAIL	7	SF	145	637	90	664	475	398	–	–	754	–	–	426	798	510	–	4897
M3450021	ADJUST EXISTING MANHOLE FRAME & COVER, MAG STD DETAIL 422	14	EA	2	2	3	3	1	2	2	3	3	3	1	–	2	–	–	27
M3500010	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB, CURB & GUTTER, HEADER CURB OR EMBANKMENT CURB	(2)	LF	321	–	–	–	–	–	–	–	–	–	–	1707	717	614	–	3359
M3500020	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER & SLAB	(1)	SF	989	–	18	425	–	450	–	–	450	–	–	2916	5271	3070	–	13589
M3500036	REMOVE CATCH BASIN	(10)	EA	–	1	–	–	–	1	–	–	1	–	–	–	2	–	–	5
M3500040	REMOVE PIPE, BACKFILL AND COMPACT	(9)	LF	–	–	–	88	–	–	–	–	–	–	–	–	10	–	–	98
M3500060	REMOVE ASPHALT CONCRETE PAVEMENT (NPI)	(6)	SY	1818	111	111	670	440	810	336	111	111	111	1034	1642	2558	2558	–	12421
M3500110	REMOVE EXISTING FENCE	(5)	LF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
M3500310	REMOVE EXISTING RIP–RAP	(11)	SF	256	420	–	162	333	225	–	–	468	–	–	–	–	–	–	1864
M3503010	REMOVE EXISTING BARRICADE OR GUARD RAIL	(8)	LF	11	–	–	–	–	–	–	–	–	–	–	–	–	324	–	335
M4051201	SURVEY MARKER, MAG DET. 120–1, TYPE "A"	2	EA	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
M4051202	SURVEY MARKER, MAG DET 120–1, TYPE 'B'	12	EA	–	–	–	–	–	–	–	–	–	1	–	–	–	1	–	2
M5050021	CONCRETE BARRIER PER SPECIAL DETAIL	13	LF	–	–	–	–	–	–	–	–	–	–	–	–	–	123	–	123
M5050105	TRACC ENERGY ABSORBING END TREATMENT	21	EA	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
M5051611	REBUILD CATCH BASIN, PER ADOT C–10.57, C–15.30	33	EA	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
NPI	REMOVE EXISTING AC MILLING	(12)	SY	634	3173	2843	2225	1233	1989	2611	3000	3010	3000	2239	–	–	–	–	25957

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
ARIZONA U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	03	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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QUANTITY SUMMARY SHEET

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G–1.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: NONE			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

DRAINAGE SUMMARY

ITEM No.	DESCRIPTION	CONST. NO.	UNIT	SHEET NUMBERS																					TOTAL QTY
	SEE ALTERNATE PIPE CHART (SHEET 80)																								
	FOR MAINLINE & CONNECTOR PIPES																								
	(DESCRIPTION)	(NO.)	(UNIT)	59	60	61	62	63	64	65	66	67	68	69	81	82	83	84	85	86	87					(TOTAL QTY)
M2152001	CHANNEL EXCAVATION		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M2200007	RIP–RAP, D50=6"		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M2200008	RIP–RAP, D50=8"		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M2205065	GABION BLOCKS		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M2205067	GABION MATTRESS, 1' THICK		SY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M3000011	HIGH SURVIVABILITY FILTER FABRIC		SY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M3500040	REMOVE PIPE, BACKFILL & COMPACT		LF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M5051530	CONCRETE CATCH BASIN, TYP "M–1, L=3 FT", PHX SUPP DETAIL P–1569–1	⑧	EA	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–					1
M5051531	CONCRETE CATCH BASIN, TYP "M–1, L=3 FT", PHX SUPP DETAIL P–1569–2	VARIOUS	EA	–	1	–	1	1	–	–	1	1	–	2	–	–	–	–	–	–	–					6
M5051535	CONCRETE CATCH BASIN, TYPE "M–1, L=6 FT" PHX SUPP DETAIL P–1569–1	⑬	EA	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					1
M5051540	CONCRETE CATCH BASIN, TYPE "M–1, L=10 FT", PHX SUPP DETAIL P–1569–2	②	EA	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–					1
M5051563	CONCRETE CATCH BASIN, TYPE "M–2, L=3 FT", PHX SUPP DETAIL P–1569–2	⑮	EA	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					1
M5055050	MITERED OUTLET COLLAR PER DETAIL 'A' ON PLAN		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6014029	PERMANENT PIPE SUPPORT, MAG DET, 403–1 OR 403–2		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6180018	STORM DRAIN PIPE, 18 INCH		LF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6180024	STORM DRAIN PIPE, 24 INCH		LF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6180030	STORM DRAIN PIPE, 30 INCH		LF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6180427	PIPE PLUG, STANDARD DETAIL 427		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6181018	18 INCH CATCH BASIN CONNECTOR PIPE	⑬⑱⑲	LF	58	–		–	–	–	–	–	–	–	12												70
M6186005	18" X 18" X 18" PREFABRICATED TEE		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6186010	24" X 24" X 18" PREFABRICATED TEE		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6250005	STORM DRAIN MANHOLE PER COP P1520 & MAG 522		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0
M6250051	STORM SEWER ACCESS BARRIER PER COP DET 1562 AND 1563		EA	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					0

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

STRUCTURAL SUMMARY

ITEM No.	DESCRIPTION	CONST. NO.	UNIT	SHEET NUMBERS																					TOTAL QTY
	(DESCRIPTION)	(NO.)	(UNIT)																						(TOTAL QTY)
M2051000	STRUCTURE EXCAVATION		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					980
M2113000	STRUCTURE BACKFILL		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					335
M3241100	CONCRETE APPROACH SLAB		SF	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					2856
M5051000	STRUCTURAL CONCRETE CLASS "A" (F'C=3000 PSI)		CY	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					260
M5055000	STEEL REINFORCEMENT		LB	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–					33735

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ELECTRICAL SUMMARY

ITEM No.	DESCRIPTION	CONST. NO.	UNIT	SHEET NUMBERS																					TOTAL QTY
	(DESCRIPTION)	(NO.)	(UNIT)	98	99	100	101	102	103	104	105	106	107	108	109	110	111								(TOTAL QTY)
M3515042	FURNISH AND INSTALL STREET LIGHT PER COP STREET LIGHTING PROCEDURES, STANDARDS, AND SPECIFICATIONS MANUAL, LATEST EDITION	178	EA	–	3	2	3	2	3	2	3	2	3	2	1	3	2	–	–	–	–				31
M3510658	REMOVE AND DISPOSE OF EXISTING STREET LIGHTS	①②	EA	–	–	–	–	–	–	–	–	–	–	–	1	4	3	–	–	–	–				8
M6014900	TRENCHING FOR STREET LIGHT CIRCUIT	3	LF	30	–	–	–	–	–	350	500	500	500	400	–	360	280	–	–	–	–				2920
M3513140	4" PVC ELECTRICAL CONDUIT	5	LF	120	500	500	500	500	500	500	500	500	500	400	–	–	–	–	–	–	–				5020
M4771050	REPLACE LUMINAIRE WITH LED FIXTURE	4	EA	–	–	–	–	–	–	–	–	–	–	–	2	–	1	–	–	–	–				3
M4712003	NO 7 JUNCTION BOX	6	EA	1	–	–	–	–	–	1	2	–	–	1	–	–	–	–	–	–	–				5
(NPI)	JUNCTION BOX	2	EA	1	3	2	5	3	3	2	4	2	3	3	1	3	1	–	–	–	–				36

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	04	168

PREMIER
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CHANDLER, AZ 85226; 480–829–6000
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DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

QUANTITY SUMMARY SHEET

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR:	DES: RWM	CK: KJB	DWG NO: G–1.04
DATE:	DATE: 09/16	DATE: 09/16	
SCALE: NONE			

ST85100371(003)

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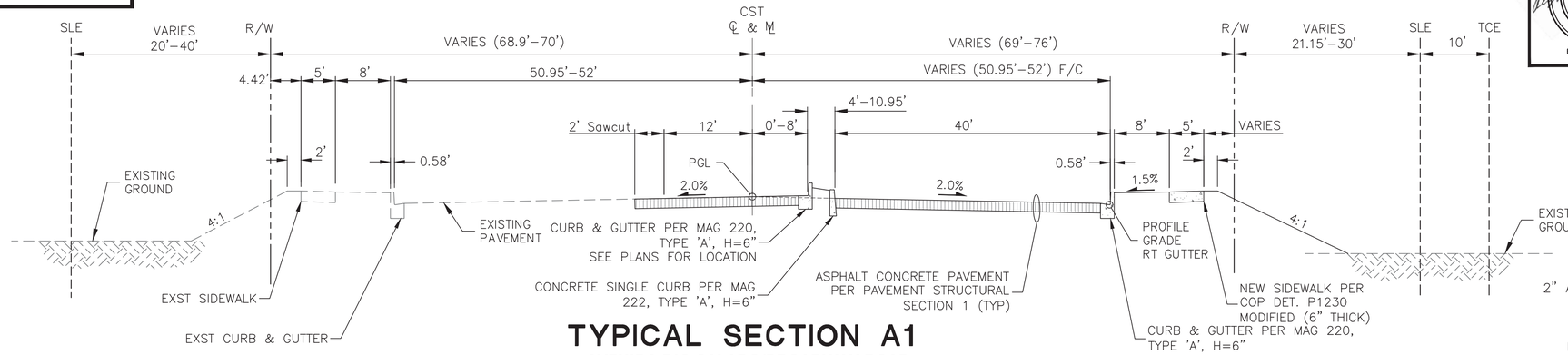
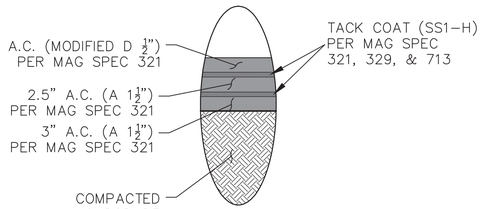
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE

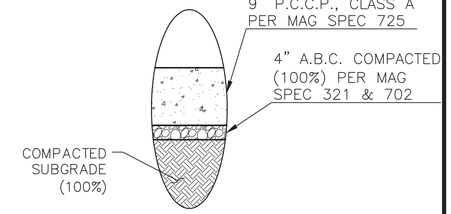


TYPICAL SECTION A1

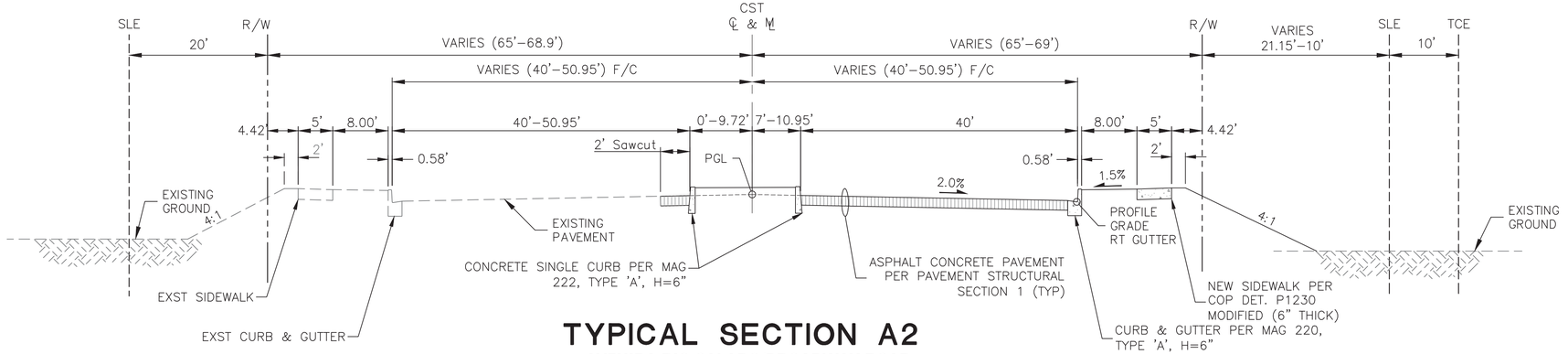
AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 200+82.35 TO STA: 203+94.69



PAVEMENT STRUCTURAL SECTION 1

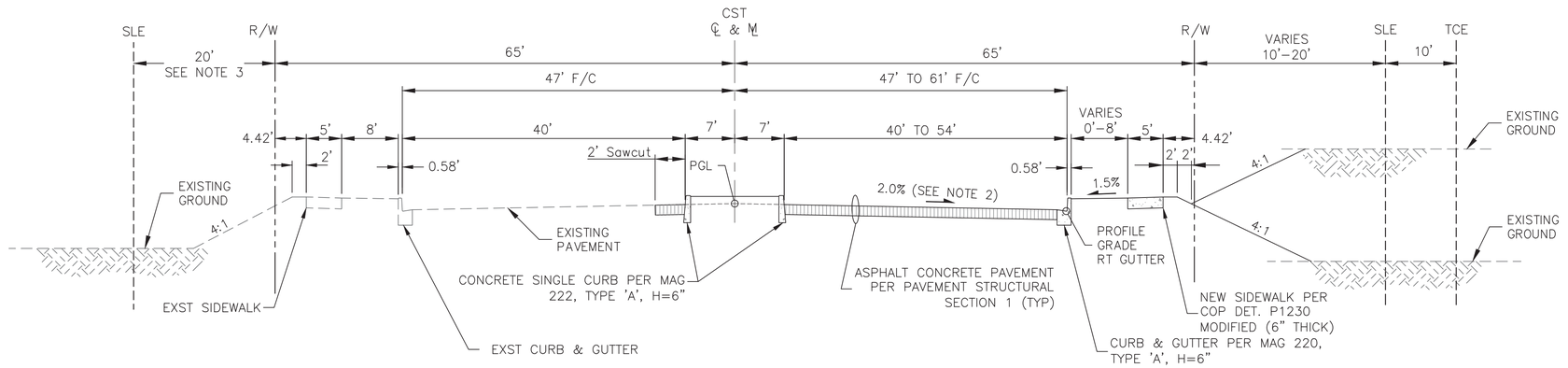


PAVEMENT STRUCTURAL SECTION 2



TYPICAL SECTION A2

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 203+94.69 TO STA: 206+32.35



TYPICAL SECTION A3

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 206+32.35 TO STA: 210+61.79
STA: 215+83.68 TO STA: 217+20.61
STA: 223+46.94 TO STA: 237+11.78 (SEE NOTE 4)
STA: 242+13.10 TO STA: 246+49.11 (SEE NOTE 4)

NOTES

1. MEDIANS ARE UNPAVED UNLESS NOTED OTHERWISE (SEE DETAILS, SHEET 11)
2. PAVEMENT SUPERELEVATION TRANSITION FROM –2% @ STA 245+05.06 TO –3.4% @ STA 246+49.11 (LEFT)
   –2% @ STA 243+31.12 TO +3.4% @ STA 246+49.11 (RIGHT)
3. SLE AND TCE TERMINATE AT STA 227+14.50. ADDITIONAL 150' OF QC DEED PRESENT. SEE R/W PLANS.
4. STA 228+50 TO 252+00 SEE BANK PROTECTION DETAILS
5. STRUCTURAL SECTION #2 FROM STA 218+68.92 Rt TO STA 219+28.92 Rt

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PROJECT NO.: 2014046–04

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	05	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480–829–6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

TYPICAL SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G–2.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: N.T.S.			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	06	168

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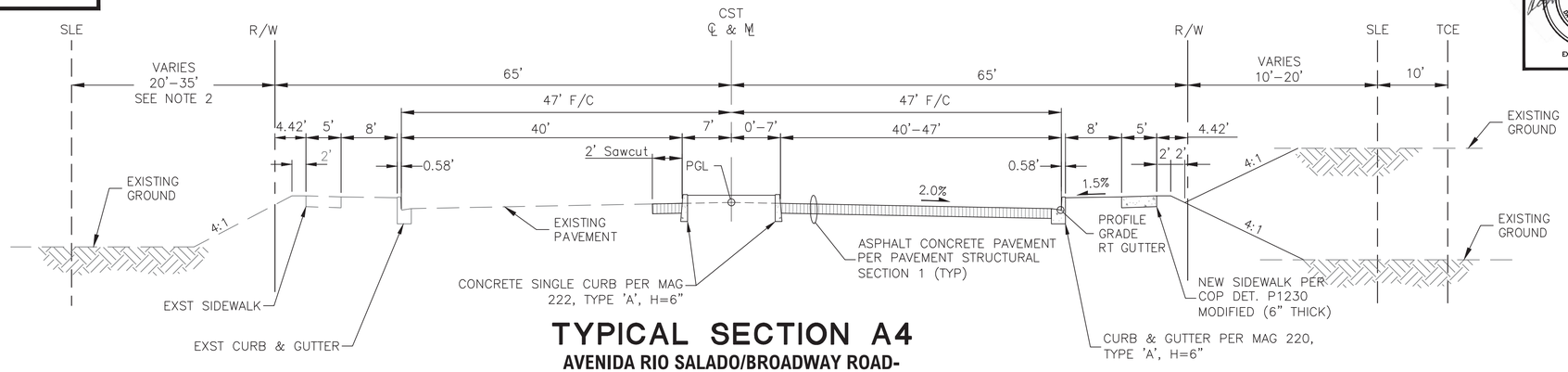
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



TYPICAL SECTION A4

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 210+61.79 TO STA: 211+23.31
STA: 217+20.61 TO STA: 217+82.13
STA: 237+11.78 TO STA: 237+73.31 (SEE NOTE 3)

TYPICAL SECTION A5

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 211+23.31 TO STA: 212+62.45
STA: 217+82.13 TO STA: 219+73.27
STA: 237+73.31 TO STA: 239+12.44 (SEE NOTE 3)

TYPICAL SECTION A6

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 213+83.02 TO STA: 215+22.16
STA: 220+94.28 TO STA: 222+85.41 (SEE NOTE 4)
STA: 240+12.44 TO STA: 241+51.58(SEE NOTE 3)

NOTES

1. MEDIANS ARE UNPAVED UNLESS NOTED OTHERWISE (SEE DETAILS, SHEET 11)
2. SLE AND TCE TERMINATE AT STA 227+14.50. ADDITIONAL 150' OF QC DEED PRESENT. SEE R/W PLANS.
3. STRUCTURAL SECTION #2 FROM STA 218+68.92 Rt TO STA 219+28.92 Rt
4. EXST PVMT STA 218+68.92 Lt TO 222+71.09 Lt, STA 219+28.92 Rt TO 222+71.09 Rt

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

TYPICAL SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G–2.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: N.T.S.			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	07	168

PREMIER
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CONSULTING ENGINEER

DR: RD | DES: RWM | CK: KJB | DATE: 09/16

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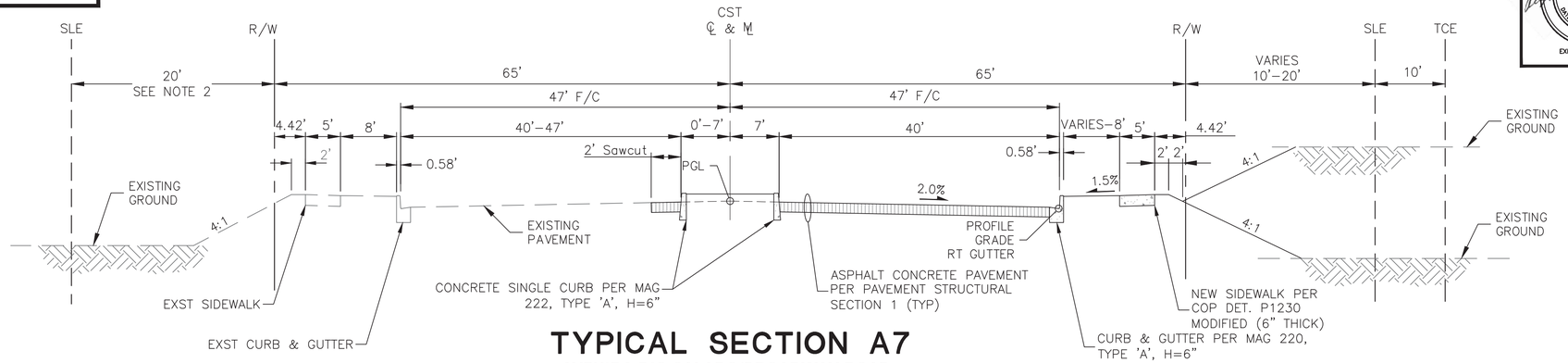
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

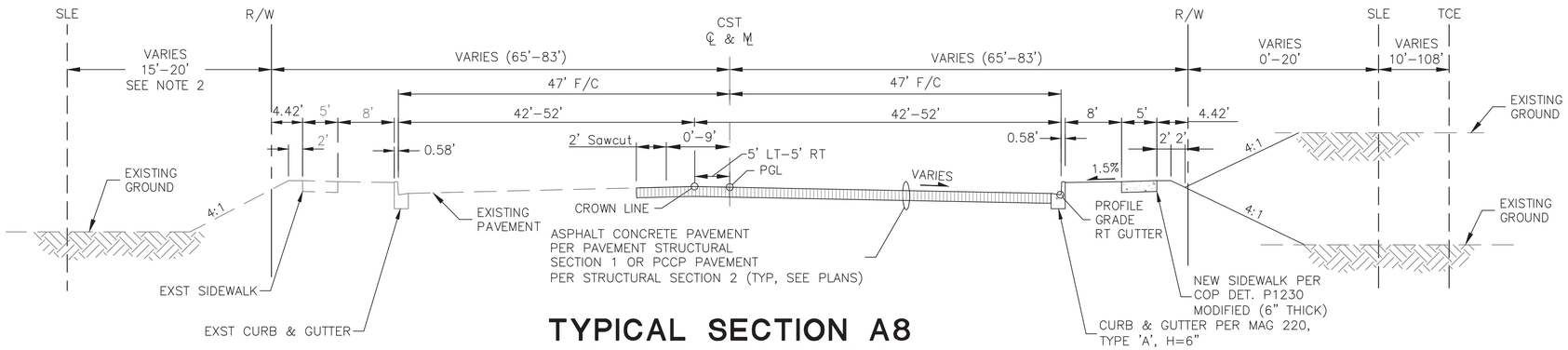


TYPICAL SECTION A7

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 215+22.16 TO STA: 215+83.68
STA: 222+85.41 TO STA: 223+46.94
STA: 241+51.58 TO STA: 242+13.10 (SEE NOTE 3)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

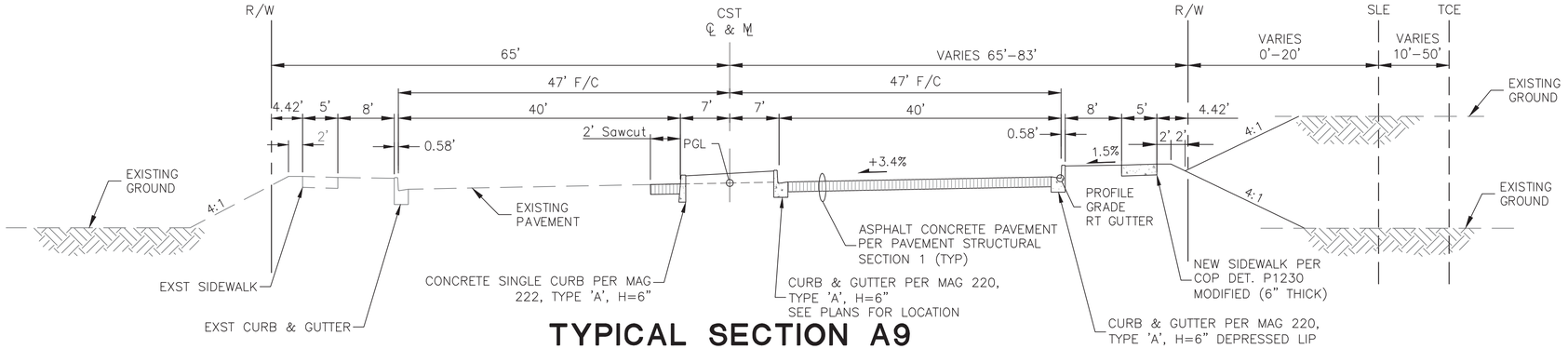


TYPICAL SECTION A8

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 212+62.45 TO STA: 213+83.02
STA: 239+12.44 TO STA: 240+12.44 (SEE NOTE 3)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



TYPICAL SECTION A9

AVENIDA RIO SALADO/BROADWAY ROAD-
STA: 246+49.11 TO STA: 250+50.00 (SEE NOTE 3)

NOTES

1. MEDIANS ARE UNPAVED UNLESS NOTED OTHERWISE (SEE DETAILS, SHEET 11)
2. SLE AND TCE TERMINATE AT STA 227+14.50. ADDITIONAL 150' OF QC DEED PRESENT. SEE R/W PLANS.
3. EXST PVMT FROM STA 218+68.92 TO STA 222+71.09

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

TYPICAL SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G-2.03
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: N.T.S.			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	08	168

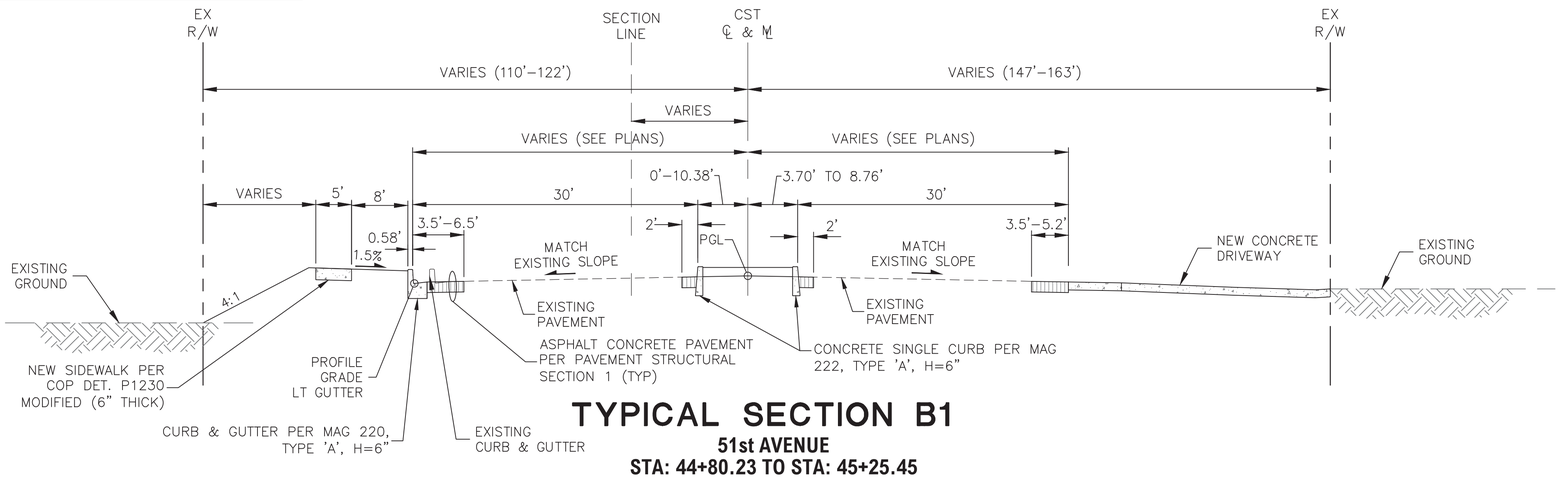
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

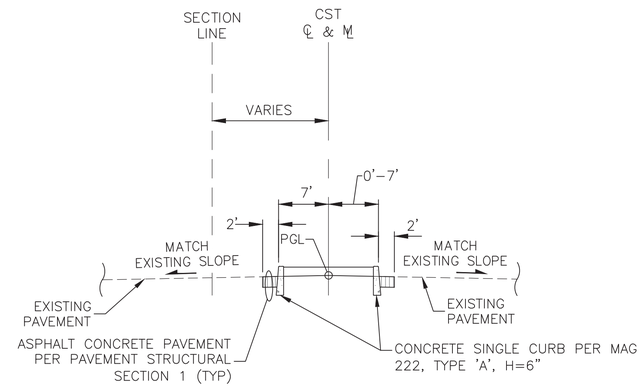
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE



TYPICAL SECTION B1

51st AVENUE

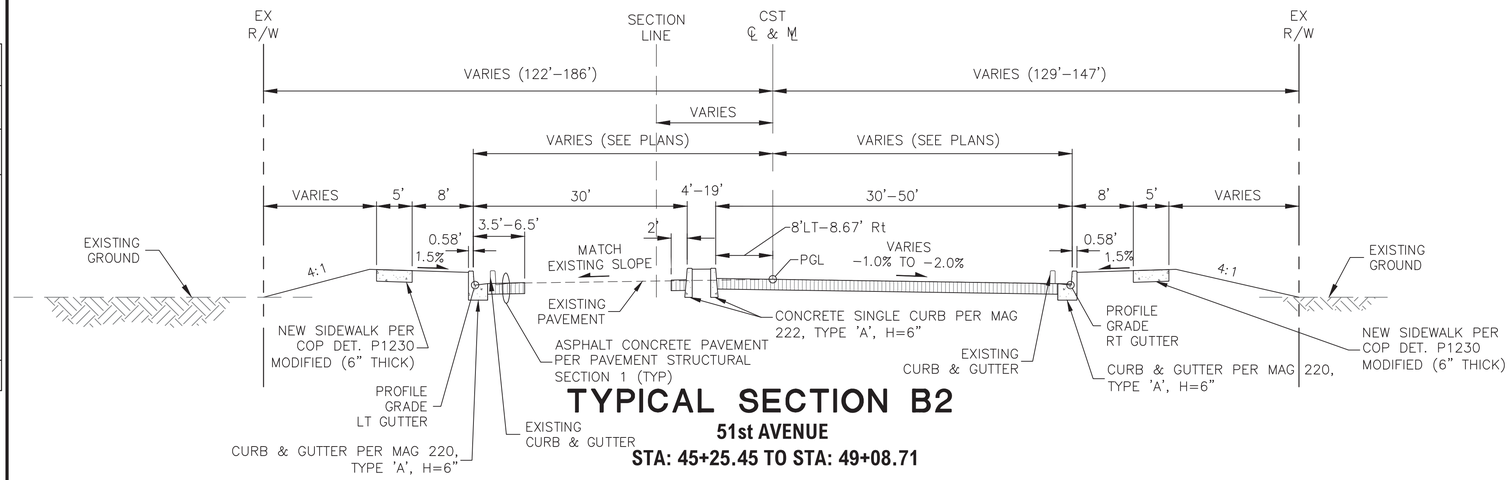
STA: 44+80.23 TO STA: 45+25.45



TYPICAL SECTION B4

51st AVENUE

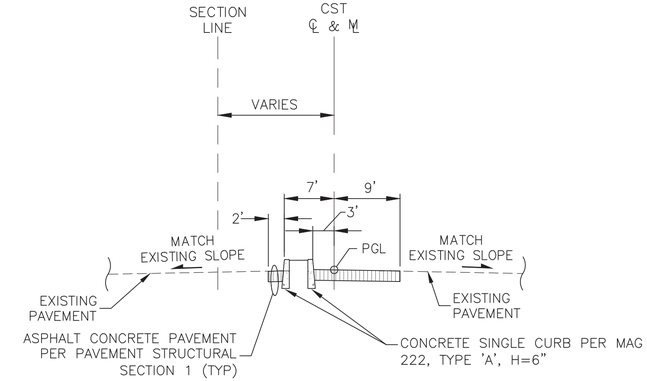
STA: 41+06.72 TO STA: 41+68.19



TYPICAL SECTION B2

51st AVENUE

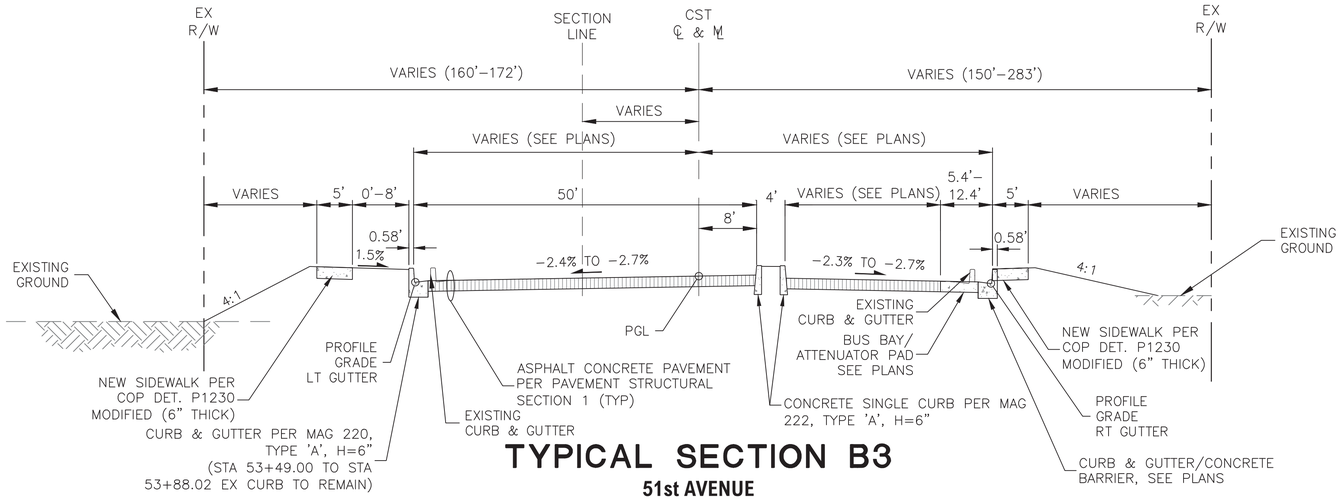
STA: 45+25.45 TO STA: 49+08.71



TYPICAL SECTION B5

51st AVENUE

STA: 41+68.19 TO STA: 43+05.40



TYPICAL SECTION B3

51st AVENUE

STA: 50+89.86 TO STA: 53+44.25

NOTES

1. MEDIANS ARE UNPAVED UNLESS NOTED OTHERWISE (SEE DETAILS, SHEET 11)

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

TYPICAL SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G–2.04
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: N.T.S.			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	09	168

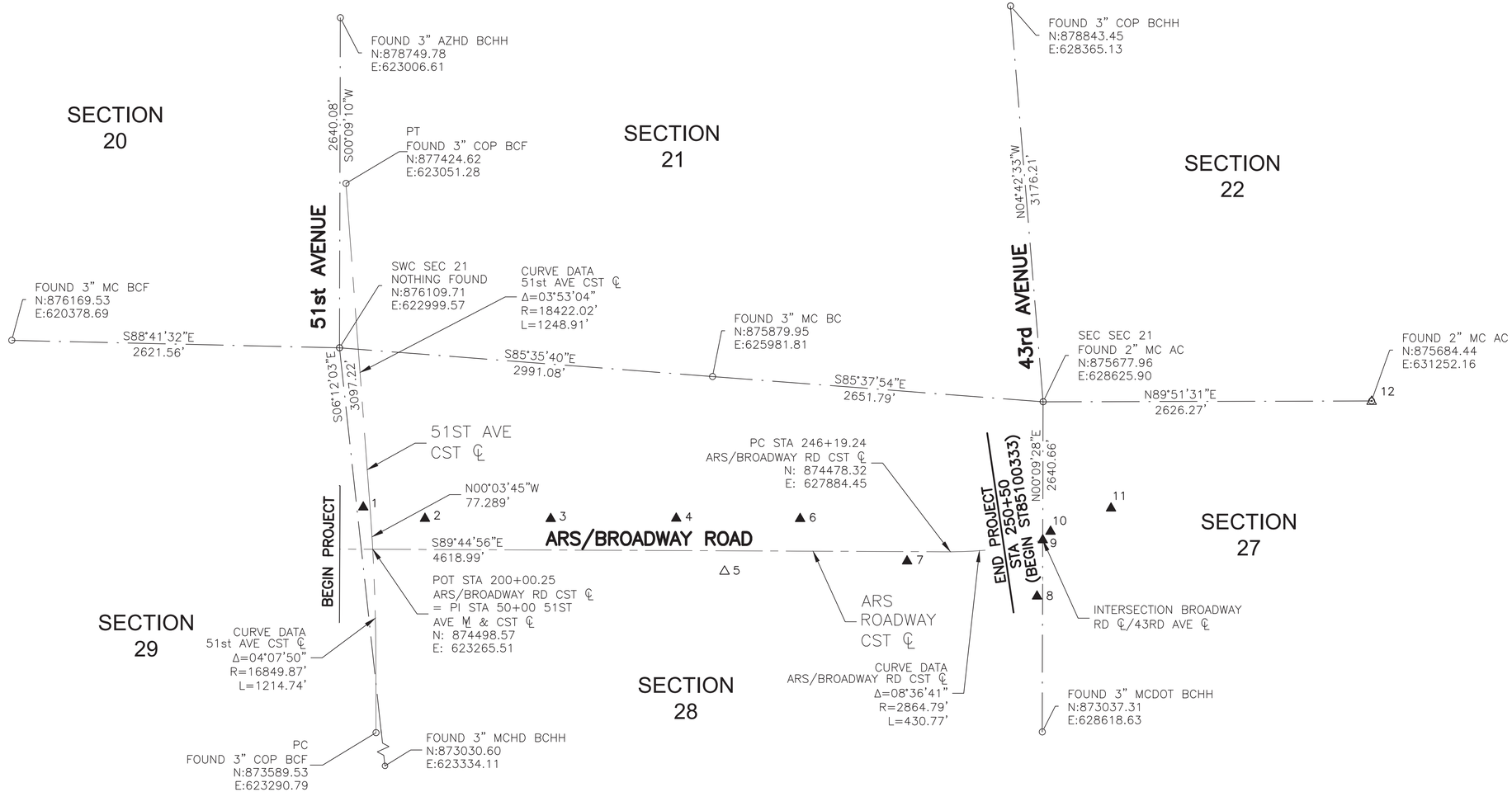
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: DG	DES: MAL	CK: SHM	DATE: 01/14

21705 ROGER W. MILES — Registered Professional Engineer (Civil) — Date Signed 11/09/2016 — Arizona U.S.A. — EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE



PROJECT BENCHMARKS

No.	TYPE	ELEVATION	NORTHING	EASTING	STA	OFFSET	DESCRIPTION
1	SET 1/2" REBAR	1021.91	874834.62	623189.22	199+22.48	335.71 LT	TEMPORARY BENCHMARK
2	SET 1/2" REBAR	1011.14	874743.11	623682.63	204+16.30	246.36' LT	TEMPORARY BENCHMARK
3	SET 1/2" REBAR	1013.85	874741.84	624688.23	214+21.89	249.50' LT	TEMPORARY BENCHMARK
4	SET 1/2" REBAR	1010.48	874745.35	625691.69	224+25.33	257.42' LT	TEMPORARY BENCHMARK
5	FND 1 1/4" REBAR AZTEC BM	1019.43	874320.97	626078.18	228+13.67	165.27' RT	PROJECT BENCHMARK
6	SET 1/2" REBAR	1009.30	874742.20	626682.47	234+16.10	258.60' LT	TEMPORARY BENCHMARK
7	SET 1/2" REBAR	1024.47	874402.95	627538.20	242+73.32	76.89' RT	TEMPORARY BENCHMARK
8	SET 1/2" REBAR	1024.91	874121.54	628577.24	252+27.94	427.78' RT	TEMPORARY BENCHMARK
9	FND 3" BCHH COP C-0.4_D	1023.40	874571.88	628622.87	253+65.68	0.10' LT	TEMPORARY BENCHMARK
10	SET PK NAIL	1023.10	874639.91	628685.02	N/A	N/A	TEMPORARY BENCHMARK
11	SET PK NAIL	1023.91	874826.23	629168.65	N/A	N/A	TEMPORARY BENCHMARK
12	2" MC AC	1027.74	875684.44	631252.16	N/A	N/A	PROJECT BENCHMARK

LEGEND

- SECTION LINE
- SECTION/QUARTER CORNER
- CENTERLINE
- ▲ TEMPORARY BENCHMARK
- △ PROJECT BENCHMARK

City of Phoenix
N

GRAPHIC SCALE
500 0 250 500
1 INCH = 500 FT

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

SURVEY CONTROL SHEET

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: DG	DES: MAL	CK: SHM	DWG NO: G-3.01
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=500'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

ASPHALT STAMPING GENERAL NOTES

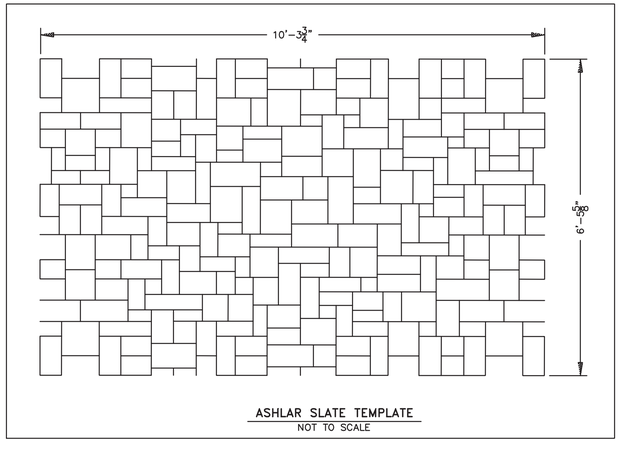
1. THE CONTRACTOR PERFORMING THIS WORK SHALL BE A LEVEL TWO STREET PRINT APPLICATOR AS LICENSED BY INTEGRATED PAVING CONCEPTS INC., AND SHALL HAVE A FOREMAN, SUPERVISOR, OR LEAD HAND ON SITE THAT HAS SUCCESSFULLY COMPLETED A STREET PRINT LEVEL TWO ACCREDITATION PROGRAM.
2. THE CONTRACTOR PERFORMING THIS WORK SHALL HAVE COMPILED A MINIMUM YEARLY ALLOWANCE OF 50,000 SQUARE FEET IN THREE OR MORE PROJECTS AND TRAINING AS WELL AS QUALITY EXPECTATIONS DESIGNATED BY INTEGRATED PAVING CONCEPTS INC. WITHIN ONE YEAR OF BID DATE IN THE STATE OF ARIZONA. THE CONTRACTOR SHALL FURNISH EVIDENCE OF APPLICATOR CERTIFICATION TO THE CITY INSPECTOR OR DESIGNEE.
3. THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S PRODUCT AND TECHNICAL DATA FOR ALL MATERIALS BEING INSTALLED FOR APPROVAL TO THE CITY INSPECTOR OR DESIGNEE.
4. THE CONTRACTOR SHALL SUBMIT A SAMPLE OF THE STAMPED ASPHALT MATERIAL PRIOR TO INSTALLATION FOR APPROVAL BY THE CITY INSPECTOR OR DESIGNEE.
5. ALL ROADWAY CONSTRUCTION MATERIALS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF MAG SECTION 321 AND THE PROJECT PLANS AND SPECIFICATIONS.
6. ALL CONSTRUCTION MATERIALS SHALL BE TRANSPORTED TO THE JOB SITE IN CLEAN TRUCKS AND IN A MANNER TO PREVENT SEGREGATION OF MATERIALS OR INCLUSION OF FOREIGN SUBSTANCES.
7. THE AGGREGATE BASE COURSE SHALL BE CLEAN, WELL–GRADED SAND AND GRAVEL COMPACTED AND PLACED PER MAG SECTION 321.5.1 AND THE PROJECT PLANS AND SPECIFICATIONS.
8. FOR RAISED MEDIANS, THE SURFACE COURSE SHALL BE AT LEAST 2–1/2" OF R12.5 ASPHALT AT 95% COMPACTION MINIMUM. IN ADDITION, THE SUBGRADE SHALL BE 4" ABC AT 95% COMPACTION MINIMUM. THE ABC SHALL CONFORM TO MAG SECTION 702.
9. DURING TRANSPORT, THE HOT–MIX ASPHALTIC CONCRETE SHALL HAVE A MINIMUM TEMPERATURE OF 285°F AND MAXIMUM TEMPERATURE OF 350°F.
10. THE HOT–MIX ASPHALTIC CONCRETE SHALL BE PLACED PER THE PROJECT PLANS AND SPECIFICATIONS. THE HOT–MIX ASPHALTIC CONCRETE SHALL BE PLACED ON A DRY BASE COURSE AND WHEN THE AMBIENT TEMPERATURE IN THE SHADE IS 45°F AND RISING. THE HOT–MIX ASPHALTIC CONCRETE SHALL NOT BE PLACED WHEN WEATHER IS FOGGY, RAINY, OR WHEN THE BASE COURSE IS WET OR FROZEN.
11. AFTER APPLICATION AND COMPACTION OF ASPHALTIC CONCRETE, WHILE IT IS STILL HOT, TEMPLATES SHALL BE POSITIONED ON THE SURFACE IN REQUIRED ORIENTATION. TEMPLATES SHALL BE SET IN PLACE USING A PLATE COMPACTOR AND FULLY EMBEDDED USING THE SAME COMPACTION EQUIPMENT USED IN PLACING THE ASPHALT (MINIMUM STATIC WEIGHT 650–700 LBS). ASPHALT SHALL BE FULLY COMPACTED PRIOR TO PATTERNING.
12. THE PATTERNING EQUIPMENT SHALL BE METAL TEMPLATES AND CORRESPOND TO THE TEMPLATES IN THE DETAILS ON THIS SHEET. REFER TO PROJECT PLANS AND SPECIFICATIONS FOR TEMPLATE TYPE.
13. TEMPLATE PRINT DEPTH SHALL BE 3/8" OVER 99% OF THE AFFECTED AREA. ALL HAND TOLLING SHALL BE COMPLETE, FULL DEPTH, STRAIGHT IN MANNER, AND TO THE EDGE OF ASPHALT PAVEMENT, COMMON EDGE, CONCRETE CURB, GUTTER OR BORDER. THERE SHALL BE NO OVERPRINT OF PATTERNS AND NO REMNANTS OF EXCESS PRINT ON SURROUNDING UNINTENDED AREA.
14. THE PRODUCTS USED IN THE SURFACING SYSTEM SHALL MEET THE MINIMUM PHYSICAL AND PERFORMANCE PROPERTIES IN TABLE 1 AND TABLE 2 ON THIS SHEET. THE CONTRACTOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE INDICATING THAT MATERIALS TO BE INCLUDED IN WORK MEET SPECIFICATION REQUIREMENTS TO THE CITY INSPECTOR OR DESIGNEE.
15. THE COLOR USED FOR PAINTED ASPHALT SHALL BE TERRACOTTA OR AS APPROVED BY A CITY DESIGNEE.
16. THE CONTRACTOR SHALL APPLY THE SURFACE SYSTEM PRODUCTS WITH A MINIMUM OF FOUR COMPLETE PASSES ON THE ROADWAY SURFACE. THREE PASSES SHALL BE ALLOWED ON MEDIANS, WALKWAYS, PATHWAYS, AND BIKE PATHS WHERE TRAFFIC IS PRIMARILY PEDESTRIAN WITH MINIMAL OR NO AUTOMOBILE TRAFFIC. THICKNESS SHALL BE 20 MILS OR GREATER. PATTERN SHALL BE AS INDICATED ON THE PROJECT PLANS AND SPECIFICATIONS OR AS DIRECTED BY A CITY DESIGNEE.
17. THE CONTRACTOR SHALL CONTACT THE CITY INSPECTOR FOR ROADWAY COMPACTION APPROVAL PRIOR TO ASPHALT STAMPING.
18. THE AIR TEMPERATURE SHALL BE AT LEAST 50°F AND RISING BEFORE APPLYING THE SURFACE SYSTEM PRODUCTS. THERE SHALL BE NO PRECIPITATION EXPECTED WITHIN 24 HOURS AFTER APPLYING.
19. AFTER THE SURFACE SYSTEM PRODUCTS HAVE BEEN APPLIED, THE TREATED ASPHALT SHALL NO BE EXPOSED TO VEHICULAR TRAFFIC UNTIL AFTER EIGHT HOURS OR OVERNIGHT, WHICHEVER IS LONGEST.
20. THE SURFACE SYSTEM PRODUCTS SHALL BE SPRAY–APPLIED AND PAINTED ON USING A BROOM OR BRUSHES TO CUT IN SMALL AREAS WHERE REQUIRED. THE ENTIRE SURFACE SHALL BE COVERED WITH NO EXPOSED ASPHALT PRESENT.
21. THE CONTRACTOR SHALL USE SUFFICIENT MASKING TO ENSURE THAT THE SURFACE SYSTEM PRODUCTS ARE APPLIED ONLY WHERE SPECIFIED. MASKING SHALL BE COMPLETE AND NO OVERSPRAY ONTO NON–DESIGNATED COATED SURFACES SHALL BE ALLOWED.
22. AFTER THE APPLICATION AND CURING OF COLOR COATS, THE CONTRACTOR SHALL APPLY SEALER OVER ENTIRE SURFACE IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. THE CONTRACTOR SHALL LEAVE THE APPLICATION CLEAN AND FREE OF DEFECTS UPON COMPLETION.
23. THE CONTRACTOR SHALL REPAIR ALL DAMAGED OR OTHER UNSUITABLE AREAS PRIOR TO INSPECTION BY THE CITY INSPECTOR OR DESIGNEE AT NO EXPENSE TO THE CITY. THE CONTRACTOR SHALL ALSO REPAIR ANY UNSUITABLE AREAS AS DETERMINED BY INSPECTION BY THE CITY INSPECTOR OR DESIGNEE AT NO EXPENSE TO THE CITY.
24. NEW ASPHALT MAY BE STAMPED HOT OR COLD. HOT MIX ASPHALT MAY ONLY BE STAMPED AFTER COMPACTION DENSITY HAS BEEN ACHIEVED. COLD ASPHALT MAY BE HEATED USING PROPER EQUIPMENT DESIGNED FOR THIS TYPE OF WORK. ASPHALT SURFACE MAY NOT BE HEATED ABOVE 325°F.
25. UTILIZING FLEXIBLE TEMPLATES, A CITY APPROVED PATTERN MAY BE REVERSE–ABLE VIBRATORY PLATE COMPACTED OR STAMPED INTO ASPHALT AS APPROVED BY ENGINEER.
26. DECORATIVE PAVEMENT COATING SHALL BE APPLIED IN THREE TO FOUR COATS AT RATE OF 100–125 SF/GALLON AS SUPPLIED BY THE MANUFACTURER; OR AS APPROVED BY ENGINEER.
27. DECORATE STAMPED ASPHALT SHALL BE SEALED IN TWO COATS AT A RATE OF 400–600 SF/GALLON AS SUPPLIED BY THE MANUFACTURER; OR AS APPROVED BY ENGINEER.
28. FOR ASPHALT STAMPING INSTALLED WITHIN RAISED MEDIANS:
    A. THE CONTRACTOR SHALL USE VIBRATORY COMPACTION FOR THE SUBGRADE BETWEEN POURED CURBS PRIOR TO LAYING ASPHALT
    B. THE CONTRACTOR SHALL USE VIBRATORY COMPACTION FOR FINISHED COMPACTION ONCE ASPHALT IS INSTALLED BETWEEN POURED CURBS.

TABLE 1: SEAL TECHNICAL DATA

SYSTEM THICKNESS	2–4 MILS PER COAT STANDARD APPLICATION IS ONE–TWO COATS
COVERAGE PER LIQUID GALLON	400–660 SQ FT PER US GALLON
ABRASION	EXCELLENT
IMPACT RESISTANCE	(ASTM D–2794) PASSES DIRECT > 160 INCH LBS REVERSE > 160 INCH LBS
FLEXIBILITY	(ASTM D–1737, 180° BEND, 1/8" MANDREL) PASSES
DEGREE OF GLOSS	GLOSS–SEMI–GLOSS
SOLIDS CONTENT BY WEIGHT (%)	29%
SOLIDS CONTENT BY VOLUME (%)	28%
CURE TIME AT 77°F	DRY TIME – 1 HOUR RECOAT – 2 HOURS LIGHT FOOT TRAFFIC – 12 HOURS FULL CURE – 5–7 DAYS

TABLE 1: COATING TECHNICAL DATA

SYSTEM THICKNESS	12–15 WET MILS PER COAT STANDARD APPLICATION IS TWO–FOUR COATS
COVERAGE PER LIQUID GALLON	100–125 SQ FT PER US GALLON AT 13 WET MILS
ABRASION (TABER–H 10)	ASTM D–4060 <0.16 mg LOSS @ 1,000 FOR 1,000 CYCLES
IMPACT RESISTANCE	(ASTM D–2794) PASSES DIRECT > 160 INCH LBS REVERSE > 160 INCH LBS
FLEXIBILITY MANDREL @ 70°F	ASTM D–1737 (LOW 1") PASSES ASTM D–1737 (HIGH 2") PASSES
TENSILE STRENGTH	ASTM D412 >675 PSI
DEGREE OF GLOSS	<3@85°F
QUV	ASTM G–53 400 HOURS 1 HIE UNITS ASTM G154 (ASTM G154)
DENSITY (LBS/GAL)	13.7
FLASH POINT	ASTM D–3278 >195°F (93°C)
% PIGMENT (BY WEIGHT INCL. CEMENT)	ASTM D–3723 64%
SOLIDS CONTENT BY WEIGHT (%)	78%
SOLIDS CONTENT BY VOLUME (%)	68%
CURE TIME AT 77°F	RECOAT – 20 MIN–3 HOURS LIGHT VEHICULAR TRAFFIC – 2–4 HOURS FULL CURE – 5–7 DAYS
VOC	<25G PER LITER
ADHESION (PLI) TO AN ASPHALT SUBSTRATE	ASTM D–4840 – COHESIVE FAILURE OF ASPHALT PRIOR TO ADHESIVE FAILURE
TEMPERATURE LIMITS OF SERVICE	DRY, CURED MATERIAL –35°F TO 155°F



ASHLAR SLATE TEMPLATE
NOT TO SCALE

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	10	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480–829–6000
CONSULTING ENGINEER

DR: JRR	DES: DW	CK: SHM	DATE: 01/14

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

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OUTSIDE MARICOPA COUNTY

STAMPED ASPHALT DETAILS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
35TH AVENUE TO 27TH AVENUE
ST85100371(003)

DR: DVV	DES: COP	CK: SHM	DWG NO: G–4.01
DATE: 10/13	DATE: 10/13	DATE: 10/13	
SCALE: N.T.S.			

ST85100332

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	11	168

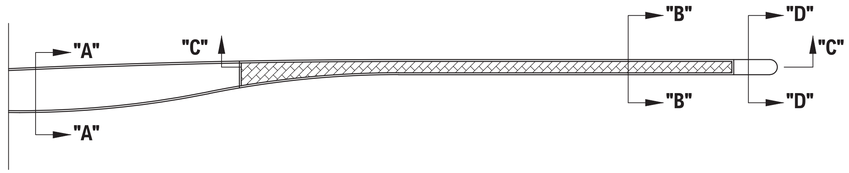
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

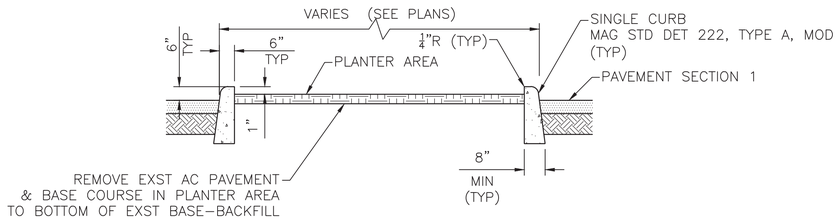
DR: JRR	DES: DW	CK: SHM	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



RAISED MEDIAN



SECTION A–A
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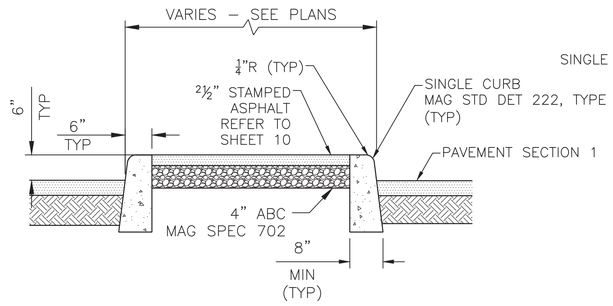
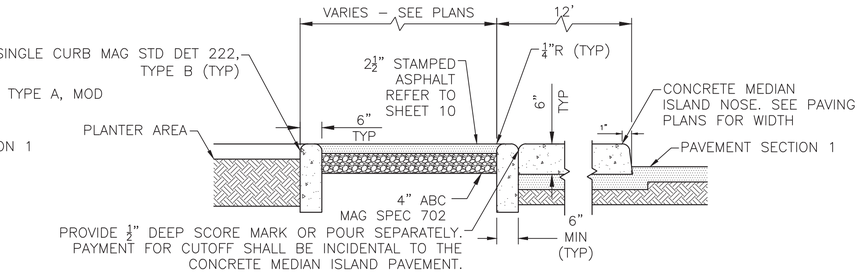
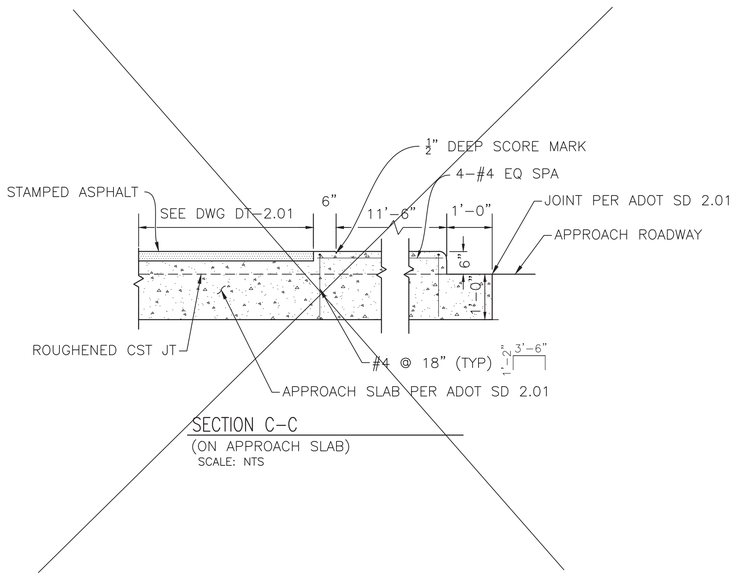


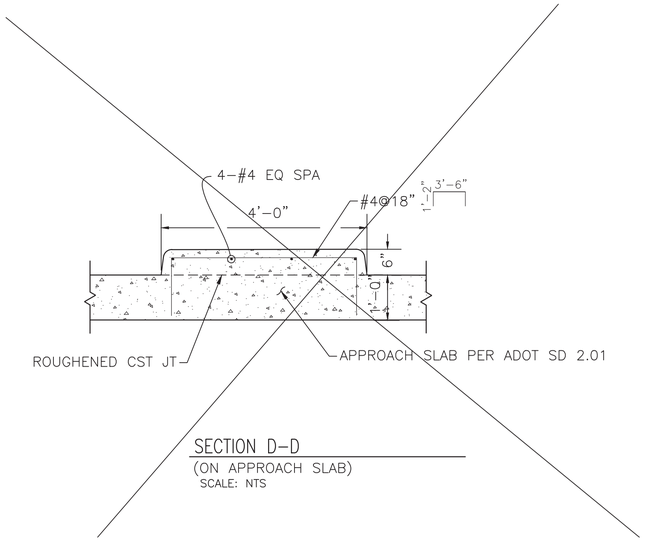
SECTION B–B
SCALE: NTS



SECTION C–C
SCALE: NTS



SECTION C–C
(ON APPROACH SLAB)
SCALE: NTS



SECTION D–D
(ON APPROACH SLAB)
SCALE: NTS

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

MEDIAN DETAILS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: DW	CK: SHM	DWG NO: G–4.02
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=1'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334TY05.dwg dbegell Nov 09, 2016 – 9:23am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

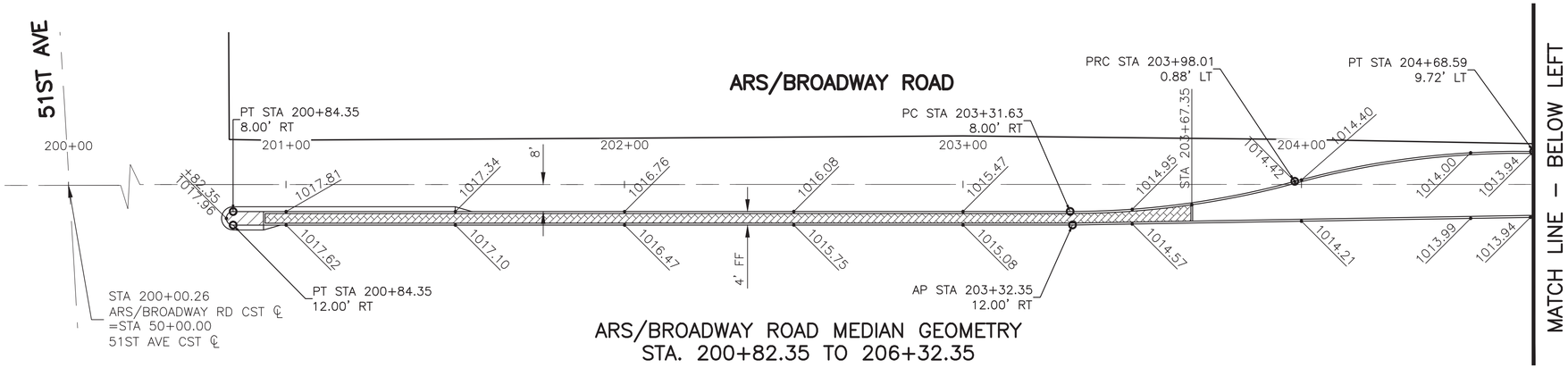
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	12	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD | DES: RWM | CK: KJB | DATE: 09/16

REVISION BY CITY OF PHOENIX

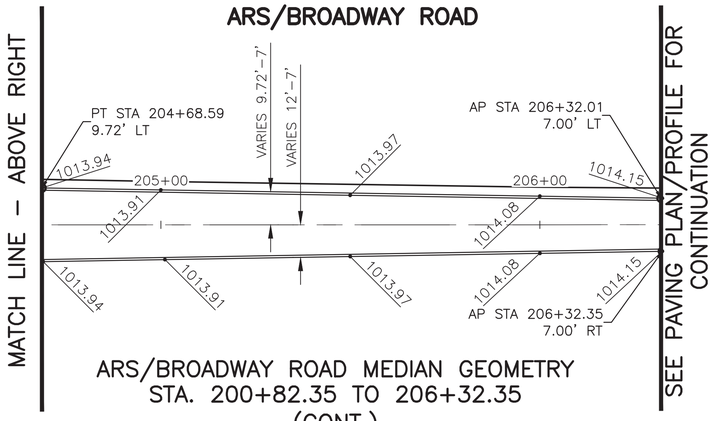
NO.	DESCRIPTION	REV BY	CKD BY	DATE



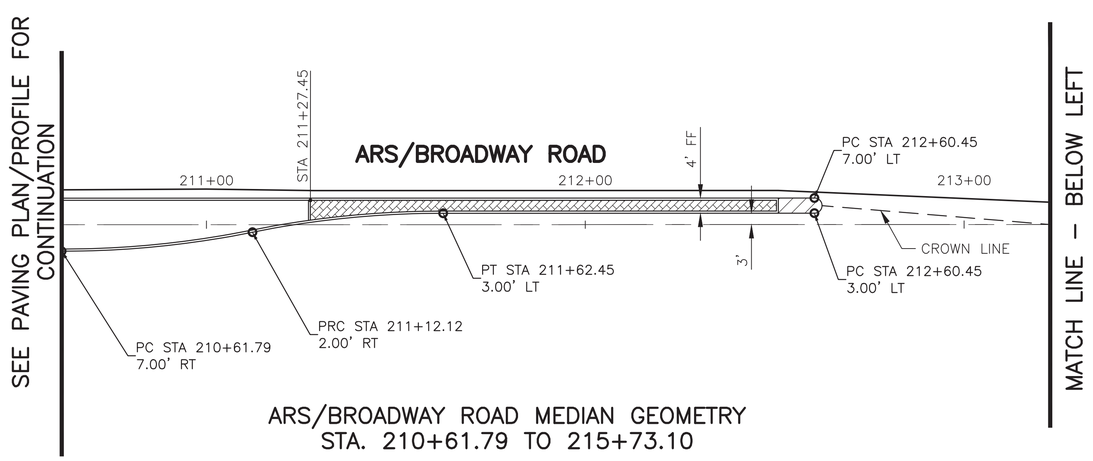
ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 200+82.35 TO 206+32.35

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



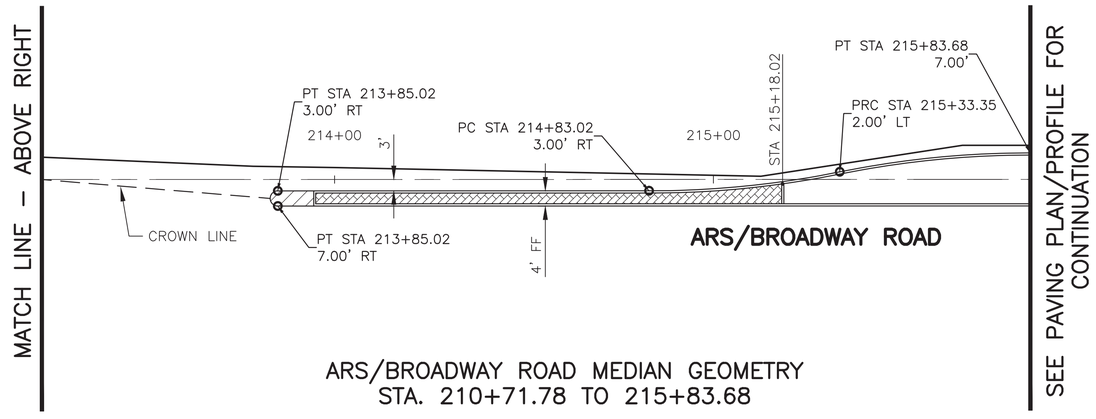
ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 200+82.35 TO 206+32.35
(CONT.)



ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 210+61.79 TO 215+73.10

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 210+71.78 TO 215+83.68

CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C2	67.16'	252.50'	33.78'	015°14'23"
C3	71.37'	252.50'	35.92'	016°11'41"
C4	50.66'	252.50'	25.42'	011°29'46"
C5	50.66'	252.50'	25.42'	011°29'46"
C6	6.28'	2.00'	INFINITY'	180°00'00"
C7	6.28'	2.00'	INFINITY'	180°00'00"
C8	50.66'	252.50'	25.42'	011°29'46"
C9	50.66'	252.50'	25.42'	011°29'46"

NOTES
1. STAKING ELEVATIONS LOCATED AT 50' EVEN STATIONS UNLESS OTHERWISE NOTED.
2. GUTTER ELEVATIONS SHOWN ARE AT F/C UNLESS OTHERWISE NOTED.
3. SEE TYPICAL SECTIONS FOR MEDIAN CONTROL WHEN ELEVATIONS NOT SHOWN.

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

MEDIAN GEOMETRY

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

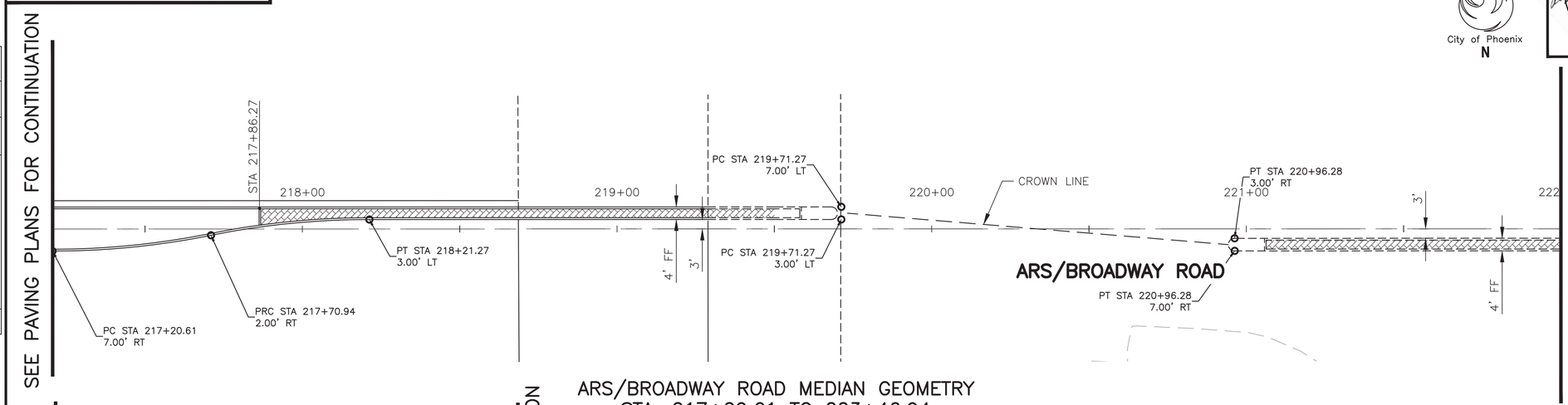
DR: RD	DES: RWM	CK: KJB	DWG NO: G–5.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334MG01.dwg dbegell Nov 09, 2016 – 9:24am

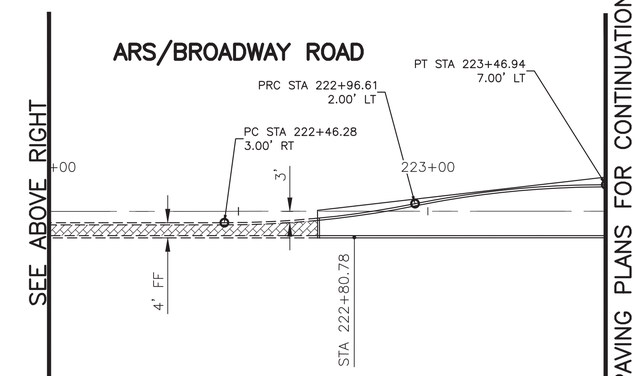
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 217+20.61 TO 223+46.94

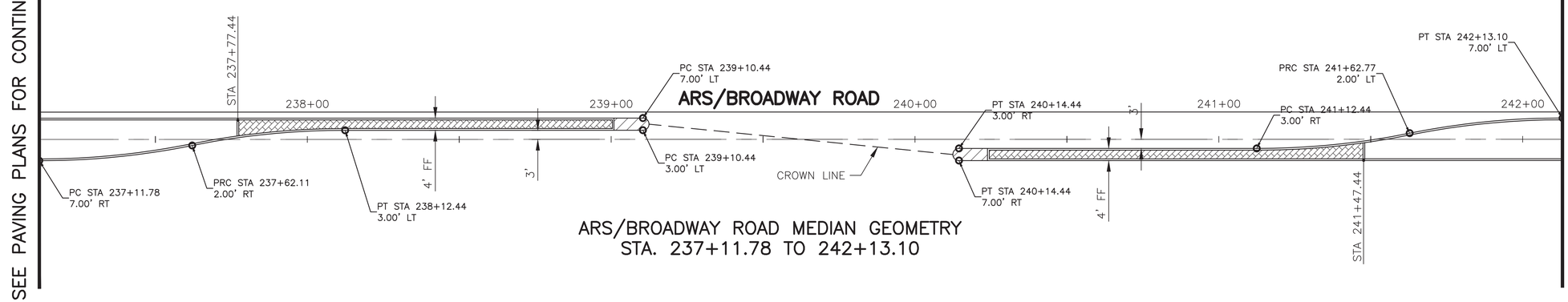
REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 217+20.61 TO 223+46.94

CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C1	50.66'	252.50'	25.42'	011°29'46"
C2	50.66'	252.50'	25.42'	011°29'46"
C3	6.28'	2.00'	INFINITY'	180°00'00"
C4	6.28'	2.00'	INFINITY'	180°00'00"
C5	50.66'	252.50'	25.42'	011°29'46"
C6	50.66'	252.50'	25.42'	011°29'46"
C7	50.66'	252.50'	25.42'	011°29'46"
C8	50.66'	252.50'	25.42'	011°29'46"
C9	6.28'	2.00'	INFINITY'	180°00'00"
C10	6.28'	2.00'	INFINITY'	180°00'00"
C11	50.66'	252.50'	25.42'	011°29'46"
C12	50.66'	252.50'	25.42'	011°29'46"

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS/BROADWAY ROAD MEDIAN GEOMETRY
STA. 237+11.78 TO 242+13.10

NOTES
1. STAKING ELEVATIONS LOCATED AT 50' EVEN STATIONS UNLESS OTHERWISE NOTED.
2. GUTTER ELEVATIONS SHOWN ARE AT F/C UNLESS OTHERWISE NOTED.
3. SEE TYPICAL SECTIONS FOR MEDIAN CONTROL WHEN ELEVATIONS NOT SHOWN.

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

City of Phoenix
N

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	13	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

MEDIAN GEOMETRY

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

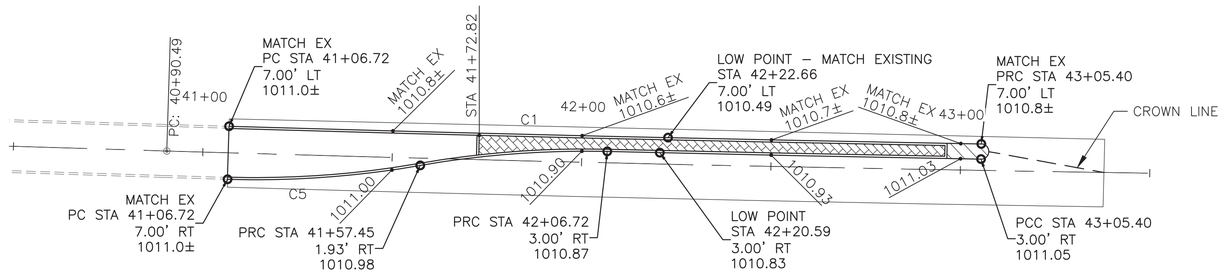
DR: RD	DES: RWM	CK: KJB	DWG NO: G-5.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

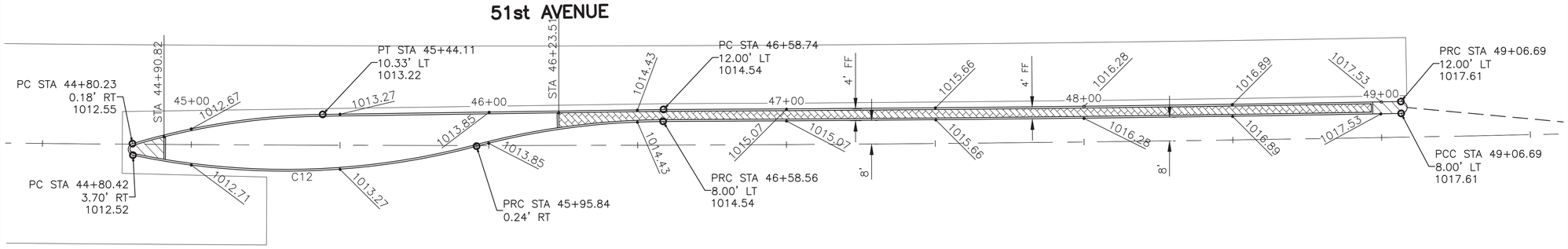
P:\2010011\CADD\Civil\Sheets\ST85100334MG02.dwg dbegell Nov 09, 2016 – 9:25am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

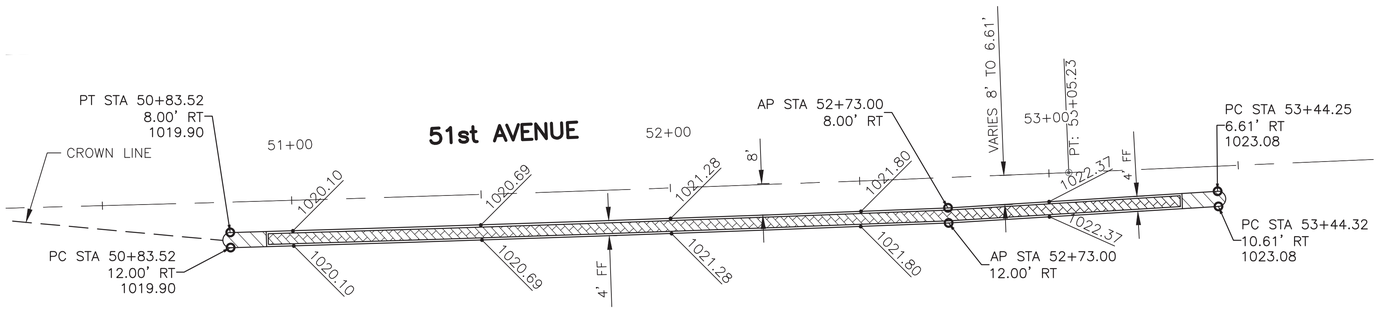


51st AVENUE MEDIAN GEOMETRY
STA. 41+06.72 TO STA 43+07.40



51st AVENUE MEDIAN GEOMETRY
STA. 44+78.82 TO 49+08.69

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



51st AVENUE MEDIAN GEOMETRY
STA. 50+81.52 TO 53+46.30

CURVE TABLE				
CURVE	LENGTH	RADIUS	TANGENT	DELTA
C1	50.66'	252.50'	25.42'	011°29'46"
C2	50.66'	252.50'	25.42'	011°29'46"
C3	6.28'	2.00'	INFINITY'	180°00'00"
C4	6.28'	2.00'	INFINITY'	180°00'00"
C5	50.66'	252.50'	25.42'	011°29'46"
C6	50.66'	252.50'	25.42'	011°29'46"
C7	50.66'	252.50'	25.42'	011°29'46"
C8	50.66'	252.50'	25.42'	011°29'46"
C9	6.28'	2.00'	INFINITY'	180°00'00"
C10	6.28'	2.00'	INFINITY'	180°00'00"
C11	50.66'	252.50'	25.42'	011°29'46"
C12	50.66'	252.50'	25.42'	011°29'46"

City of Phoenix

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	14	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

NOTES
1. STAKING ELEVATIONS LOCATED AT 50' EVEN STATIONS UNLESS OTHERWISE NOTED.
2. GUTTER ELEVATIONS SHOWN ARE AT F/C UNLESS OTHERWISE NOTED.
3. SEE TYPICAL SECTIONS FOR MEDIAN CONTROL WHEN ELEVATIONS NOT SHOWN.

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

MEDIAN GEOMETRY

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: G-5.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

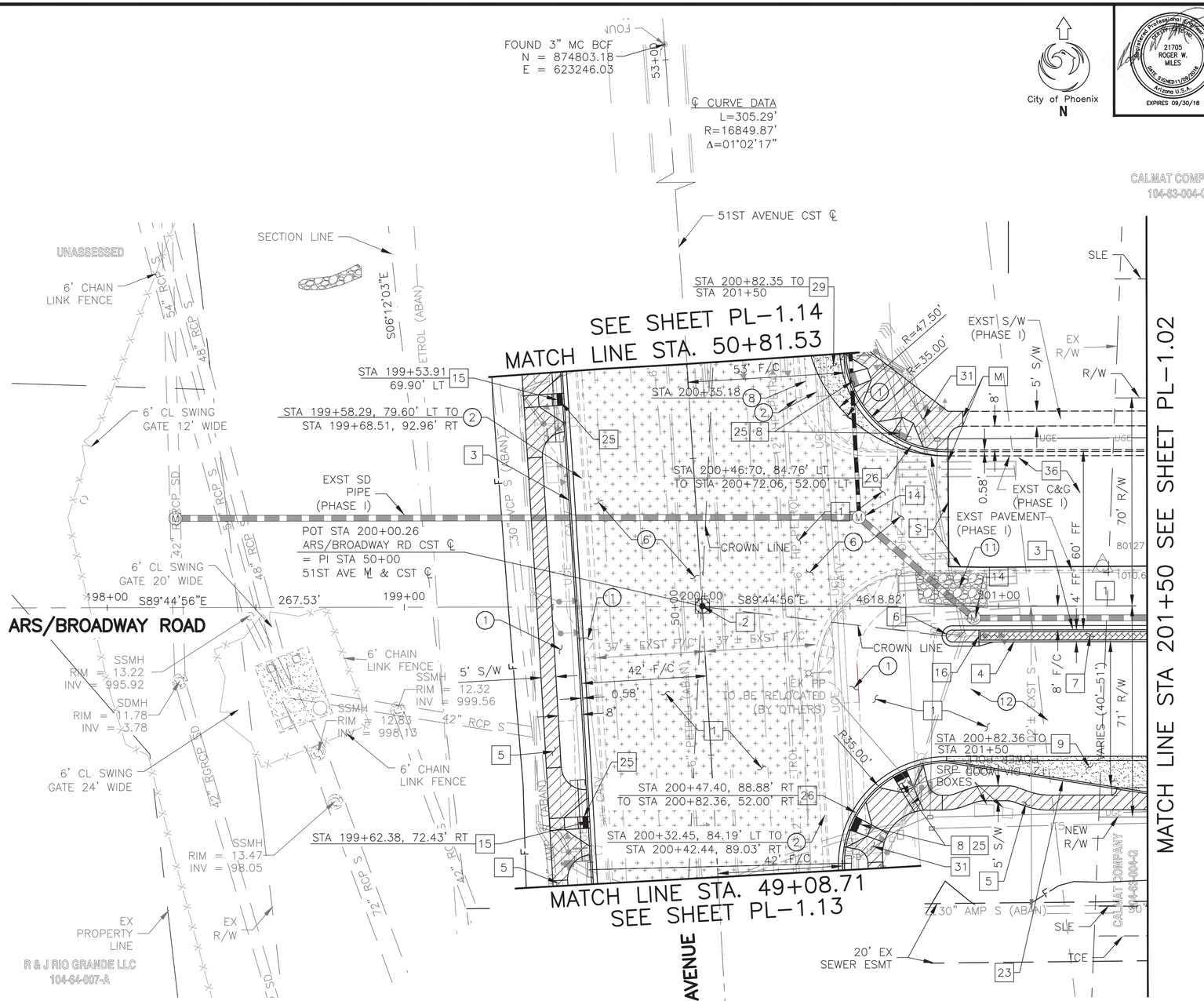
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

29	9" THICK CONC. PVMT. CLASS "A" PER MAG SPECS & C.O.P. DET. P1256-1 (PAVEMENT ONLY)	SF	204
31	CONCRETE SIDEWALK, C.O.P. DET. P1233 (9" THICK)	SF	1142
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	273

SHEET REFERENCES

1. SEE SHEET 11 FOR MEDIAN DETAILS
2. SEE SHEET 59 FOR STORM DRAIN PLAN
3. SEE SHEET 71 FOR CB CONN PIPE PROFILE
4. SEE SHEET 47 FOR INTERSECTION STAKING

▲ T.B.M.: SET 1/2" REBAR AT STA 199+22.48, 335.71' LT ELEV = 1021.91

City of Phoenix
N

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	15	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB	SF	989
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	321
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	1818
8	REMOVE EXISTING GUARD RAIL	LF	11
11	REMOVE EXISTING RIPRAP	SF	256
12	REMOVE EXISTING AC MILLING (NPI)	SY	634

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	2642
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	302
	ASPHALTIC CONCRETE BASE COURSE, (A1-1/2), 5-1/2" THICK	TON	829
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS-1H	TON	1.8
2	SURVEY MARKER, M.A.G. DET. 120-1, TYPE A	EA	1
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	358
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	63
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	1509
6	CONCRETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	42
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D 1/2, 2-1/2" THICK	TON	2.2
	AGGREGATE BASE COURSE, 4" THICK	TON	3.5
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	145
8	CONCRETE SIDEWALK RAMP, C.O.P. DET. P1233 (9" THICK)	N/A	–
9	9" THICK CONC. PVMT. CLASS "A" PER M.A.G. SPECS & C.O.P. DET. P1256-1	SF	255
14	ADJUST EXISTING MANHOLE FRAME AND COVER. M.A.G. STD DET. 422 AND COP DETAIL P1442	EA	2
15	CONSTRUCT SIDEWALK RAMP, C.O.P. DET. P1241-2	N/A	–
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	4
23	CONCRETE SINGLE CURB, M.A.G. DET. 222, TYPE 'A' MOD FOR BUS BAYS	LF	69
25	CONSTRUCT TRUNCATED DOMES PER C.O.P. DET. P1232	SF	48
26	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6" (9" THICK)	LF	110

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

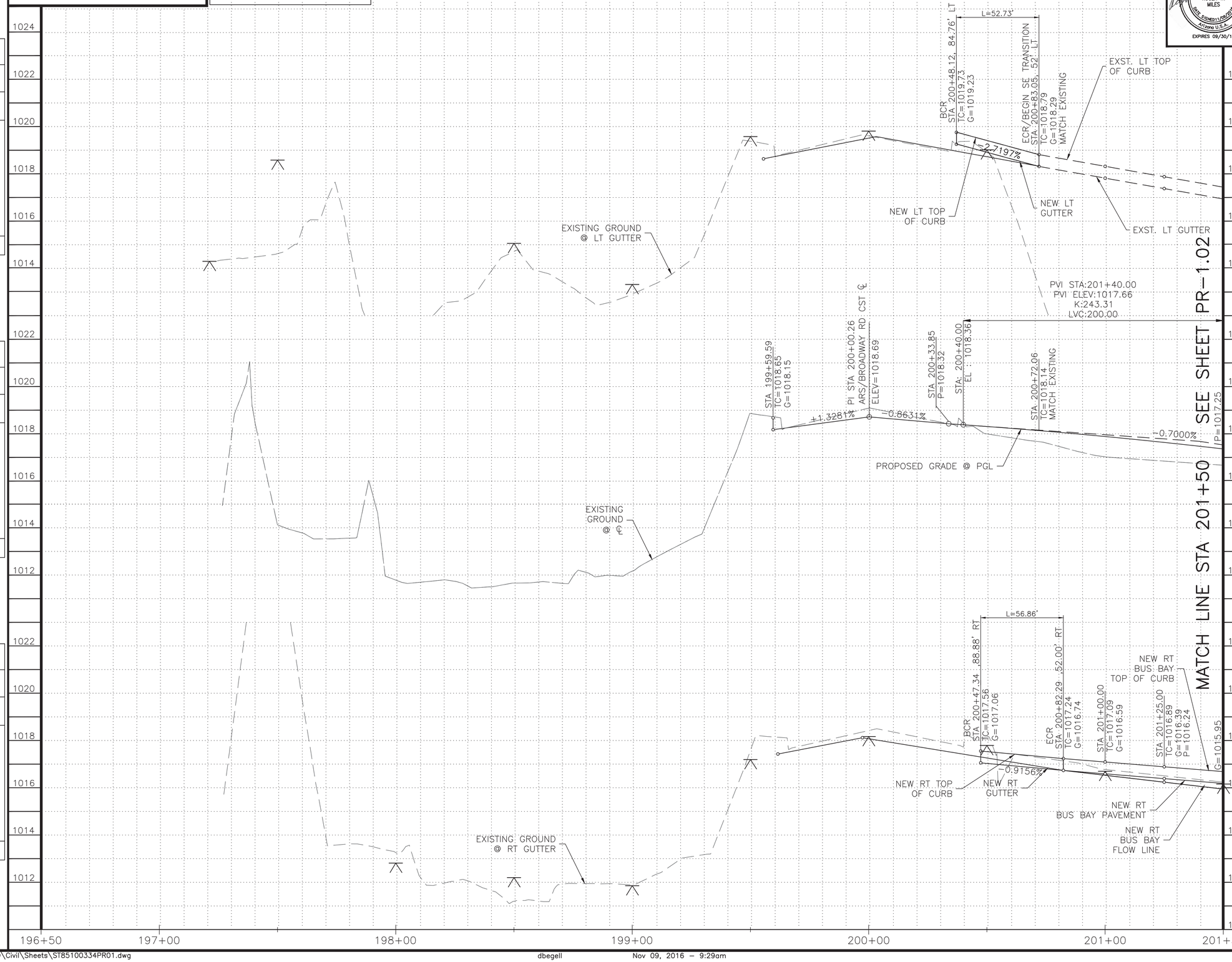
DR: RD	DES: RWM	CK: KJB	DWG NO: PL-1.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PL01.dwg dbegell Nov 09, 2016 – 9:28am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT STA 199+22.48, 335.71' LT ELEV = 1021.91



REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	16	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	17	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

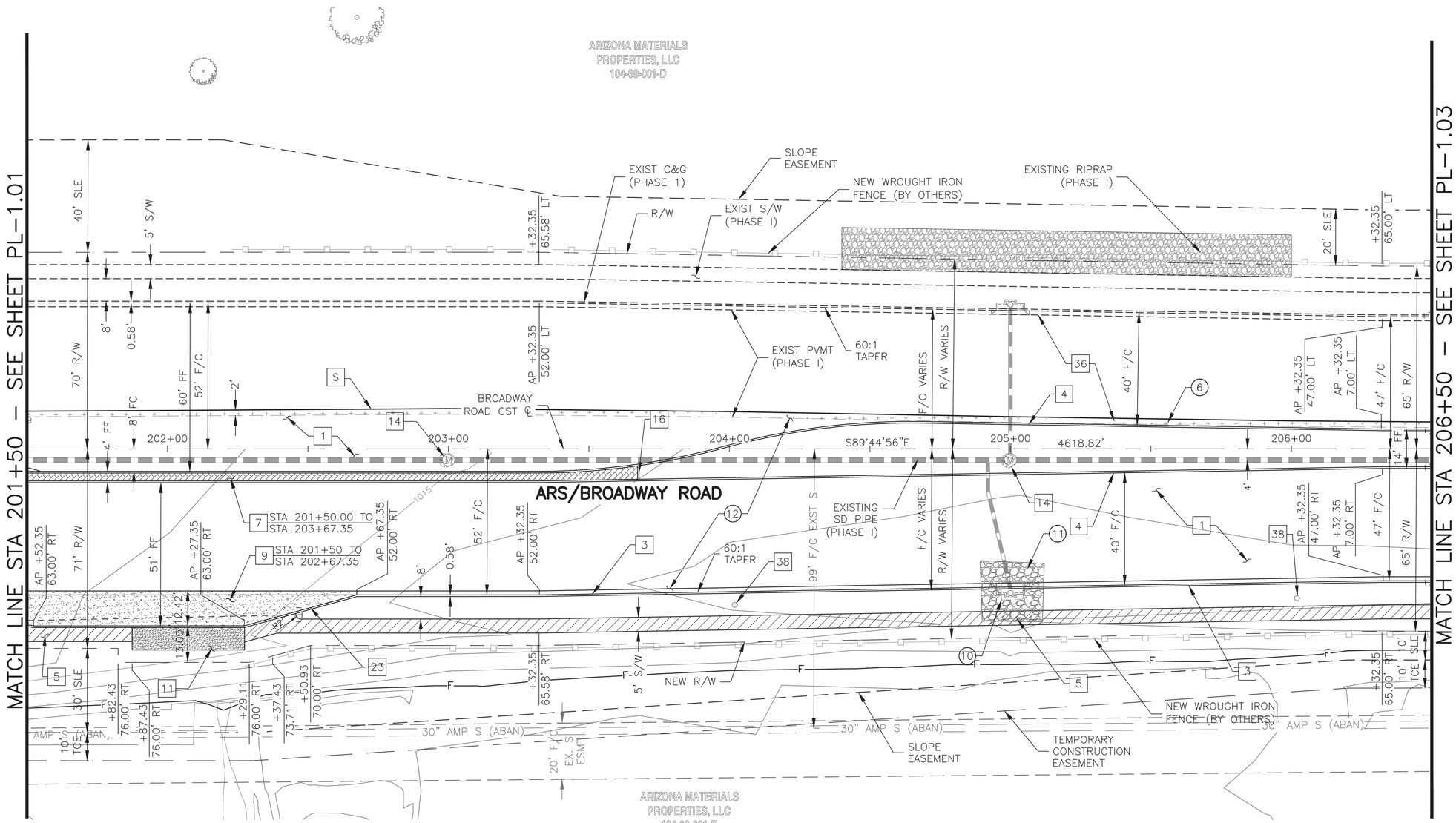
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 204+16.30, 246.36' LT ELEV = 1011.14

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	111
10	REMOVE CATCH BASIN	EA	1
11	REMOVE EXISTING RIPRAP	SF	420
12	REMOVE EXISTING AC MILLINGS (NPI)	SY	3173

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	2697
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	308
	ASPHALTIC CONCRETE BASE COURSE, (A1–1/2), 5–1/2" THICK	TON	846
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.8
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	383
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	1006
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2267
	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	9.6
7	AGGREGATE BASE COURSE, 4" THICK	TON	15.4
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	637
9	9" THICK CONC. PVMT. CLASS "A" PER M.A.G. SPECS & C.O.P. DET. P1256–1	SF	1237
11	BUS SHELTER PAD, C.O.P. DET. P1261	SF	625
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	2
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	5
23	CONSTRUCT CONCRETE SINGLE CURB, M.A.G. DET 222, TYPE 'A' MODIFIED (FOR BUS BAYS)	LF	119
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2077
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	–

SHEET REFERENCES

1. SEE SHEET 12 FOR MEDIAN DETAILS
2. SEE SHEET 60 FOR STORM DRAIN PLAN
3. SEE SHEETS 73 FOR CONNECTOR PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 204+16.30, 246.36' LT
ELEV = 1011.14

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	18	168

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

SEE SHEET PR-1.01

MATCH LINE STA 201+50

MATCH LINE STA 206+50

SEE SHEET PR-1.03

EXISTING LT GUTTER

EXISTING LT TOP OF CURB

AP STA 203+32.35, 52' LT TC=1014.40 G=1013.90

AP STA 206+32.35, 47' LT TC=1013.76 G=1013.26 TC=1013.80 G=1013.30

+0.2131%

EXISTING LT GUTTER

PVI STA:201+40.00
PVI ELEV:1017.66
K:243.31
LVC:200.00

PVI STA:203+90.00
PVI ELEV:1013.85
K:176.27
LVC:300.00
LP STA: 205+08.27
LP ELEV: 1014.0934

P=1017.26

-1.5220%

STA: 202+40.00 EL: 1016.13

STA: 205+40.00 EL: 1014.12

P=1014.24

+0.1800%

PGL

EXISTING GROUND @ ℄

CURB TAPER
TRUE LENGTH=300.04'

STA 201+52.35, 63.00' RT TC=1016.67 C=1016.17 P=1015.92

NEW RT BUS BAY TOP OF CURB

STA 201+75.00 TC=1016.41 C=1015.91 P=1015.65

STA 202+00.00 TC=1016.12 C=1015.62 P=1015.36

-1.1715%

NEW RT BUS BAY PAVEMENT

NEW RT BUS BAY FLOW LINE

EXISTING GROUND @ RT GUTTER

STA 202+27.35, 63.00' RT TC=1015.79 C=1015.29 P=1015.04

STA 202+50.00 TC=1015.39 C=1014.89 P=1014.78

AP-END BUS BAY STA 202+67.35, 52.00' RT TC=1015.08 G=1014.58

STA 203+00.00 TC=1014.71 G=1014.21

AP STA 203+32.35, 52.00' RT TC=1014.36 G=1013.86

STA 203+50.00 TC=1014.18 G=1013.68

STA 203+75.00 TC=1014.00 G=1013.50

STA 204+00.00 TC=1013.83 G=1013.33

STA 204+25.00 TC=1013.72 G=1013.22

STA 204+50.00 TC=1013.62 G=1013.12

NEW RT GUTTER

STA 204+75.00 TC=1013.58 G=1013.08

NEW RT GUTTER DROP INLET

STA 205+00.00 TC=1013.53 G=1013.03

STA 205+25.00 TC=1013.55 G=1013.05

AP STA 206+32.35, 47' RT TC=1013.77 G=1013.27 TC=1013.80 G=1013.30

+0.2333%

201+50 202+00 203+00 204+00 205+00 206+00 206+50

1022 1020 1018 1016 1014 1012 1010

NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

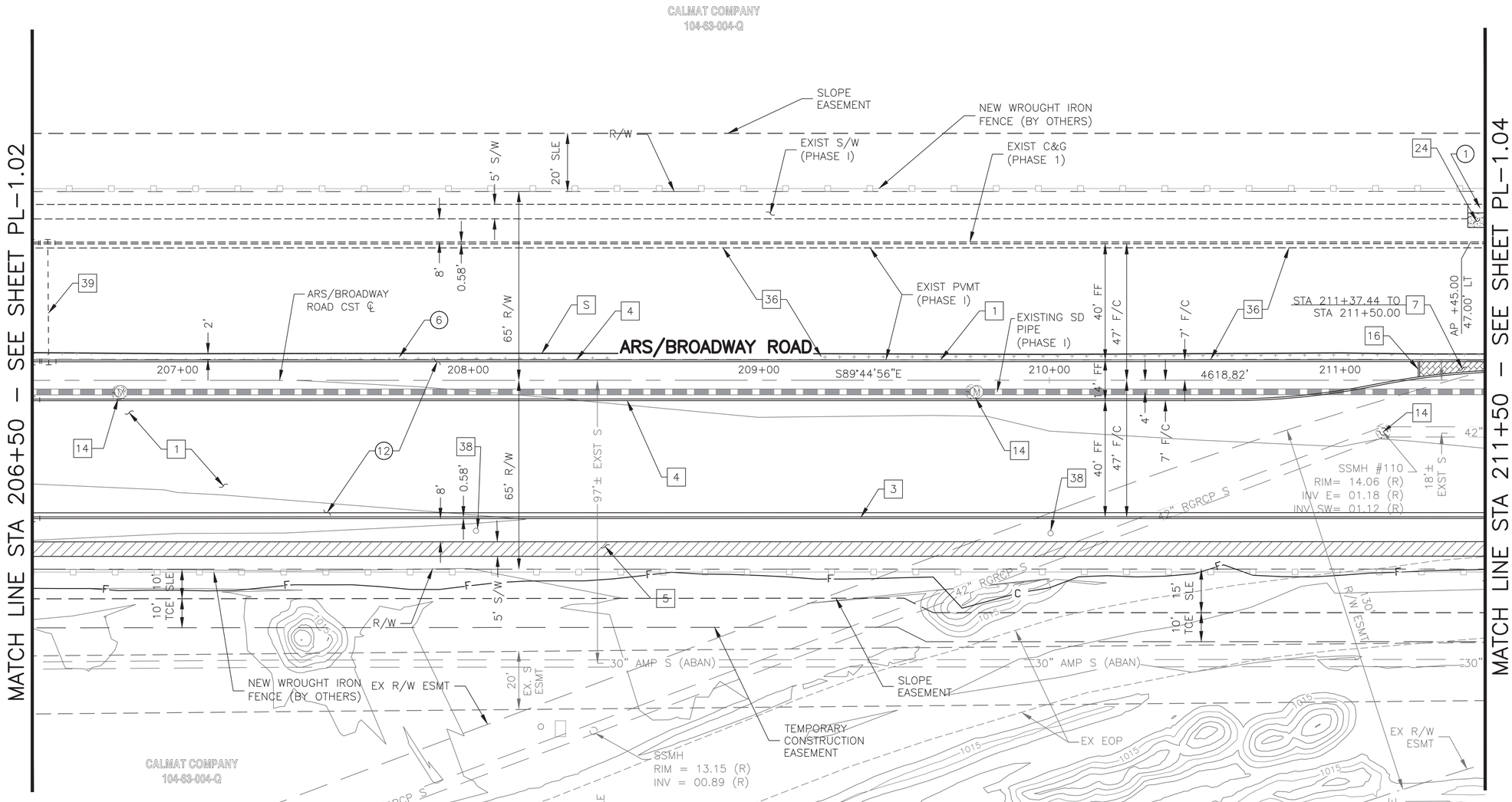
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	19	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 204+16.30, 246.36' LT ELEV = 1011.14

208+24.97, 119.207 RT, POWER POLE
208+31.76, 119.800 RT, ELEC XFMR
208+44.95, 119.156 RT, SEWER MANHOLE
211+14.91, 17.804 RT, SEWER MANHOLE

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE SIDEWALK	SF	18
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	111
12	REMOVE EXISTING AC MILLING (NPI)	SY	2843

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	2183
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	249
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	685
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.5
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	500
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	1001
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2500
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	1.4
	AGGREGATE BASE COURSE, 4" THICK	TON	2.2
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	90
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	3
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	5
24	BUS SHELTER PAD PER DETAIL, SEE SHEET 45	NPI	–
	CONCRETE BUS PAD PAVEMENT PER COP DET P1260	SF	0
	CONCRETE SIDEWALK, C.O.P. DET P1230, MODIFIED (EXPOSED AGGREGATE)	SF	30
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2075
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	–
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

SHEET REFERENCES

1. SEE SHEET 12 FOR MEDIAN DETAILS
2. SEE SHEET 61 FOR STORM DRAIN PLAN

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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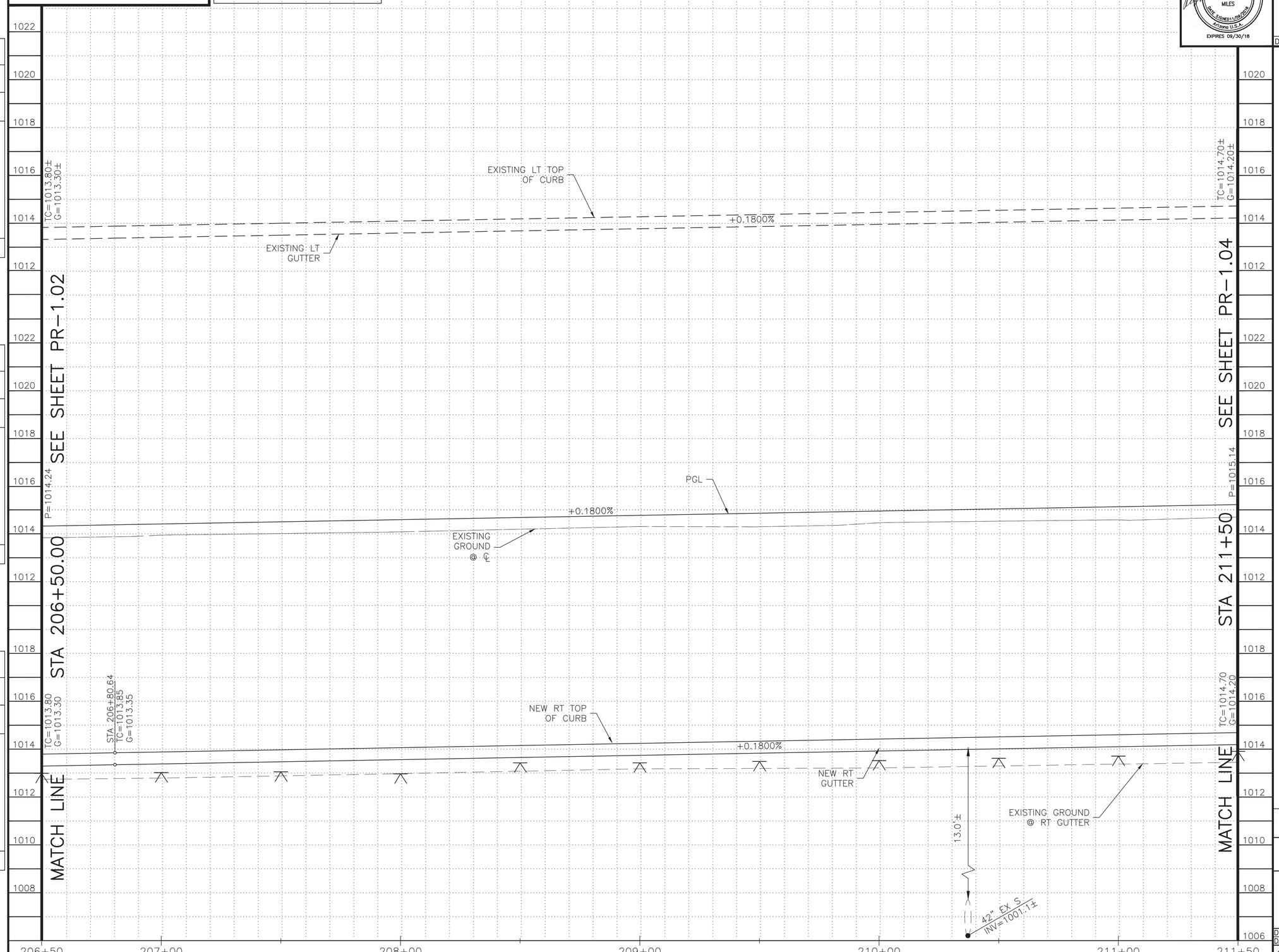
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 204+16.30, 246.36' LT
ELEV = 1011.14

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	20	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	21	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

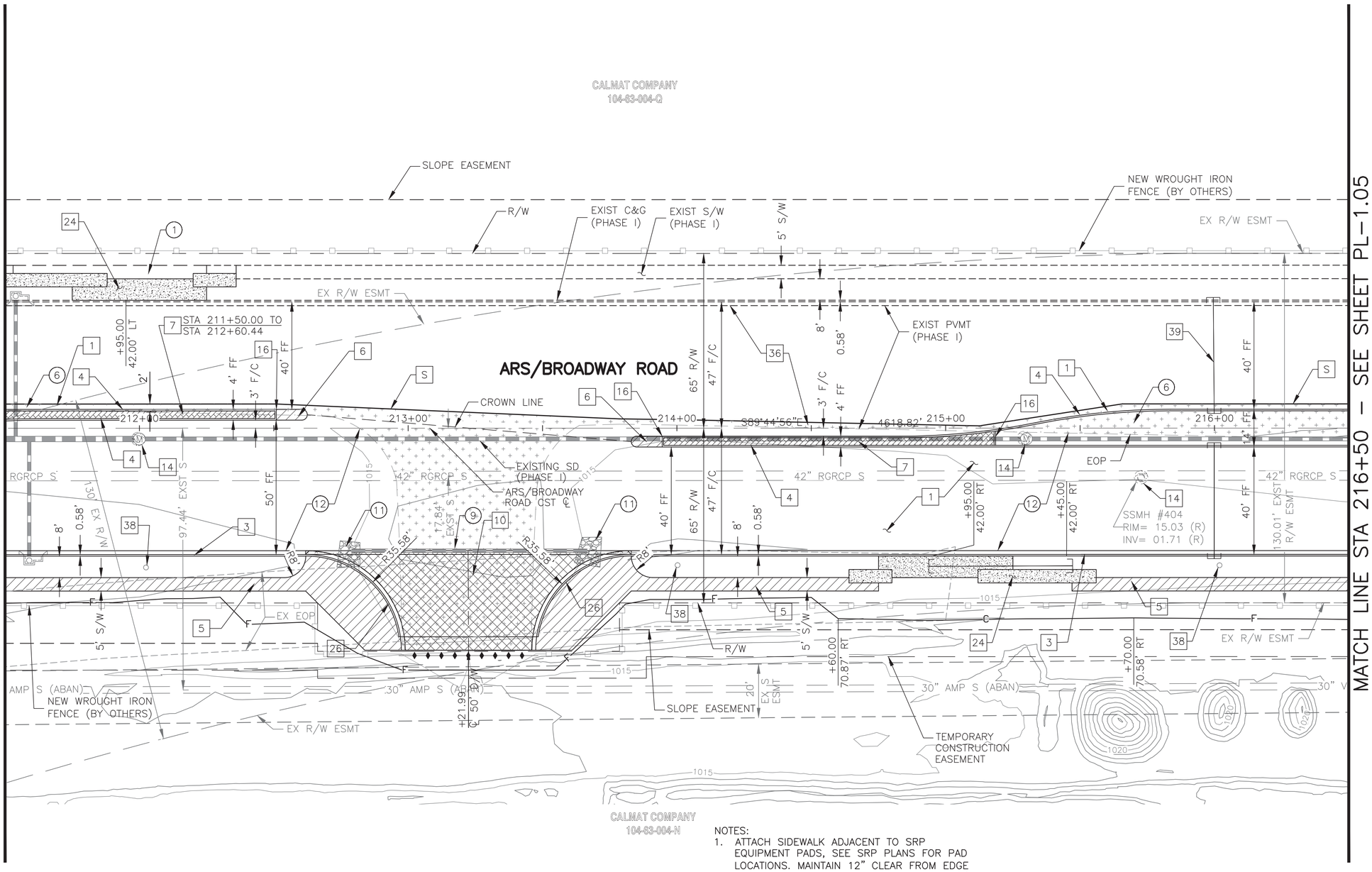
NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER, & SLAB	SF	425
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	670
9	REMOVE PIPE, BACKFILL & COMPACT	LF	88
11	REMOVE EXISTING RIP RAP	SF	162
12	REMOVE EXISTING AC MILLING (NPI)	SY	2225

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	2346
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	268
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	736
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.6
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	379
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	764
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	1950
6	CONCRETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	84
	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	10.0
7	AGGREGATE BASE COURSE, 4" THICK	TON	16.0
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	664
10	CONCRETE DRIVEWAY ENTRANCE , C.O.P. DET. P1243 (9" THICK)	SF	3999
14	ADJUST EXISTING MANHOLE FRAME AND COVER. M.A.G. DET. 422 AND DETAIL P1442	EA	3
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	11
	BUS SHELTER PAD PER DETAIL, SEE SHEET 45	NPI	–
24	CONCRETE BUS PAD PAVEMENT PER COP DET P1260	SF	692
	CONCRETE SIDEWALK, C.O.P. DET P1230, MODIFIED (EXPOSED AGGREGATE) SEE SHEET 45	SF	570

SHEET REFERENCES

1. SEE SHEET 12 FOR MEDIAN DETAILS
2. SEE SHEET 62 FOR STORM DRAIN PLAN
3. SEE SHEET 72 FOR CONNECTOR PIPE PROFILE

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

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

▲ T.B.M.: SET 1/2" REBAR AT STA 214+21.89, 249.50' LT ELEV = 1013.85

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

26	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6" (9" THICK)	LF	100
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2238
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.04
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 214+21.89, 249.50' LT
ELEV = 1013.85

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	22	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

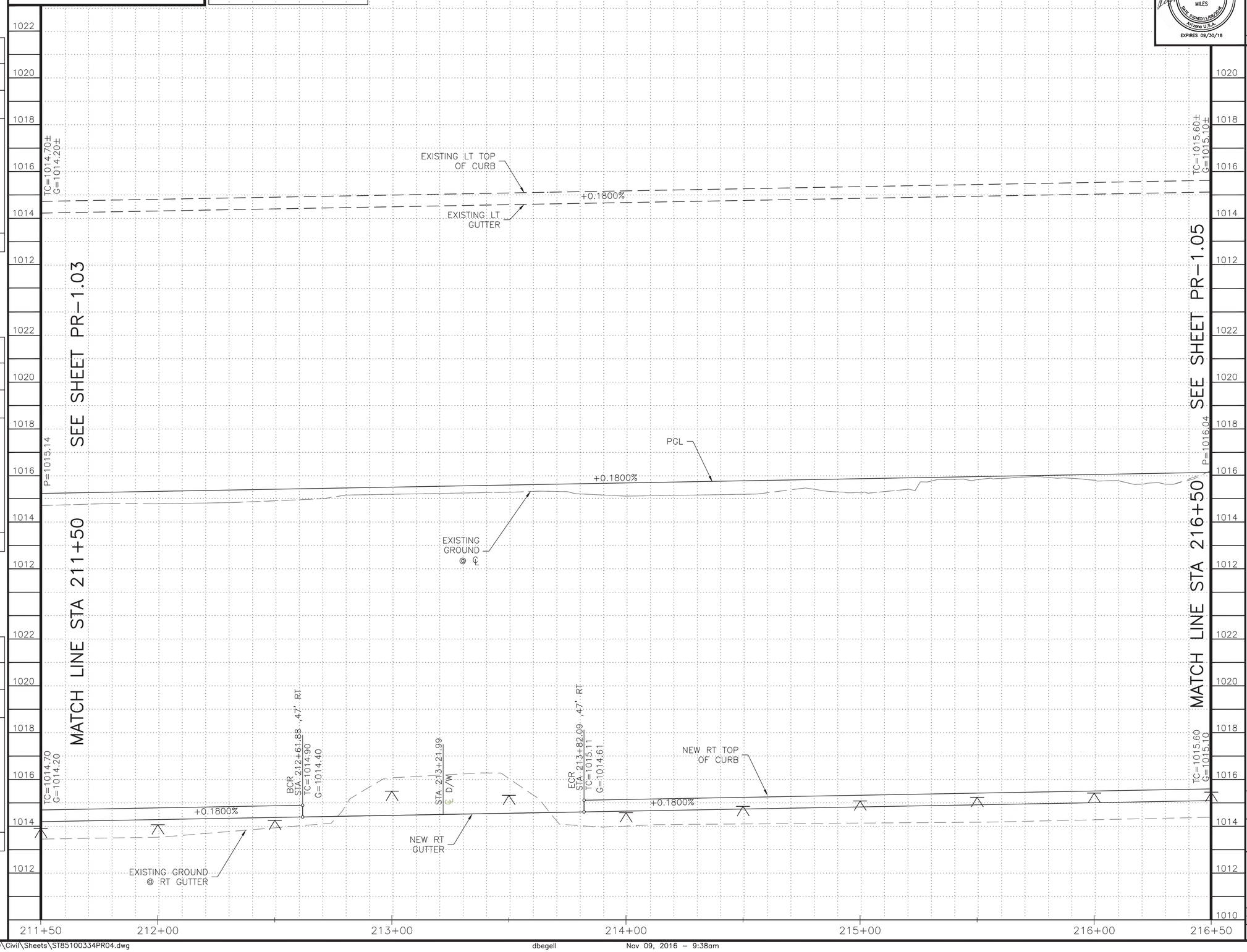
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.04
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	23	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

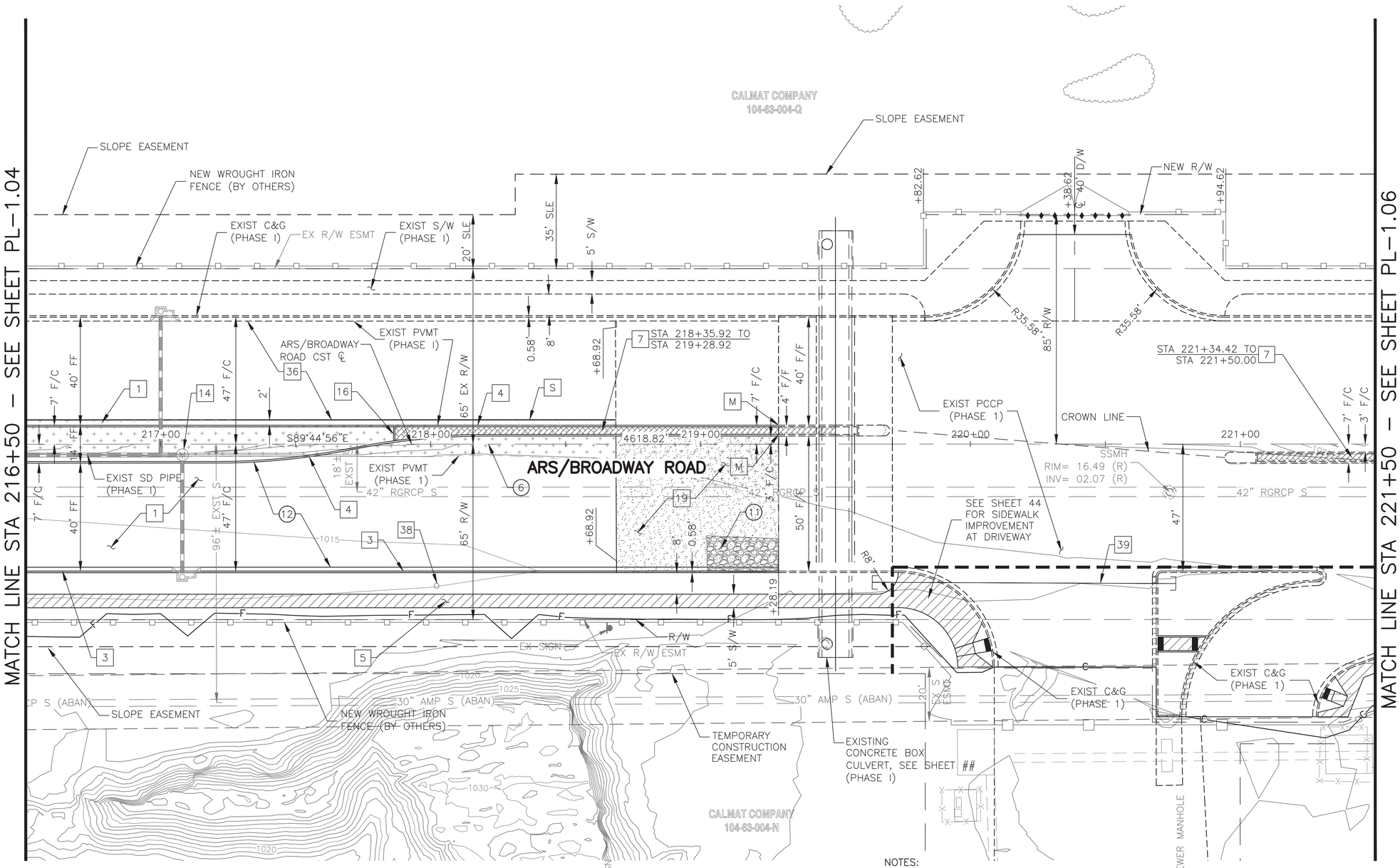
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 214+21.89, 249.50' LT ELEV = 1013.85

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REMOVAL/RELOCATION NOTES

(6)	REMOVE AC PAVEMENT	SY	440
(11)	REMOVE EXISTING RIP RAP	SF	333
(12)	REMOVE EXISTING MILLING (NPI)	SY	1233

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	995
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	114
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	312
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	0.7
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	219
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	550
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2071
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	7.5
	AGGREGATE BASE COURSE, 4" THICK	TON	12.0
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	475
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	1
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	5
19	SUBGRADE PREPARATION	SY	338
	PORTLAND CEMENT CONCRETE PAVEMENT, 9" THICK	SY	338
	AGGREGATE BASE COURSE, 4" THICK	TON	74
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	888
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	–
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

SHEET REFERENCES

1. SEE SHEET 13 FOR MEDIAN DETAILS
2. SEE SHEET 63 FOR STORM DRAIN PLAN
3. SEE SHEET 73 FOR CB CONN PIPE PROFILE
4. SEE SHEET ## FOR CBC PLAN AND PROFILE
5. SEE SHEET 43 FOR JOINTING PLAN
6. SEE SHEET 44 FOR DRIVEWAY ASSOCIATED CONSTRUCTION QUANTITIES

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.05
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PL05.dwg dbegell Nov 09, 2016 – 9:41am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 214+21.89, 249.50' LT
ELEV = 1013.85

REVISION BY CITY OF PHOENIX

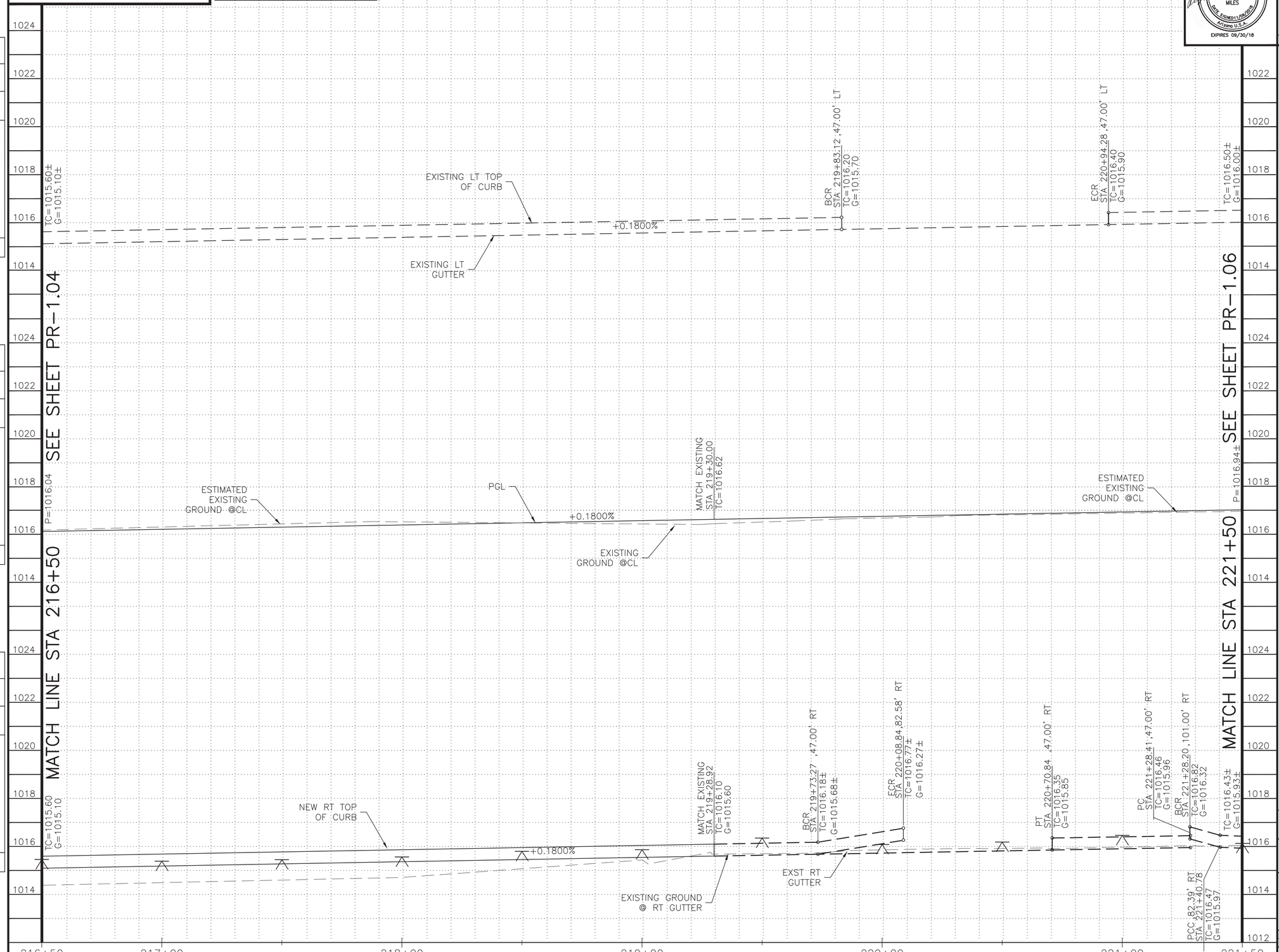
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.05
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	24	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PR05.dwg dbegell Nov 09, 2016 – 9:42am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	25	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

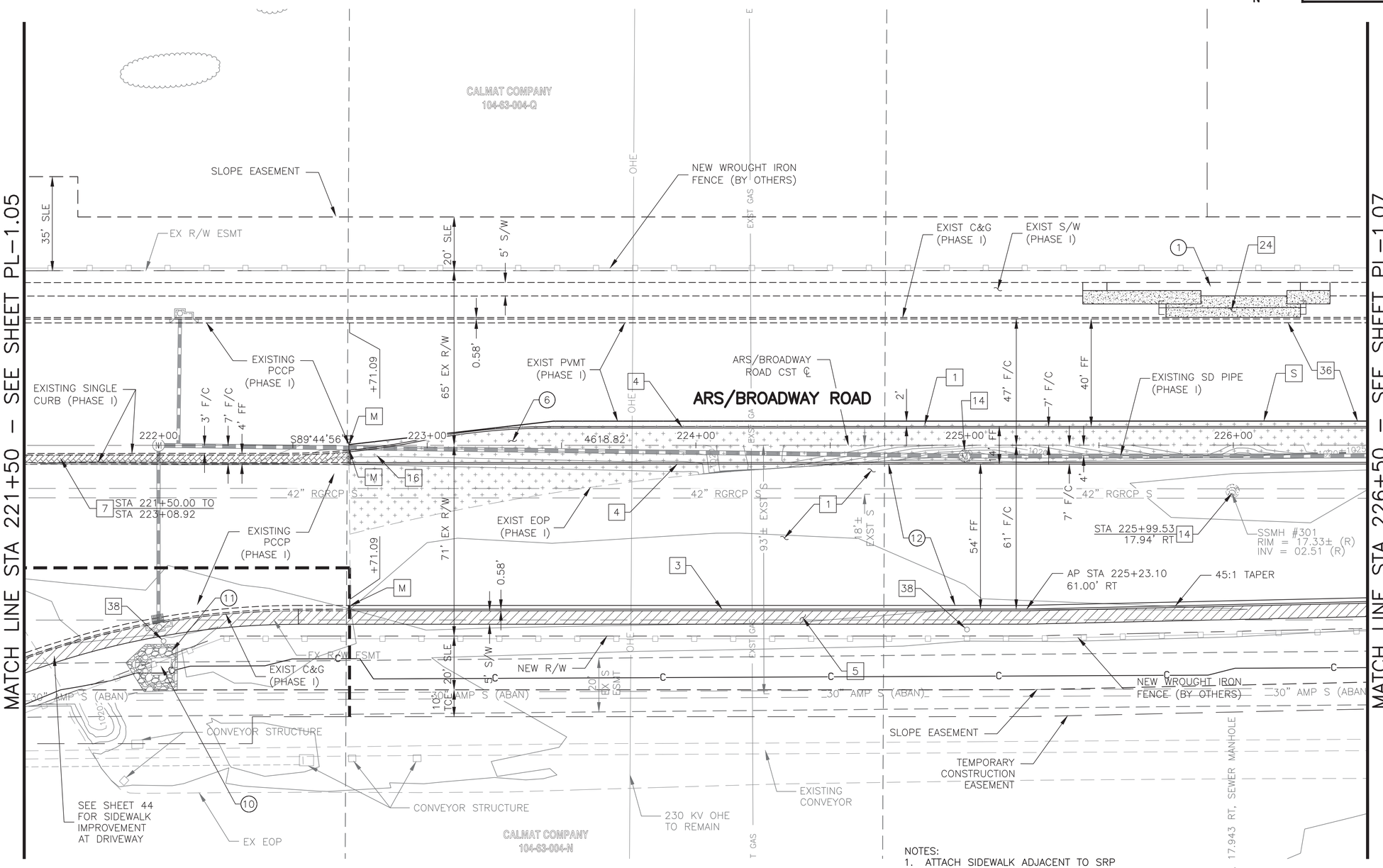
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 224+25.33, 257.42' LT ELEV = 1010.48

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REMOVAL/RELOCATION NOTES

(1)	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER AND SLAB	SF	450
(6)	REMOVE ASPHALT CONCRETE PAVEMENT	SY	810
(10)	REMOVE CATCH BASIN	EA	1
(11)	REMOVE EXISTING RIPRAP	SF	225
(12)	REMOVE EXISTING AC MILLING (NPI)	SY	1989

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	2192
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	250
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	688
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.5
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	377
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	745
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2550
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	6.0
	AGGREGATE BASE COURSE, 4" THICK	TON	9.6 2
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	398
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	5 – 5
16	SINGLE CURB, M.A.G. DET 222 TYPE B, H=6"	LF	
24	BUS SHELTER PAD PER DETAIL, SEE SHEET 45	NPI	
	CONCRETE BUS PAD PAVEMENT PER COP DET P1260	SF	346
	CONCRETE SIDEWALK, C.O.P. DET P1230, MODIFIED (EXPOSED AGGREGATE) SEE SHEET 45	SF	300
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	1844
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	–

SHEET REFERENCES

1. SEE SHEET 13 FOR MEDIAN DETAILS
2. SEE SHEET 64 FOR STORM DRAIN PLAN
3. SEE SHEET 74 FOR CB CONN PIPE PROFILE
4. SEE SHEET 79 FOR STORM DRAIN OUTFALL

CALL TWO WORKING DAYS BEFORE YOU DIG
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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.06
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 224+25.33, 257.42' LT
ELEV = 1010.48

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	26	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

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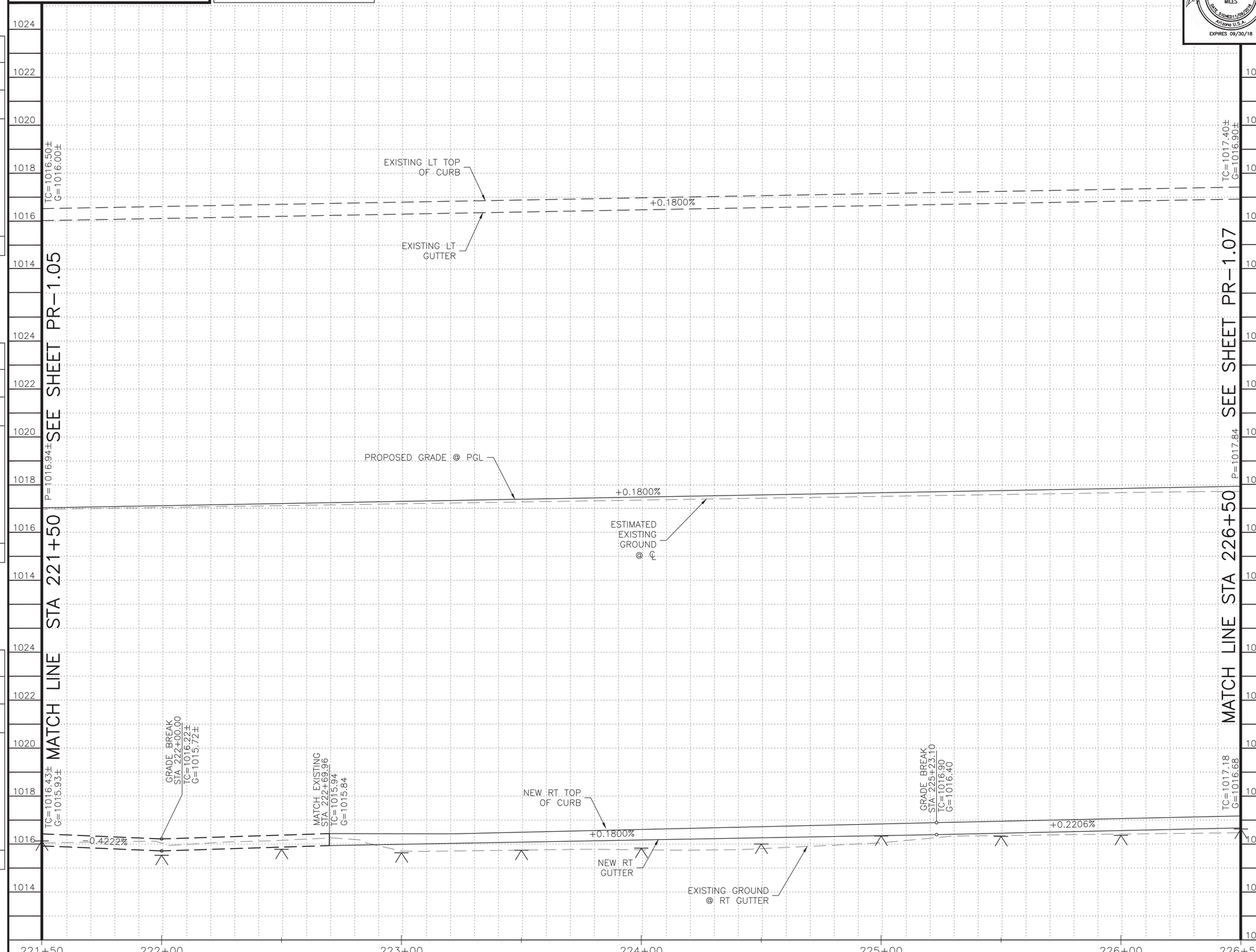
NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.06
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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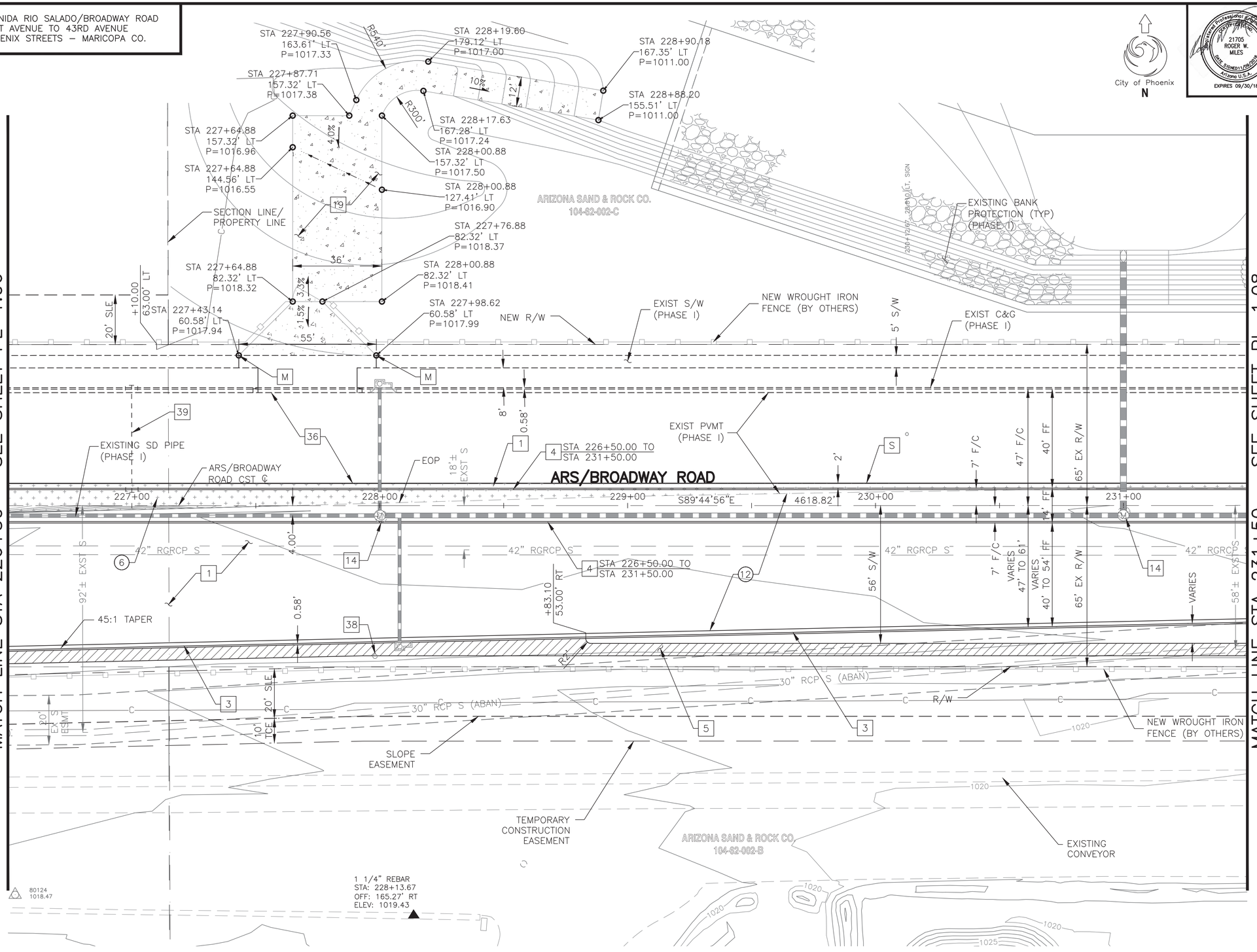
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



▲ B.M.: FND 1 1/4" REBAR AT
STA 228+13.67, 165.27' RT
ELEV = 1019.43

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

City of Phoenix
N

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	27	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

NO	REMOVAL/RELOCATION NOTES	UNIT	QTY
(6)	REMOVE ASPHALT CONCRETE PAVEMENT	SY	336
(12)	REMOVE EXISTING AC MILLING (NPI)	SY	2611

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	2455
	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	280
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	770
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.6
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	500
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	1000
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2500
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	2
19	SUBGRADE PREPARATION	SY	467
	PORTLAND CEMENT CONCRETE PAVEMENT, 9" THICK	SY	467
	AGGREGATE BASE COURSE	TON	102
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2030
38	FUTURE STREET LIGHT CONDUIT STUBOUT. PROTECT IN PLACE.	N/A	–
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE 1 COMPLETED ITEMS. PHASE 1 IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE 1 ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 65 FOR STORM DRAIN PLAN
2. SEE SHEET 75 & 79 FOR CB CONN PIPE PROFILE
3. SEE SHEET 81 FOR BANK PROTECTION

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.07
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ B.M.: FND 1 1/4" REBAR AT
STA 228+13.67, 165.27' RT
ELEV = 1019.43

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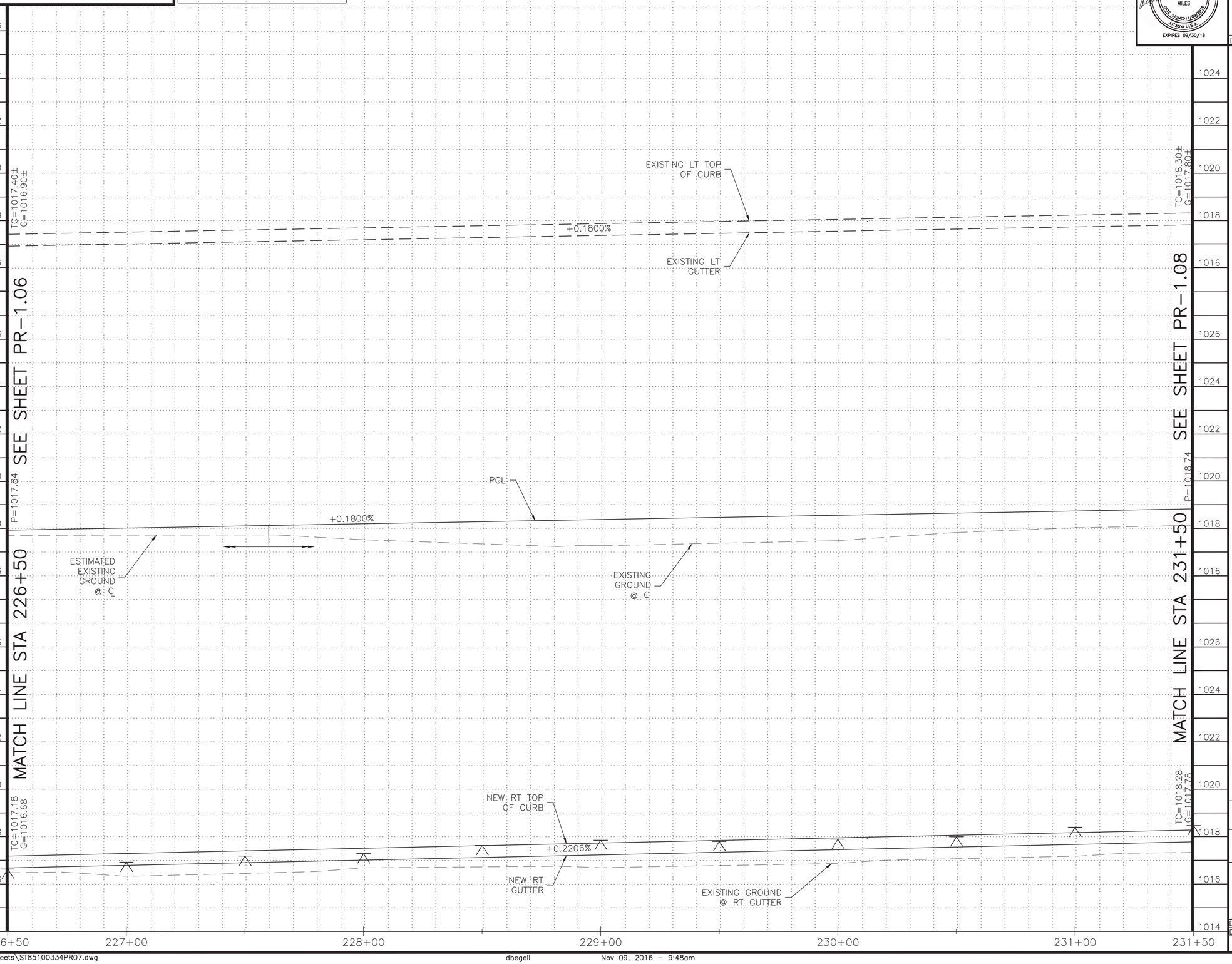
REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



Arizona Professional Engineering Seal
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	28	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.07
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	29	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

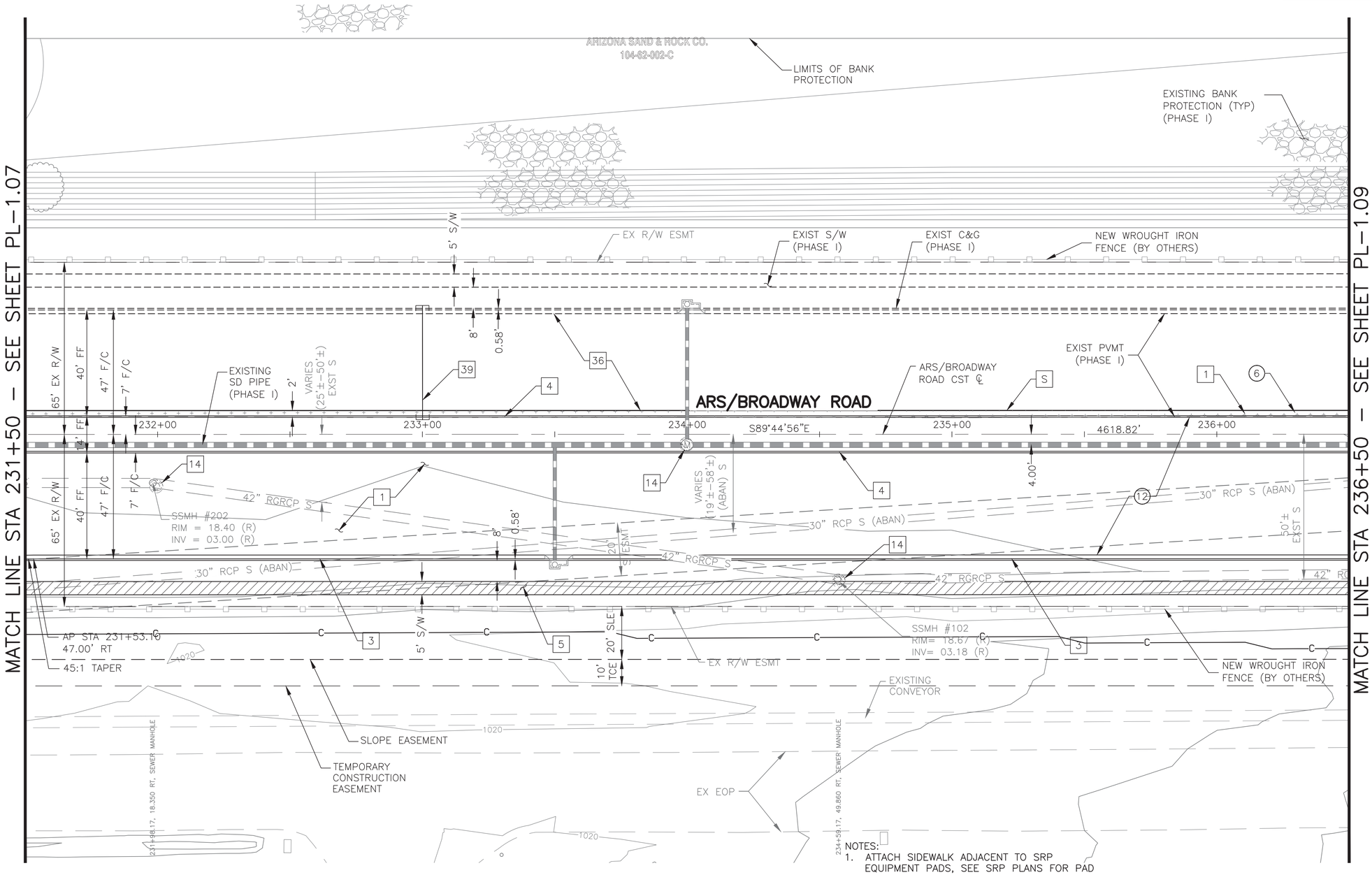
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 234+16.10, 258.60' LT ELEV = 1009.30

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	111
12	REMOVE EXISTING AC MILLING (NPI)	SY	3000

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	2141
1	ASPHALTIC CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	245
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	672
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.4
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	500
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	1000
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2500
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	3
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2031
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

SHEET REFERENCES

1. SEE SHEET 66 FOR STORM DRAIN PLAN
2. SEE SHEET 76 FOR CB CONN PIPE PROFILE
3. SEE SHEET 82 FOR BANK PROTECTION

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

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PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.08
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PL08.dwg dbegell Nov 09, 2016 – 9:50am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 234+16.10, 258.60' LT
ELEV = 1009.30

REVISION BY CITY OF PHOENIX

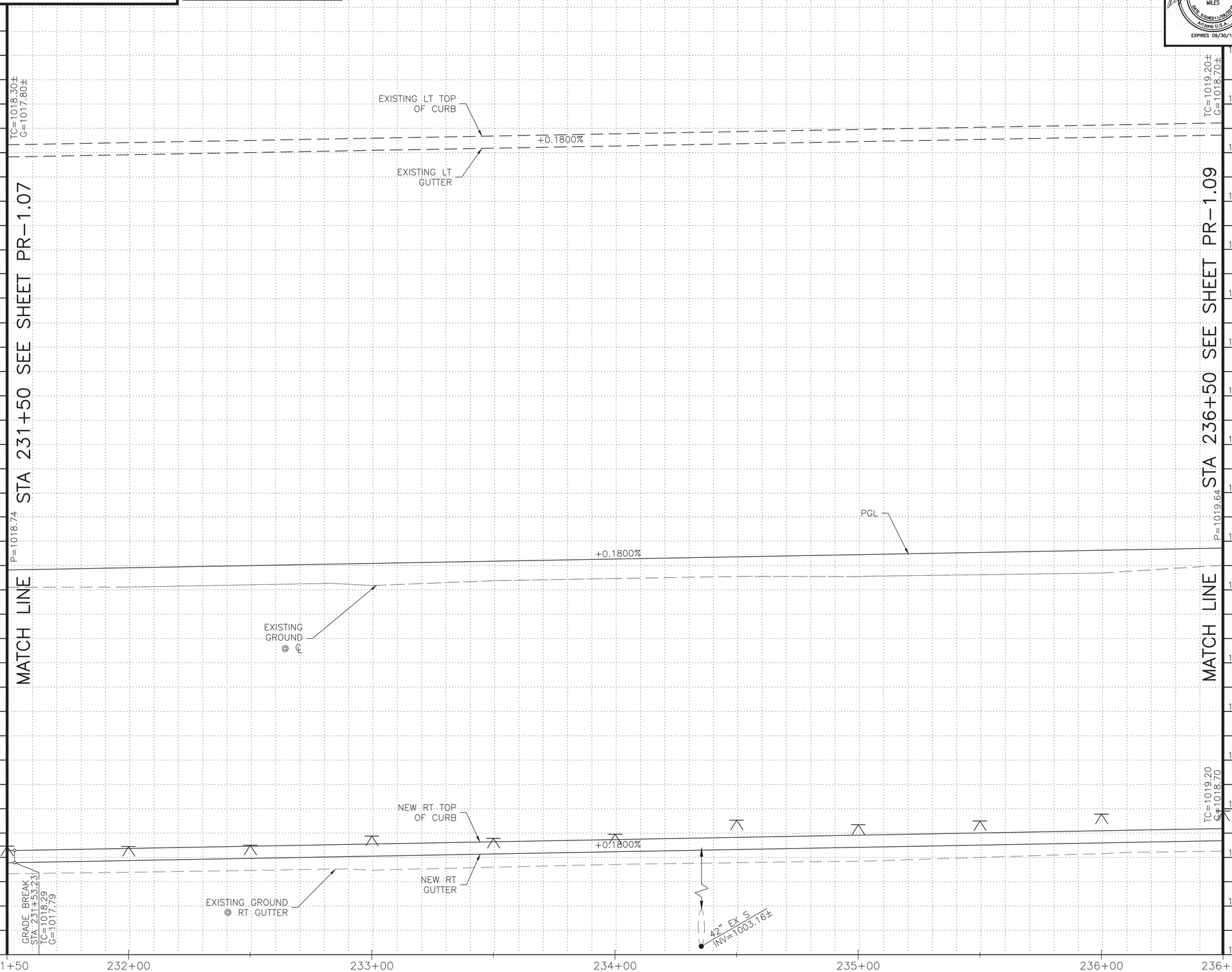
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	30	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.08
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PR08.dwg dbegell Nov 09, 2016 – 9:51am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	31	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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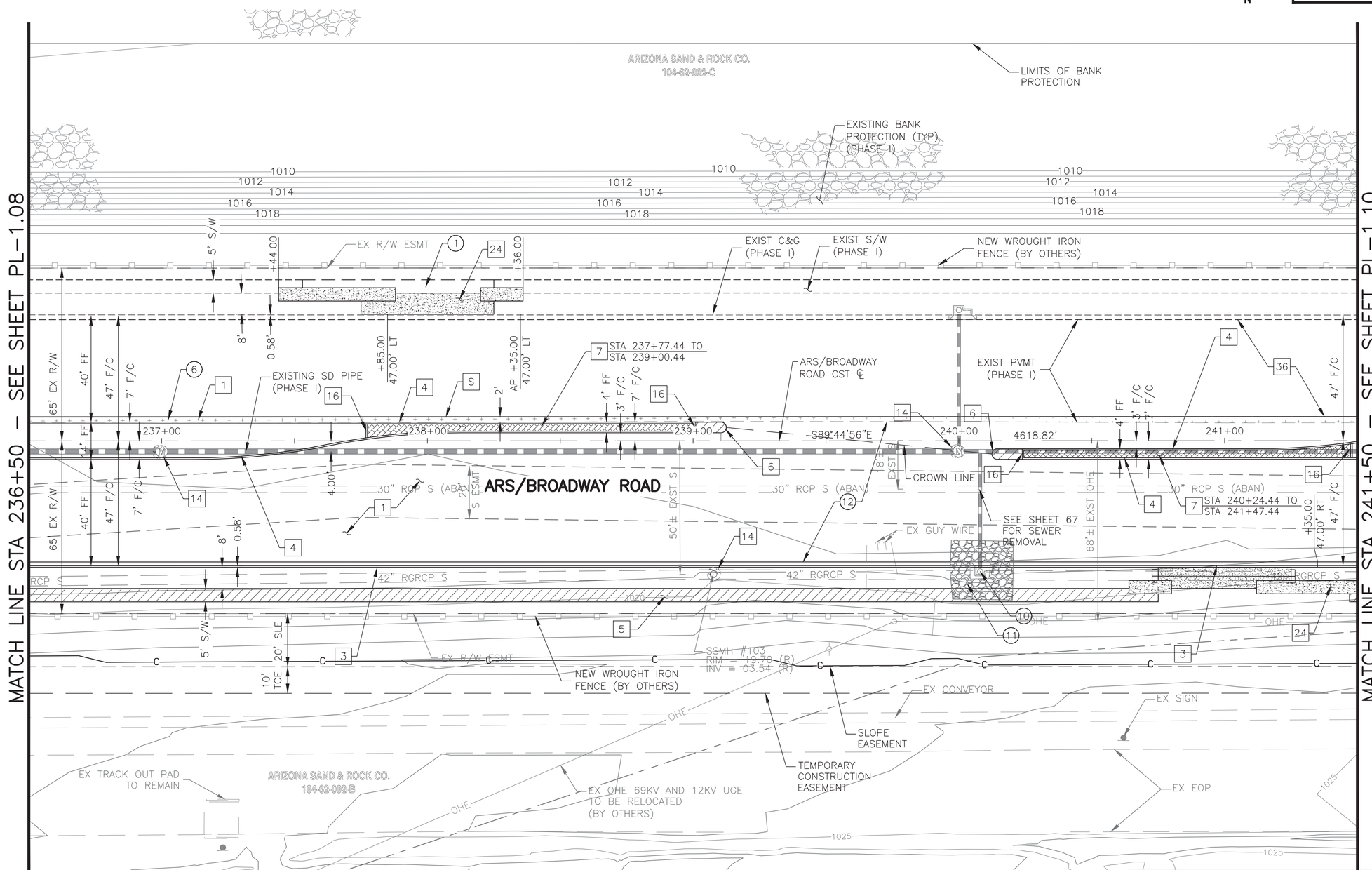
NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE



▲ T.B.M.: SET 1/2" REBAR AT STA 242+73.32, 76.89' RT ELEV = 1024.47

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE SIDEWALK	SF	450
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	111
10	REMOVE CATCH BASIN	EA	1
11	REMOVE EXISTING RIP RAP	SF	468
12	REMOVE EXISTING AC MILLING (NPI)	SY	3010

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	2367
	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	270
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	742
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.6
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	500
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	805
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2125
6	CONCRETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	84
	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	11.4
7	AGGREGATE BASE COURSE, 4" THICK	TON	18.2
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	754
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	3
16	SINGLE CURB, M.A.G. DET 222 TYPE B, H=6"	LF	8
24	BUS SHELTER PAD PER DETAIL, SEE SHEET 45	NPI	–
	CONCRETE BUS PAD PAVEMENT PER COP DET P1260	SF	692
	CONCRETE SIDEWALK, C.O.P. DET P1230, MODIFIED (EXPOSED AGGREGATE)	SF	572
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2030

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE 1 COMPLETED ITEMS. PHASE 1 IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE 1 ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 13 FOR MEDIAN DETAILS
2. SEE SHEET 67 FOR STORM DRAIN PLAN
3. SEE SHEET 77 FOR CB CONN PIPE PROFILE
4. SEE SHEET 83 FOR BANK PROTECTION

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

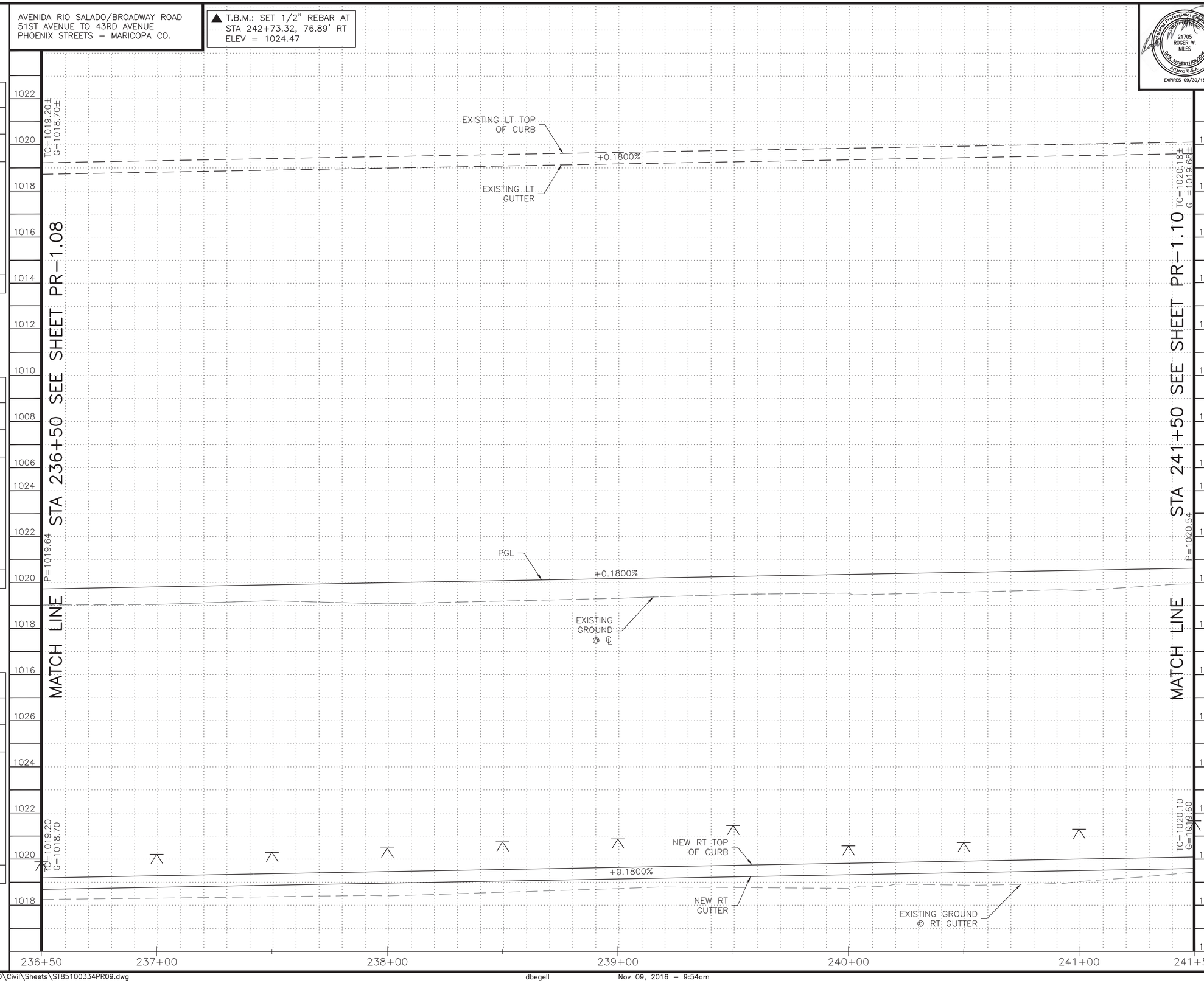
DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.09
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PL09.dwg dbegell Nov 09, 2016 – 9:53am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 242+73.32, 76.89' RT
ELEV = 1024.47



REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	32	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

NOTE

SEE PAVING PLAN SHEETS FOR MEDIAN ISLAND CONSTRUCTION.

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.09
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	33	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

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REVISION BY CITY OF PHOENIX

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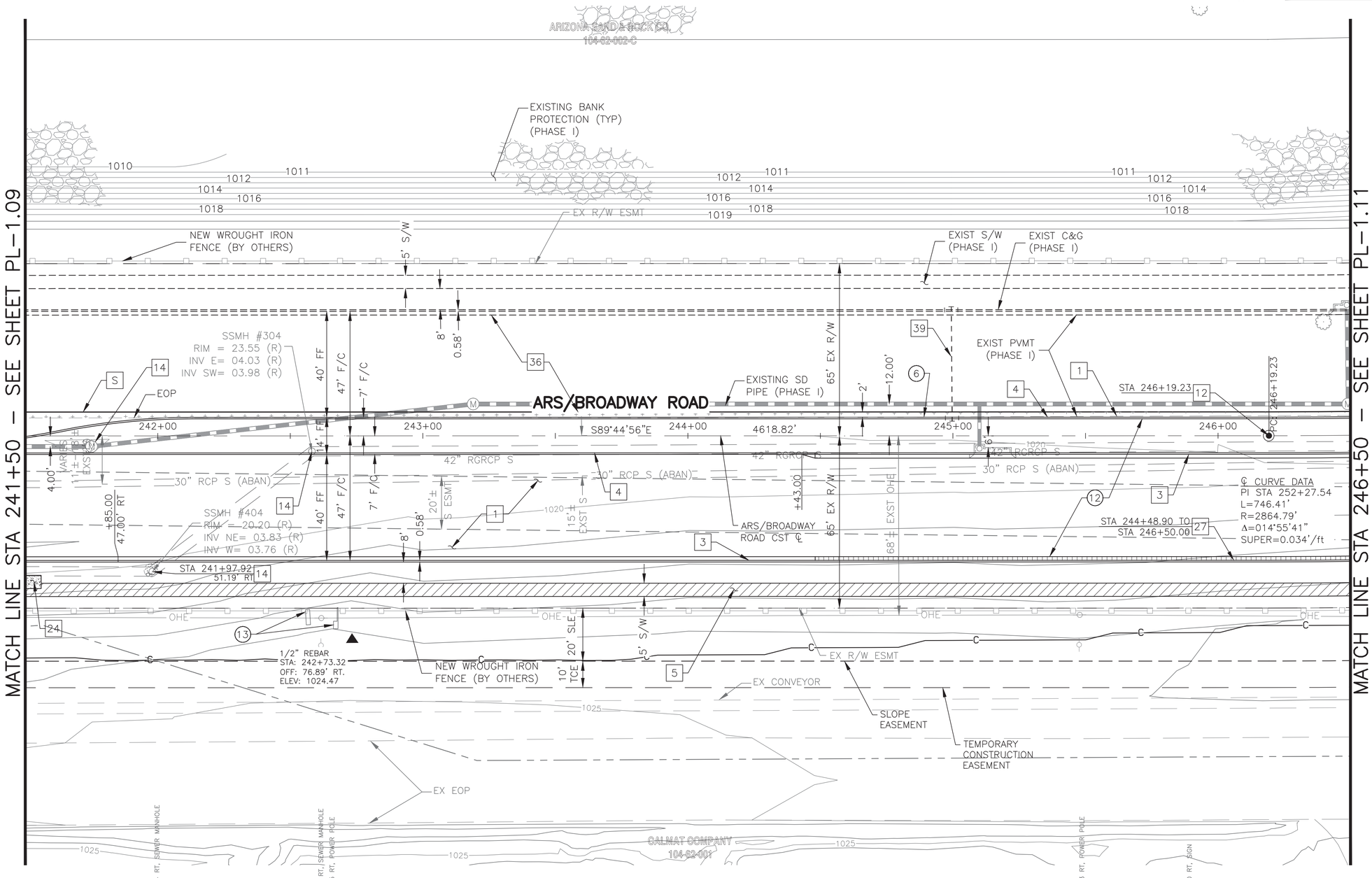

▲ T.B.M.: SET 1/2" REBAR AT STA 242+73.32, 76.89' RT ELEV = 1024.47

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	111
12	REMOVE EXISTING AC MILLING (NPI)	SY	3000
13	REMOVE CONCRETE BARRIER	LF	15

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	2111
	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	241
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	662
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.4
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	500
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	797
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2498
12	SURVEY MARKER, M.A.G. DET. 120–1, TYPE B	EA	1
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	3
24	BUS SHELTER PAD PER DETAIL, SEE SHEET 45	NPI	–
	CONCRETE BUS PAD PAVEMENT PER COP DET P1260	SF	0
	CONCRETE SIDEWALK, C.O.P. DET P1230, MODIFIED (EXPOSED AGGREGATE)	SF	28
27	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6", DEPRESSED LIP	LF	201
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	2031

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 13 FOR MEDIAN DETAILS
2. SEE SHEET 68 FOR STORM DRAIN PLAN
3. SEE SHEET 78 FOR CB CONN PIPE PROFILE
4. SEE SHEET 84 FOR BANK PROTECTION

39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.10
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 242+73.32, 76.89' RT
ELEV = 1024.47

REVISION BY CITY OF PHOENIX

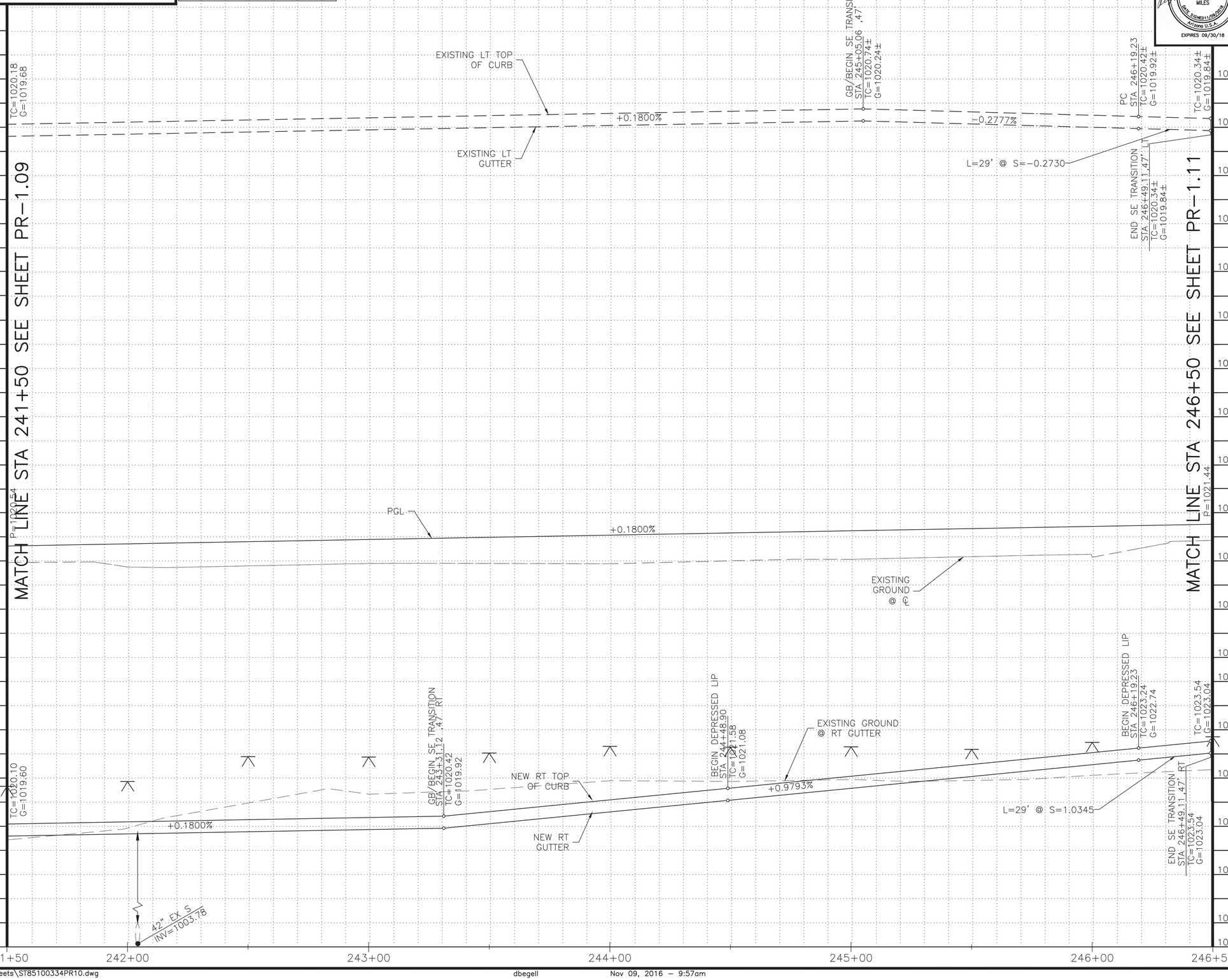
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	34	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.10
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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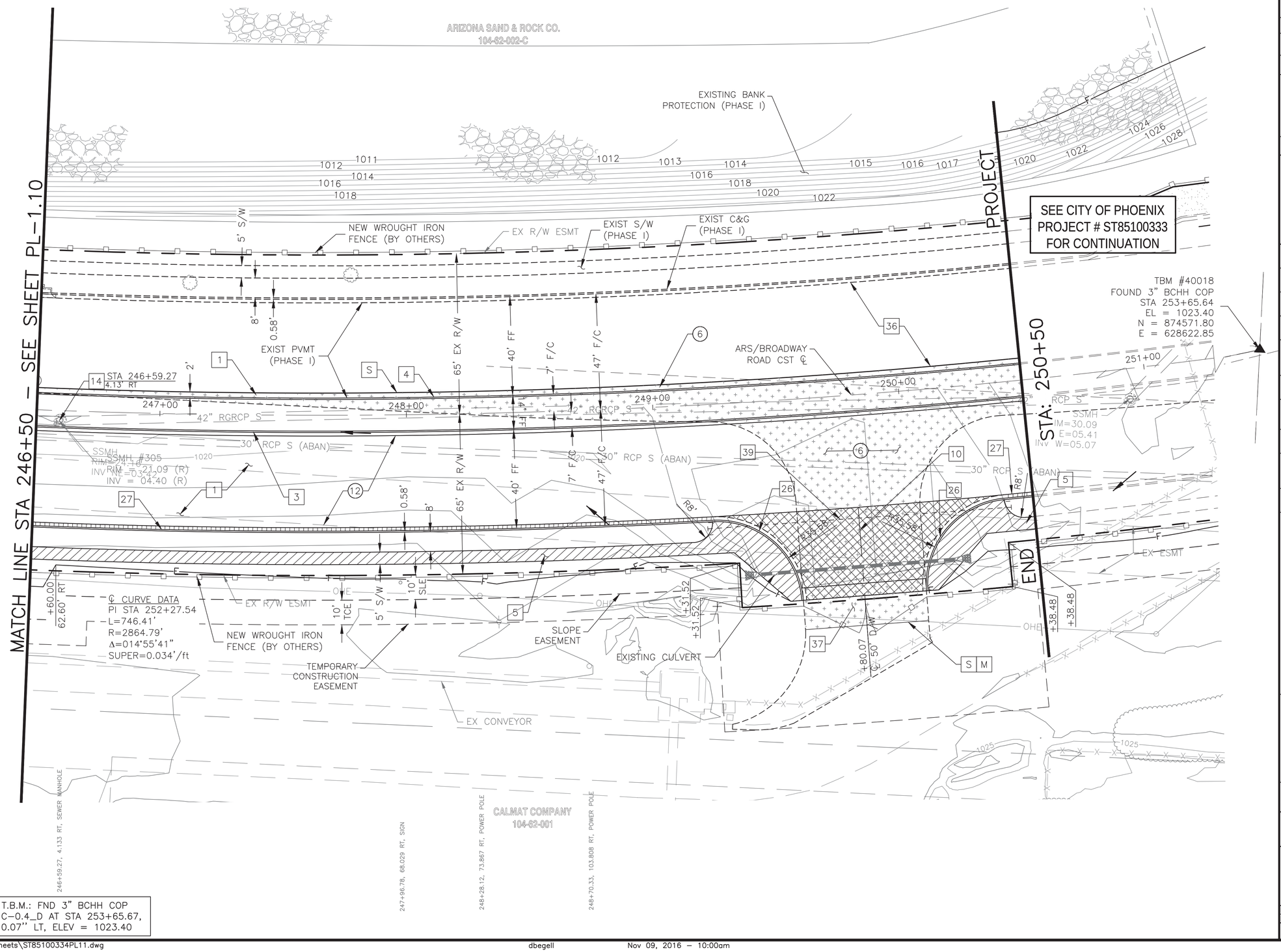
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



▲ T.B.M.: FND 3" BCHH COP
C–0.4_D AT STA 253+65.67,
0.07'' LT, ELEV = 1023.40

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	35	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
(6)	REMOVE ASPHALT CONCRETE PAVEMENT	SY	1034
(12)	REMOVE EXISTING AC MILLING (NPI)	SY	2239

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	1669
	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	191
	ASPHALT CONCRETE BASE COURSE (A1–1/2), 5–1/2" THICK	TON	524
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.1
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	400
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	399
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	1539
10	CONCRETE DRIVEWAY ENTRANCE , C.O.P. DET. P1243 (9" THICK)	SF	3388
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1422	EA	1
26	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6" (9" THICK)	LF	109
27	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6", DEPRESSED LIP	LF	295
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	1607
37	ASPHALT CONCRETE SURFACE COURSE TYPE D ½.	TON	7
39	EXISTING PVC IRRIGATION SLEEVE PROTECT IN PLACE	N/A	–

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS AND TEMPORARY 43RD AVE TRANSITION DETAILS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 13 FOR MEDIAN DETAILS
2. SEE SHEET 85 FOR BANK PROTECTION

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.11
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: FND 3" BCHH COP C–0.4_D AT STA 253+65.67, 0.07'' LT, ELEV = 1023.40

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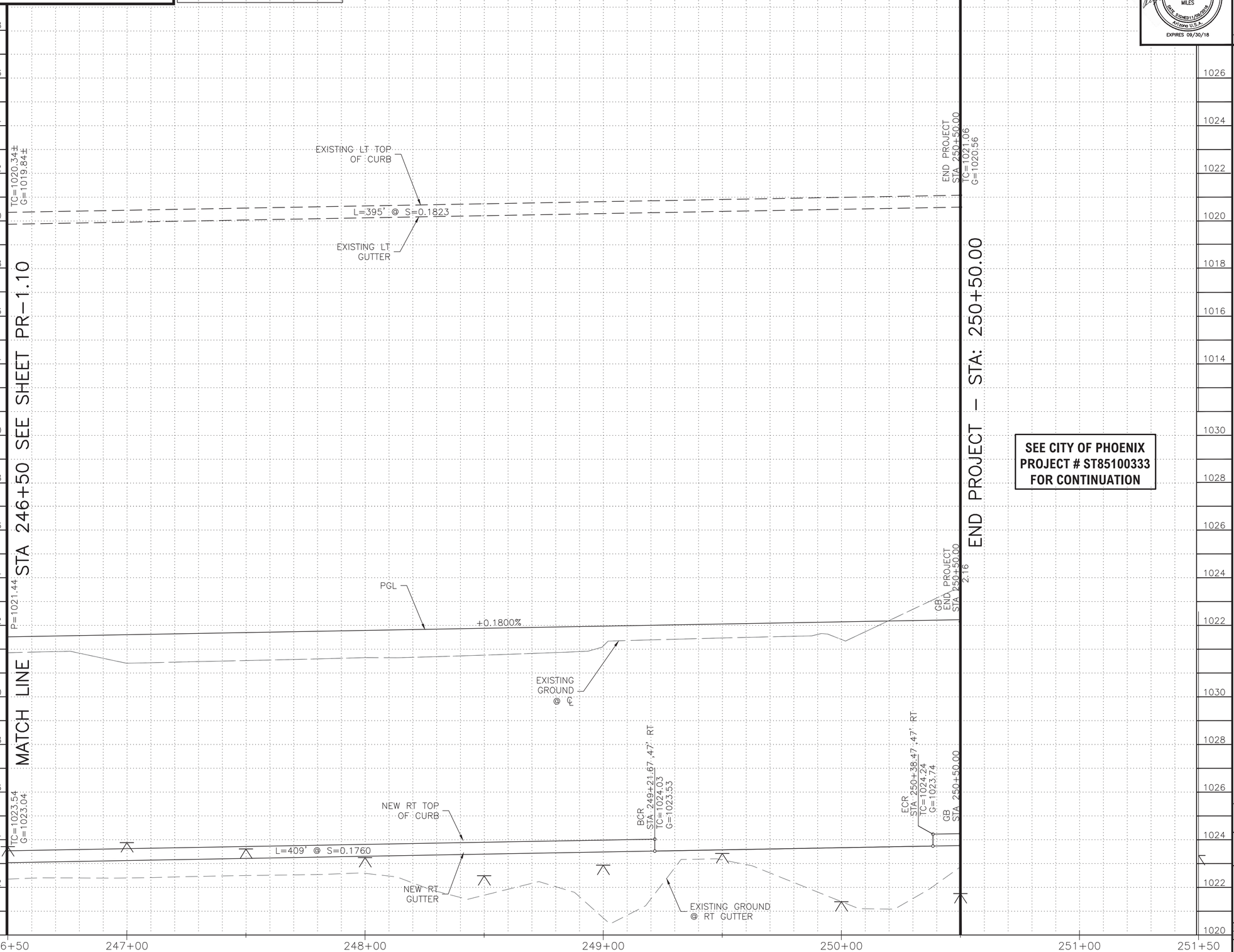
REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	36	168

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR–1.11
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	37	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

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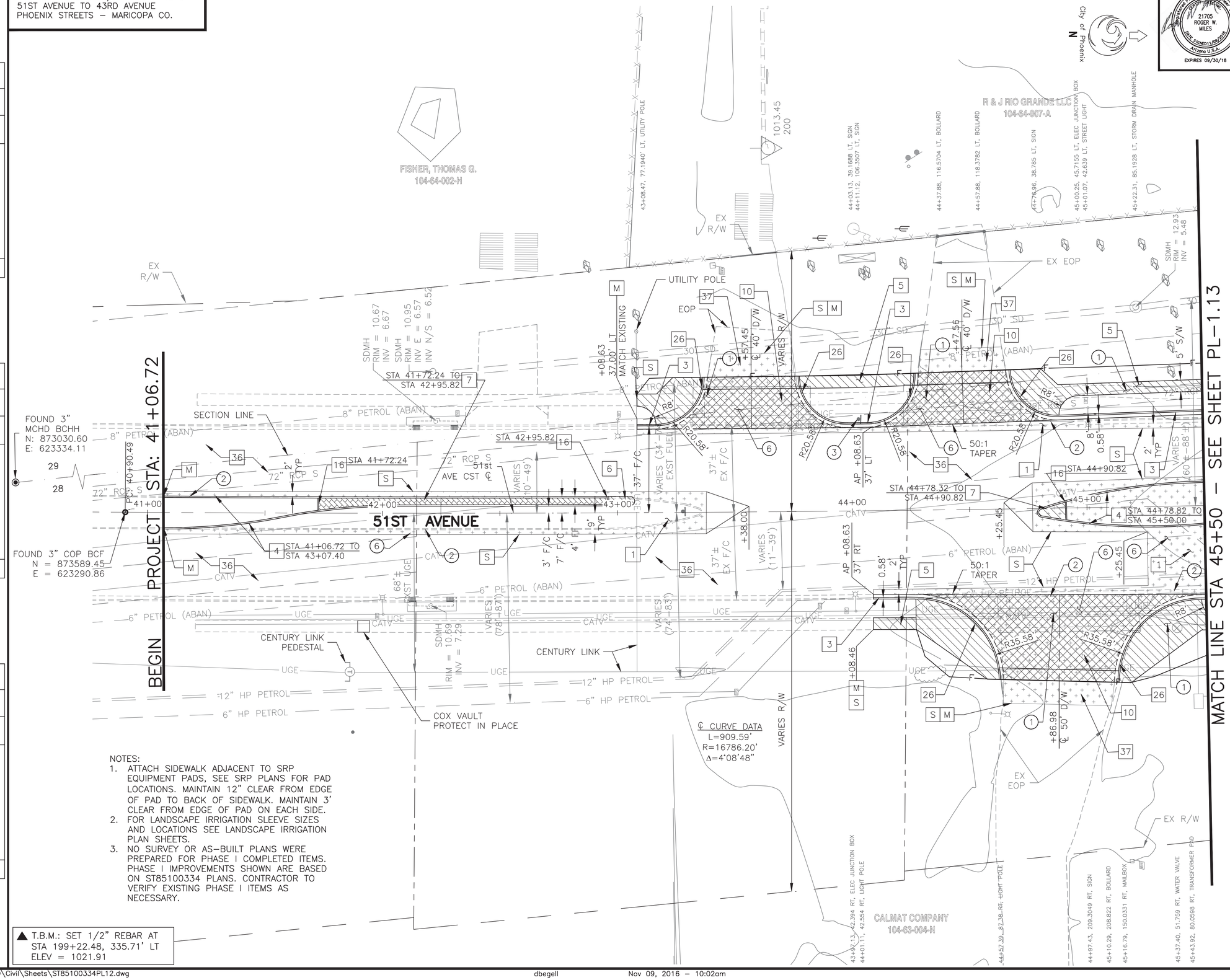
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

▲ T.B.M.: SET 1/2" REBAR AT STA 199+22.48, 335.71' LT ELEV = 1021.91

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER & SLAB	SF	2916
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	1707
3	REMOVE AND SALVAGE TRAFFIC SIGN (MISC)	EA	1
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	1642

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	2178
1	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	249
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	683
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.5
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	98
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	545
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2487
6	CONCRETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	42
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	6.4
	AGGREGATE BASE COURSE, 4" THICK	TON	10.3
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	426
10	CONCRETE DRIVEWAY ENTRANCE, C.O.P. DET. P1243 (9" THICK)	SF	6925
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	19
26	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6" (9" THICK)	LF	240
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	1743
37	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½.	TON	22

SHEET REFERENCES

1. SEE SHEET 14 FOR MEDIAN DETAILS

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

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.12
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334PL12.dwg dbegell Nov 09, 2016 – 10:02am

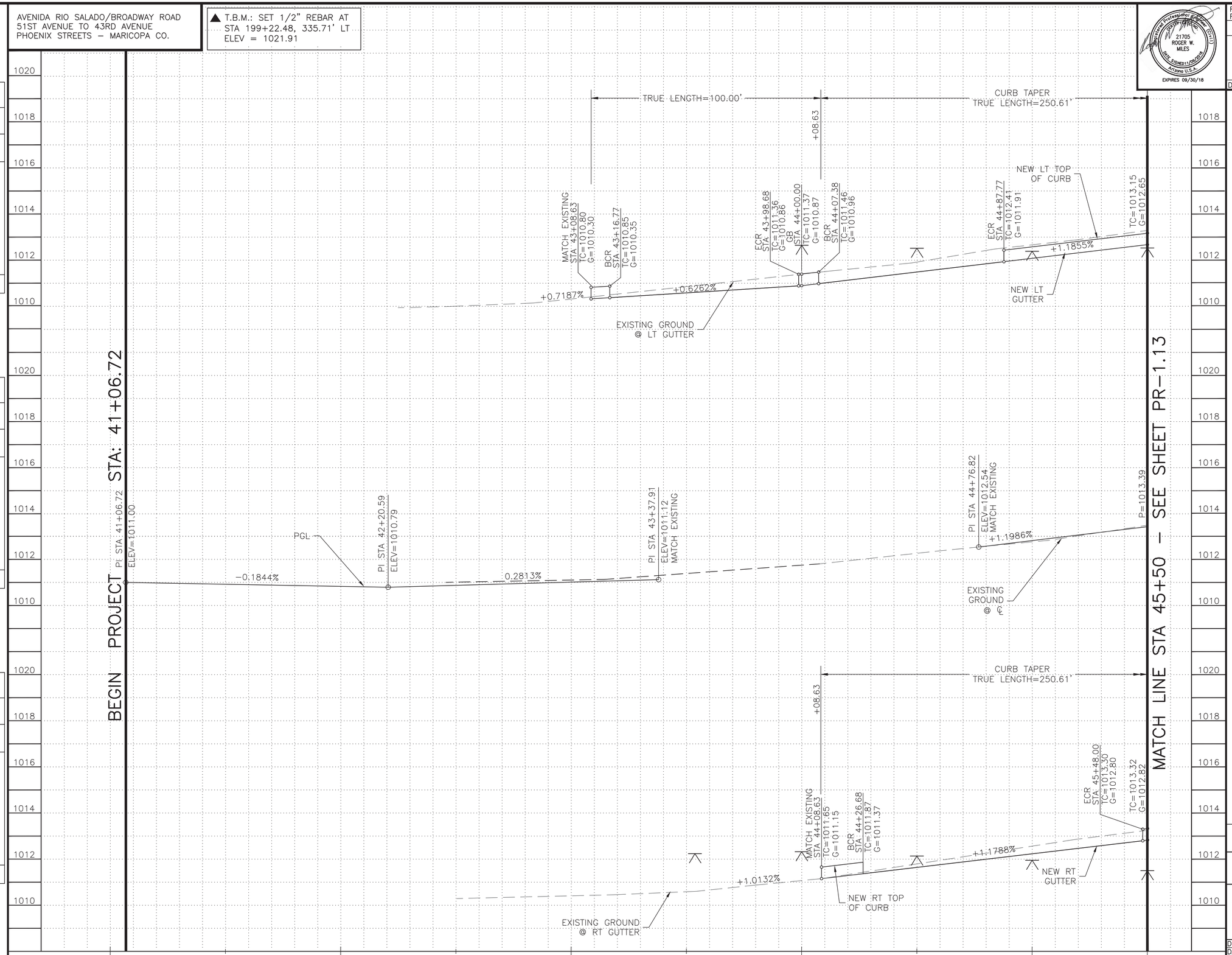
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 199+22.48, 335.71' LT
ELEV = 1021.91

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	38	168

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.12
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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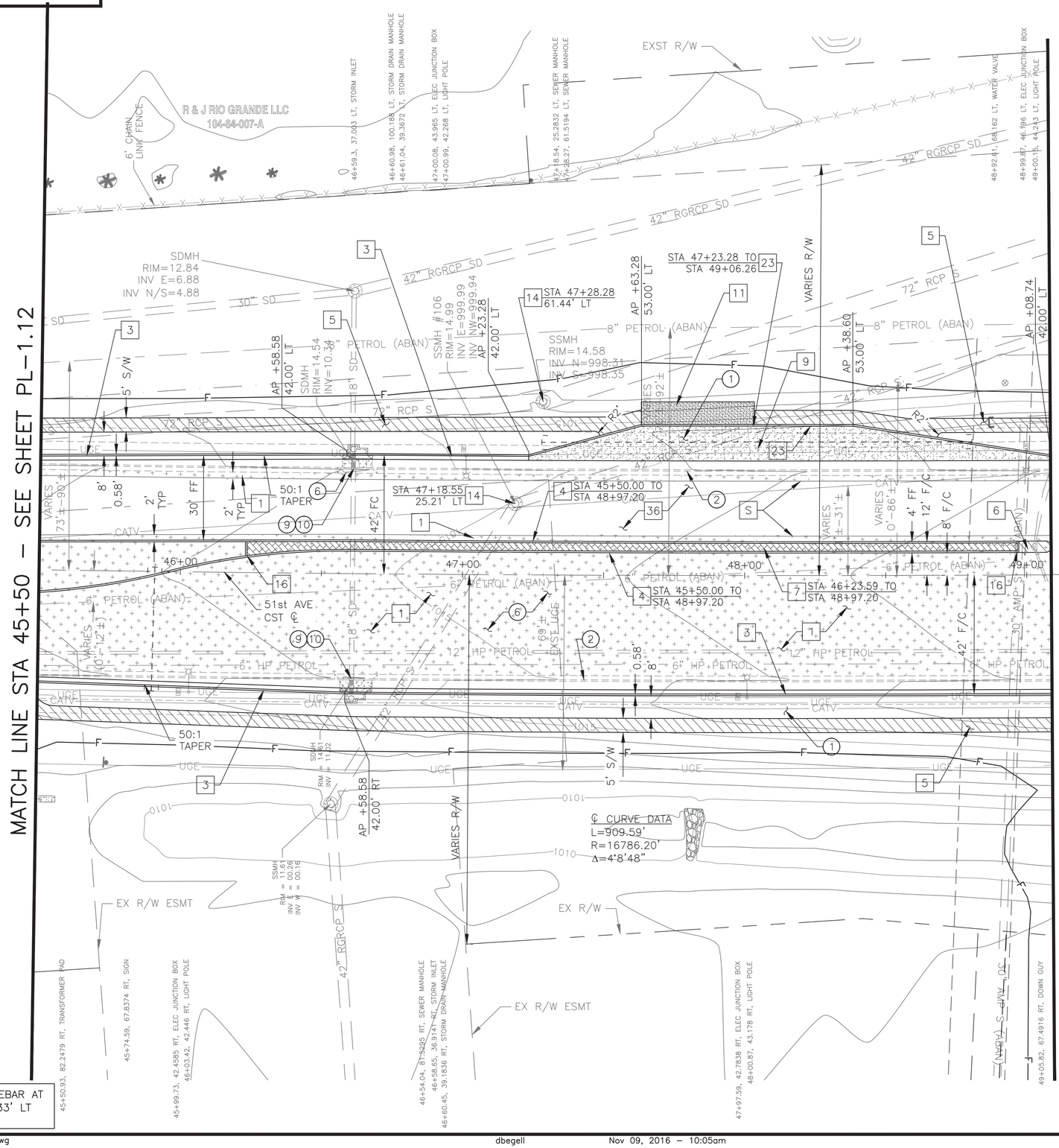
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



▲ T.B.M.: SET 1/2" REBAR AT
STA 53+40.79, 54.33' LT
ELEV = 1021.91

NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

City of Phoenix

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	39	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER & SLAB	SF	5271
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	717
6	REMOVE ASPHALT CONCRETE PAVEMENT	SY	2558
9	REMOVE PIPE, BACKFILL AND COMPACT	LF	10
10	REMOVE CATCH BASIN	EA	2

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	SUBGRADE PREPARATION	SY	3152
	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	360
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	989
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	2.1
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	532
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	721
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	3364
6	CONCRETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	42
7	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	12.1
	AGGREGATE BASE COURSE, 4" THICK	TON	19.3
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	798
9	9" THICK CONC. PVMT. CLASS "A" PER MAG SPECS & C.O.P. DET. P1256–1	SF	1687
11	BUS SHELTER PAD, C.O.P. DET. P1261	SF	622
14	ADJUST EXISTING MANHOLE FRAME AND COVER, MAG STD DETAIL 422 AND COP DETAIL P1430	EA	2
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	8
20	BARRICADE, STANDARD DETAIL P–1106, TYPE 'B'	EA	–
23	CONCRETE SINGLE CURB, MAG DET. 222, TYPE A MOD FOR BUS BAYS	LF	187
36	MICROSEAL EXISTING PAVEMENT AS SHOWN	SY	780

SHEET REFERENCES

1. SEE SHEET 14 FOR MEDIAN DETAILS

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

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PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO:
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			PL–1.13

ST85100371(003)

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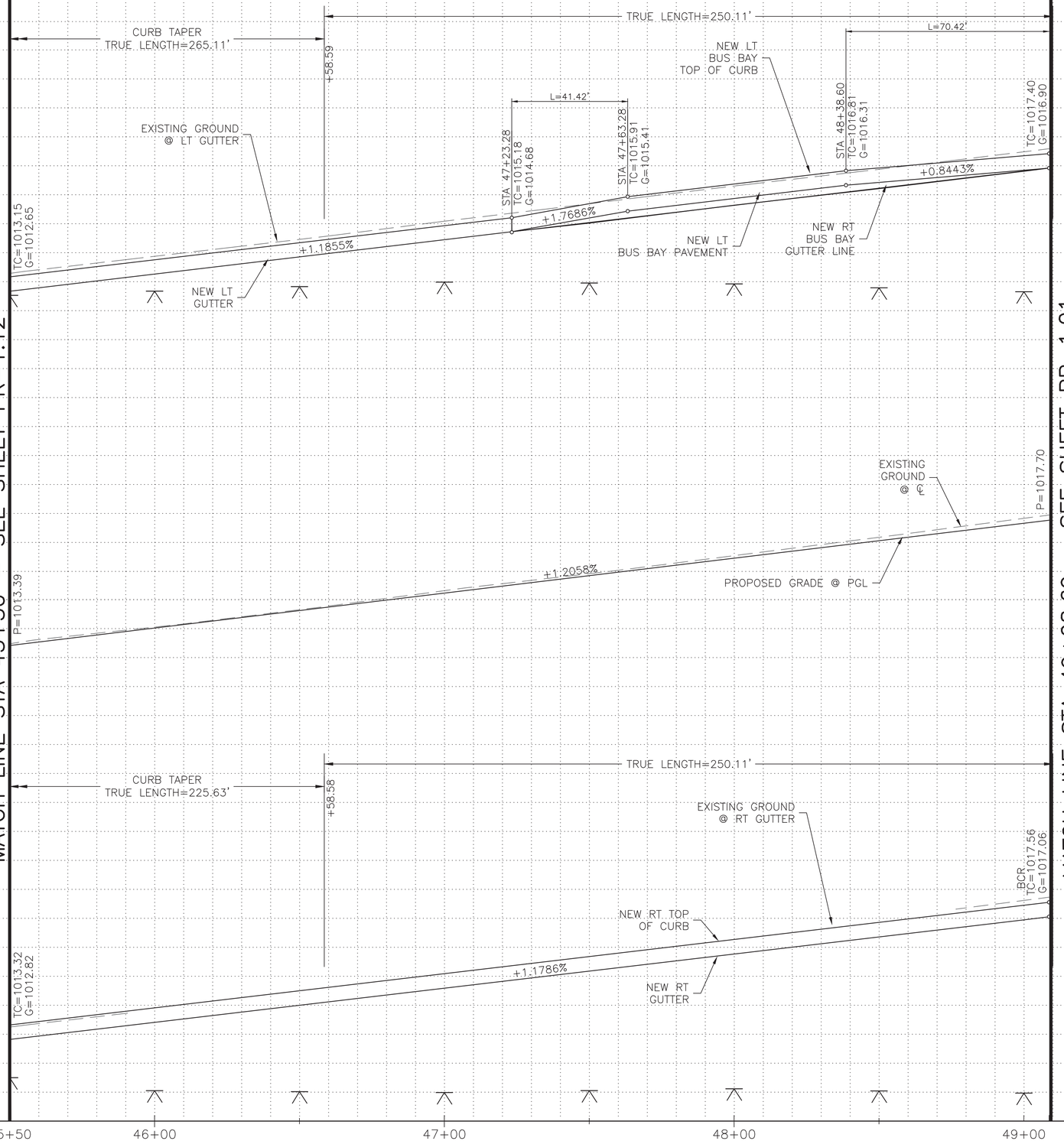
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT
STA 199+22.48, 335.71' LT
ELEV = 1021.91



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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	40	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.13
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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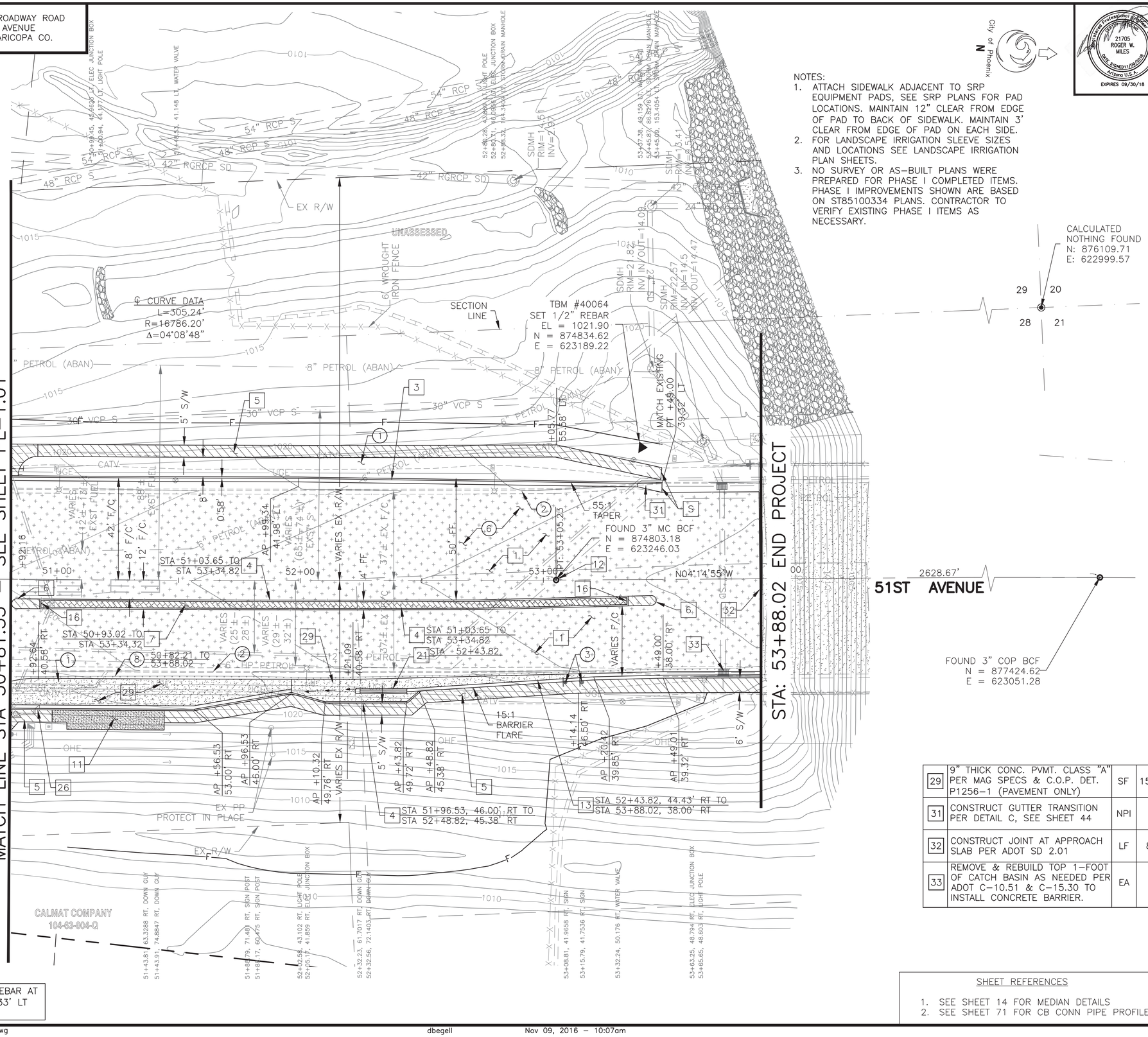
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



NOTES:
1. ATTACH SIDEWALK ADJACENT TO SRP EQUIPMENT PADS, SEE SRP PLANS FOR PAD LOCATIONS. MAINTAIN 12" CLEAR FROM EDGE OF PAD TO BACK OF SIDEWALK. MAINTAIN 3' CLEAR FROM EDGE OF PAD ON EACH SIDE.
2. FOR LANDSCAPE IRRIGATION SLEEVE SIZES AND LOCATIONS SEE LANDSCAPE IRRIGATION PLAN SHEETS.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

CALCULATED
NOTHING FOUND
N: 876109.71
E: 622999.57

29 20 28 21

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	41	168

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE PORTLAND CEMENT CONCRETE SIDEWALK, DRIVEWAY, VALLEY GUTTER & SLAB	SF	3070
2	REMOVE PORTLAND CEMENT CONCRETE SINGLE CURB AND CURB & GUTTER	LF	614
3	REMOVE AND SALVAGE TRAFFIC SIGN (MISC)	EA	2
6	REMOVE EXISTING ASPHALT CONCRETE	SY	2558
8	REMOVE EXISTING GUARD RAIL	LF	324

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
	SUBGRADE PREPARATION	SY	1805
1	ASPHALT CONCRETE SURFACE COURSE, (D 1/2), 2" THICK	TON	206
	ASPHALT CONCRETE BASE COURSE (A 1–1/2), 5–1/2" THICK	TON	566
	EMULSIFIED ASPHALT FOR TACK COAT, TYPE SS–1H	TON	1.2
3	CURB & GUTTER, M.A.G. DET. 220 TYPE A, H=6"	LF	323
4	SINGLE CURB, M.A.G. DET. 222 TYPE A, H=6"	LF	568
5	CONCRETE SIDEWALK, C.O.P. DET. P1230 (6" THICK)	SF	2400
6	CONCTETE MEDIAN NOSE, SEE DETAIL SHEET 11	SF	84
	ASPHALT CONCRETE SURFACE COURSE, TYPE D ½, 2–½" THICK	TON	7.7
7	AGGREGATE BASE COURSE, 4" THICK	TON	12.3
	STAMPED ASPHALT DECORATIVE PAVEMENT	SF	510
11	BUS SHELTER PAD, C.O.P. DET. P1261	SF	607
12	SURVEY MARKER, M.A.G. DET. 120–1, TYPE B	EA	1
13	CONSTRUCT 32", TYPE F CONCRETE BARRIER PER DETAIL B ON SHEET 44	LF	123
16	SINGLE CURB, M.A.G. DET. 222 TYPE B, H=6"	LF	6
21	CONSTRUCT TRACC ENERGY ABSORBING TERMINAL	EA	1
26	CURB & GUTTER, M.A.G. DET 220 TYPE A, H=6" (9" THICK)	LF	214
29	9" THICK CONC. PVMT. CLASS "A" PER MAG SPECS & C.O.P. DET. P1256–1 (PAVEMENT ONLY)	SF	1567
31	CONSTRUCT GUTTER TRANSITION PER DETAIL C, SEE SHEET 44	NPI	–
32	CONSTRUCT JOINT AT APPROACH SLAB PER ADOT SD 2.01	LF	80
33	REMOVE & REBUILD TOP 1–FOOT OF CATCH BASIN AS NEEDED PER ADOT C–10.51 & C–15.30 TO INSTALL CONCRETE BARRIER.	EA	1

SHEET REFERENCES
1. SEE SHEET 14 FOR MEDIAN DETAILS
2. SEE SHEET 71 FOR CB CONN PIPE PROFILE

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–1.14
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

▲ T.B.M.: SET 1/2" REBAR AT STA 199+22.48, 335.71' LT ELEV = 1021.91

MATCH LINE STA 50+81.53 – SEE SHEET PR-1.01

TRUE LENGTH=117.41'

CURB TAPER
TRUE LENGTH=149.39'

NEW LT TOP OF CURB

EXISTING GROUND @ LT GUTTER

TC=1019.45
G=1018.95

+1.1855%

NEW LT GUTTER

STA 53+49.00
TC=1022.62
G=1022.12
MATCH EXISTING

PI STA 53+88.02
ELEV=1023.52
MATCH EXISTING

+1.2058%

P=1019.78

TRUE LENGTH=305.82'

L=33.59'

L=14.33'

L=40.72'

ECR
TC=1019.73
G=1019.23

NEW RT BUS BAY TOP OF CURB

+1.4933%

STA 51+56.53
TC=1020.86
G=1020.36

+1.5250%

STA 51+96.53
TC=1021.47
G=1020.97

STA 52+10.32
TC=1021.85
P=1021.35

+1.0746%

STA 52+43.82
TC=1022.21
G=1021.71

NEW RT TOP OF BARRIER

+1.1708%

STA 53+20.42
P=1022.41

NEW RT GUTTER @ BARRIER

+0.4438%

STA 53+88.02
P=1022.71
MATCH EXISTING

EXISTING GROUND @ RT GUTTER

NEW RT BUS BAY GUTTER

1028 1026 1024 1022 1020 1018 1016

51+00 52+00 53+00 54+00

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	42	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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PAVING PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PR-1.14
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	43	168

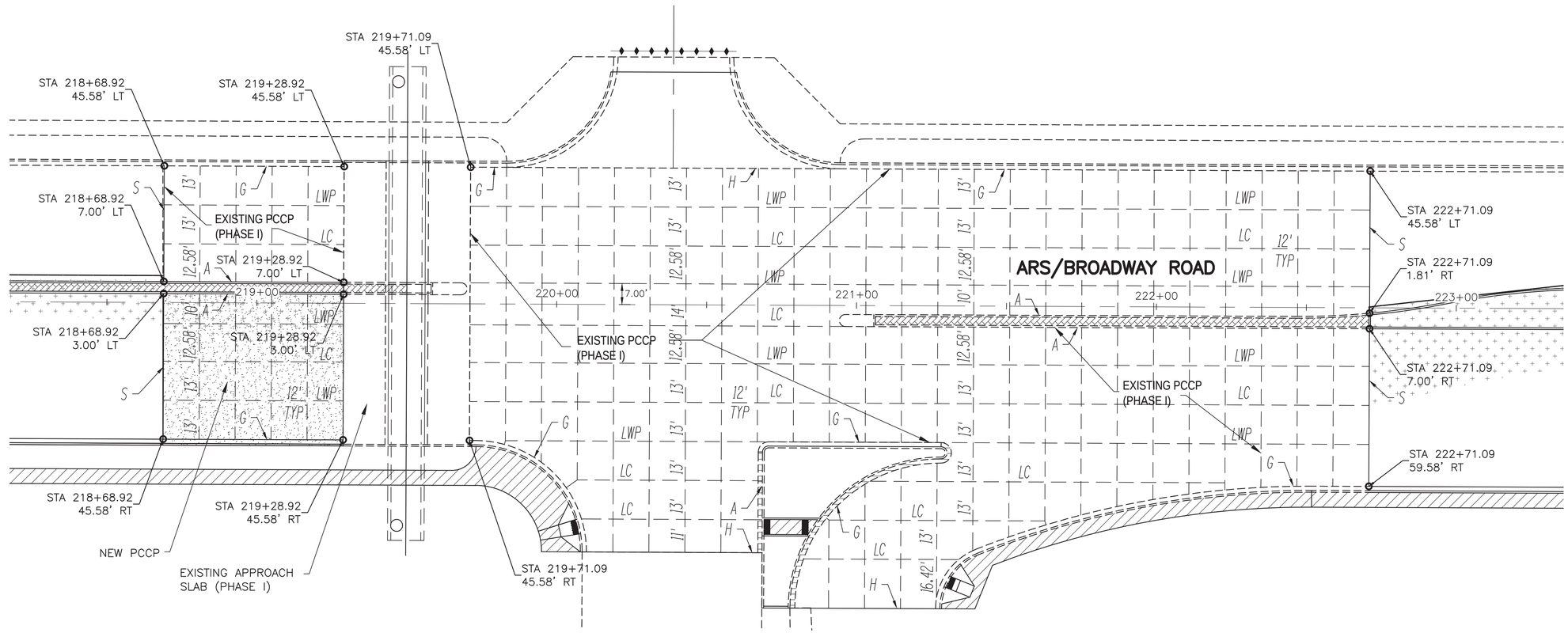
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS\BROADWAY ROAD JOINTING PLAN
SCALE: N.T.S.

NOTES:

1. ACTUAL PAVING POUR PLAN WITH JOINT LOCATIONS SHALL BE BASED UPON THE PROJECT PAVING PLAN SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. DIMENSIONS WITH A TOLERANCE MAY BE ADJUSTED TO ALIGN TO THE NEAREST TRANSVERSE WEAKENED JOINT AS DIRECTED.
3. SEE ADOT STD DWG C–07.01 FOR JOINT INFORMATION.
4. ALL DIMENSIONS FOR JOINTING ARE MEASURED FROM GUTTER LIP.
5. SEE ADOT DETAIL SD 2.01 FOR JOINT DETAIL AT APPROACH SLAB.

LEGEND:

LWP LONGITUDINAL WEAKENED–PLANE JOINT
LC LONGITUDINAL CONSTRUCTION JOINT
G CURB AND GUTTER JOINT
H EXPANSION JOINT
S AC/PCCP EDGE–SEAL JOINT
A SINGLE CURB JOINT

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

JOINTING PLAN

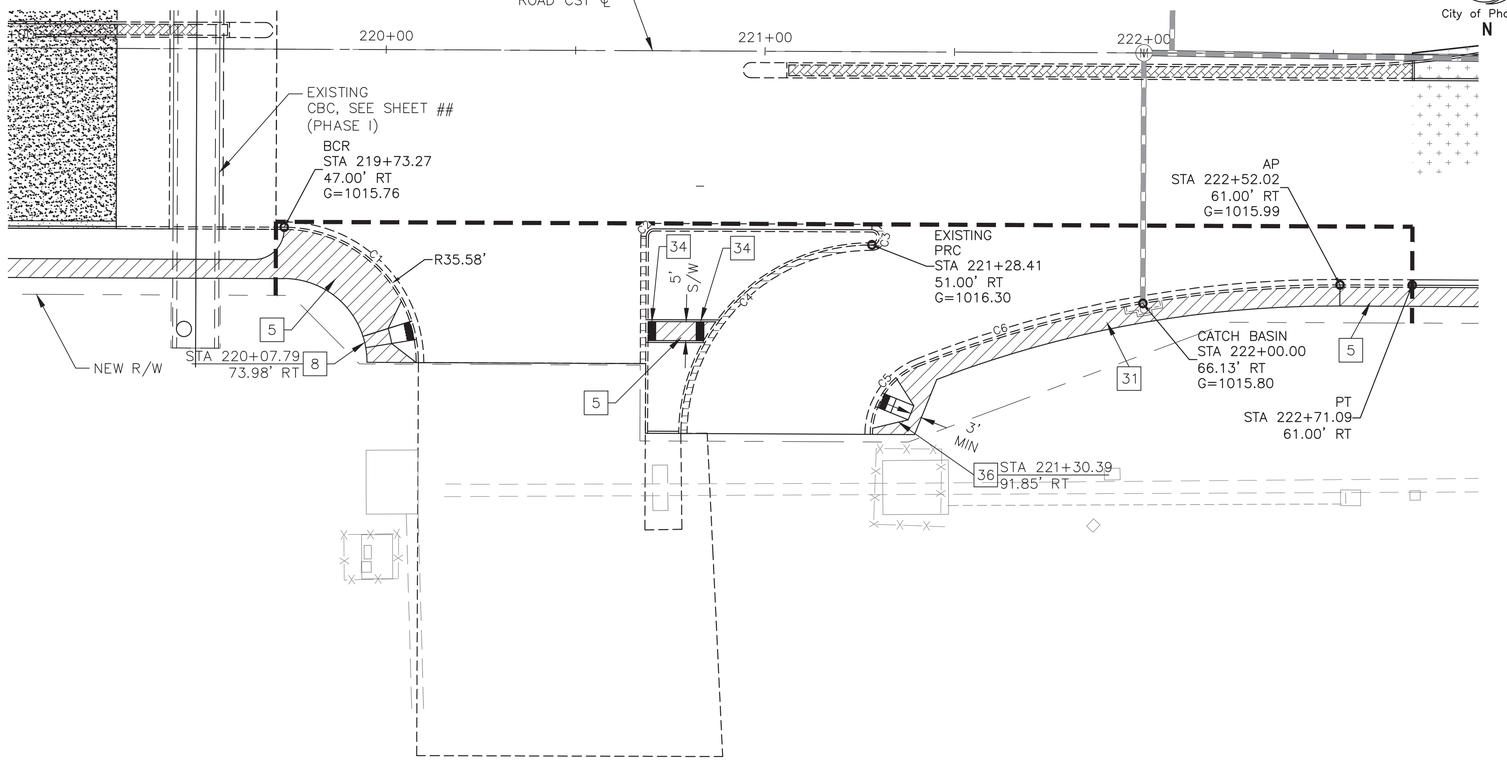
CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: PL–2.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			

ST85100371(003)

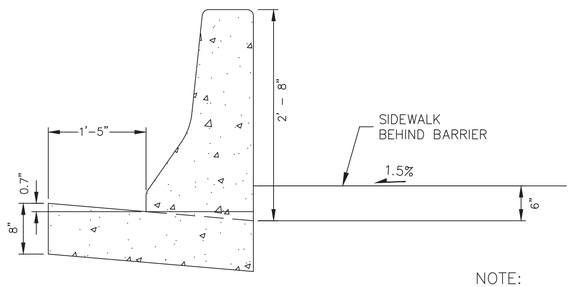
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



VULCAN MAIN DRIVEWAY GEOMETRY (A)
SCALE: N.T.S.
PL–1.05
PL–1.06

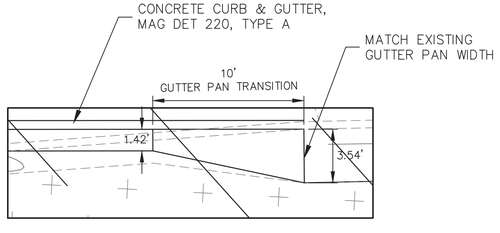
CONSTRUCTION NOTES

5	CONCRETE SIDEWALK, C.O.P. DET. P1230	SF	656
8	CONCRETE SIDEWALK RAMP, C.O.P. DET. P1233 (9" THICK)	NPI	–
31	CONCRETE SIDEWALK, C.O.P. DET. P1233 (9" THICK)	SF	671
34	CONSTRUCT CURB OPENING SIDEWALK RAMP, DETAIL D, THIS SHEET	EA	2
36	CONCRETE SIDEWALK RAMP, C.O.P. DET. P1240 (9" THICK)	NPI	–

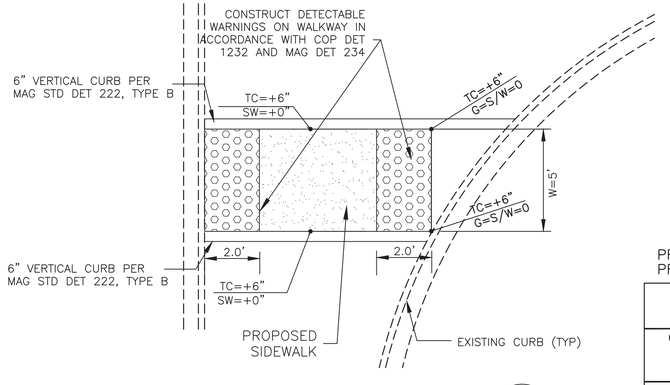


CONCRETE BARRIER DETAIL (B)
SCALE: N.T.S.
PL–1.14

NOTE:
FOR REINFORCING AND ADDITIONAL DIMENSIONS AND INFORMATION SEE ADOT C–10.51



GUTTER TRANSITION DETAIL (C)
SCALE: N.T.S.
PL–1.14



ADA RAMP DETAIL (D)
SCALE: N.T.S.
THIS SHEET

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	44	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

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1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

PAVING DETAILS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: DT–1.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: N.T.S.			

ST85100371(003)

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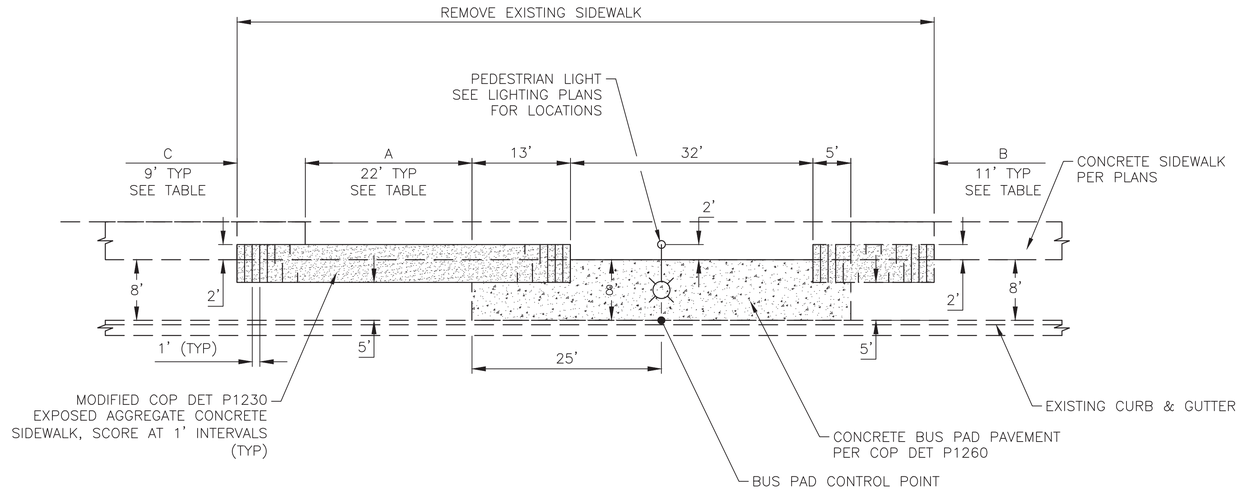
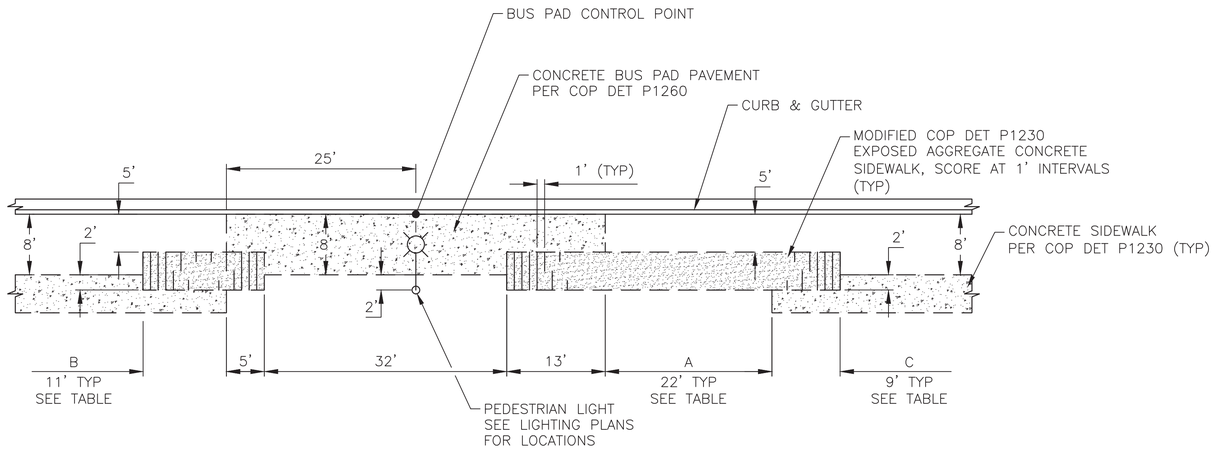
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



NORTH SIDE (LT)



SOUTH SIDE (RT)

BUS PAD LOCATION TABLE					
BUS PAD SEGMENT	CONTROL POINT STATION	RT/LT	DIMENSION A	DIMENSION B	DIMENSION C
5	212+00	LT	22'	11'	9'
5	215+00	RT	22'	11'	9'
5	226+00	LT	22'	11'	9'
5	238+00	LT	22'	11'	9'
5	241+00	RT	22'	11'	9'
4	265+75	LT	22'	11'	9'
4	269+00	RT	22'	11'	9'
4	286+90	RT	22'	11'	9'
4	288+00	LT	22'	11'	9'
3	319+15	LT	22'	11'	9'
3	320+47.42	RT	22'	11'	9'
3	333+75	LT	22'	11'	9'
3	336+20	RT	22'	11'	9'
3	350+55	LT	22'	11'	9'
3	353+10	RT	22'	11'	9'
2	362+59.79	RT	0'	11'	0'
2	373+36.33	LT	12'	11'	9'
2	377+35	RT	22'	11'	9'
2	385+72.42	LT	22'	11'	9'
2	388+59.39	RT	22'	11'	9'
2	396+75	LT	22'	11'	9'
2	399+15	RT	22'	11'	9'

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	45	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: DW	CK: SHM	DATE: 01/14

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BUS PAD DETAIL

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: DW	CK: SHM	DWG
DATE: 01/14	DATE: 01/14	DATE: 01/14	NO: DT-102
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	46	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: DW	CK: SHM	DATE: 01/14

REVISION BY CITY OF PHOENIX

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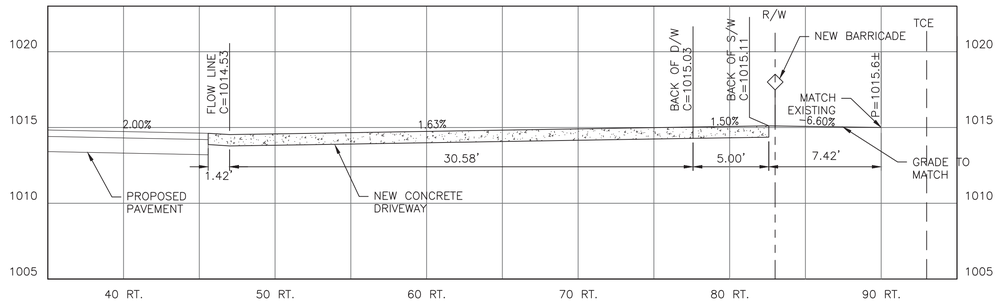

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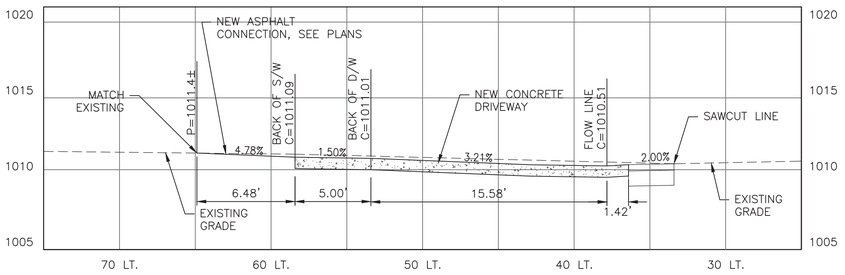

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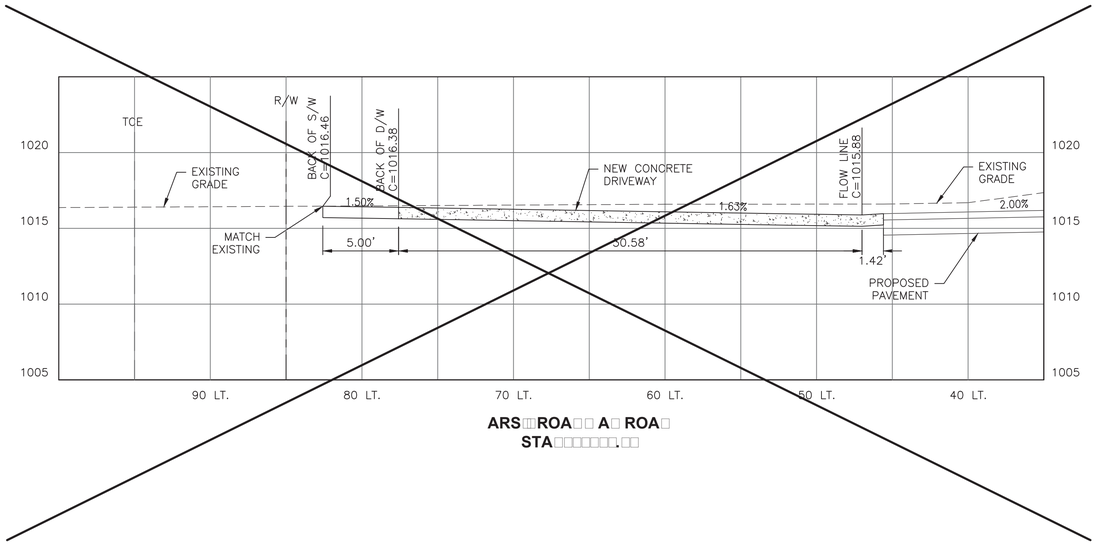
STA□□□□□□.□□



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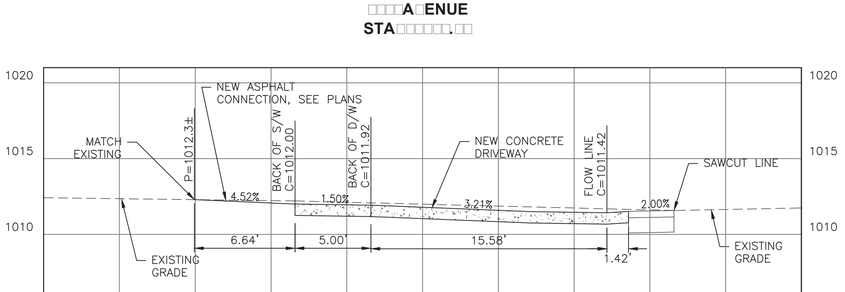
STA□□□□□□.□□



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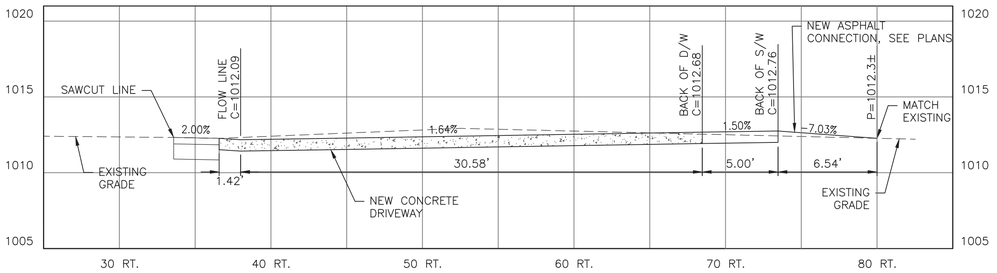
STA□□□□□□.□□



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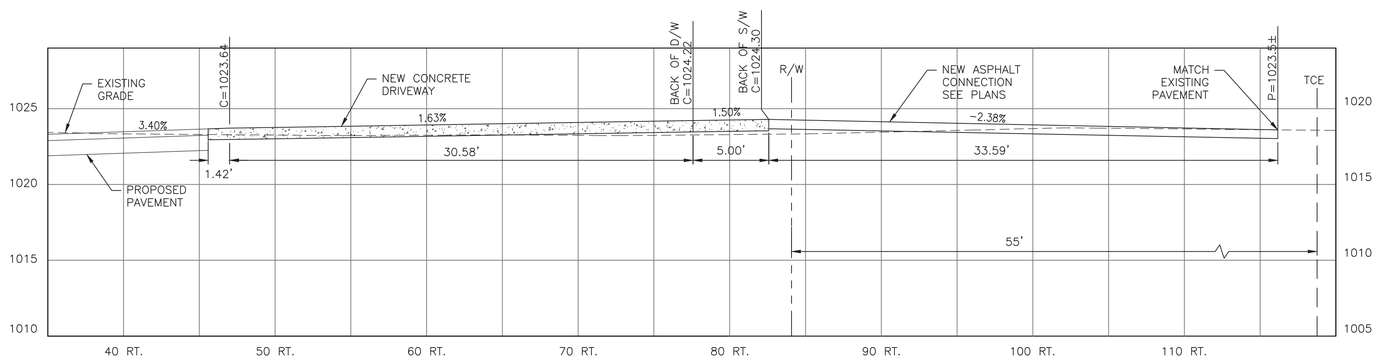
STA□□□□□□.□□

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



ARS□ROA□□ A□ ROA□
STA□□□□□□.□□

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

DRIVE□ AY PROFILES

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: DW	CK: SHM	DWG NO: PR-2.01
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=5'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

GRAPHIC SCALE
10 0 5 10
1 INCH = 10 FT

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	47	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

51+00
Station=200+46.70
Offset=-84.670'
1019.31
2.09%
-1.53%
Station=199+54.73
Offset=-78.775'
1019.03
Station=199+95.23
Offset=-81.371
1019.86
Station=200+05.25
Offset=-82.013'
1019.88
=STA 50+81.53
51ST AVE
-1.27%
0.98%
-1.40%
-1.69%
-1.25%
Station=199+97.42
Offset=-46.688'
1019.44
Station=200+47.30
Offset=-48.955
1018.82
Station=200+83.05
Offset=-50.580'
1018.37
MATCH EXISTING
-1.11%
POT STA 200+00.26
ARS/BROADWAY RD CST ℄
= PI STA 50+00
51ST AVE ℄ & CST ℄
CROWN LINE
EXISTING PAVEMENT
S M
Station=200+83.05
Offset=-12.00'
ELEV=1018.12
MATCH EXISTING
-0.65%
-1.05%
2'
Station=200+82.35
Offset=0.000
1018.03
ARS/BROADWAY ROAD
SEE PROFILE
199+00
50+00
200+00
201+00
1.31%
-0.82%
-0.79%
Station=199+59.59
Offset=-0.018'
1018.15
Station=200+00.25
Offset=0.06'
1018.68
Station=200+48.12
Offset=0.000
1018.30
Station=200+82.35
Offset=10.000'
1017.91
-1.25%
-1.01%
-1.78%
-2.69%
Station=200+46.51
Offset=53.233'
1017.35
Station=200+82.36
Offset=50.580'
1016.82
-1.56%
-1.67%
Station=200+03.49
Offset=56.407'
1016.02
-1.43%
Station=199+95.41
Offset=91.682'
1017.76
Station=199+64.88
Offset=93.325'
1016.98
Station=199+91.48
Offset=91.900'
1017.51
Station=200+45.92
Offset=88.964
1017.14
-1.97%
-1.23%
Station=199+72.01
Offset=92.927'
1017.12
Station=200+05.39
Offset=91.075'
1017.64
=STA 49+08.69
51ST AVE
49+00

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

INTERSECTION DETAIL

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: 1X-1.01
DATE: 09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	48	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: ESG	CK: BAG	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

GENERAL NOTES

DESIGN SPECIFICATIONS

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION
2012 AND REVISIONS TO DATE.

CONSTRUCTION SPECIFICATIONS

MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) UNIFORM STANDARD SPECIFICATIONS, LATEST EDITION.

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

DESIGN LOADINGS

VEHICLE LIVE LOAD, HL-93.

CONCRETE STRESSES

BOX CULVERT..... f'c = 3000 psi – CLASS A

CURBS AND MEDIAN ON APPROACH SLABS ..... f'c = 3000 psi – CLASS A

REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.

ALL REINFORCING STEEL SHALL HAVE 2 INCH CLEAR COVER, UNLESS NOTED OTHERWISE.

ALL BENDS AND HOOKS SHALL MEET THE REQUIREMENTS OF AASHTO ARTICLE 5.10. ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT-TO-OUT OF BARS. ALL PLACEMENT DIMENSIONS FOR REINFORCING STEEL SHALL BE TO CENTER OF BARS UNLESS NOTED OTHERWISE.

CHAMFER ALL EXPOSED CORNERS 3/4" UNLESS NOTED OTHERWISE.

EXISTING UTILITIES SHALL BE PROTECTED IN PLACE DURING CONSTRUCTION PER MAG STD DETAL 403.

FOR ALL OTHER DETAILS NOT SHOWN SEE SD 6.01 AND SD 2.01.

DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.

LOAD RATING

INVENTORY AND OPERATING RATINGS ARE BASED ON THE AASHTO MANUAL FOR BRIDGE EVALUATION, 2010 WITH 2011 AND 2013 INTERIM REVISIONS, WITH HL-93 LOADING.
INVENTORY RATING: 1.10
OPERATING RATING: 1.42

ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
ABUT	ABUTMENT
ADD'L	ADDITIONAL
APPROX	APPROXIMATE
B/B	BACK-TO-BACK
BIT	BITUMINOUS
BM	BEAM
BOTT	BOTTOM
BRG	BEARING
BTWN	BETWEEN
℄	CENTERLINE
CIP	CAST-IN-PLACE
C	CENTER
CY	CUBIC YARDS
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CST	CONSTRUCTION
DIAG	DIAGONAL
DIA,ø	DIAMETER
DIAPH	DIAPHRAGM
DTL	DETAIL
DWG	DRAWING
EA	EACH
EB	EAST BOUND
EF	EACH FACE
ELEV	ELEVATION
EMBED	EMBEDMENT
EQ	EQUAL
EW	EACH WAY
EXIST	EXISTING
EXP,E	EXPANSION
EXT	EXTERIOR
F	FIXED
FIN	FINISHED
FLR	FLOOR
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GR	GRADE
HS	HIGH STRENGTH
HK	HOOK
HORIZ	HORIZONTAL
ID	INSIDE DIAMETER
INT	INTERIOR
JT	JOINT
LBS	POUNDS
LF	LINEAR FOOT
LN	LANE
LS	LUMP SUM
LT	LEFT
LONGIT	LONGITUDINAL
MAX	MAXIMUM
MI	MILES
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODIFIED
NB	NORTH BOUND
NIC	NOT IN CONTRACT
NO,#	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
P	PINNED
PGL	PROFILE GRADE LINE
PL	PLATE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PED	PEDESTRIAN
R	RADIUS
R/W	RIGHT OF WAY
RDWY	ROADWAY
REINF	REINFORCEMENT
REQ'D	REQUIRED
RET	RETAINING
RT	RIGHT
SB	SOUTH BOUND
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SHLDR	SHOULDER
SHT	SHEET
SIM	SIMILAR
SPA	SPACE
SPECS	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
STR	STRUCTURAL
SWLK	SIDEWALK
SY	SQUARE YARD
SYM	SYMMETRICAL
TOW	TOP OF WALL
TEMP	TEMPORARY
TRANS	TRANSITION
TYP	TYPICAL
VERT	VERTICAL
W/	WITH
WB	WEST BOUND
WSE	WATER SURFACE ELEVATION

APPROXIMATE QUANTITIES

STRUCTURE EXCAVATION	980 CY
STRUCTURE BACKFILL	335 CY
CONCRETE APPROACH SLAB	2,856 SF
3,000 PSI CONCRETE	260 CY
REINFORCING STEEL	38,050 LB

LEGEND:

TITLE/DETAIL MARKER — 2 / ST-1.01 — DETAIL NUMBER; DRAWING NUMBER

SECTION MARKER — A / ST-1.01 — SECTION LETTER; DRAWING NUMBER

ELEVATION MARKER — A / ST-1.01 — ELEVATION LETTER; DRAWING NUMBER

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CBC GENERAL NOTES □ □UANTITIES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: ESG	CK: BAG	DWG NO: ST-1.01
DATE:01/14	DATE: 01/14	DATE: 01/14	

ST85100371(003)

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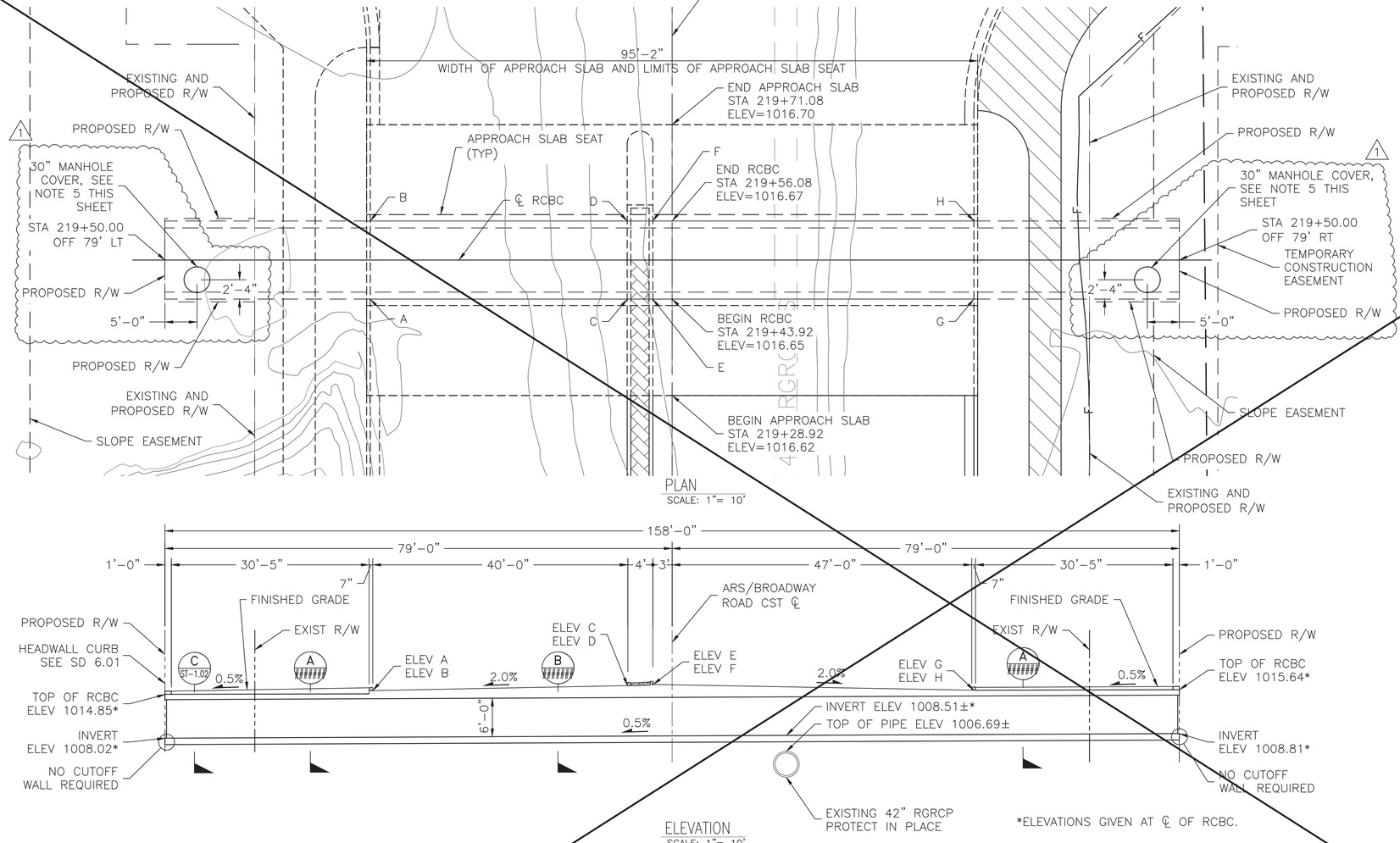
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	49	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: ESG | CK: BAG | DATE: 01/14

City of Phoenix

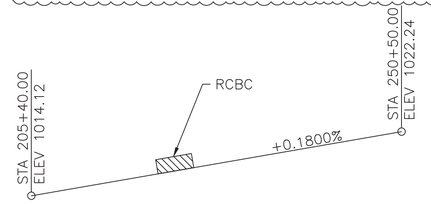


PLAN
SCALE: 1"= 10'

*ELEVATIONS GIVEN AT ℄ OF RCBC.

NOTES:

1. RCBC SHALL BE CONSTRUCTED WITHOUT WINGWALLS OR CUTOFF WALLS.
2. RCBC SHALL BE BLOCKED AT EACH END WITH A MASONRY BULKHEAD. SEE DT-2.01.
3. SEE ADOT STANDARD DETAIL SD 2.01 FOR APPROACH SLAB DETAILS.
4. SEE ADOT STANDARD DETAIL SD 6.01 FOR ADDITIONAL RCBC DETAILS.
5. SEE MAG DETAIL NO. 522 FOR SHALLOW MANHOLE DETAILS AND MAG DETAIL NO. 423-2 FOR FRAME AND COVER DETAILS. CONTRACTOR TO ADD APPROPRIATE NUMBER OF ADJUSTING RINGS SO THAT RIM IS 2"-3" ABOVE ADJACENT SIDEWALK GRADE AND FINISHED GRADE IS FLUSH WITH RIM. (1)



ARS/BROADWAY ROAD PROFILE
SCALE: NTS

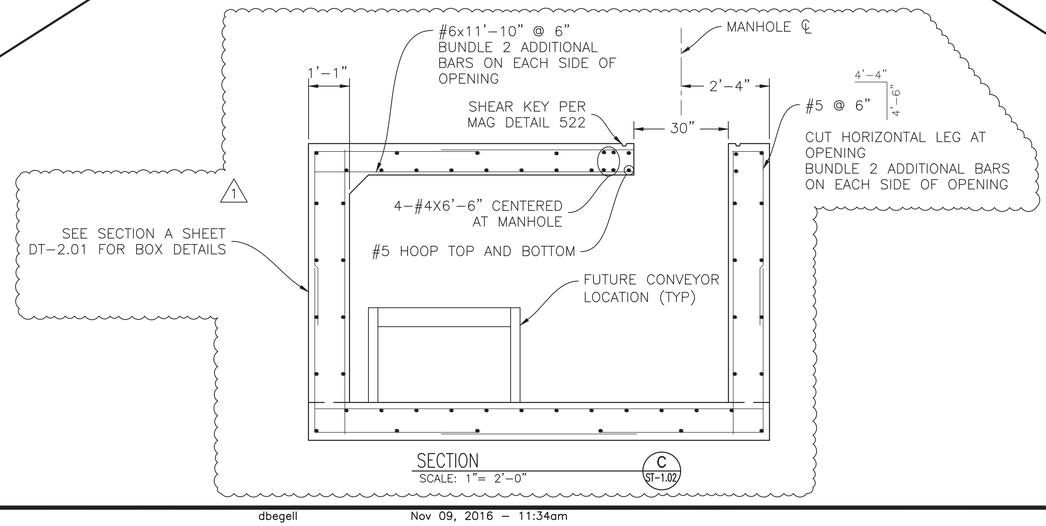
SHALLOW PIPE UNDER BOTTOM SLAB
SCALE: NTS

NOTES:

1. POLYSTYRENE SHALL BE INCIDENTAL TO THE RCBC PAY ITEMS.
2. SEE DWG NO. DT-2.01 FOR MEDIAN AND CURB DETAILS.

ELEVATIONS	
A	1015.71
B	1015.73
C	1016.51
D	1016.53
E	1016.71
F	1016.73
G	1015.71
H	1015.73

ELEVATION
SCALE: 1"= 10'



SECTION
SCALE: 1"= 2'-0"
C ST-1.02

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE
1	MANHOLE DETAILS	TEL	FJ	8/14

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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CBC PLAN □ ELEVATION

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: ESG	CK: BAG	DWG NO: ST-1.02
DATE:01/14	DATE: 01/14	DATE: 01/14	

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334ST01 REV1.dwg dbegell Nov 09, 2016 – 11:34am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

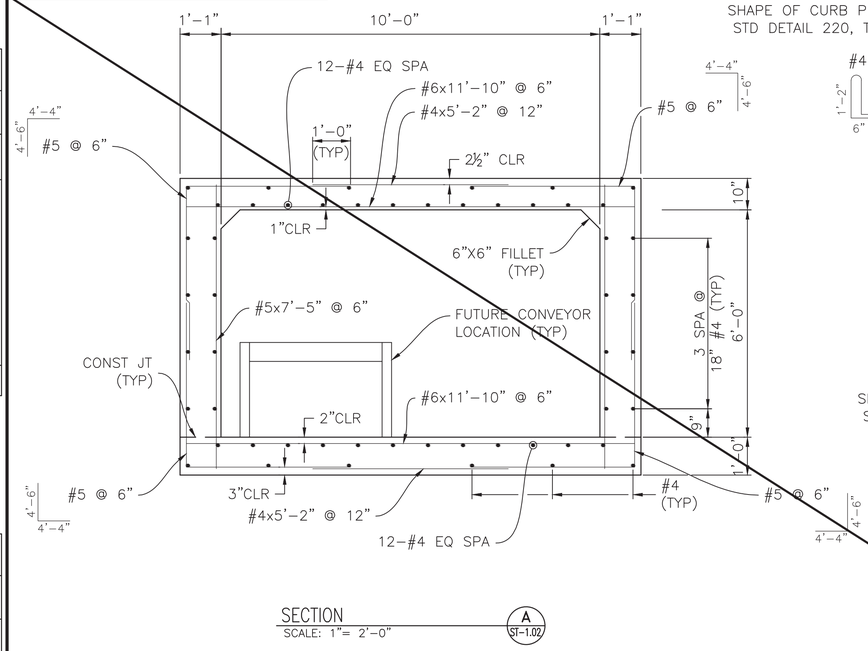
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	50R1	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

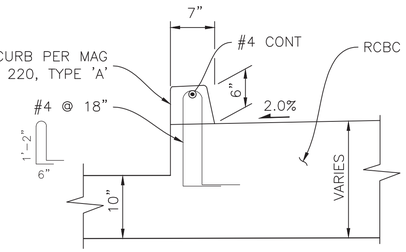
DR: RD	DES: ESG	CK: BAG	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



SECTION
SCALE: 1"= 2'-0"
A ST-1.02



CURB ON RCBC TOP SLAB DETAIL
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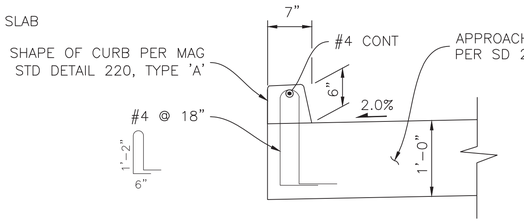
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)



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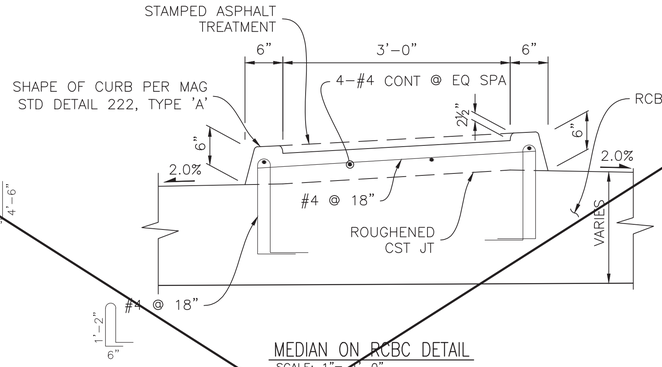
(LEFT SIDE SHOWN, RIGHT SIDE SIMILAR)



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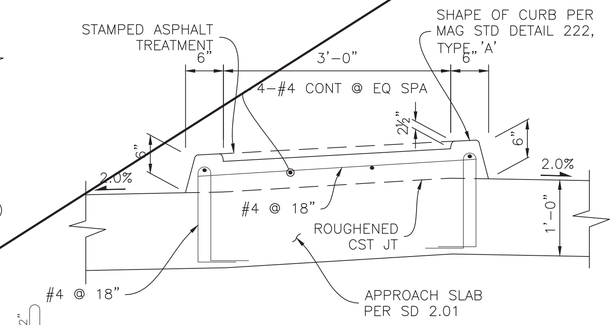

MEDIAN ON APPROACH SLAB DETAIL
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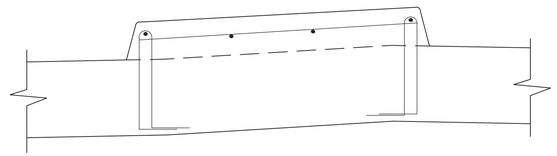

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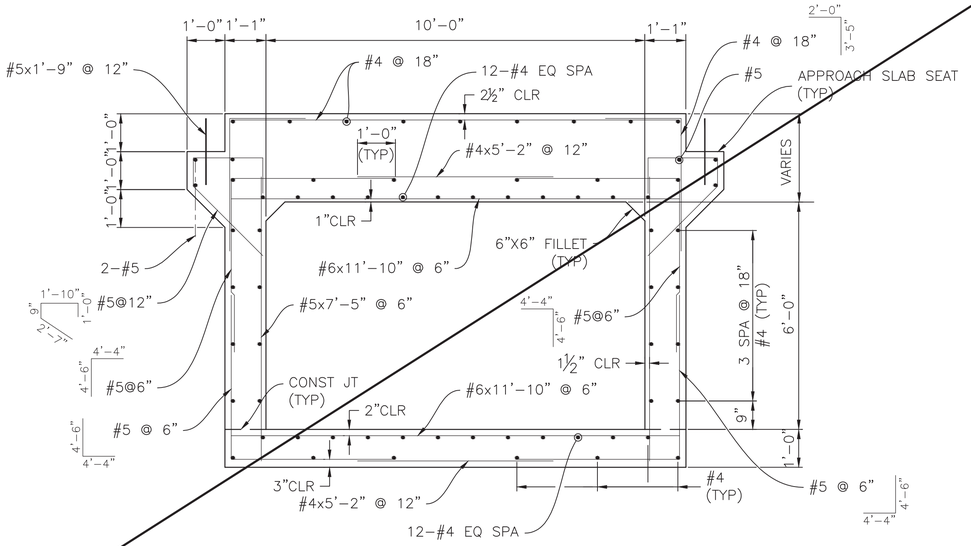
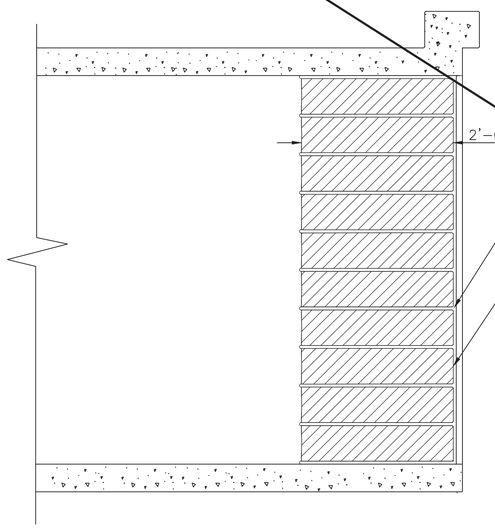


SECTION
SCALE: 1"= 2'-0"
B ST-1.02



RCBC BULKHEAD
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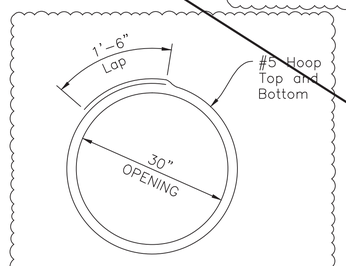

MANHOLE OPENING PLAN
SCALE: N.T.S.
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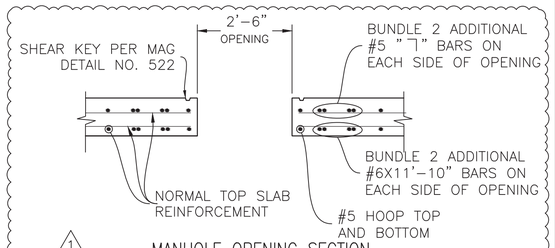

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MANHOLE OPENING SECTION
SCALE: 1"= 2'-0"

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE
1	MANHOLE DETAILS	TEL	FJ	8/14

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

STRUCTURAL DETAILS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: ESG	CK: BAG	DWG NO: DT-2.01
DATE: 01/14	DATE: 01/14	DATE: 01/14	

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334ST03 REV1.dwg dbegell Nov 09, 2016 – 10:15am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	51	168

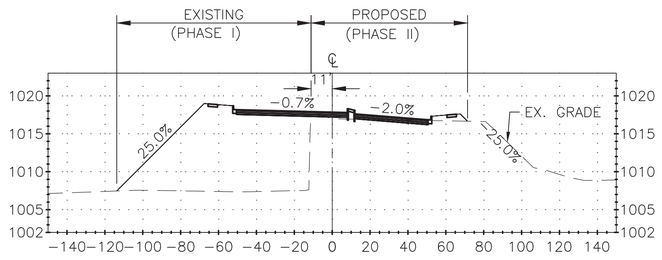
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

Registered Professional Engineer (Civil) — 21705 ROGER W. MILES — Date Signed 11/09/2016 — Arizona U.S.A. — EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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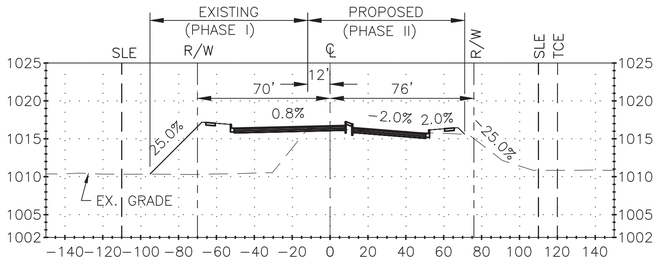

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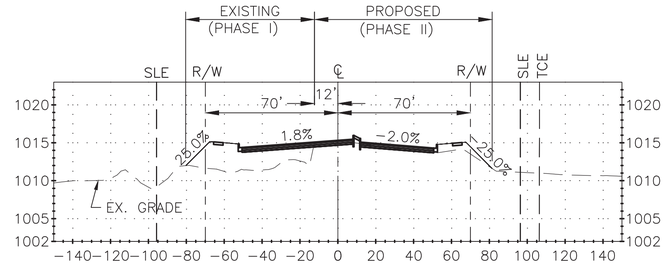

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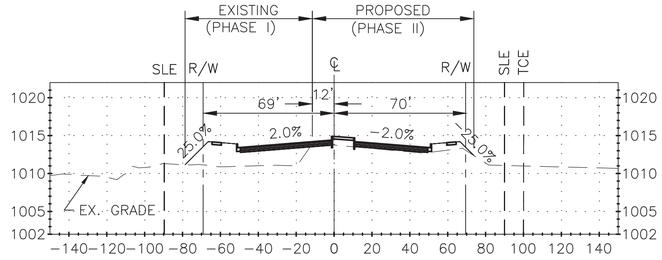

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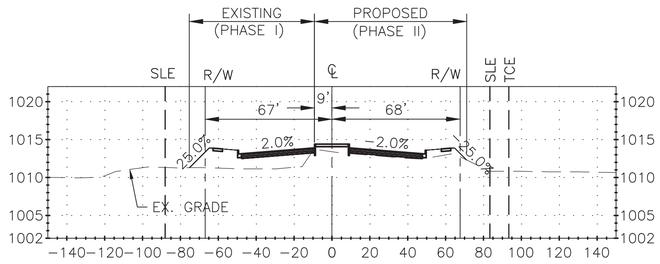

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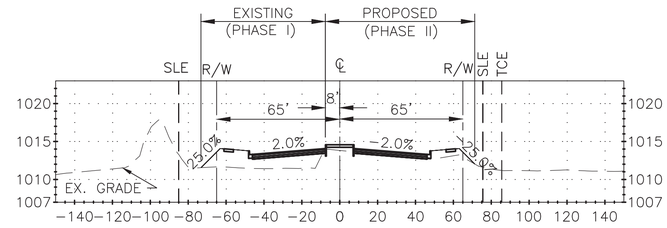

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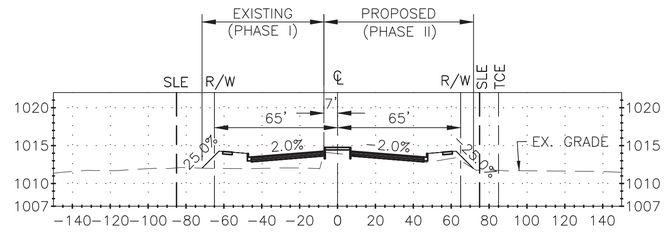
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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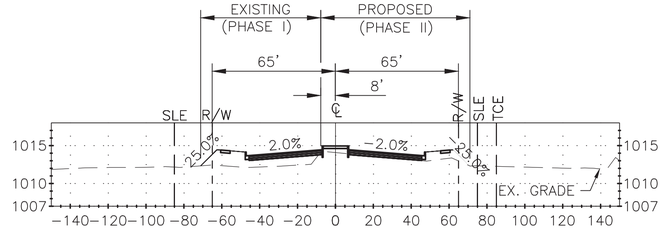

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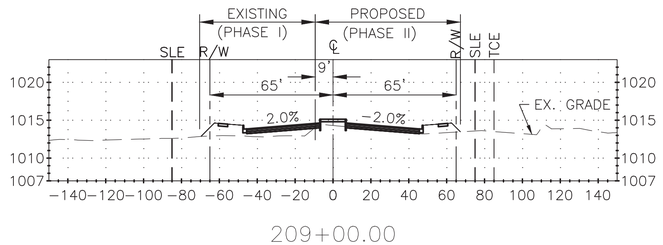

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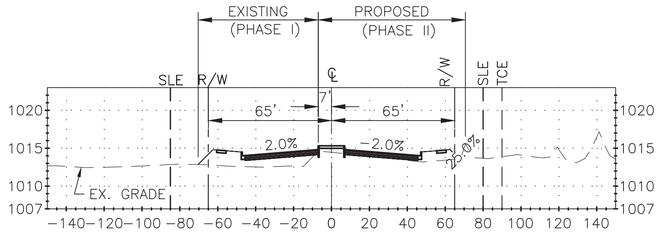
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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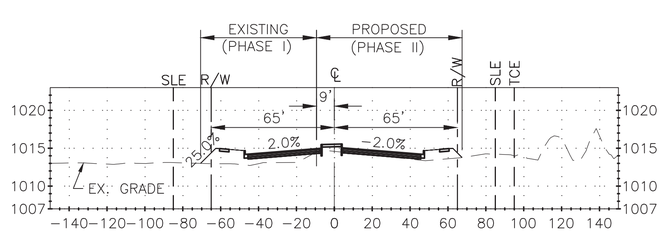


211+00.00

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: XS-1.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"= 40' H 1"= 10' V			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334XS01.dwg dbegell Nov 09, 2016 – 10:17am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	52	168

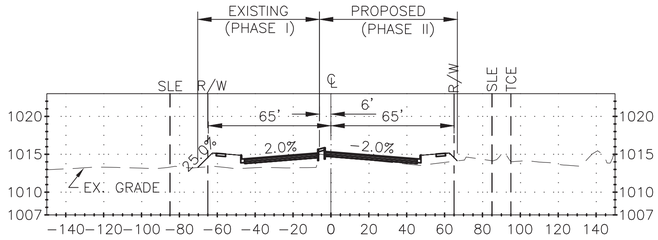
Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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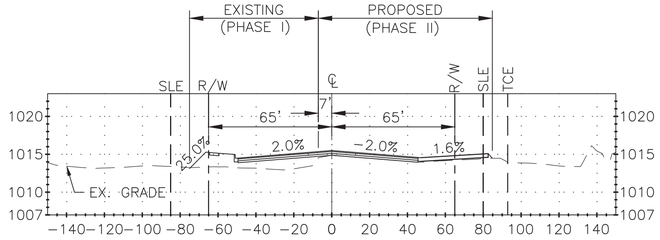

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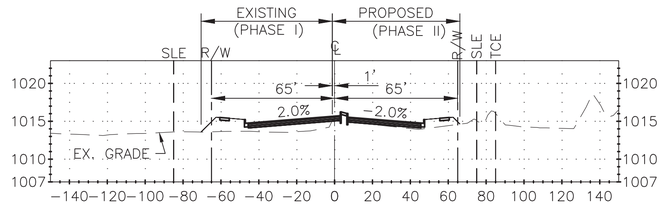

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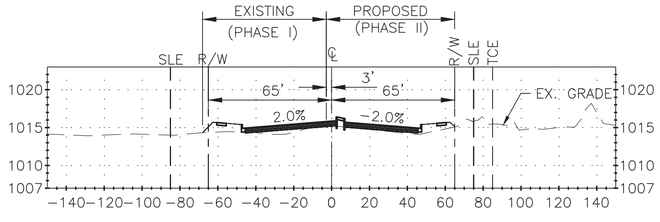

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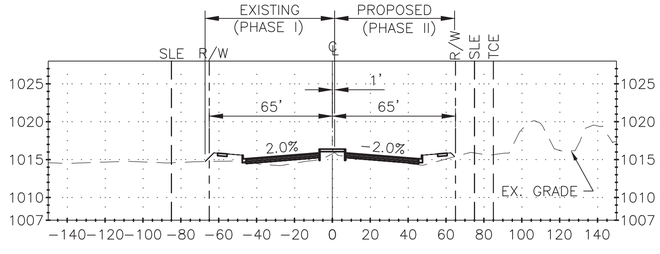

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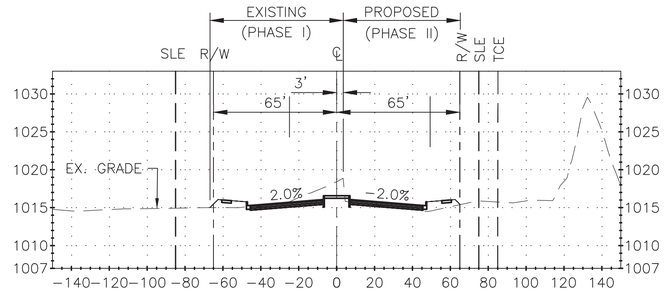

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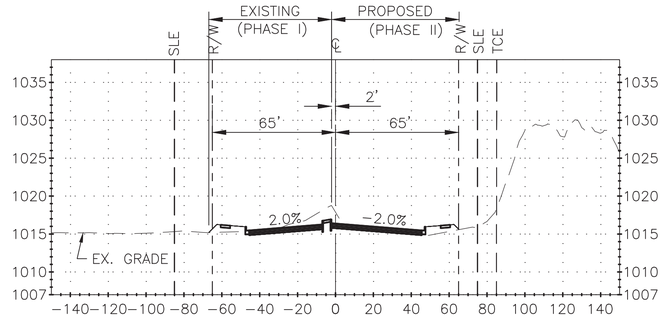
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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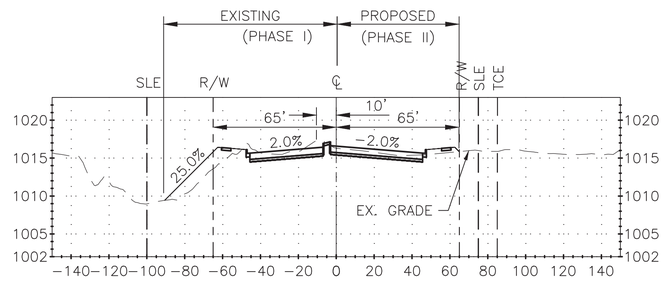

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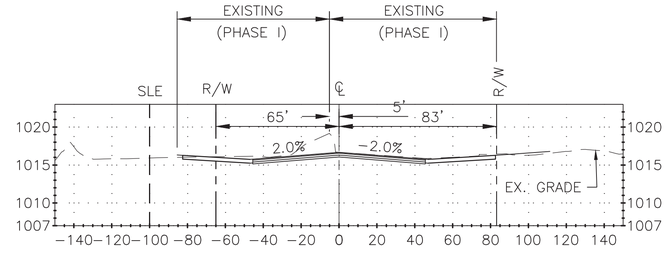

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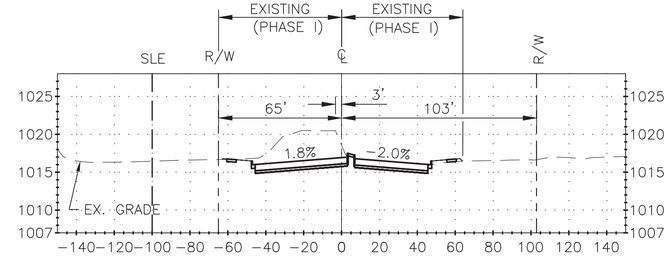
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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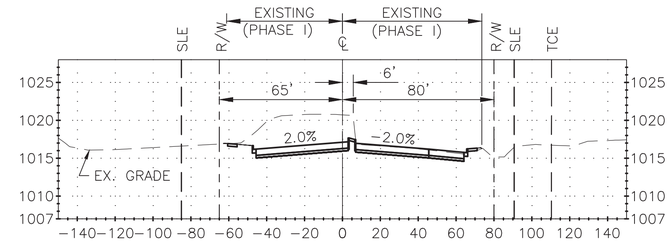

222+00.00

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD□AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: XS-1.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=40' H 1"=10' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	53	168

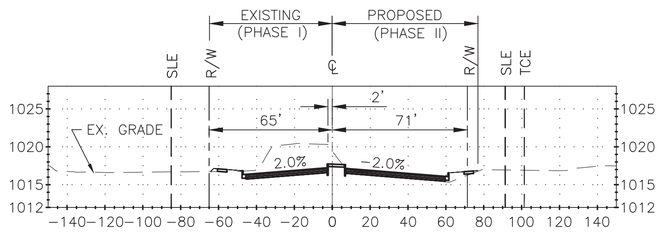
Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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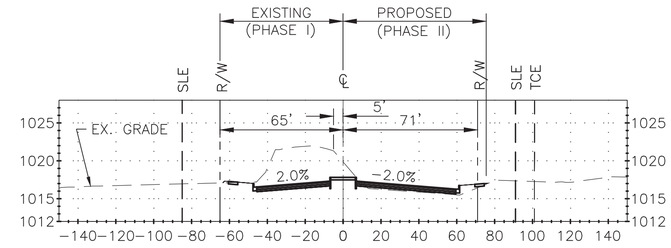

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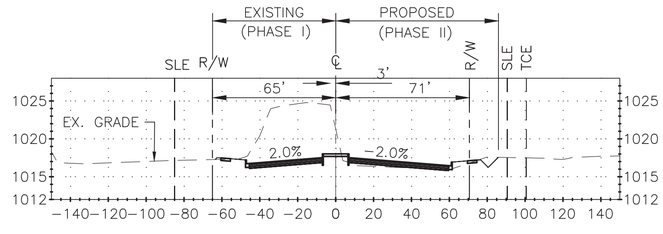

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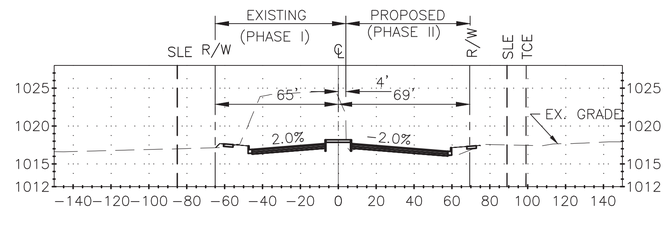

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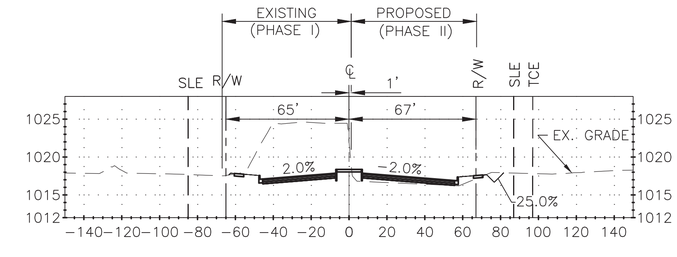

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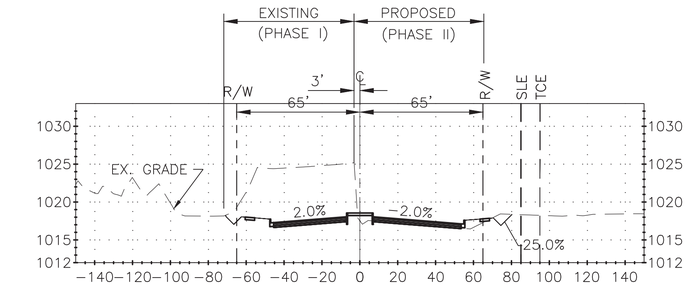
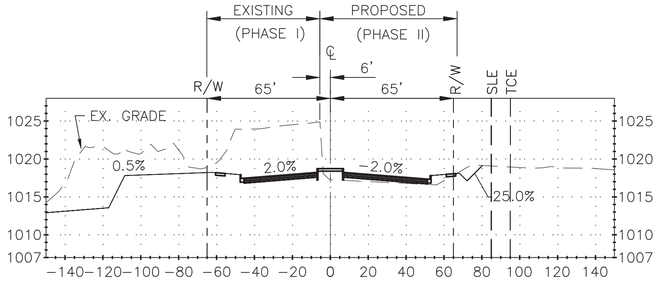


228+00.00

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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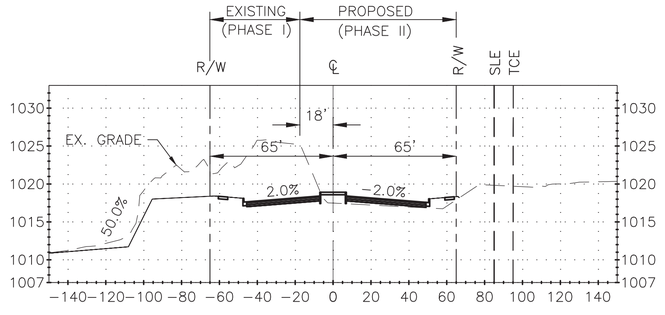

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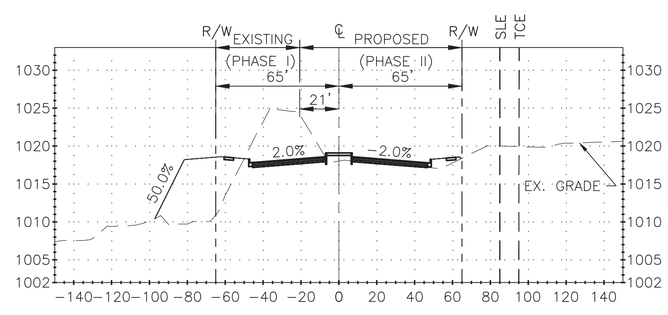

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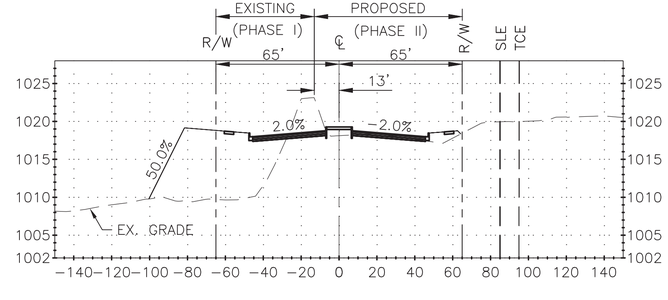
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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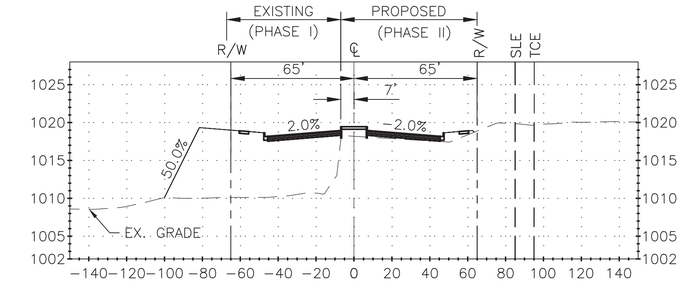

233+00.00

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD□AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO:
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=40' H 1"=10' V			XS-1.03

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334XS03.dwg dbegell Nov 09, 2016 - 10:21am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	54	168

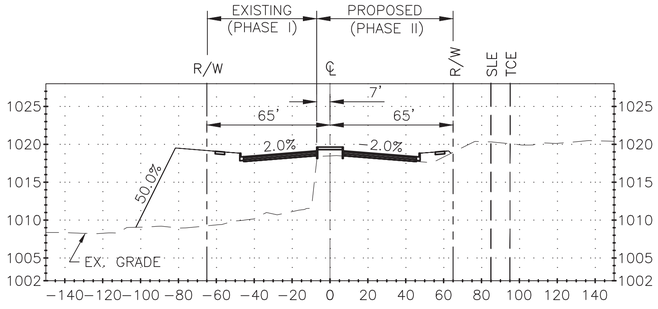
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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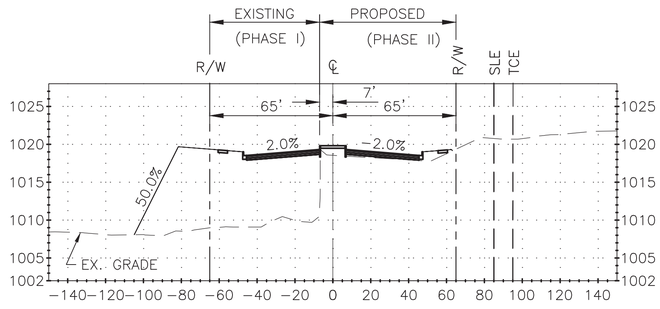

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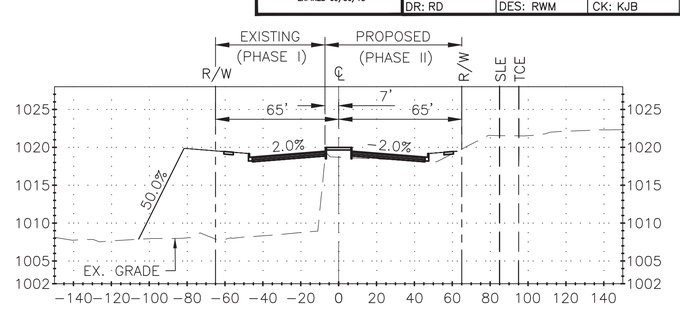

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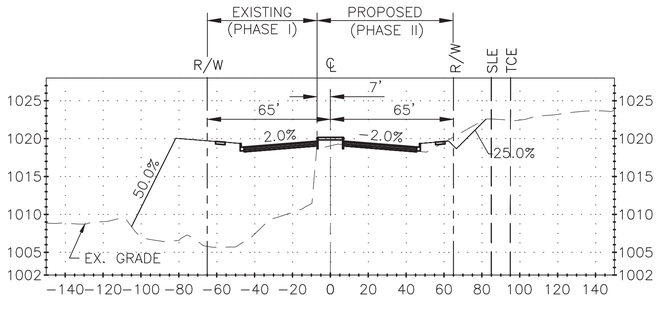

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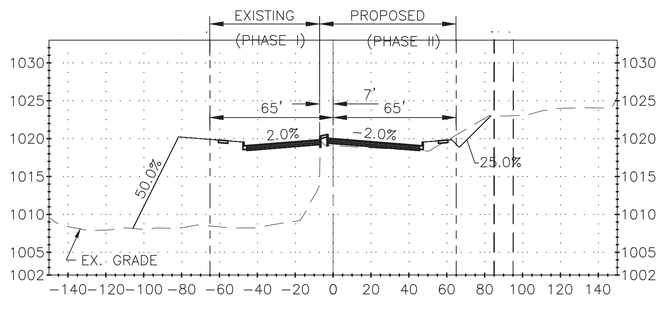

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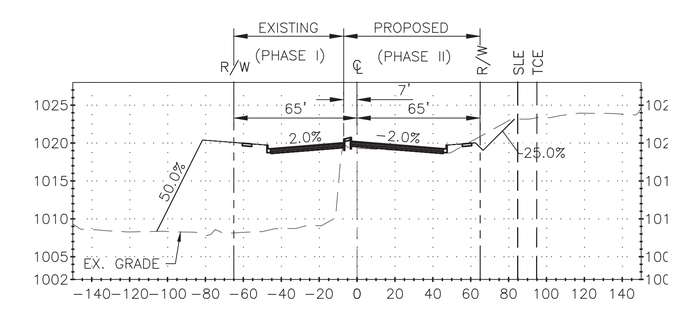
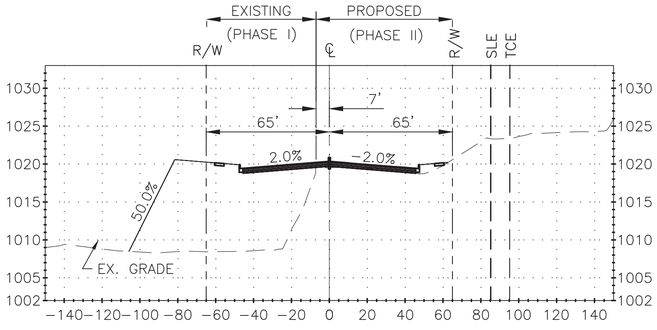


239+00.00

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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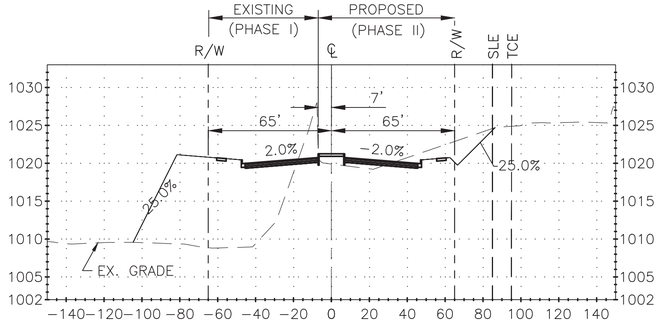

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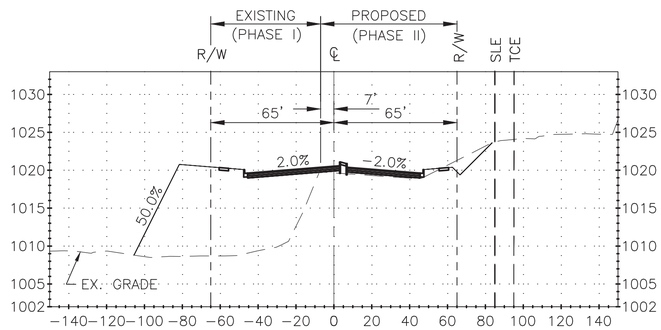

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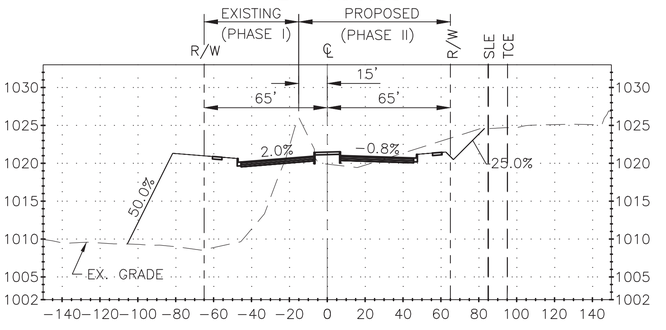

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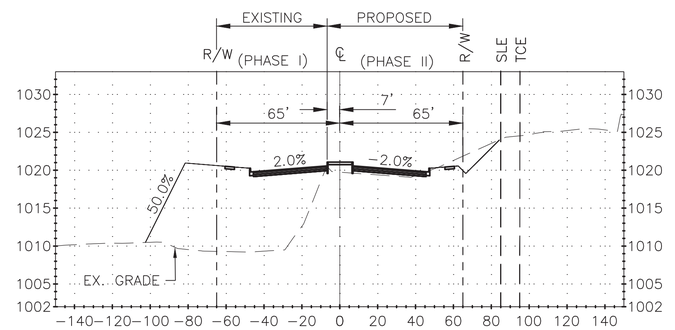

242+00.00

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD□AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO:
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=40' H, 1"=10' V			XS-1.04

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	55	168

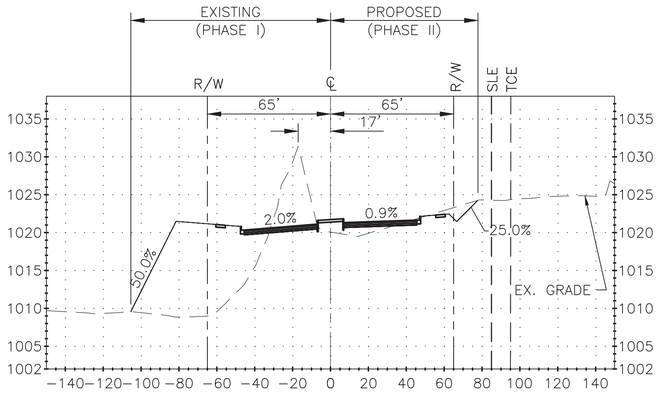
Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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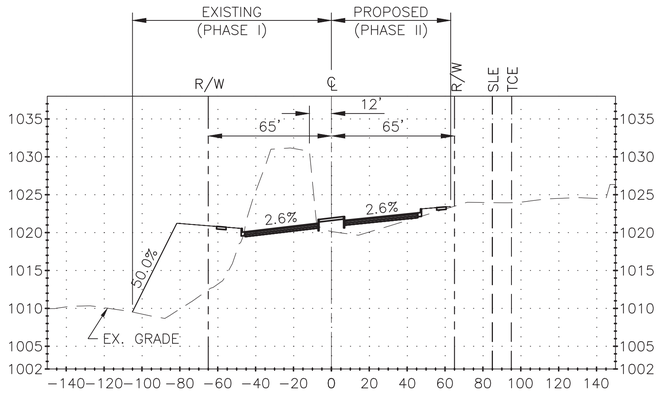

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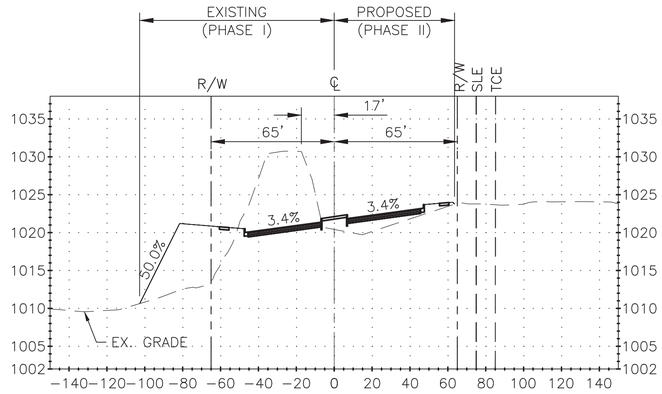

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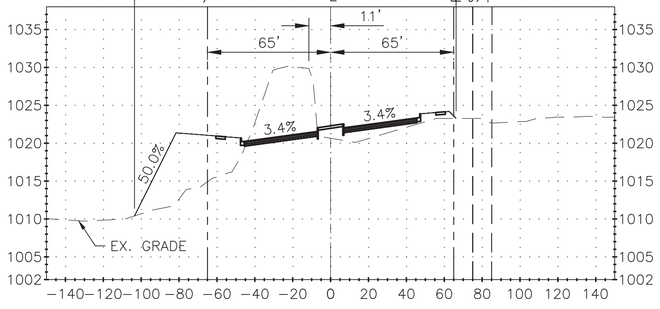
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



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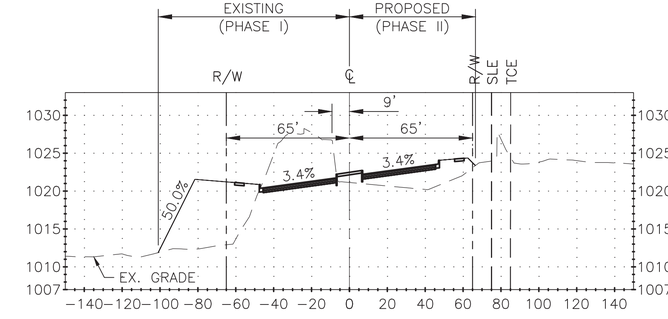

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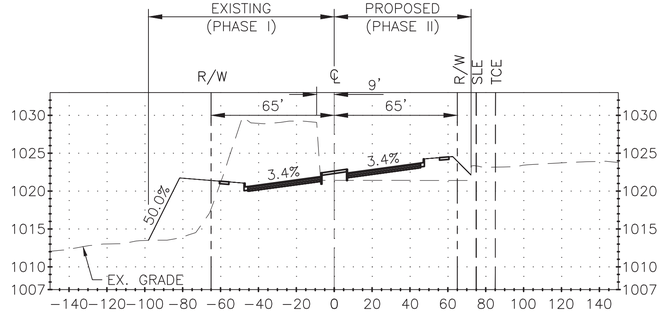

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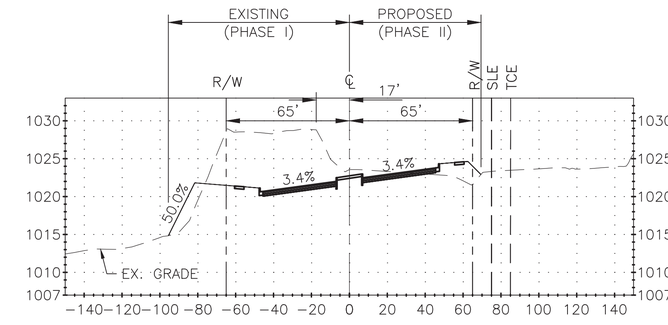
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



250+50.00

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602-263-1100
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD□AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO: XS-1.05
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=40' H 1"=10' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	56	168

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

REVISION BY CITY OF PHOENIX

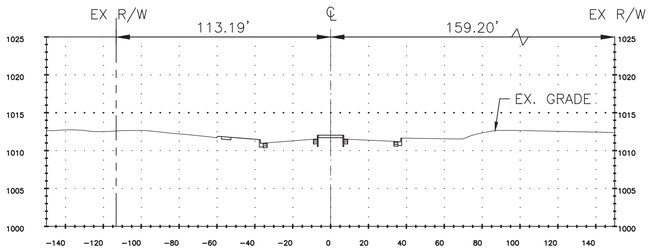
NO.	DESCRIPTION	REV BY	CKD BY	DATE

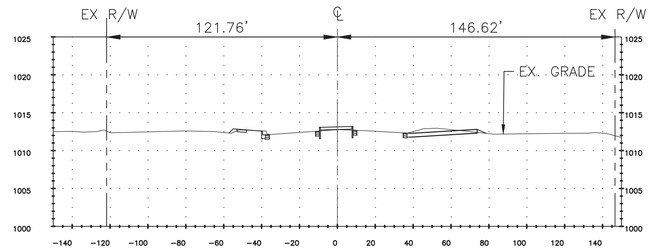
REVISION BY CITY OF PHOENIX

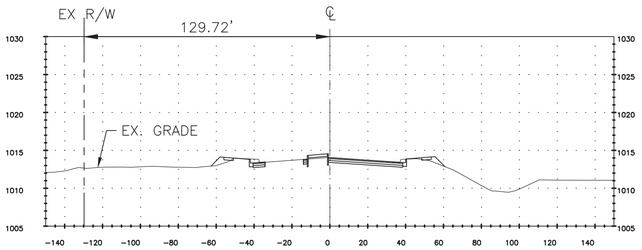
NO.	DESCRIPTION	REV BY	CKD BY	DATE

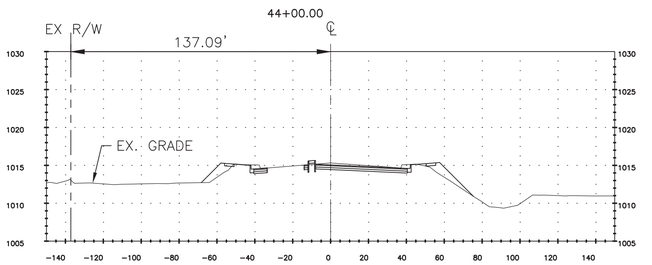
REVISION BY CITY OF PHOENIX

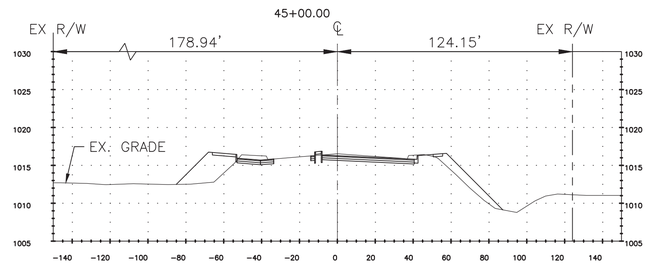
NO.	DESCRIPTION	REV BY	CKD BY	DATE

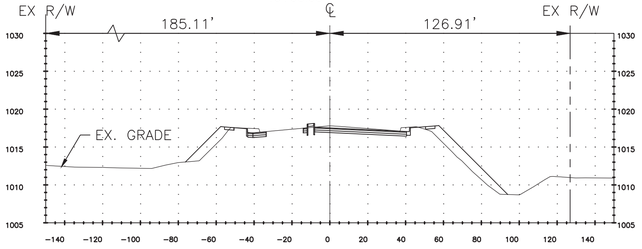


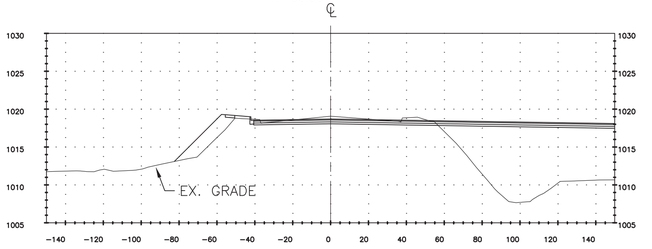


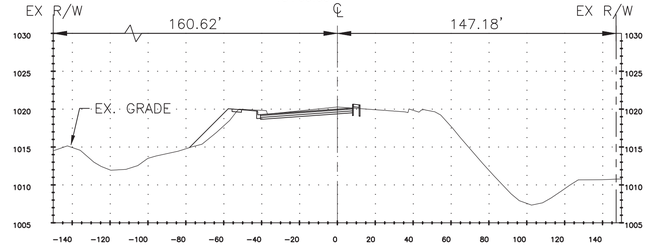


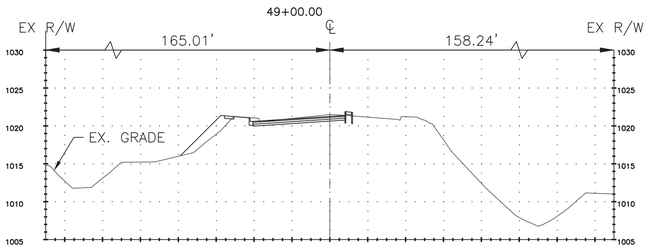


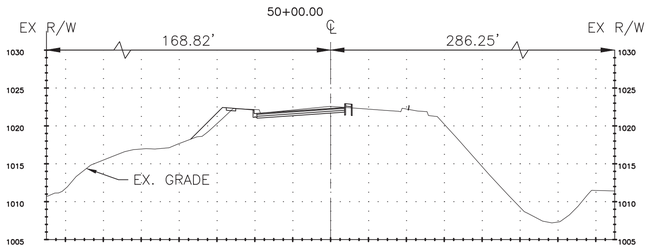


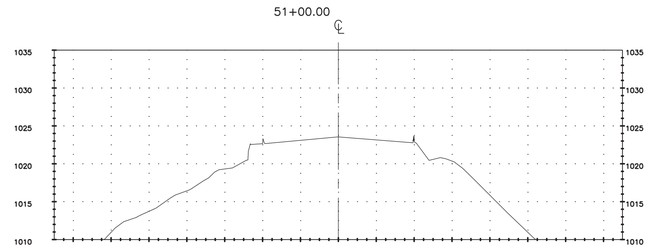












52+00.00

53+00.00

53+88.02

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ROAD AY CROSS SECTIONS

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RWM	CK: KJB	DWG NO:
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=40' H, 1"=10' V			XS-1.06

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334XS06.dwg dbegell Nov 09, 2016 – 10:27am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	57	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD | DES: RRS | CK: BBJ | DATE: 01/14

STREET TRANSPORTATION STORM DRAIN DESIGN SUMMARY SHEET

STORM DRAIN DESIGN SUMMARY PAVING PROJECT ST85100334

AREA NO.	INLET NO.	INLET STA.	AREA - ACRES: TOTAL AREA ACRES	AREA - ACRES: C FACTOR	AREA - ACRES: IMPROV. AREA CA	FOR CONCENTRATION TIME: STREET SLOPE ft./ft.	FOR CONCENTRATION TIME: MAX DIST. ft.	TC MIN.	INLET I	RUNOFF TO INLET: Q = C.i.A	AVERAGE UPSTREAM GUTTER SLOPE ft./ft.	CROSS SLOPE AT INLET ft./ft.	FLOWBY TO THIS CATCH BASIN	FLOW BY + RUNOFF (Q)	DEPTH OF WATER UPSTREAM GUTTER in.	WIDTH OF WATER IN STREET ft.	GUTTER VELOCITY ft/sc	DEPTH OF SUMP IF A SUMP FT.	INLET TYPE	Q ACCEPTED BY C.B.	FLOWBY	TO INLET NO.	TC2 MAIN STORM DRAIN: TOTAL AREA IMPER.	TC2 MAIN STORM DRAIN: TC (MIN.)	MAIN STORM DRAIN: I	MAIN STORM DRAIN: Q2	SLOPE MAIN STORM DRAIN ft./ft.	SIZE MAIN STORM DRAIN	VELOCITY MAIN STORM DRAIN f.p.s.	LENGTH MAIN STORM DRAIN	ELEVATION: CROWN: INLET	ELEVATION: CROWN: OUTLET	HYDRAULIC GRADE LINE: Sf ft./ft.	HYDRAULIC GRADE LINE: HL ft.	HYDRAULIC GRADE LINE: ELEVATION: INLET	HYDRAULIC GRADE LINE: ELEVATION: OUTLET	HEAD BETWEEN 0.5' BELOW LIP GUTTER TO H.G. MAIN	LENGTH CONN. PIPE in.	DIA CONN. PIPE	DEPTH CATCH BASIN
BA1	CB-1	246+49.11, L	1.39	0.95	1.32	(N/A)	770	10	2.346	3.1	(N/A)	0.034	0.0	3.1	3.9	8.5	4.01	-	M-2, L=3'	3.1	0.0	(N/A)	1.39	10.15	2.33	3.11	0.0042	18.00	3.76	134	1016.86	1016.30	0.0028	0.25	1016.07	1015.82	3.07	37	18	4.75
BA2	CB-2	245+10.00, R	1.30	0.95	1.24	0.0090	914	10	2.346	2.9	0.0090	0.0104	0.0	2.9	2.8	15.7	3.81	-	M-1, L=10'	2.5	0.4	CB-4	2.69	10.75	2.29	5.49	0.0042	18.00	4.39	196	1016.30	1015.48	0.0042	0.83	1015.82	1014.99	3.51	68	18	5.11
BA3	CB-3	240+00.00, L	0.76	0.95	0.72	0.0018	649	10	2.346	1.7	0.0018	0.02	0.0	1.7	3.5	11.6	3.28	-	M-1, L=3'	1.5	0.2	CB-5	4.27	12.82	2.12	8.11	0.0040	24.00	4.70	300	1014.47	1013.27	0.0040	1.26	1013.55	1012.28	3.29	53	18	4.75
BA4	CB-4	240+08.00, R	0.82	0.95	0.78	0.0018	557	10	2.346	1.8	0.0018	0.02	0.4	2.3	3.8	12.9	3.46	-	M-1, L=3'	1.8	0.4	CB-6	3.51	12.79	2.12	6.74	0.0040	18.00	4.28	8	1014.10	1014.07	0.0057	0.12	1013.70	1013.58	3.24	45	18	4.75
BA5	CB-5	234+00.00, L	0.89	0.95	0.84	0.0018	601	10	2.346	2.0	0.0018	0.02	0.2	2.2	3.7	12.7	3.44	-	M-1, L=3'	1.8	0.4	CB-7	5.15	14.96	1.94	8.92	0.0040	24.00	4.80	50	1011.87	1011.67	0.0021	0.06	1011.23	1011.17	3.25	59	18	4.75
BA6	CB-6	233+50.00, R	0.99	0.95	0.94	0.0018	658	10	2.346	2.2	0.0018	0.02	0.4	2.6	4	13.7	3.56	-	M-1, L=3'	2.0	0.6	CB-8	6.14	15.14	1.93	10.54	0.0040	24.00	4.98	250	1011.67	1010.67	0.0021	0.44	1011.17	1010.74	3.21	55	18	4.75
BA7	CB-7	228+00.00, L	0.90	0.95	0.85	0.0018	601	10	2.346	2.0	0.0018	0.02	0.4	2.4	3.9	13.2	3.50	-	M-1, L=3'	1.9	0.5	CB-9	2.73	13.10	2.09	5.75	0.0033	24.00	4.01	8	1011.66	1011.63	0.0011	0.00	1010.97	1010.97	3.23	48	18	4.75
BA8	CB-8	228+08.00, R	0.81	0.95	0.77	0.0018	542	10	2.346	1.8	0.0018	0.02	0.6	2.4	3.9	13.3	3.51	-	M-1, L=3'	1.9	0.5	CB-10	3.54	13.14	2.09	7.46	0.0033	24.00	4.28	292	1011.63	1010.67	0.0012	0.26	1010.97	1010.71	3.23	53	18	4.75
BA9	CB-9	222+08.00, L	0.92	0.95	0.88	0.0018	598	10	2.346	2.1	0.0018	0.02	0.5	2.6	3.9	13.6	3.54	-	M-1, L=3'	2.0	0.6	CB-11	1.84	10.40	2.32	4.48	0.0030	18.00	3.60	293	1013.23	1012.35	0.0032	1.02	1012.72	1011.70	2.97	45	18	4.50
BA10	CB-10	222+00.00, R	0.91	0.95	0.87	(N/A)	607	10	2.346	2.1	(N/A)	0.02	0.5	2.6	3.4	11.4	2.80		M-2, L=3'	2.6	0.0	(N/A)	0.91	10.36	2.32	2.53	0.0030	18.00	3.15	7	1013.25	1013.23	0.0010	0.00	1012.73	1012.72	2.45	20	18	4.22
BA11	CB-11	217+00.00, L	0.74	0.95	0.71	0.0018	507	10	2.346	1.7	0.0018	0.02	0.6	2.2	3.8	12.9	3.38	-	M-1, L=3'	1.8	0.4	CB-16	1.49	10.27	2.32	3.31	0.0034	18.00	3.54	170	1012.25	1011.67	0.0035	0.67	1011.54	1010.86	3.13	53	18	4.65
BA12	CB-12	217+08.00, R	0.75	0.95	0.71	0.0018	485	10	2.346	1.7	0.0018	0.02	0.0	1.7	3.4	11.5	3.28	-	M-1, L=3'	1.5	0.2	CB-17	0.75	10.23	2.33	1.50	0.0034	18.00	2.87	8	1012.28	1012.25	0.0007	0.00	1011.54	1011.54	3.19	45	18	4.65
BA13	CB-13	200+47.99, L	0.38	0.95	0.36	0.0124	650	10	2.346	0.9	0.0124	0.02	0.0	0.9	2.1	5.9	2.80	-	M-1, L=6'	0.9	0.0	CB-14	7.19	17.24	1.84	13.13	0.0030	24.00	4.40	216	1006.16	1005.52	0.0029	0.63	1006.02	1005.40	3.40	53	18	4.75
BA14	CB-14	205+00.00, L	1.88	0.95	1.79	(N/A)	655	10	2.346	4.2	(N/A)	0.02	0.4	4.7	4.2	17.5	4.64	-	M-2, L=3'	4.7	0.0	(N/A)	5.01	15.50	1.92	9.41	0.0029	24.00	4.28	8	1007.83	1007.81	0.0015	0.01	1007.59	1007.58	2.92	45	18	4.75
BA15	CB-15	205+00.00, R	1.80	0.95	1.71	(N/A)	659	10	2.346	4.0	(N/A)	0.02	0.3	4.3	4	14.0	4.53	-	M-2, L=3'	4.3	0.0	(N/A)	6.80	15.53	1.91	12.94	0.0029	24.00	4.37	192	1007.81	1007.25	0.0029	0.56	1007.58	1007.02	2.95	53	18	4.75
BA16	CB-16	211+54.00, L	0.82	0.95	0.78	0.0018	547	10	2.346	1.8	0.0018	0.02	0.4	2.3	3.8	12.9	3.46	-	M-1, L=3'	1.8	0.4	CB-14	3.13	12.83	2.11	6.20	0.0033	24.00	4.07	179	1010.22	1009.64	0.0034	0.68	1009.20	1008.52	3.24	53	18	4.75
BA17	CB-17	211+59.00, R	0.82	0.95	0.78	0.0018	547	10	2.346	1.8	0.0018	0.02	0.2	2.0	3.6	12.4	3.39	-	M-1, L=3'	1.7	0.3	CB-15	2.31	12.80	2.12	4.55	0.0033	24.00	3.75	5	1010.24	1010.22	0.0018	0.00	1009.20	1009.20	3.26	49	18	4.75

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
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602-263-1100
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OUTSIDE MARICOPA COUNTY

STORM DRAIN DESIGN SUMMARY SHEET

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: DS-1.01
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: N.T.S.			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

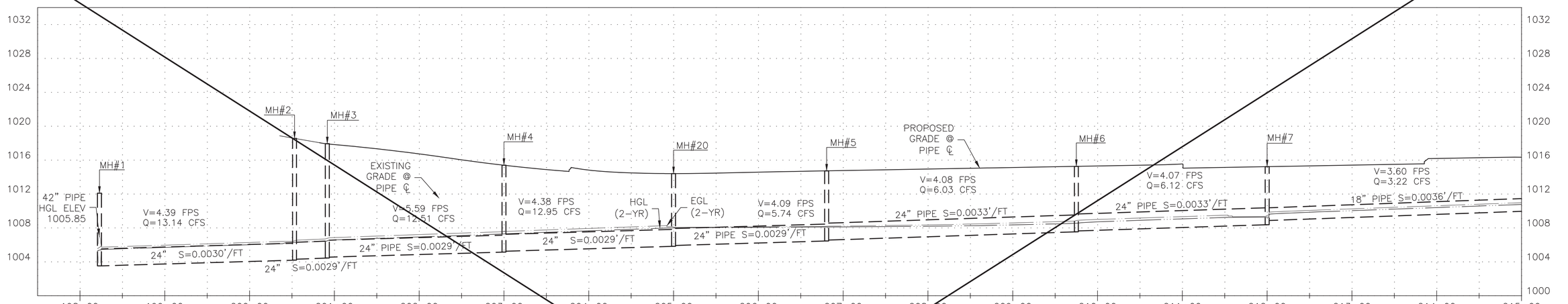
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	56	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 01/14

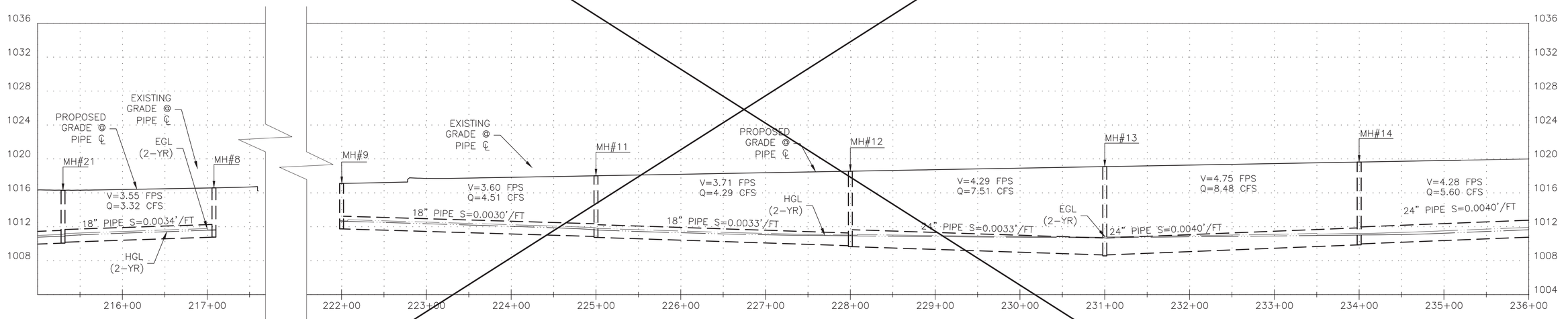
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



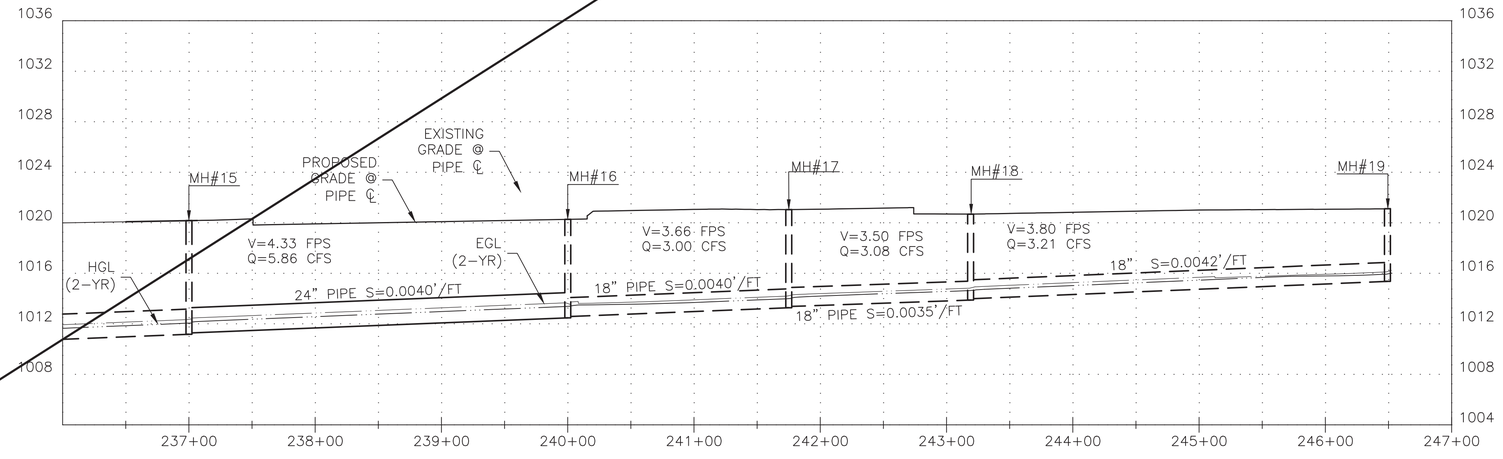
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

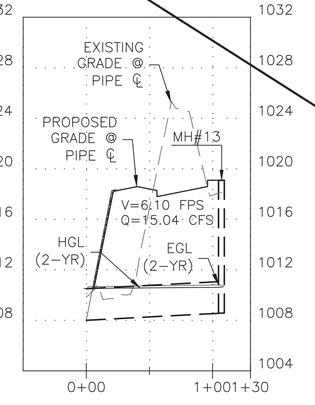


REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA. 231+00.00
MH#13 TO SALT RIVER



CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

HYDRAULIC ☐ ENERGY GRADE LINE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD-1.01
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=60' H 1"= 6' V			

ST85100371(003)

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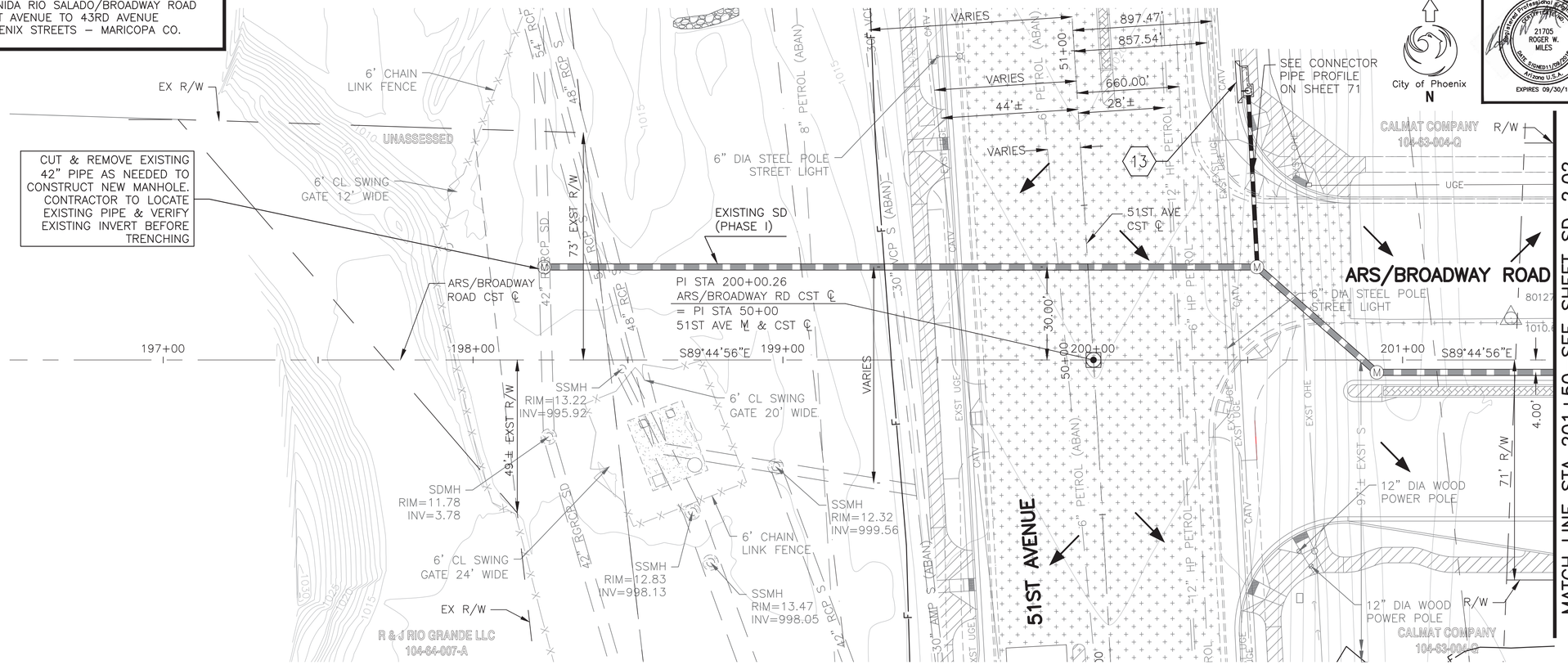
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	59	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD | DES: RRS | CK: BBJ | DATE: 09/16

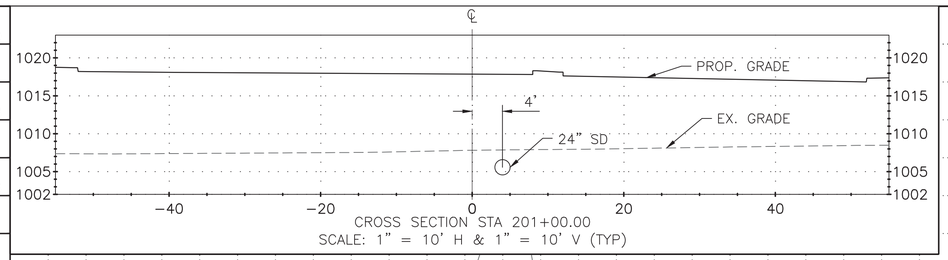
Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

CATCH BASIN & CONNECTOR PIPE

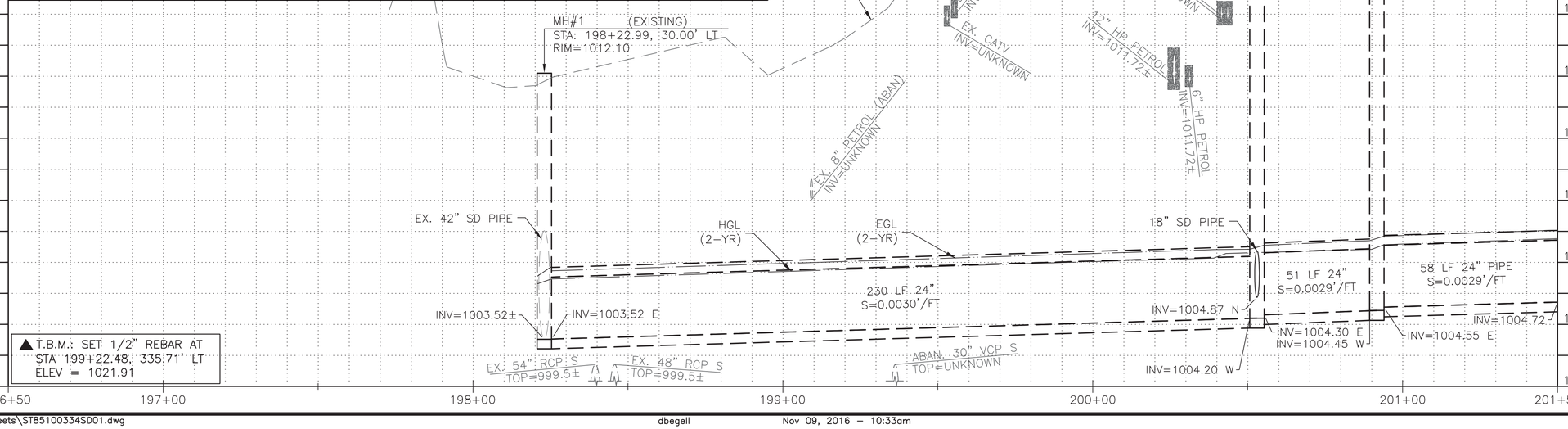
NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
13	200+47.99 86.76' LT	M–1, L=6' P1569–1	MANHOLE	18"	58

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.



CROSS SECTION STA 201+00.00
SCALE: 1" = 10' H & 1" = 10' V (TYP)



▲T.B.M.: SET 1/2" REBAR AT STA 199+22.48, 335.71' LT ELEV = 1021.91

SHEET REFERENCES

1. SEE SHEET 15 FOR PAVING PLAN
2. SEE SHEET 71 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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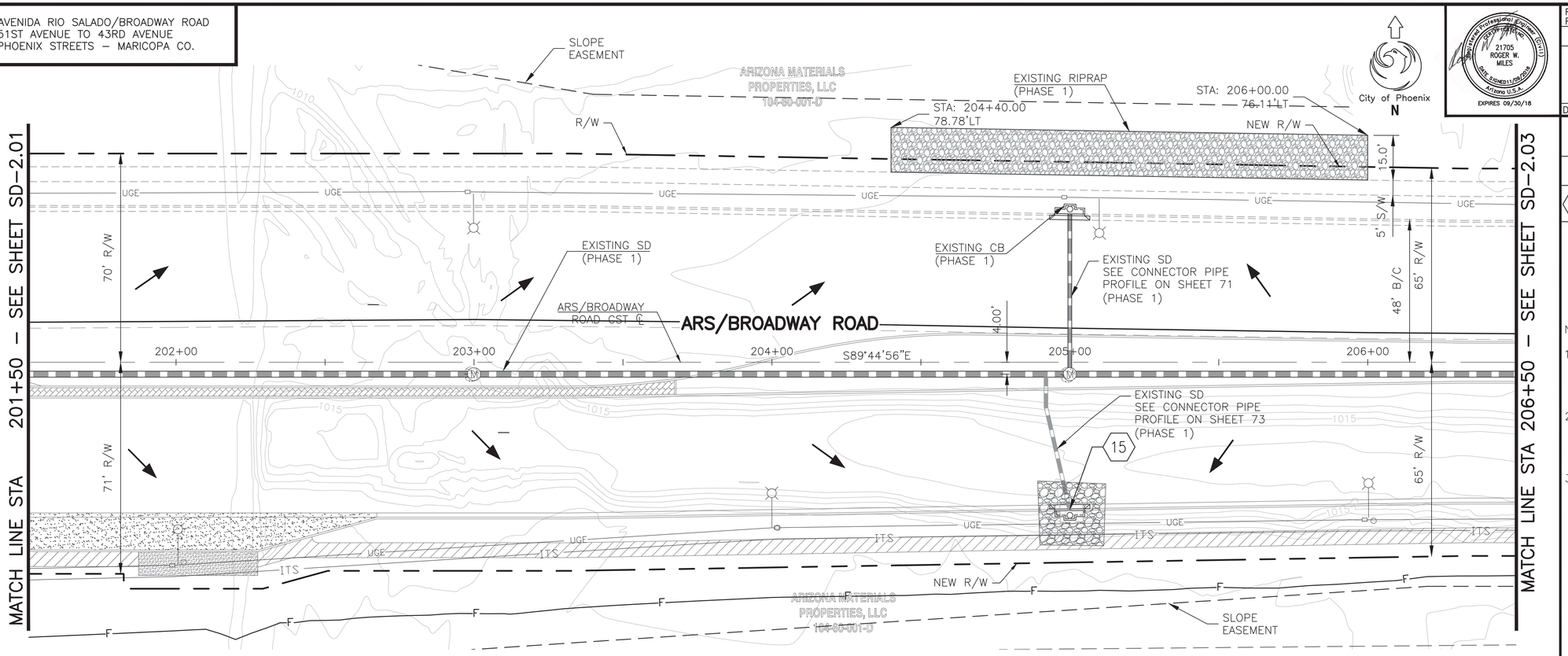
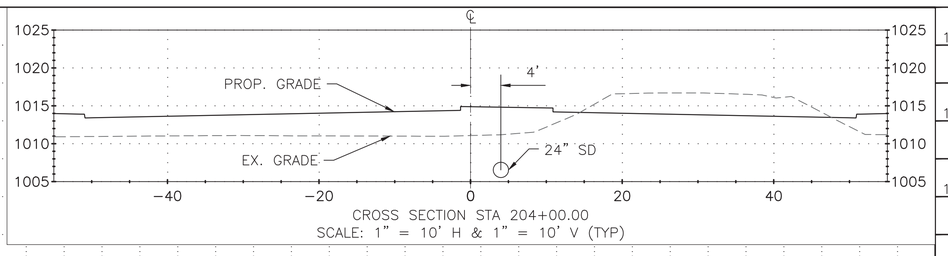
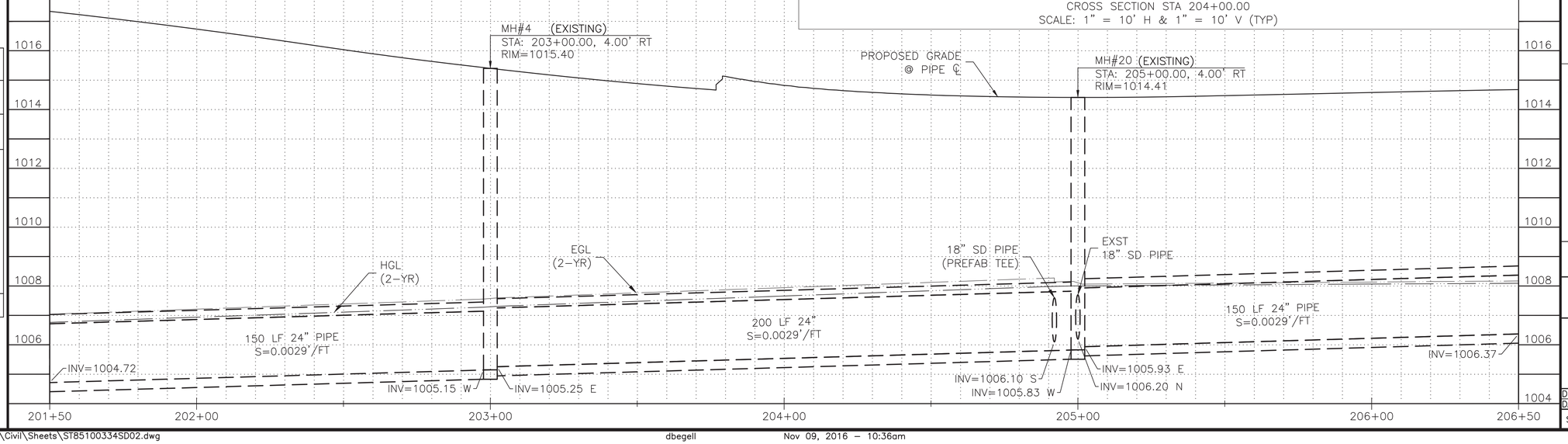
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.





▲ T.B.M.: SET 1/2" REBAR AT
STA 204+16.30, 246.36' LT
ELEV = 1011.14



REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	60	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
15	205+00.00 49.21' RT	M-2, L=3' P1569-2	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 17 FOR PAVING PLAN
2. SEE SHEET 73 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

STORM DRAIN PLAN □ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD-2.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

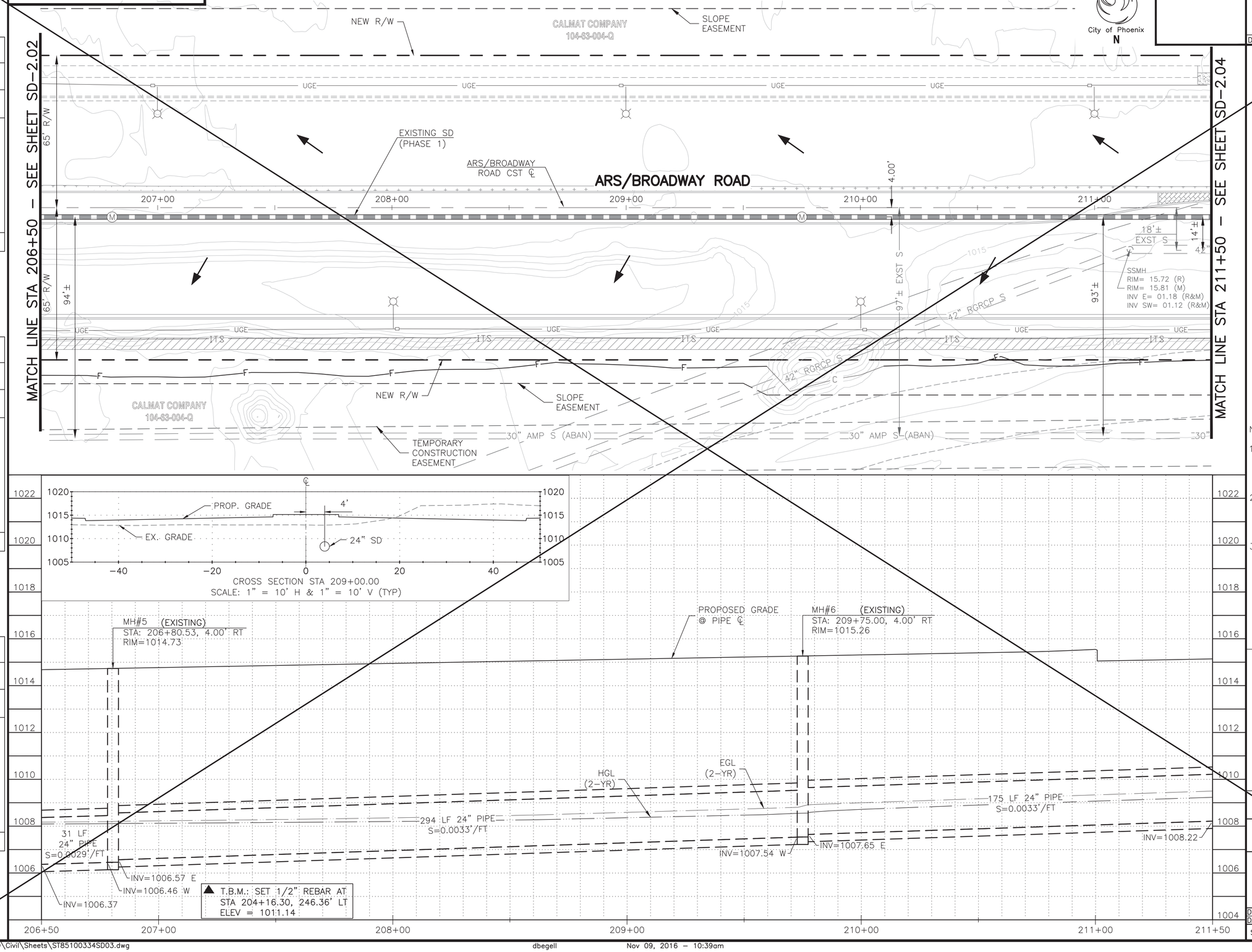
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	61	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 19 FOR PAVING PLAN

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

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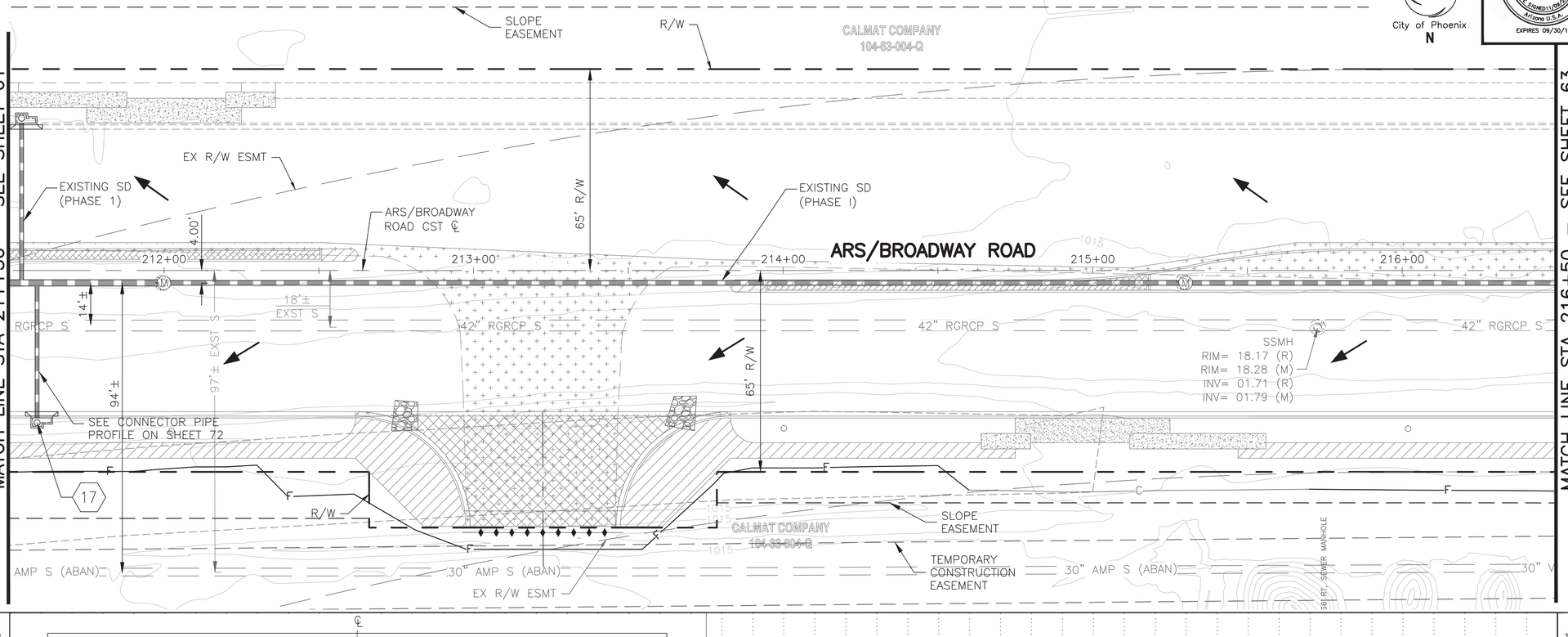
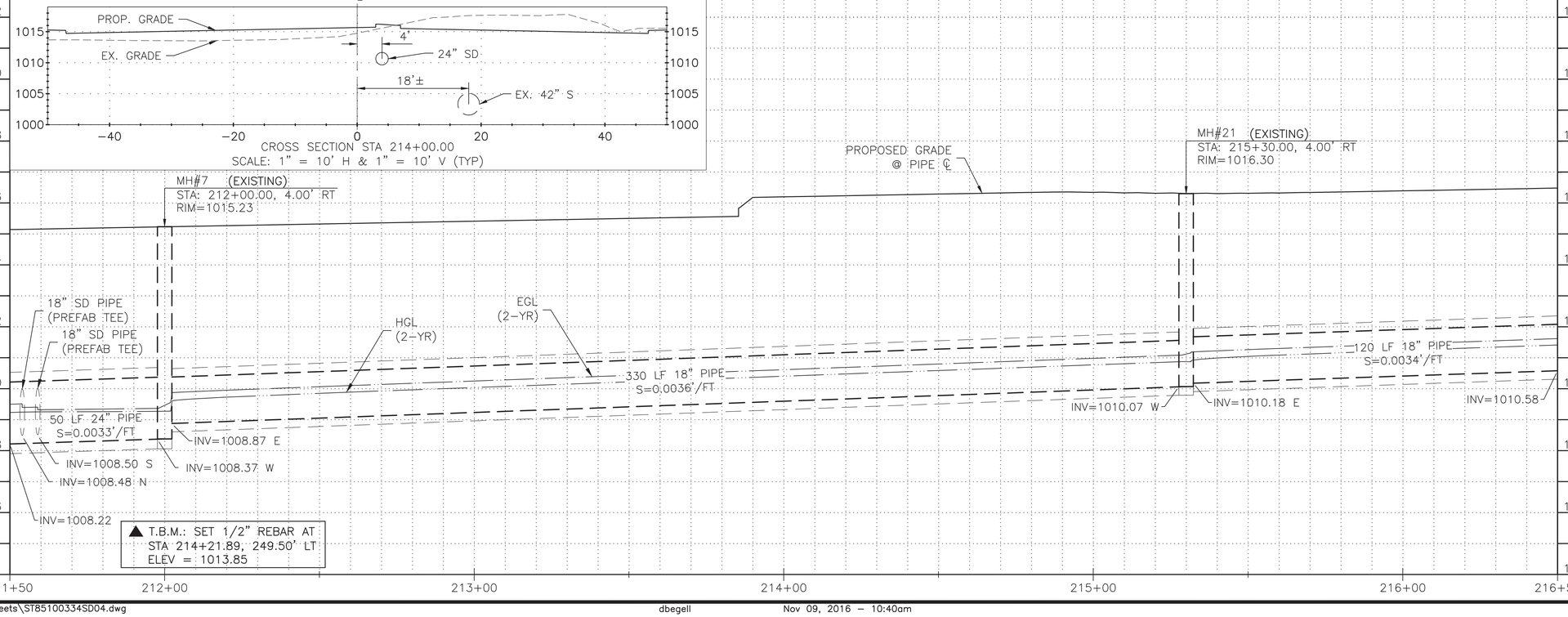
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	

REVISION BY CITY OF PHOENIX					
NO.	DESCRIPTION	REV BY	CKD BY	DATE	





City of Phoenix
N

Registered Professional Engineer (Civil)
21705
ROGER W. MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	62	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
17	211+59.00 47.00' RT	M–1, L=3' P1569–2	N/A	15"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 21 FOR PAVING PLAN
2. SEE SHEET 72 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN □ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

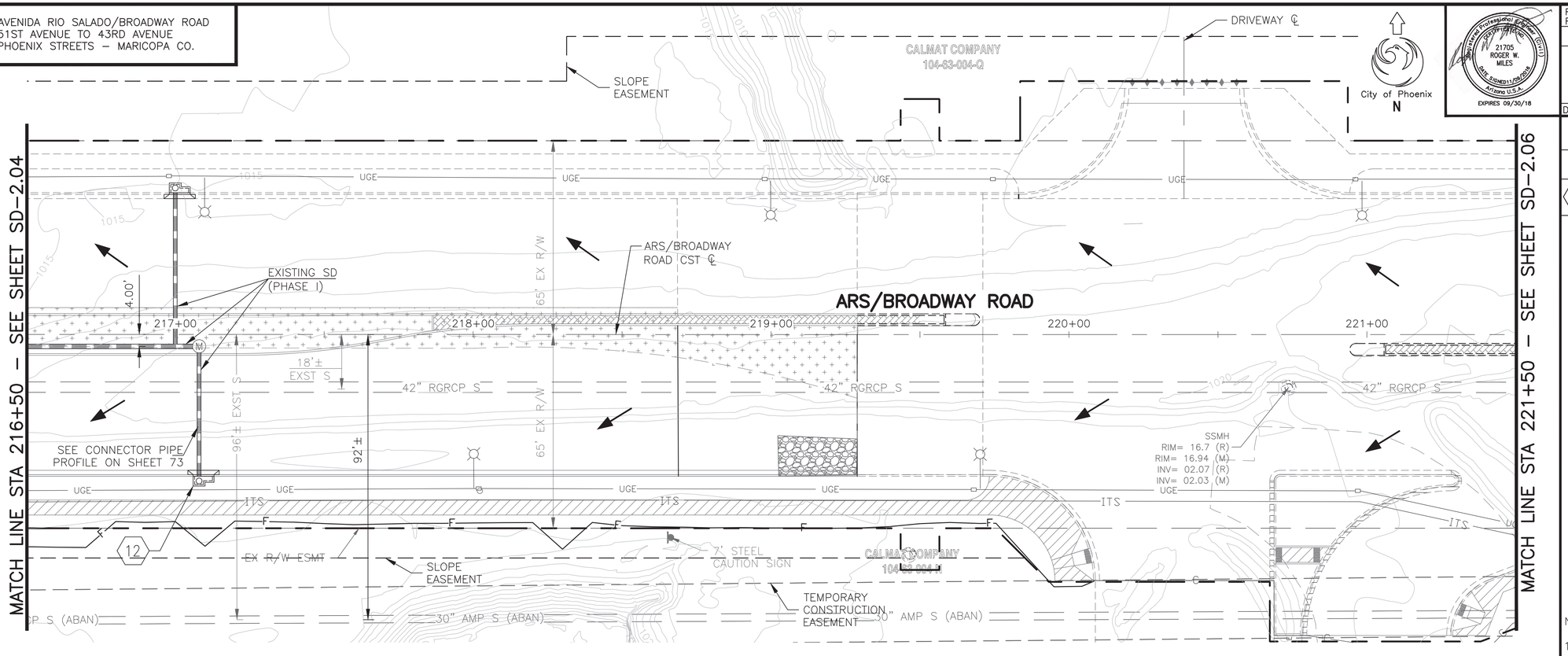
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

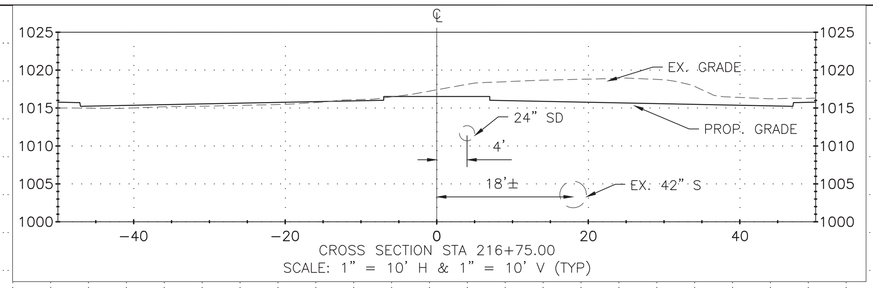
ST85100371(003)

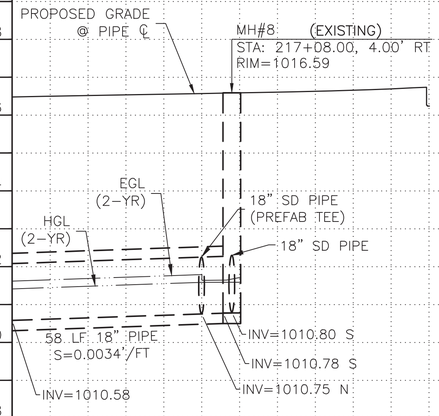
P:\2010011\CADD\Civil\Sheets\ST85100334SD04.dwg dbegell Nov 09, 2016 – 10:40am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



▲ T.B.M.: SET 1/2" REBAR AT
STA 214+21.89, 249.50' LT
ELEV = 1013.85





F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	63	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

DR: RD | DES: RRS | CK: BBJ | DATE: 09/16

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
12	217+08.00 47.00' RT	M–1, L=3' P1569–2	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS–BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 23 FOR PAVING PLAN
2. SEE SHEET 73 FOR CONN. PIPE PROFILE

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

STORM DRAIN PLAN ☐ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.05
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

P:\2010011\CADD\Civil\Sheets\ST85100334SD05.dwg dbegell Nov 09, 2016 – 10:42am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

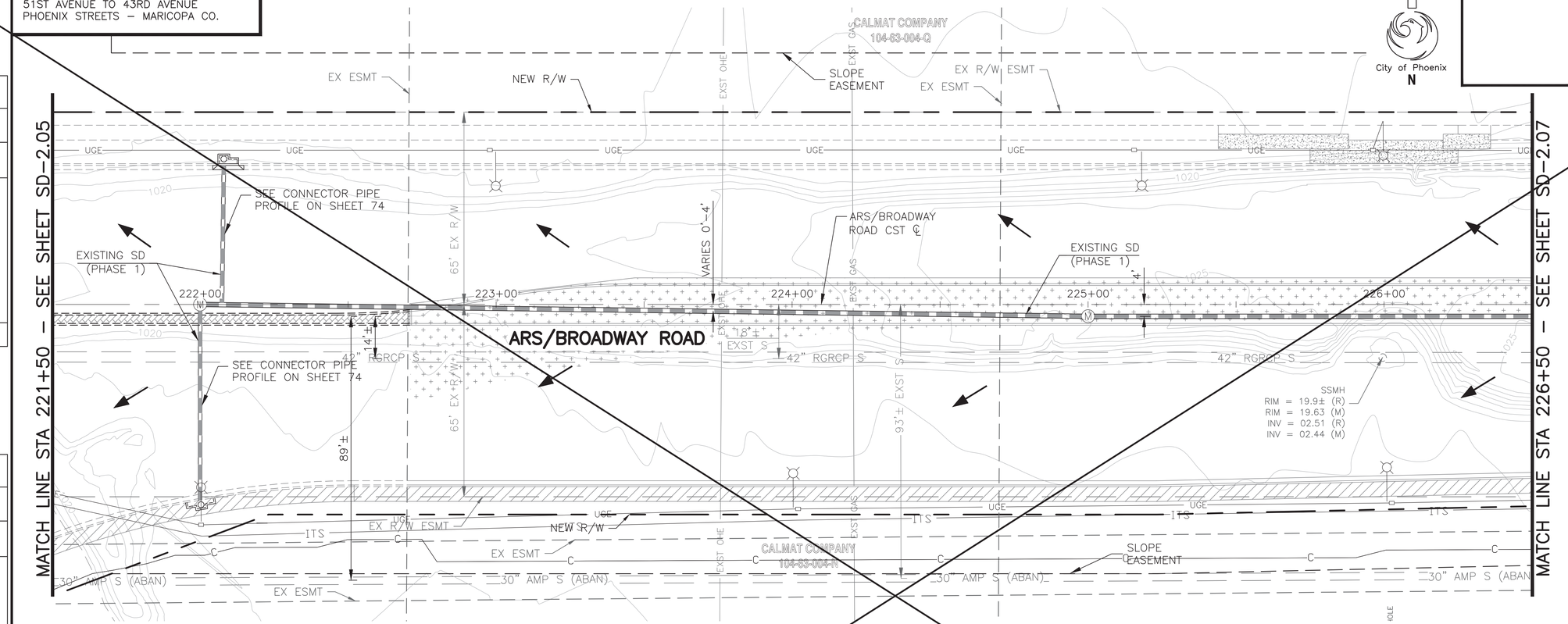
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	64	168

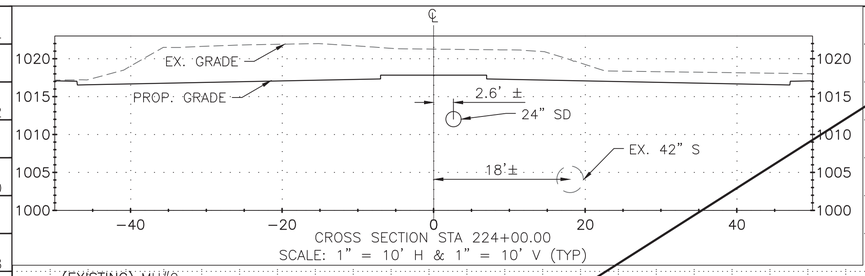
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

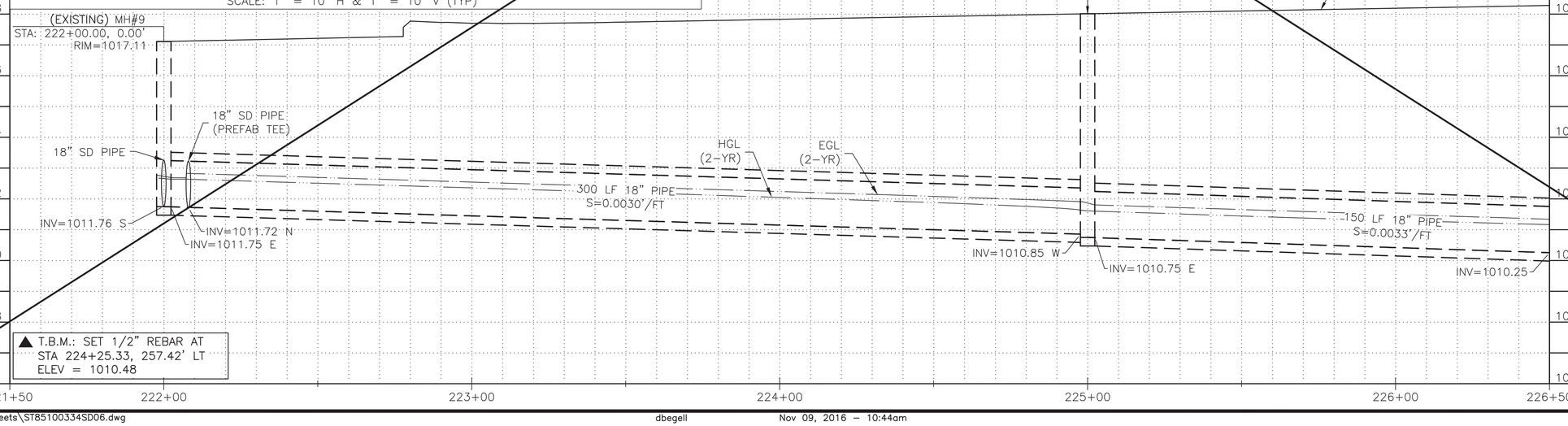
DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE







NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
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SHEET REFERENCES

1. SEE SHEET 25 FOR PAVING PLAN
2. SEE SHEET 74 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

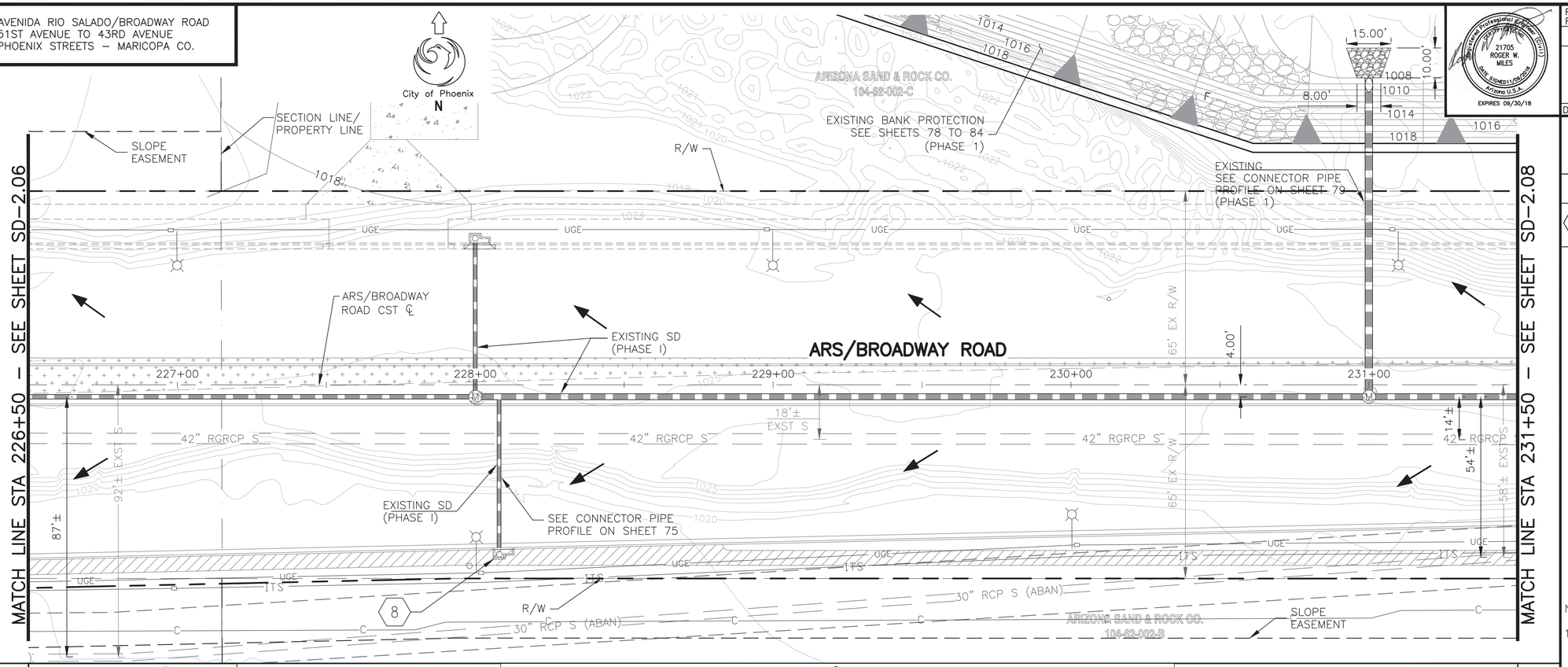
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

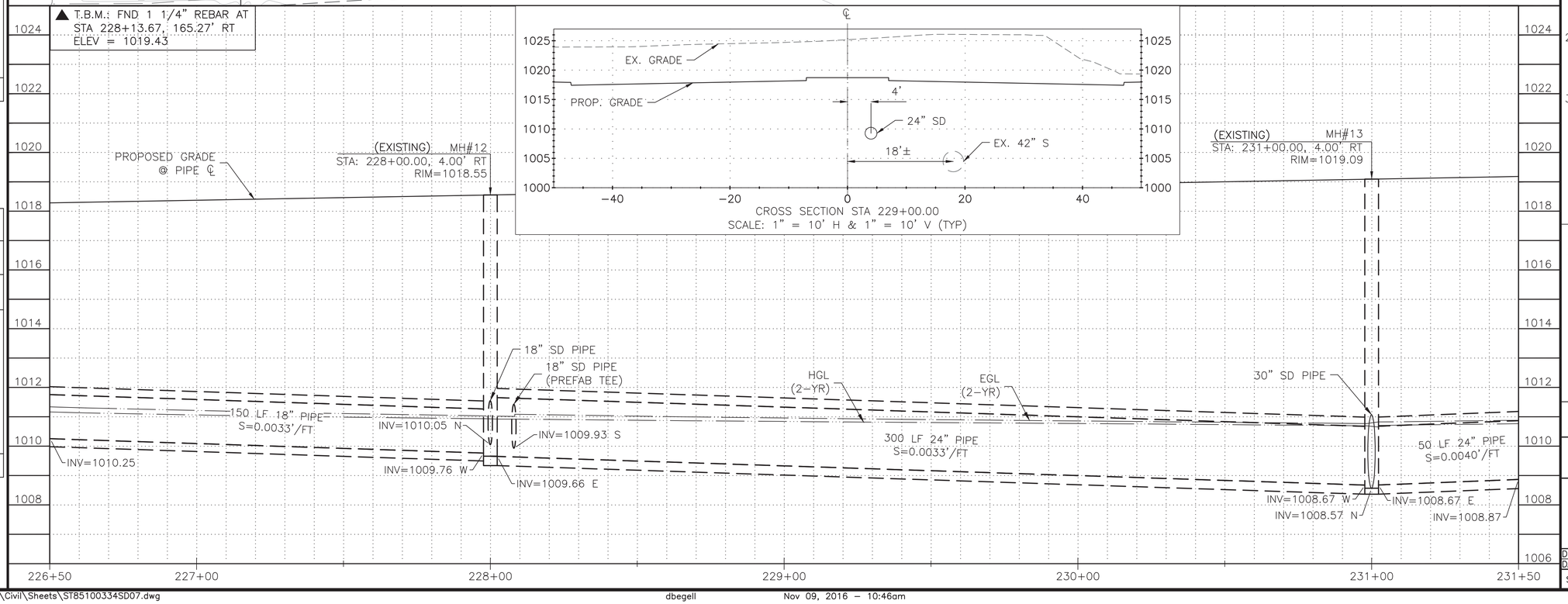
DR: RD	DES: RRS	CK: BBJ	DWG NO: SD-2.06
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N





REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	65	168

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
8	228+08.00 54.67 RT PER SHEET 75	M–1, L=3' P1569–1	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
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SHEET REFERENCES

1. SEE SHEET 27 FOR PAVING PLAN
2. SEE SHEET 75 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN □ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

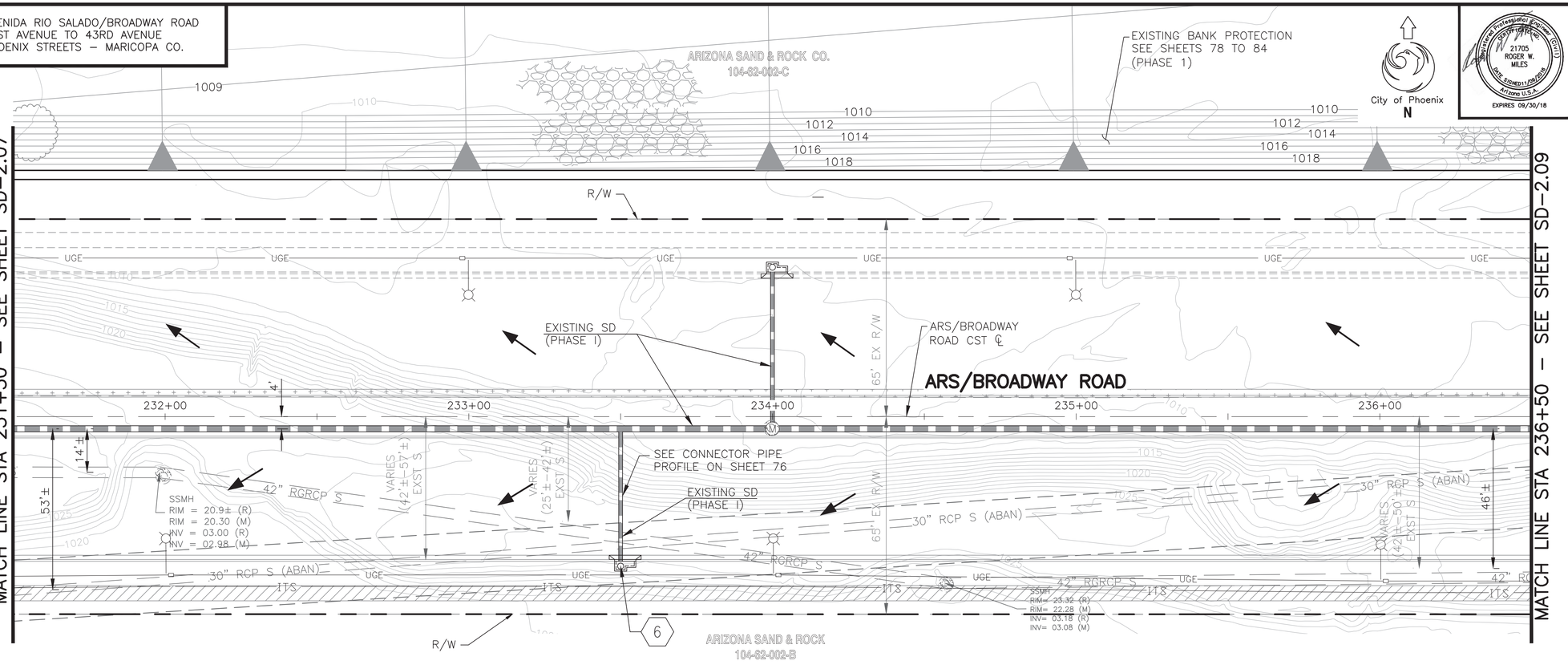
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

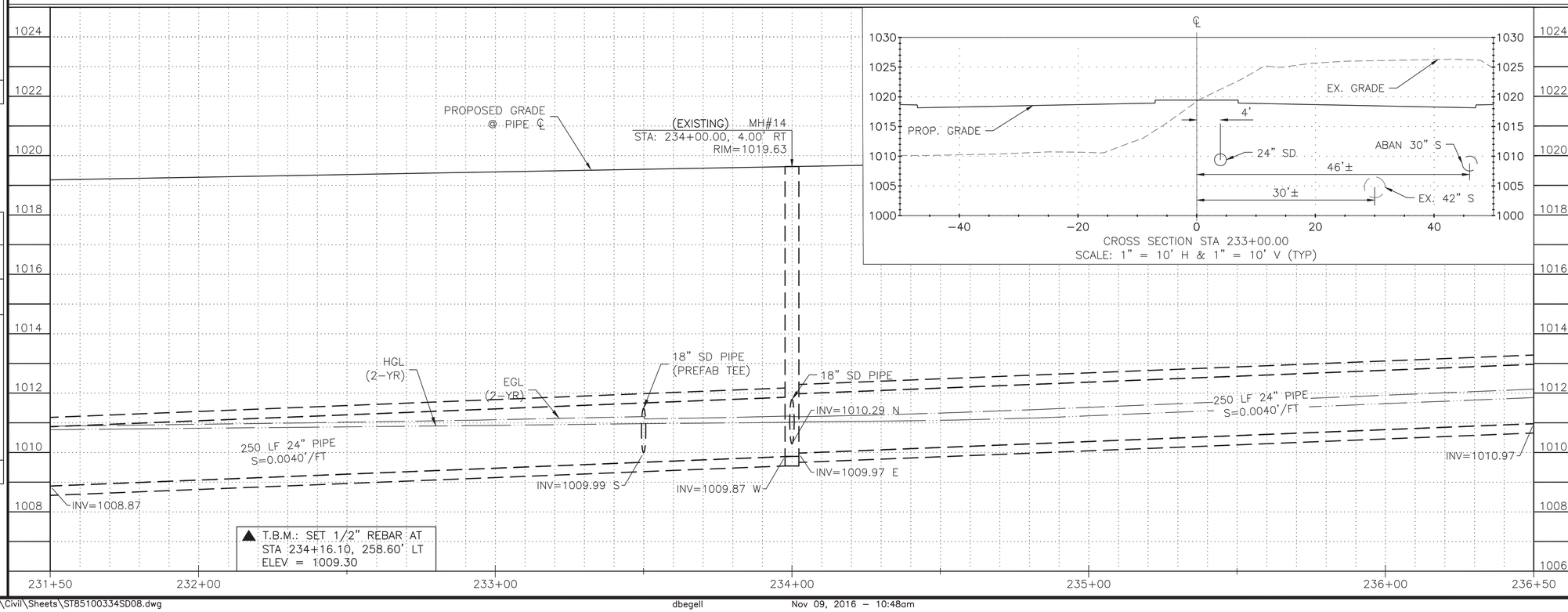
DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.07
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334SD07.dwg dbegell Nov 09, 2016 – 10:46am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.





F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	66	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD | DES: RRS | CK: BBJ | DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
6	233+50.00 47.00' RT	M–1, L=3' P1569–2	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
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SHEET REFERENCES

1. SEE SHEET 29 FOR PAVING PLAN
2. SEE SHEET 76 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.08
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

REVISION BY CITY OF PHOENIX

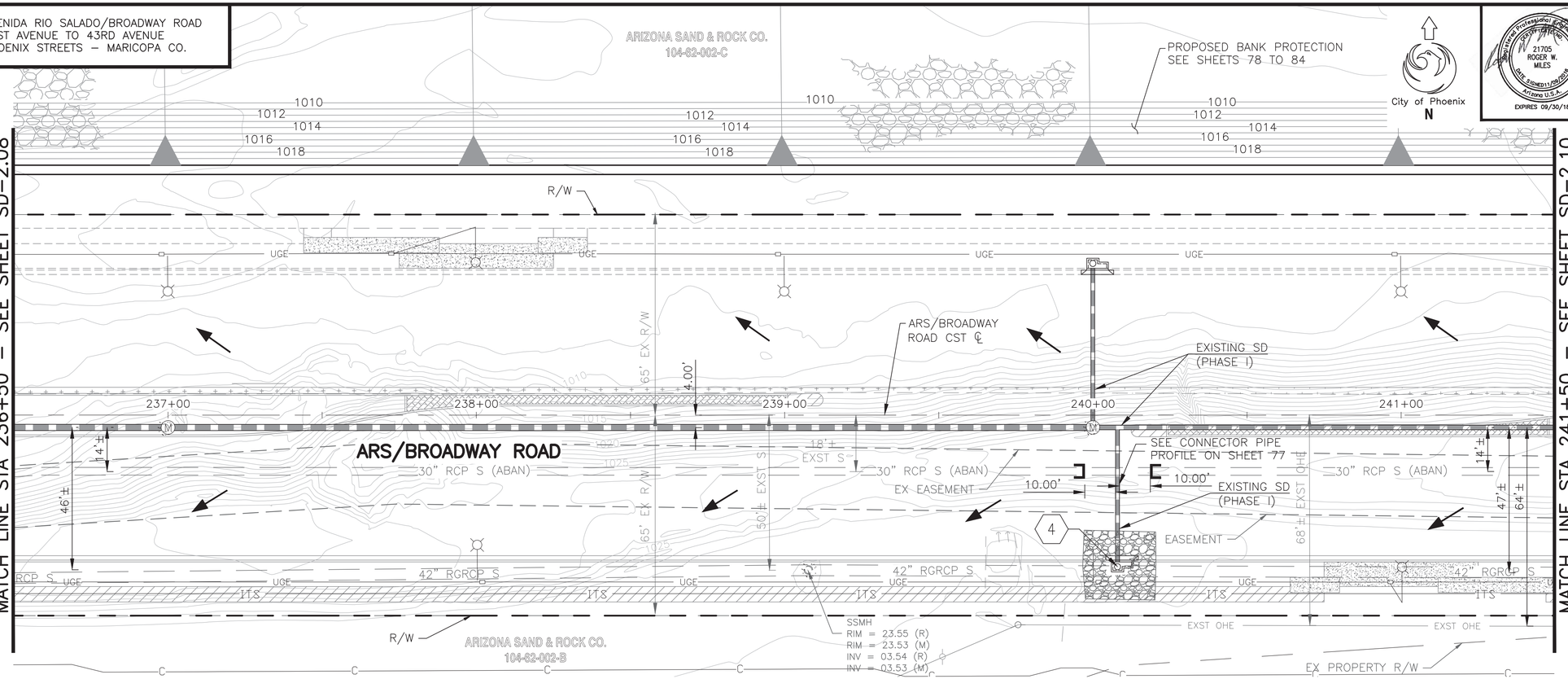
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

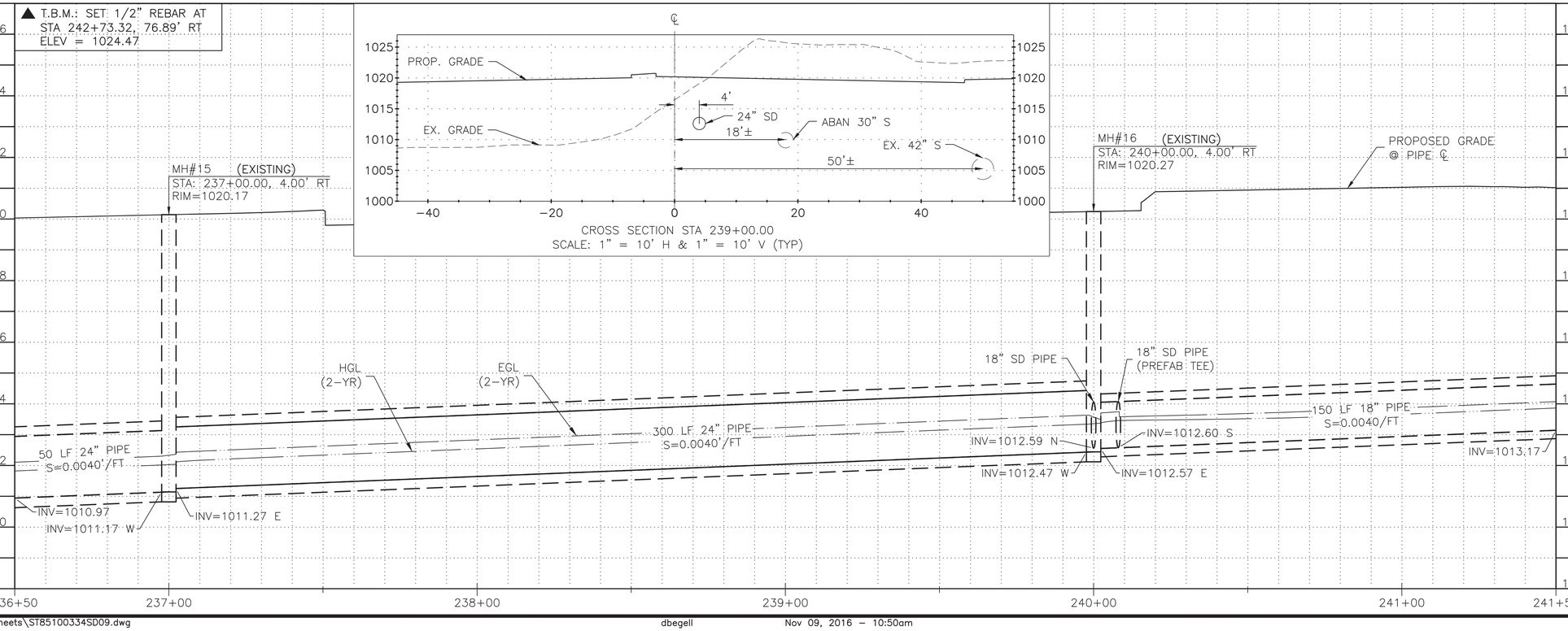
REVISION BY CITY OF PHOENIX

P:\2010011\CADD\Civil\Sheets\ST85100334SD08.dwg dbegell Nov 09, 2016 – 10:48am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



▲ T.B.M.: SET 1/2" REBAR AT
STA 242+73.32, 76.89' RT
ELEV = 1024.47



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	67	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
4	240+08.00 47.00' RT	M–1, L=3' P1569–2	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
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SHEET REFERENCES

1. SEE SHEET 31 FOR PAVING PLAN
2. SEE SHEET 77 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.09
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	68	168

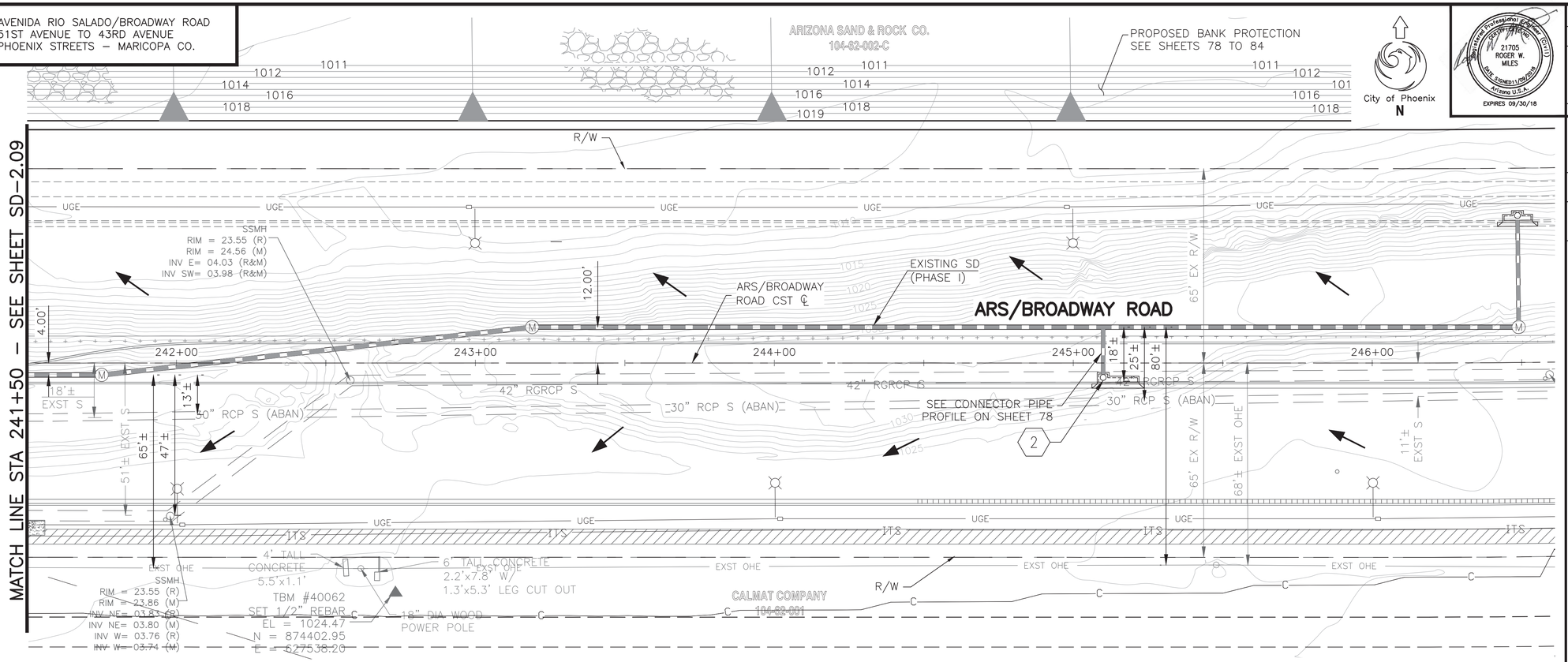
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

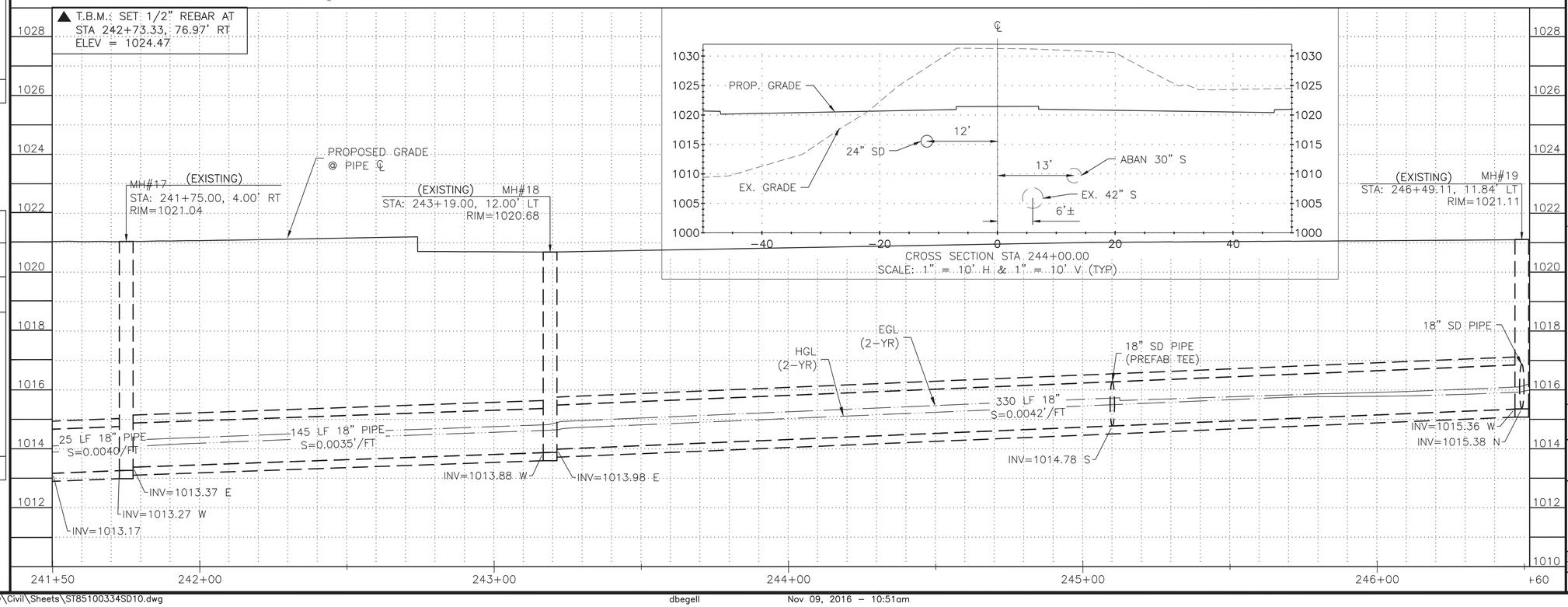
DR: RD | DES: RRS | CK: BBJ | DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE





CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
2	245+10.00 7.00' RT	M–1, L=10' P1569–2	N/A	18"	ø

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
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SHEET REFERENCES

1. SEE SHEET 33 FOR PAVING PLAN
2. SEE SHEET 78 FOR CONN. PIPE PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046–04

STORM DRAIN PLAN ▯ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

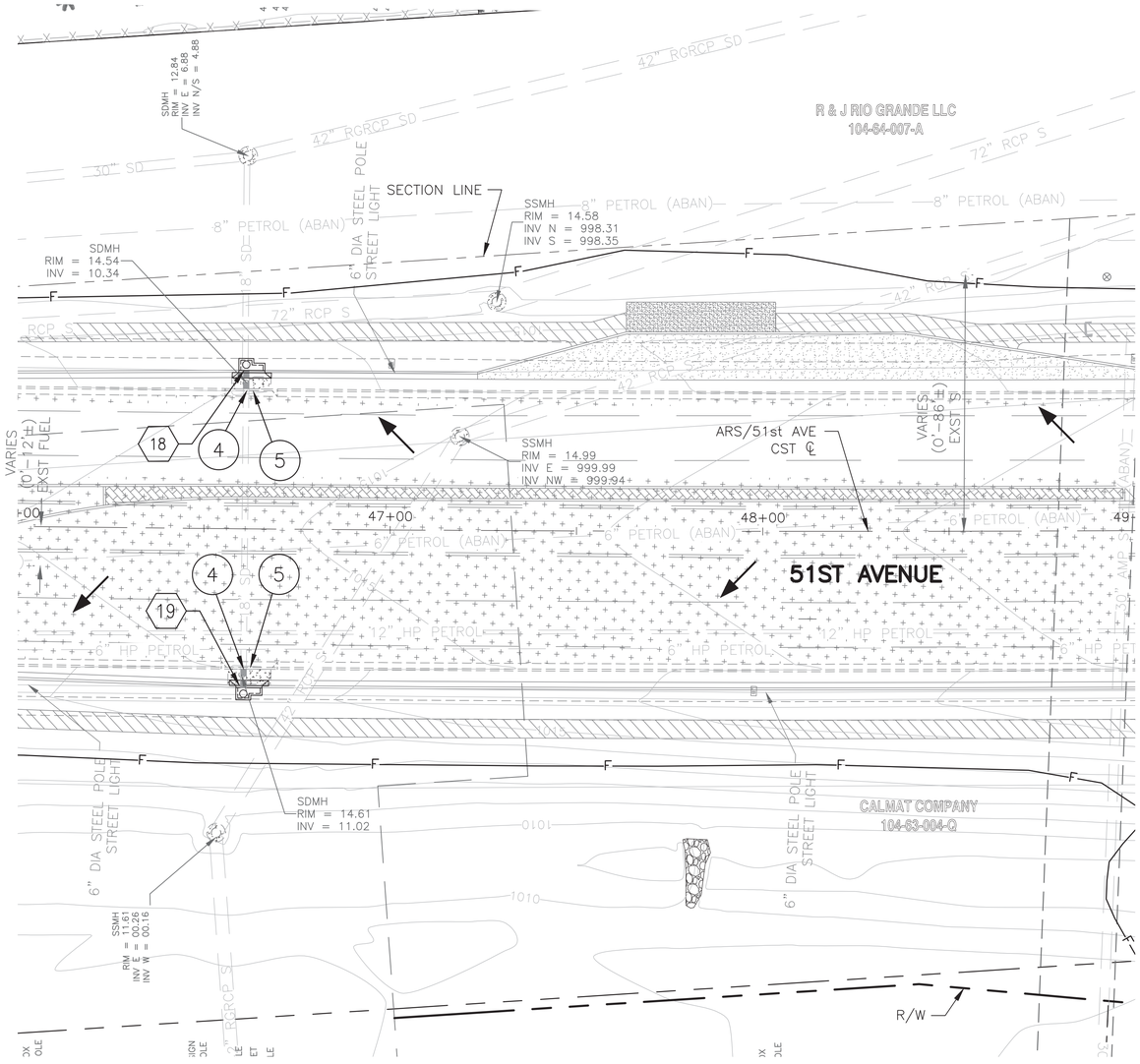
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD–2.10
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334SD10.dwg dbegell Nov 09, 2016 – 10:51am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



T.B.M.: SET 1/2" REBAR AT
STA 199+22.48, 335.71' LT
ELEV = 1021.91

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

City of Phoenix

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	69	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

CATCH BASIN & CONNECTOR PIPE

NO	INLET STA.	INLET TYPE	CONNECTION TYPE	PIPE SIZE	PIPE LF
18	46+61.00 42.00' LT	M-1, L=3' P1569-2	PIPE COLLAR P-1505	18"	6
19	46+61.00 42.00' RT	M-1, L=3' P1569-2	PIPE COLLAR P-1505	18"	6

REMOVAL NOTES

	DESCRIPTION	QTY	UNIT
4	CUT EXISTING PIPE AND CONNECT TO THE NEW CATCH BASIN	2	EA
5	SEE PAVING PLAN SHEET 39 FOR REMOVAL OF PIPE, BACKFILL AND COMPACTION NOTE	2	EA

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
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SHEET REFERENCES

1. SEE SHEET 39 FOR PAVING PLAN
2. SEE SHEET 79 FOR CONN. PIPE PROFILE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

STORM DRAIN PLAN □ PROFILE

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: SD-2.11
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20' H 1"= 2' V			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334SD11.dwg dbegell Nov 09, 2016 – 10:54am

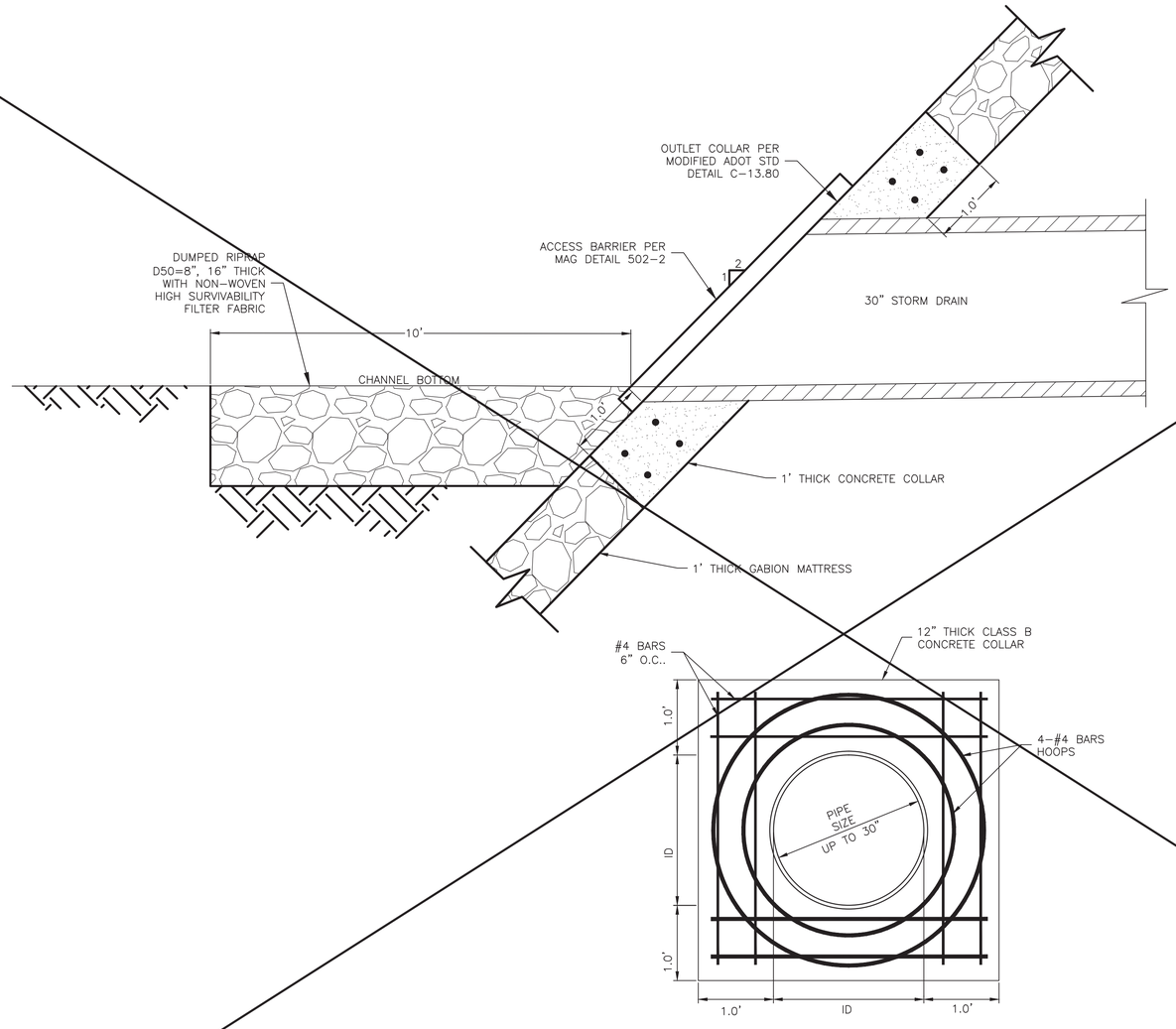
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	70	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

DRAINAGE DETAIL



MITERED OUTER COLLAR DETAIL

DETAIL A **NTS**

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

DRAINAGE DETAIL

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DT-3.01
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: NTS			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334DDTL.dwg dbegell Nov 09, 2016 – 10:54am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

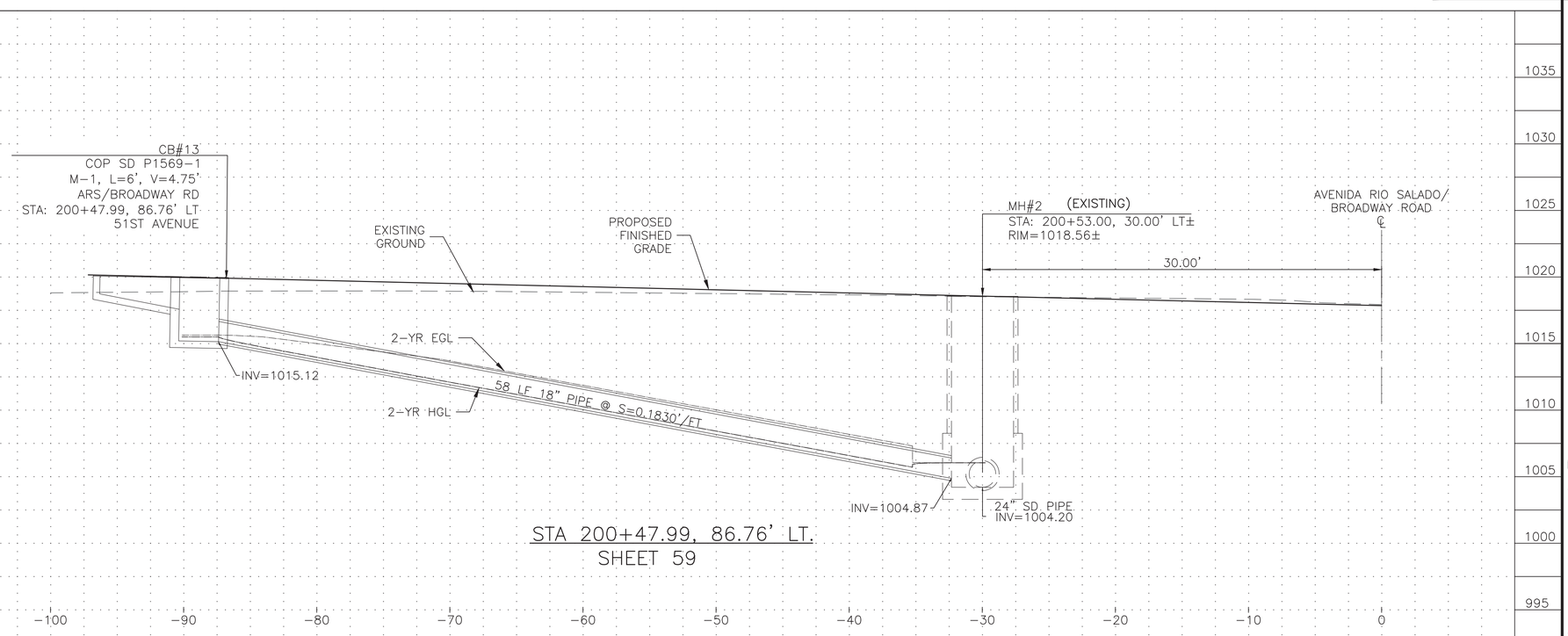
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	71	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

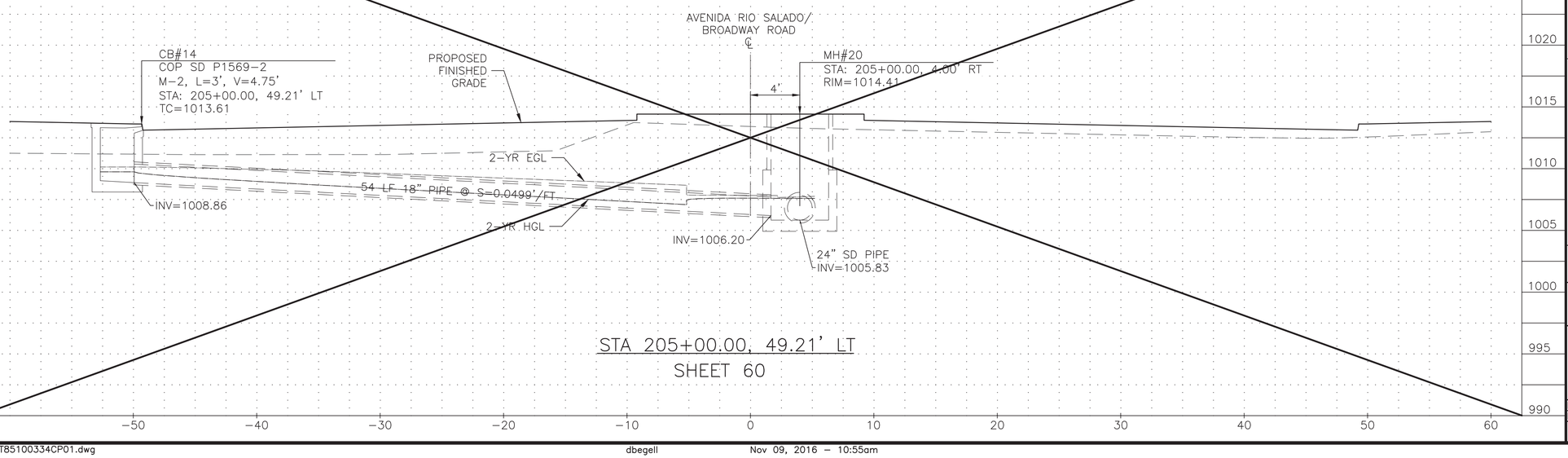
NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 200+47.99, 86.76' LT.
SHEET 59

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 205+00.00, 49.21' LT
SHEET 60

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 59&60 FOR STORM DRAIN PLAN
2. SEE SHEET 15-16&17-18 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.01
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

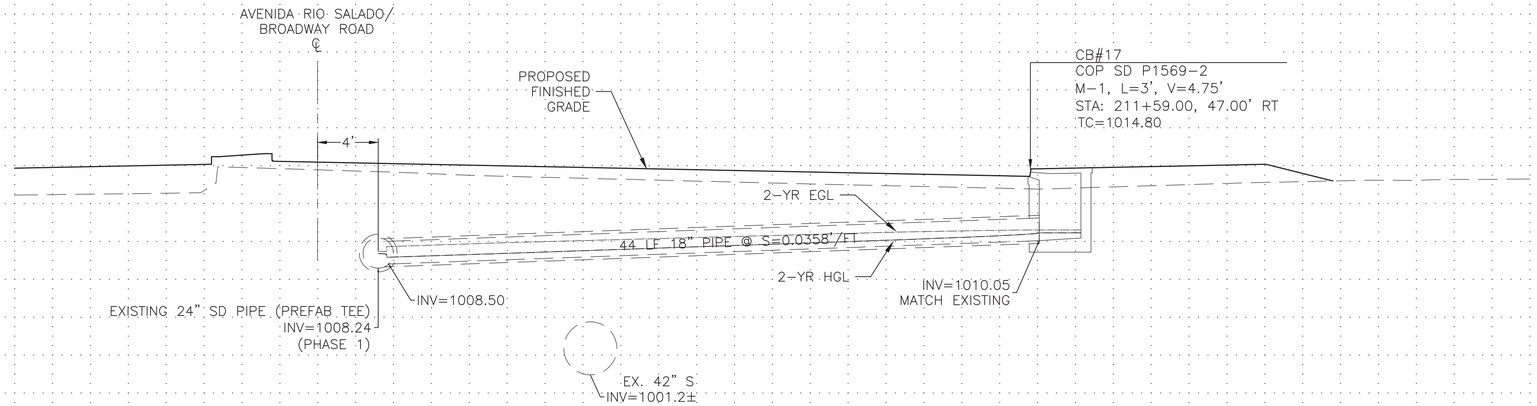
ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334CP01.dwg dbegell Nov 09, 2016 - 10:55am

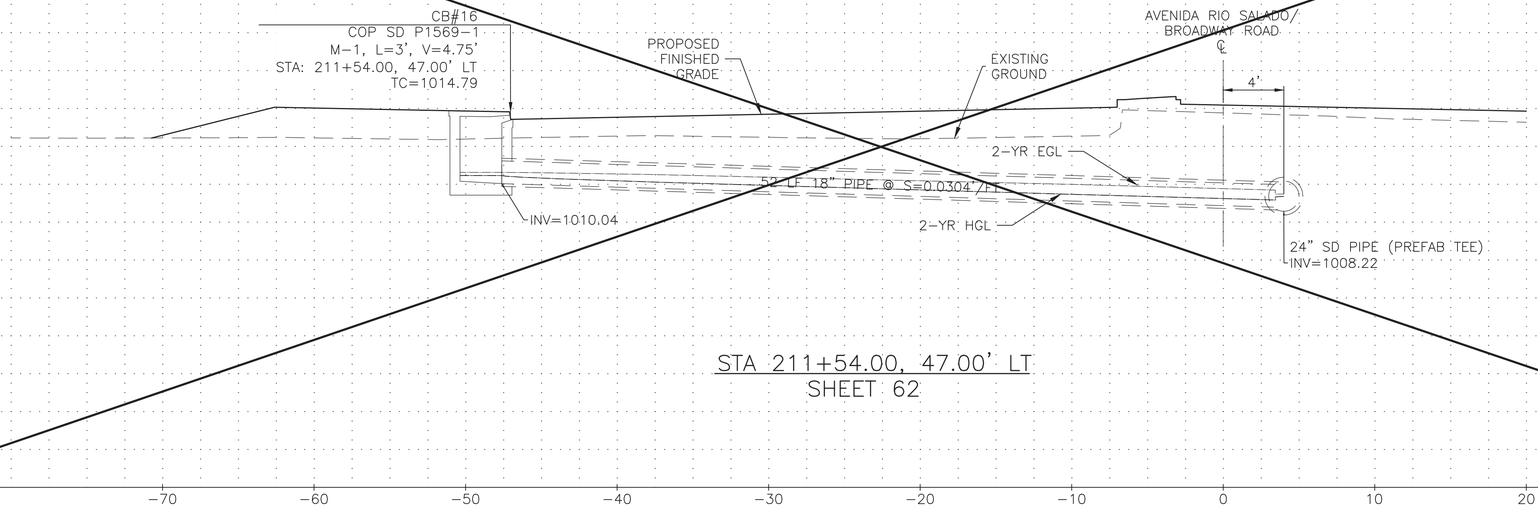
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE



STA 211+59.00, 47.00' RT.
SHEET 62



STA 211+54.00, 47.00' LT
SHEET 62

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	72	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RWM	CK: KJB	DATE: 09/16

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 62 FOR STORM DRAIN PLAN
2. SEE SHEET 21-22 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

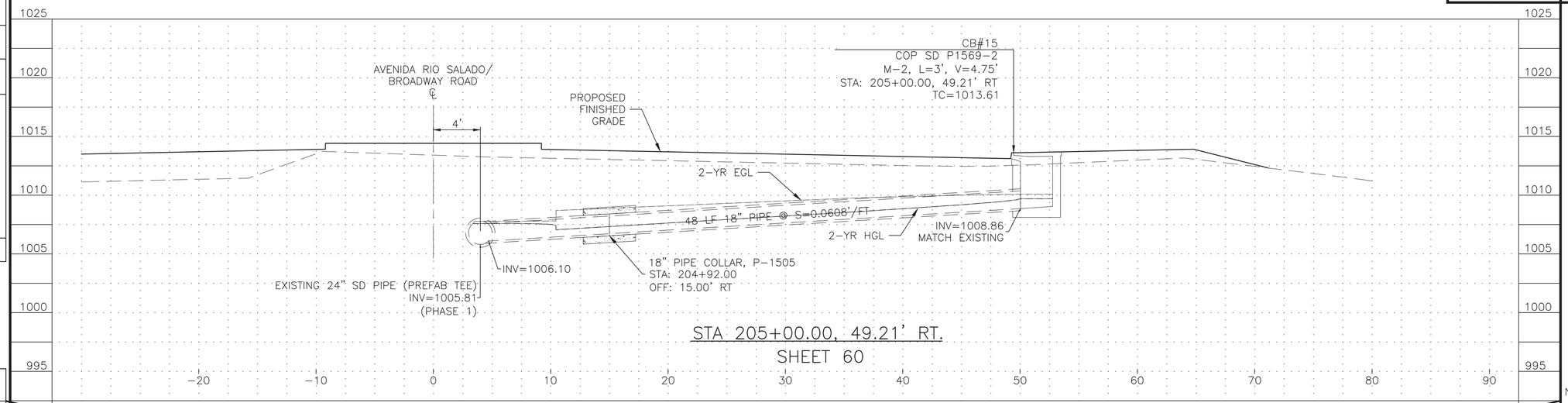
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.02
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

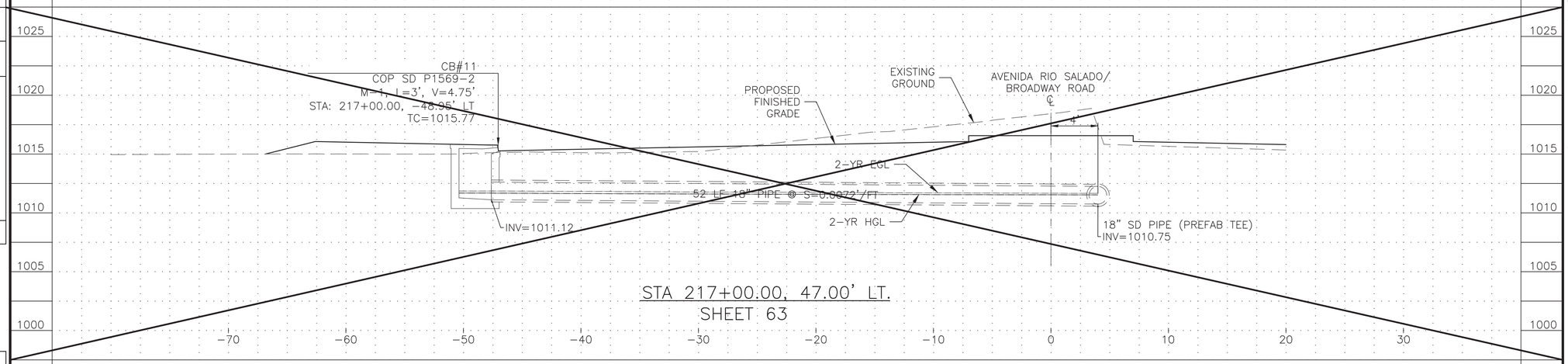
ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334CP02.dwg dbegell Nov 09, 2016 - 10:56am

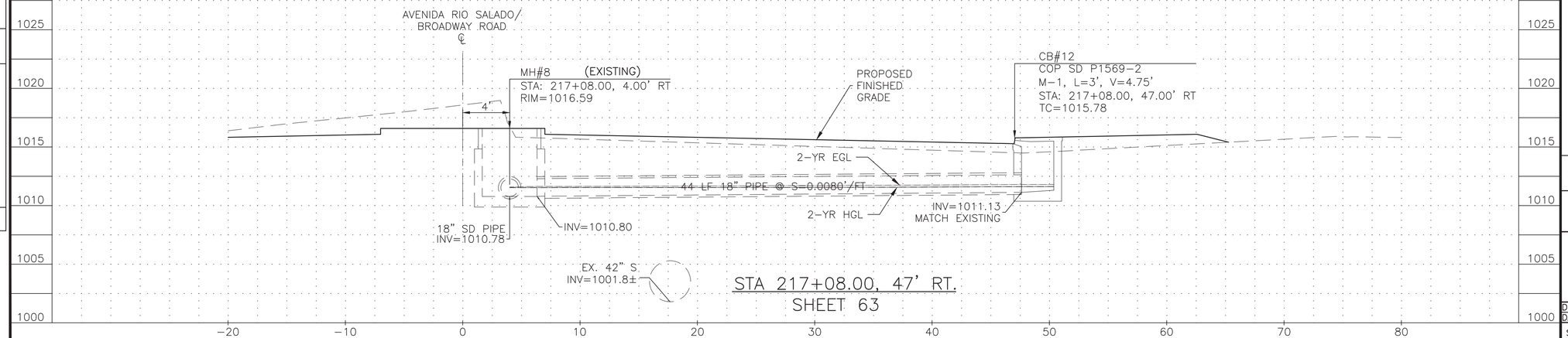
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



STA 205+00.00, 49.21' RT.
SHEET 60



STA 217+00.00, 47.00' LT.
SHEET 63



STA 217+08.00, 47' RT.
SHEET 63

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	73	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 60&63 FOR STORM DRAIN PLAN
2. SEE SHEET 17-18&23-24 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.03
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

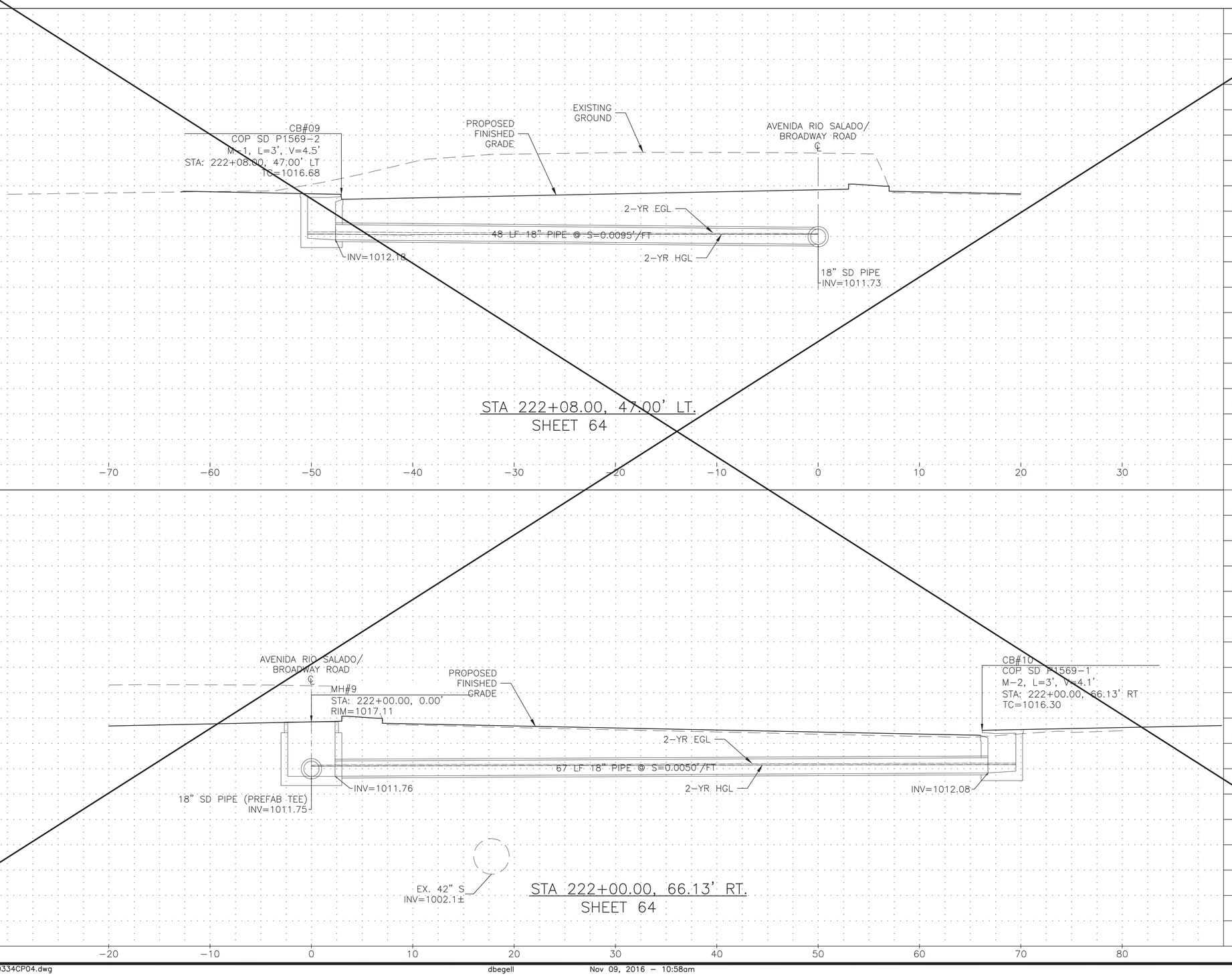
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	74	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 222+08.00, 47.00' LT.
SHEET 64

STA 222+00.00, 66.13' RT.
SHEET 64

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 64 FOR STORM DRAIN PLAN
2. SEE SHEET 25-26 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWS NO: CP-1.04
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	75	168

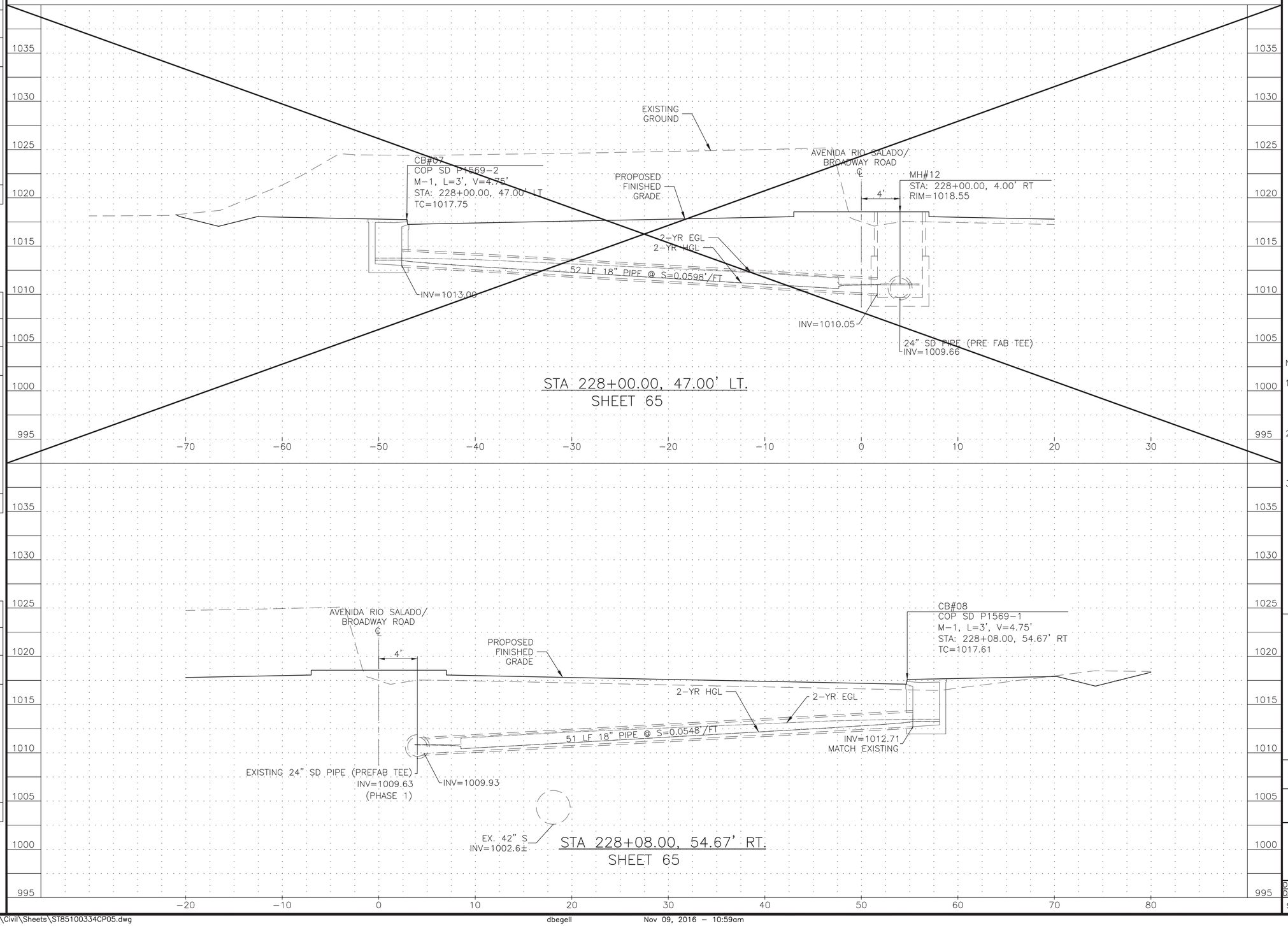
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

Registered Professional Engineer (Civil)
21705
ROGER W.
MILES
Date Signed 11/09/2016
Arizona U.S.A.
EXPIRES 09/30/18

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 228+00.00, 47.00' LT.
SHEET 65

STA 228+08.00, 54.67' RT.
SHEET 65

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 65 FOR STORM DRAIN PLAN
2. SEE SHEET 27-28 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.05
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334CP05.dwg dbegell Nov 09, 2016 – 10:59am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	76	168

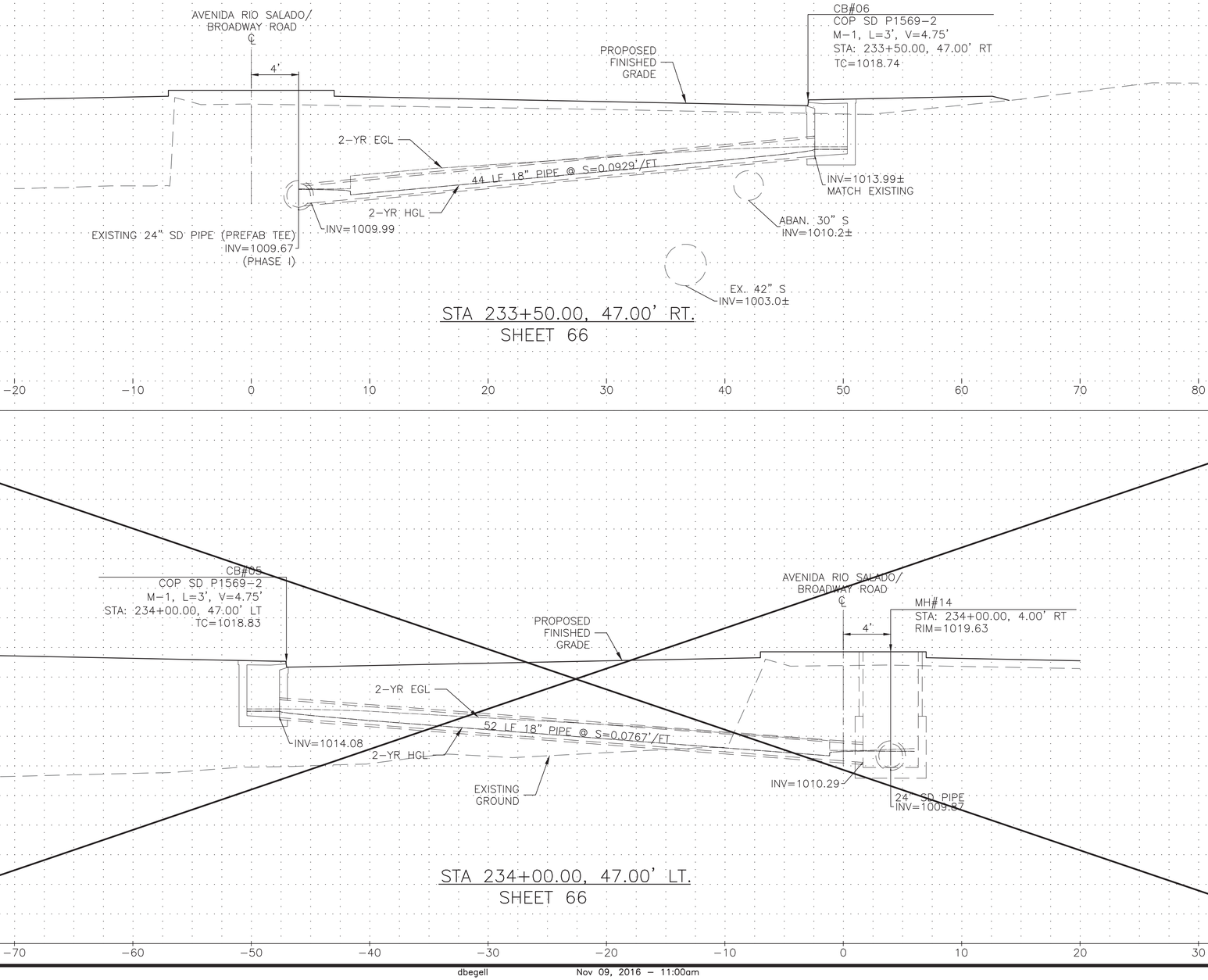
Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A.
EXPIRES 09/30/18

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 233+50.00, 47.00' RT.
SHEET 66

STA 234+00.00, 47.00' LT.
SHEET 66

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 66 FOR STORM DRAIN PLAN
2. SEE SHEET 29-30 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.06
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	77	168

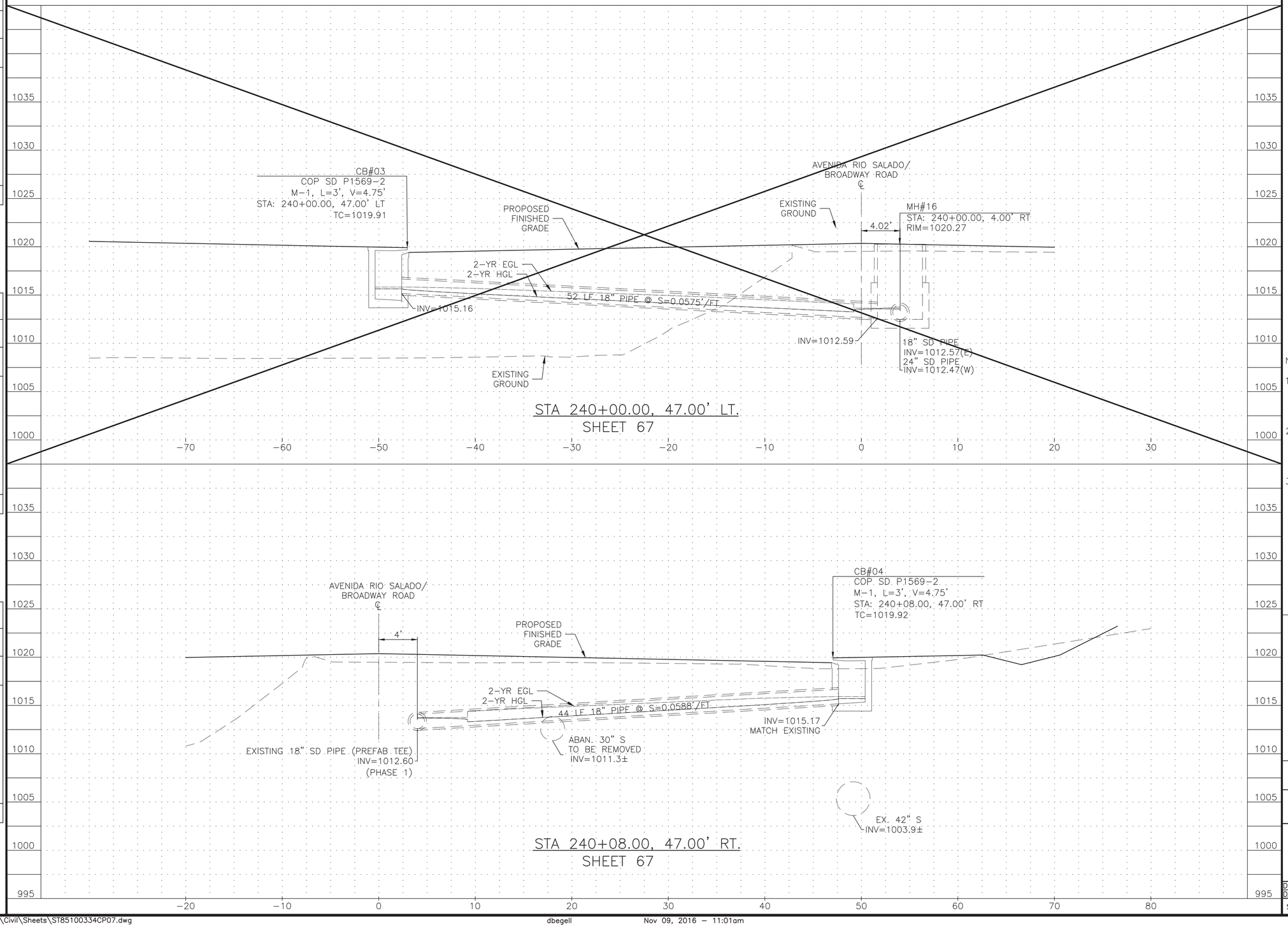
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 67 FOR STORM DRAIN PLAN
2. SEE SHEET 31-32 PAVING PLAN & PROFILE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.07
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334CP07.dwg dbegell Nov 09, 2016 – 11:01am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	78	168

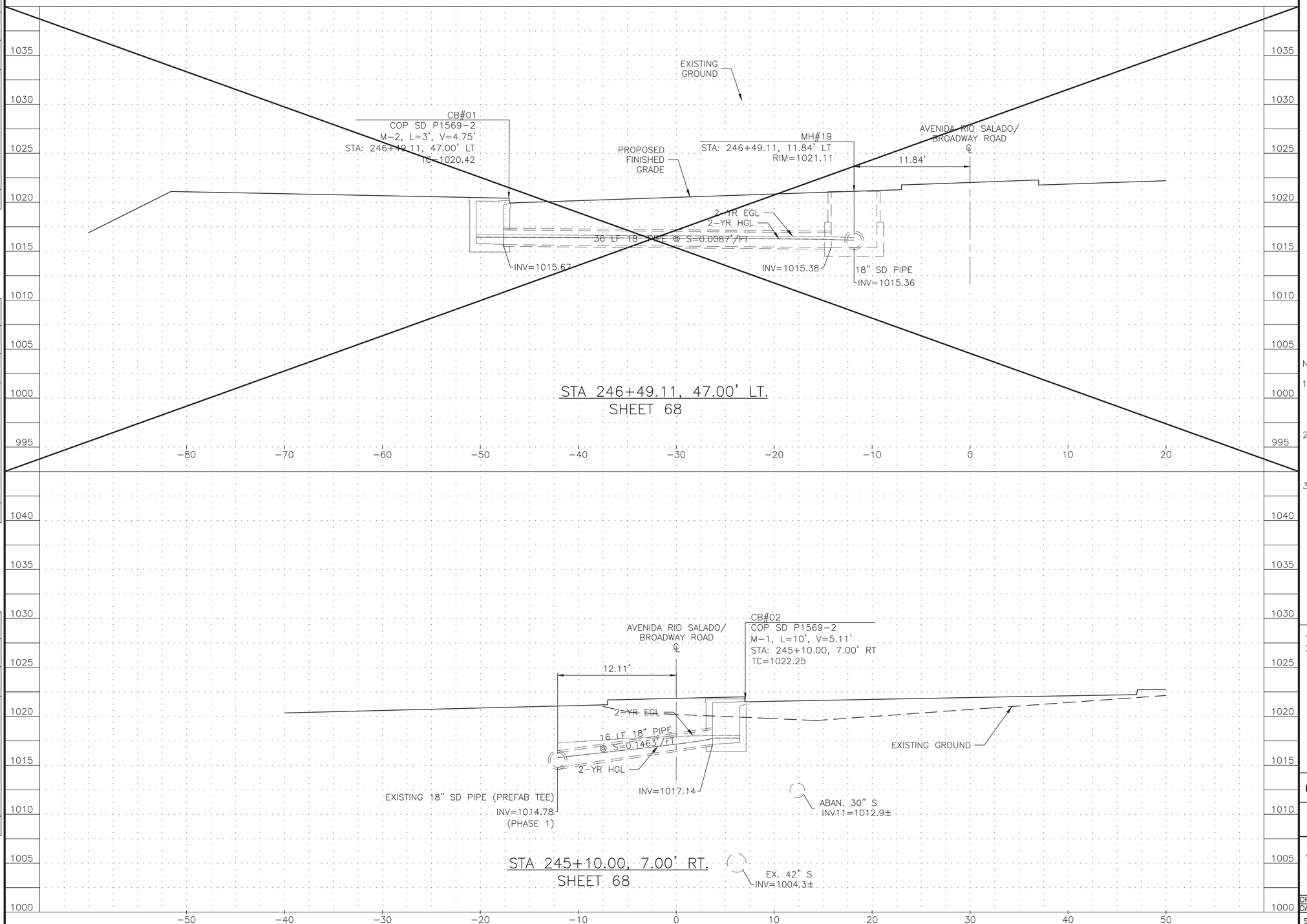
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

Registered Professional Engineer (Civil) 21705 ROGER W. MILES Date Signed 11/09/2016 Arizona U.S.A. EXPIRES 09/30/18

DR: JRR	DES: BBJ	CK: SHM	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 246+49.11, 47.00' LT.
SHEET 68

STA 245+10.00, 7.00' RT.
SHEET 68

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 68 FOR STORM DRAIN PLAN
2. SEE SHEET 33-34 PAVING PLAN & PROFILE

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: BBJ	CK: SHM	DWG NO: CP-1.08
DATE:01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334CP08.dwg dbegell Nov 09, 2016 – 11:02am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

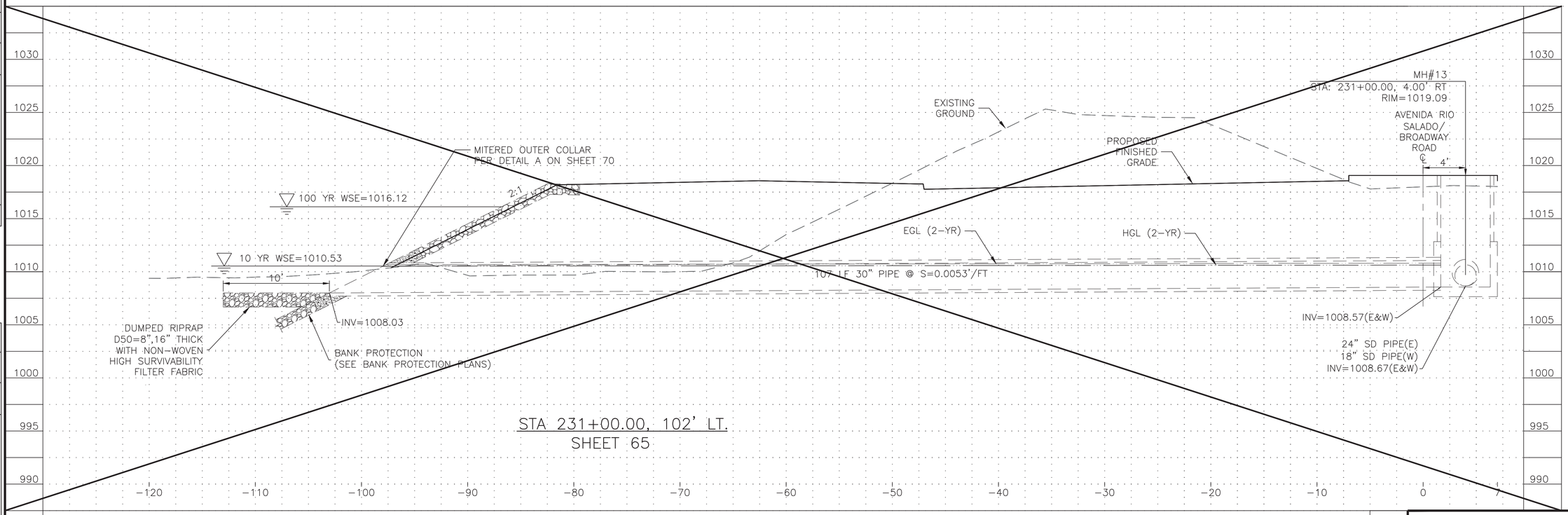
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	79	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

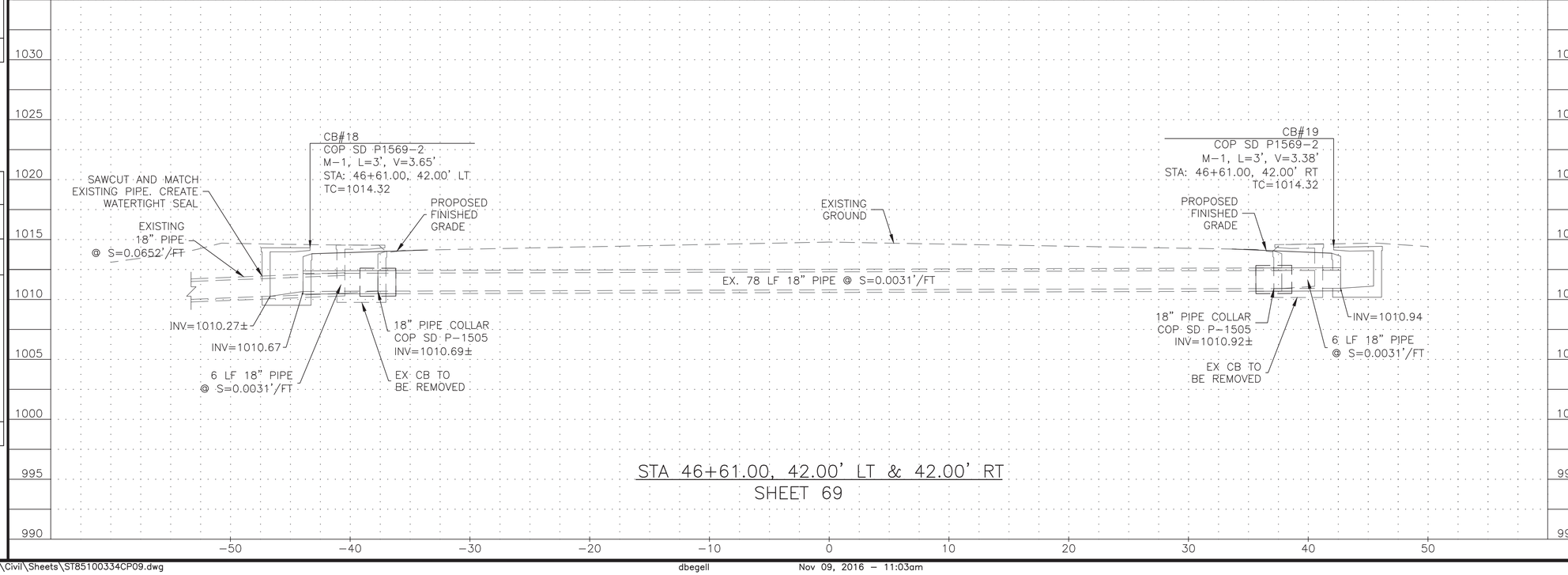
DR: RD	DES: RRS	CK: BBJ	DATE: 09/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



STA 231+00.00, 102' LT.
SHEET 65



STA 46+61.00, 42.00' LT & 42.00' RT
SHEET 69

NOTES:

1. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING UTILITIES IN PLACE OR ADJUST TO FINISHED GRADE PER MAG SPECIFICATIONS AS NEEDED.
2. CONTRACTOR SHALL FIELD LOCATE EXACT HORIZONTAL AND VERTICAL LOCATIONS FOR ALL EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY POTENTIAL CONFLICT.
3. NO SURVEY OR AS-BUILT PLANS WERE PREPARED FOR PHASE I COMPLETED ITEMS. PHASE I IMPROVEMENTS SHOWN ARE BASED ON ST85100334 PLANS. CONTRACTOR TO VERIFY EXISTING PHASE I ITEMS AS NECESSARY.

SHEET REFERENCES

1. SEE SHEET 65&69 FOR STORM DRAIN PLAN
2. SEE SHEET 27-28&39-40 PAVING PLAN & PROFILE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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602-263-1100
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OUTSIDE MARICOPA COUNTY

CONNECTOR PIPE PROFILES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: RD	DES: RRS	CK: BBJ	DWG NO: CP-1.09
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1" = 5' HORIZONTAL 1" = 5' VERTICAL			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

STORM DRAIN
ALTERNATE PIPE MATERIAL

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	80	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

MAIN LINE PIPE

STATION		QUANTITY	PIPE DIAMETER			DEPTH TO TOP OF PIPE		MAX TRENCH WIDTH AT TOP OF PIPE	REINFORCED CONCRETE PIPE**	CAST-IN-PLACE CONCRETE PIPE****	CORRUGATED STEEL PIPES	
FROM	TO	L.F.	R.C.P. (I.D.) IN.	HDPE*** (I.D.) IN.	CIPP & C.S.P. (I.D.) IN.	MIN. (FT.)	MAX. (FT.)	R.C.P., C.S.P. & HDPE*** (IN.)	MIN. D-LOAD TO PRODUCE 0.01" CRACK (PIPE CLASS)	MINIMUM WALL THICKNESS (IN.)	2 2/3" X 1/2" CORR. TYPE "F" + MIN. GAGE.	3"x1" CORR. TYPE "F"+MIN. GAGE.
198+23.00	200+53.00	230	24	24	N/A	8.6	14.4	49	2300 (V)	N/A	N/A	N/A
200+53.00	200+91.67	51	24	24	N/A	13.5	14.3	49	2300 (V)	N/A	N/A	N/A
200+91.67	204+00.00	308	24	24	N/A	9.4	13.4	49	2150 (V)	N/A	N/A	N/A
204+00.00	205+00.00	100	24	24	N/A	8.6	9.3	49	1550 (IV)	N/A	N/A	N/A
205+00.00	206+80.53	181	24	24	N/A	8.3	8.5	49	1550 (IV)	N/A	N/A	N/A
206+80.53	209+75.00	294	24	24	N/A	7.7	8.1	49	1550 (IV)	N/A	N/A	N/A
209+75.00	212+00.00	225	24	24	N/A	6.9	7.6	49	1400 (IV)	N/A	N/A	N/A
212+00.00	215+30.00	330	18	18	N/A	6.2	6.2	39	1300 (III)	N/A	N/A	N/A
215+30.00	217+08.00	178	18	18	N/A	5.8	6.1	39	1300 (III)	N/A	N/A	N/A
222+00.00	224+84.00	284	18	18	N/A	5.0	6.7	39	1300 (III)	N/A	N/A	N/A
224+84.00	225+00.00	23	18	18	N/A	6.8	7.5	39	1450 (IV)	N/A	N/A	N/A
225+00.00	228+00.00	300	18	18	N/A	7.6	9.4	39	1600 (IV)	N/A	N/A	N/A
228+00.00	231+00.00	300	24	24	N/A	9.9	11.7	49	1850 (IV)	N/A	N/A	N/A
231+00.00	234+00.00	300	24	24	N/A	10.7	11.7	49	1850 (IV)	N/A	N/A	N/A
234+00.00	237+00.00	300	24	24	N/A	9.7	10.6	49	1700 (IV)	N/A	N/A	N/A
237+00.00	240+00.00	300	24	24	N/A	8.2	9.6	49	1550 (IV)	N/A	N/A	N/A
240+00.00	242+30.00	230	18	18	N/A	7.6	7.7	39	1450 (IV)	N/A	N/A	N/A
242+30.00	243+18.98	90	18	18	N/A	6.6	7.5	39	1450 (IV)	N/A	N/A	N/A
243+18.98	246+49.11	330	18	18	N/A	5.4	6.5	39	1300 (III)	N/A	N/A	N/A

CONNECTOR PIPE

CATCH BASIN	LOCATION	QUANTITY	DEPTH TO TOP OF PIPE		PIPE DIA.	REINFORCED CONCRETE PIPE**	C.S.P.
	STATION (LT. OR RT.)	(L.F.)	MIN. (FT.)	MAX. (FT.)	R.C.P., C.S.P. & HDPE *** (FT.)	MIN. D-LOAD TO PRODUCE 0.01" CRACK (PIPE CLASS)	2 2/3" X 1/2" CORR. ALUMINIZED TYPE "2" MIN. GAGE.
CB-1	246+49.11, L	37	2.8	4.1	18	1000 (III)	-
CB-2	245+10.00, R	20	3.1	4.3	18	1000 (III)	-
CB-3	240+00.00, L	53	2.8	5.9	18	1250 (III)	-
CB-4	240+08.00, R	45	2.8	6.1	18	1250 (III)	-
CB-5	234+00.00, L	53	2.8	7.8	18	1600 (IV)	-
CB-6	233+50.00, R	45	2.8	8.0	18	1800 (IV)	-
CB-7	228+00.00, L	53	2.8	7.0	18	1450 (IV)	-
CB-8	228+08.00, R	53	2.8	7.0	18	1450 (IV)	-
CB-9	222+08.00, L	49	2.5	3.5	18	900(III)	-
CB-10	222+00.00, R	68	2.2	3.7	18	900 (III)	-
CB-11	217+00.00, L	53	2.6	4.2	18	1000 (III)	-
CB-12	217+08.00, R	45	2.6	4.2	18	1000 (III)	-
CB-13	200+47.99, L	59	2.8	12.2	18	2100 (V)	-
CB-14	205+00.00, L	55	2.8	6.7	18	1350 (III)	-
CB-15	205+00.00, R	48	2.8	6.7	18	1450 (IV)	-
CB-16	211+54.00, L	53	2.8	5.1	18	1250 (III)	-
CB-17	211+59.00, R	45	2.8	5.1	18	1250 (III)	-

GENERAL NOTES

1. ONLY PIPE MATERIALS SPECIFIED ON THIS SHEET ARE ACCEPTABLE FOR THIS PROJECT.
2. WHERE MAXIMUM TRENCH WIDTH IS NOTED AS "UNRESTRICTED", PIPE STRENGTHS ARE SPECIFIED FOR A POSITIVE PROJECTING OR EMBANKMENT LOADING CONDITION. TRENCH WIDTH RESTRICTIONS FOR THE CAST-IN-PLACE CONCRETE PIPE OPERATION, SHALL COMPLY WITH SECTION 620.
3. CITY POLICY REQUIRES THAT CAST-IN PLACE PIPE AND CORRUGATED STEEL PIPE MAINLINES BE UPSIZED A MINIMUM OF 6-INCHES GREATER DIAMETER THAN THE SPECIFIED REINFORCED CONCRETE PIPE DIAMETER. IF EITHER OF THESE OPTIONS ARE USED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESOLVING ANY UTILITY CONFLICTS ASSOCIATED WITH THE INCREASED PIPE DIAMETER. MINIMUM WALL THICKNESS FOR CAST-IN-PLACE PIPE SHALL BE 1/12 OF INSIDE DIAMETER PLUS ONE INCH, BASED ON THE UPSIZED DIAMETER.
4. A MINIMUM OF 14 GAUGE IS REQUIRED FOR ALL CSP BY CITY OF PHOENIX TO OBTAIN DESIGN LIFE REQUIREMENTS OF 75 YEARS TO FIRST PERFORATION.
5. WHERE A MAINLINE STORM DRAIN CONNECTION TO AN EXISTING MAINLINE SYSTEM IS REQUIRED, AND THE NEW MAINLINE IS LARGER THAN THE EXISTING, (SUCH AS NEW 6" OVERSIZED CIPP OR CSP CONNECTING TO EXISTING RGRCP), PIPE INVERTS SHALL BE MATCHED. IN ALL OTHER CASES, INSIDE TOP OF PIPE (CROWN) ELEVATIONS SHALL BE MATCHED.
6. MAX TRENCH WIDTH AT TOP OF PIPE SHALL BE BASED ON MAG PAY WIDTH ON PROJECTS WITH MINIMUM PAVEMENT REPLACEMENT ("PATCH") ON PROJECTS WITH NEW FULL PAVEMENT (SUCH AS MAJOR ARTERIAL STREET CONSTRUCTION PROJECTS), THE MAX TRENCH WIDTH SHALL BE LABELED, "UNRESTRICTED".

* TYPE "F" – COATED AND CONCRETE LINED C.S.P.
CITY OF PHOENIX SUPPLEMENT TO MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD SPECIFICATIONS.

** RUBBER GASKETED PIPE REQUIRED FOR ALL REINFORCED CONCRETE PIPE

*** HIGH DENSITY POLYETHYLENE (HDPE), TYPE "S" WITH WATERTIGHT JOINTS PER AASHTO 252, AASHTO M294, MAG AND CITY SUPPLEMENTS TO MAG. JOINTS SHALL MEET ASTM D-3212 WATERTIGHT REQUIREMENT (10.8 psi). MAXIMUM DIAMETER ALLOWED = 48-INCH.

**** THE MINIMUM DIAMETER FOR CIPP IS 30 INCHES

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

ALTERNATE PIPE CHART

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: AP-1.01
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: NTS			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	81	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FT

City of Phoenix
N

TCE
LIMIT OF 100-YR FLOODWAY
LIMIT OF FLOODPLAIN
EX. BANK CONSTRUCTION/ MAINTENANCE EASEMENT
SEE PAVING PLANS FOR IMPROVEMENTS
ARIZONA SAND & ROCK CO.
104-52-002-C
LIMIT OF 100-YR FLOODWAY
TCE
SLOPE EASEMENT
SECTION LINE
EX R/W ESMT
5' S/W
STA:229+31.12
OFF:193.54' LT
TOE=986.00
18' APRON
18'
12'
STA:230+00.00
OFF:170.75' LT
TOE=986.00
END BANK PROTECTION
2:1
2 58 CY
BURIED SLOPE MATTRESSES
31 SY 3
31 SY 4
807 SY 1
807 SY 3
STA:229+10.46
OFF:130.86' LT
TOP=1019.00
EXPOSED SLOPE MATTRESSES
STA:230+00.00
OFF:101.22' LT
TOP=1019.00
150'
8.58'
0.58'
ARS/BROADWAY ROAD CST ℄
ARS/BROADWAY ROAD
18'± EXST S
40' FF
65' EX R/W ESMT
14' FF
S89°44'56"E
4618.82'
42" RGRCP S
4.00'
92'± EXST S
0.58'
58'± EXST S
5' S/W
20' EX S ESMT
30" AMP S (ABAN)
30" RCP S (ABAN)
DRAINAGE EASEMENT
TCE
EX R/W ESMT
ARIZONA SAND & ROCK CO.
104-52-002-B

MATCH LINE STA 230+00 – SEE SHEET DD-1.02

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	807
2	CONSTRUCT 3'x3'x3' GABION BLOCK PER DETAIL ON SHEET 87	CY	58
3	INSTALL HIGH SURVIVABILITY NON-WOVEN FILTER FABRIC	SY	838
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	31

CALL TWO WORKING DAYS BEFORE YOU DIG
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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DD-1.01
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	82	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FT

City of Phoenix
N

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	5162
3	INSTALL HIGH SURVIVABILITY NON-WOVEN FILTER FABRIC	SY	5329
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	167

EX. BANK CONSTRUCTION/MAINTENANCE EASEMENT

ARIZONA SAND & ROCK CO.
104-62-002-C

18' APRON

1 5162 SY
3 5162 SY

SALT RIVER

BURIED SLOPE MATTRESSES

STA:230+00.00 OFF:170.75' LT TOE=986.00

STA:230+64.21 OFF:149.51' LT TOE=986.00

STA:235+00.00 OFF:149.51' LT TOE=986.00

EX LIMIT OF 100-YR FLOODWAY

LIMIT OF 100-YR FLOODWAY

150'

2:1

1008 1009 1010 1012 1014 1018

EXPOSED SLOPE MATTRESSES

3 167 SY
4 167 SY

STA:230+00.00 OFF:101.22' LT TOP=1019.00

STA:230+61.06 OFF:81.00' LT TOP=1019.00

STA:235+00.00 OFF:81.00' LT TOP=1019.95

EX R/W ESMT

5' S/W

8.58'

0.58'

ARS/BROADWAY ROAD CST ℄

40' FF

14' FF

65' EX R/W ESMT

ARS/BROADWAY ROAD

231+00 232+00 233+00 234+00 4618.82' 235

4.00'

42" RGRCP S

30" RCP S (ABAN)

58' EXST S

EX R/W ESMT

TCE

DRAINAGE EASMENT

ARIZONA SAND & ROCK CO.
104-62-002-B

MATCH LINE STA 230+00 – SEE SHEET DD-1.01

MATCH LINE STA 235+00 – SEE SHEET DD-1.03

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DD-1.02
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FT

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	83	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	5222
3	INSTALL HIGH SURVIVABILITY NON-WOVEN FILTER FABRIC	SY	5389
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	167

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

EX. BANK CONSTRUCTION/MAINTENANCE EASEMENT

ARIZONA SAND & ROCK CO.
104-62-002-C

SALT RIVER

5222 SY (1)
5222 SY (3)

STA:235+00.00
OFF:149.51' LT
TOE=986.00

STA:240+00.00
OFF:149.51' LT
TOE=986.00

18' APRON

150'

2:1

LIMIT OF 100-YR FLOODWAY

BURIED SLOPE MATTRESSES

EXPOSED SLOPE MATTRESSES

1010 1012 1014 1016 1018

EX R/W ESMT

STA:235+00.00
OFF:81.00' LT
TOP=1019.95

STA:240+00.00
OFF:81.00' LT
TOP=1020.10

5' S/W

8.58'
0.58'

(3) 167 SY
(4) 167 SY

ARS/BROADWAY ROAD C/L

ARS/BROADWAY ROAD

40' FF
65' EX R/W ESMT

236+00 237+00 238+00 239+00 240

4618.82'

18' ± EXIST

4.00'

30" RCP S (ABAN)

EX ESMT

0.58'
8.58'

50' ± EXIST

42" RGRCP S

18" DIA WOOD POWER POLE

EX R/W ESMT

20' EX S ESMT

TCE

DRAINAGE EASMENT

OHE

ARIZONA SAND & ROCK CO.
104-62-002-B

DIRT ON

MATCH LINE STA 235+00 – SEE SHEET DD-1.02

MATCH LINE STA 240+00 – SEE SHEET DD-1.04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BD-1.03
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FT

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	84	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	5222
3	INSTALL HIGH SURVIVABILITY NON-WOVEN FILTER FABRIC	SY	5389
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	167

EX. BANK CONSTRUCTION/MAINTENANCE EASEMENT
SALT RIVER
1 5222 SY
3 5222 SY
18' APRON
ARIZONA SAND & ROCK CO.
104-62-002-C
STA:240+00.00
OFF:149.51' LT
TOE=986.00
STA:245+00.00
OFF:149.50' LT
TOE=986.00
150'
2:1
BURIED SLOPE MATTRESSES
LIMIT OF 100-YR FLOODWAY
EXPOSED SLOPE MATTRESSES
EX R/W ESMT
5' S/W
STA:240+00.00
OFF:81.00' LT
TOP=1020.10
STA:245+00.00
OFF:81.00' LT
TOP=1020.25
3 167 SY
4 167 SY
ARS/BROADWAY ROAD CST ℄
ARS/BROADWAY ROAD
8.58'
0.58'
40' FF
65' EX R/W
ESMT
14' FF
4618.82'
241+00
242+00
243+00
244+00
245
92'± EXST S
58'± EXST S
EX ESMT
CONCRETE BARRIERS
4' TALL CONCRETE 5.5'x1.1'
5' S/W
6' TALL CONCRETE 2.2'x7.8' W/ 1.3'x5.3' LEG CUT OUT
18" DIA. WOOD POWER POLE
DRAINAGE EASEMENT
20' EX S ESMT
ARIZONA SAND & ROCK CO.
104-62-002-B
THE ROAD

MATCH LINE STA 240+00 – SEE SHEET DD–1.03
MATCH LINE STA 245+00 – SEE SHEET DD–1.05

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DD–1.04
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

GRAPHIC SCALE
20 0 10 20
1 INCH = 20 FT

City of Phoenix
N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	86	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

SALT RIVER

EX. BANK CONSTRUCTION/MAINTENANCE EASEMENT

MATCH LINE STA 245+00 – SEE SHEET DD–1.04

MATCH LINE STA 249+50 – SEE SHEET DD–1.06

STA:245+00.00
OFF:149.50' LT
TOE=986.00

STA:245+00.00
OFF:81.00' LT
TOP=1020.25

STA:249+50.00
OFF:144.61' LT
TOE=986.00

STA:249+50.00
OFF:79.69' LT
TOP=1020.25

150'

18' APRON

2:1

1 4729 SY
3 4729 SY

BURIED SLOPE MATTRESSES

LIMIT OF 100–YR FLOODWAY

3 148 SY
4 148 SY

EXPOSED SLOPE MATTRESSES

15' S/W

8.58'

0.58'

65' EX R/W

40' FF

14' F

ARS/BROADWAY ROAD

PC: 246+19.23

246+00

247+00

248+00

249+00

42" RGRCP S

45" RCBCP S

30" RCP S (ABAN)

ARS/BROADWAY ROAD CST ℄

EX ESMT

OHE

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	4729
3	INSTALL HIGH SURVIVABILITY NON–WOVEN FILTER FABRIC	SY	4877
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	148

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PREMIER ENGINEERING
PROJECT NO.: 2014046–04

BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DD–1.05
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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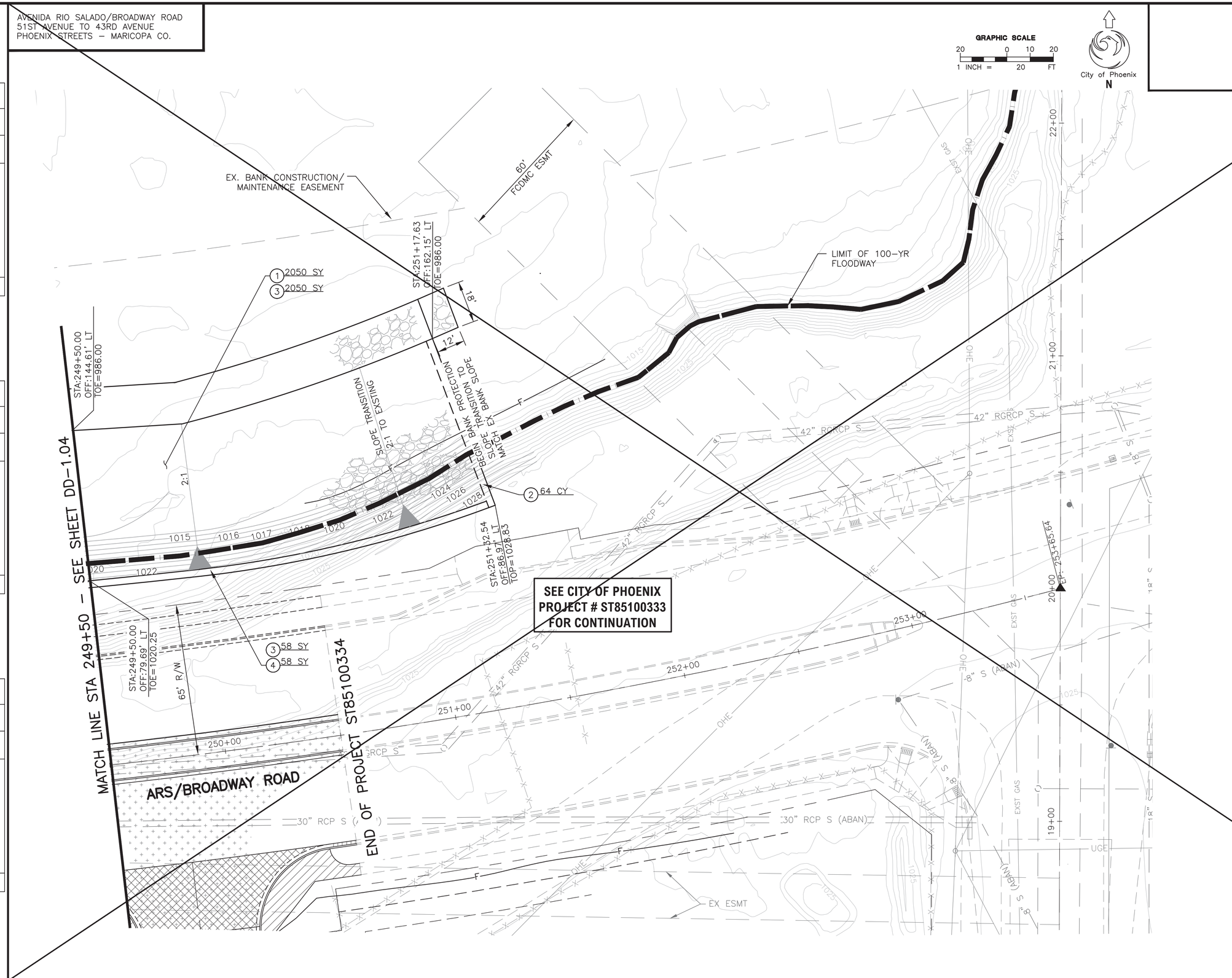
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	86	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	CONSTRUCT 12"x9'x6' SLOPE MATTRESS BANK PROTECTION PER DETAIL ON SHEET 87	SY	2050
2	CONSTRUCT 3'x3'x3' GABION BLOCK PER DETAIL ON SHEET 87	CY	64
3	INSTALL HIGH SURVIVABILITY NON-WOVEN FILTER FABRIC	SY	2108
4	CONSTRUCT 12"x3'x9' SLOPE MATTRESS BANK PROTECTION PER PLAN	SY	58

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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BAN□ PROTECTION PLAN

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: DD-1.06
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=20'			

ST85100371(003)

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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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NO.	DESCRIPTION	REV BY	CKD BY	DATE

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

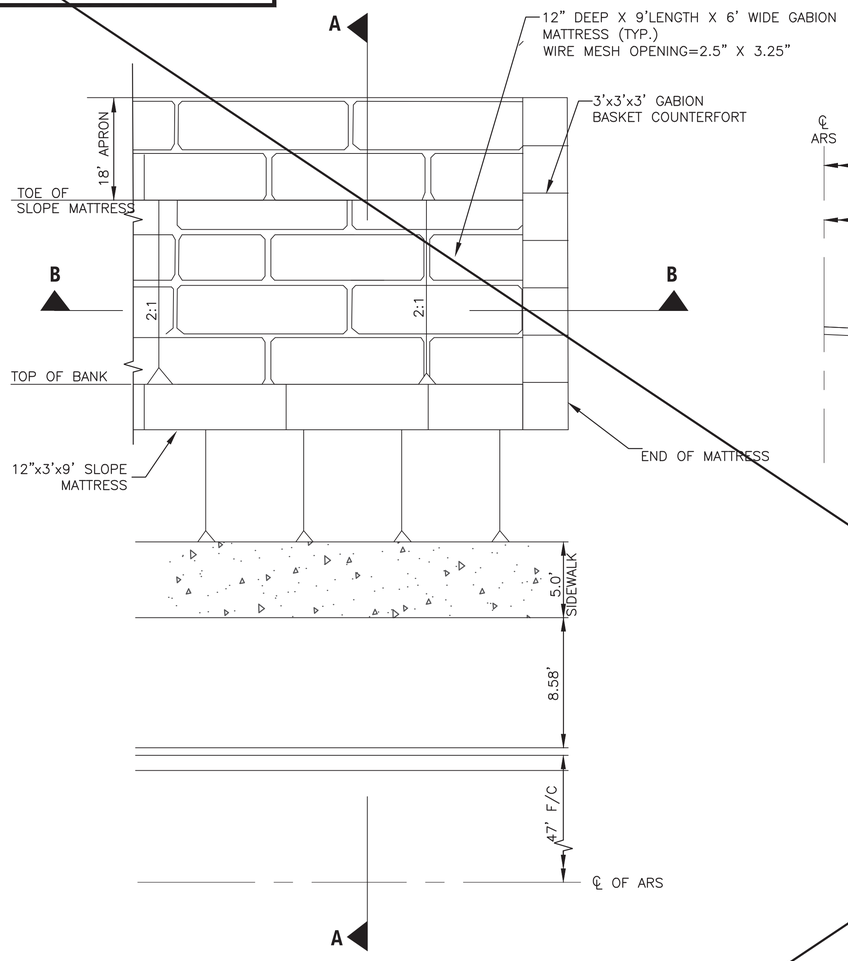
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	87	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



TYPICAL SLOPE MATTRESS AND APRON PLAN VIEW GABION
NTS

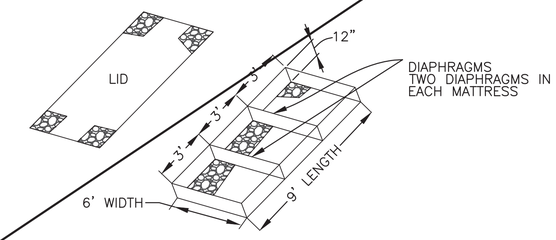
SECTION A–A
NTS

NOTE:

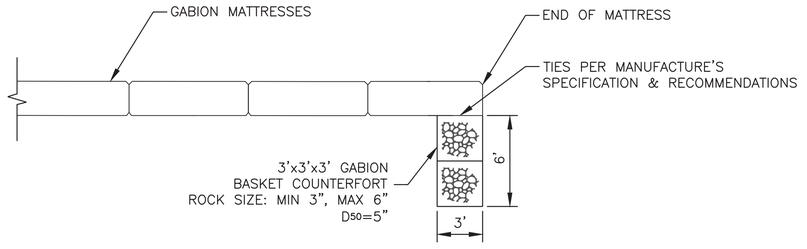
1. ALL CONNECTION TO EXISTING SLOPE MATTRESSES SHALL BE STANDARD FULL DEPTH "BUTT" CONNECTIONS. BEFORE THE MATTRESS UNITS ARE FILLED THE LONGITUDINAL AND LATERAL EDGE SURFACES OF ADJOINING UNITS SHALL BE TIGHTLY CONNECTED BY TIE WIRES AT MINIMUM OF FOUR INCH AND MAXIMUM OF 6 INCH INTERVAL. THE LID EDGES OF EACH UNIT SHALL BE CONNECTED IN A SIMILAR MANNER TO ADJACENT UNITS. LID SHALL BE SECURED TO SIDES, ENDS AND DIAPHRAM IN A SIMILAR MANNER.
2. ALL WIRE USED IN THE CONSTRUCTION OF MATTRESS SHALL BE GALVANIZED AND OF MINIMUM NO. 13 GAUGE. WIRE USED FOR EDGE AND CORNER SHALL BE MINIMUM NO. 12 GAUGE.
3. SLOPE MATTRESSES SHALL BE FABRICATED FROM A DOUBLE TWIST BY TWISTING EACH PAIR OF WIRE THROUGH THREE HALF TURNS DEVELOPING THE APPEARANCE OF A TRIPLE TWIST PER ASTM A975. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTION FOR FIELD ASSEMBLY OF BASKET UNIT.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



MATTRESS CONFIGURATION
NTS



SECTION B–B
NTS

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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

BANK PROTECTION DETAILS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BD-1.07
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: NTS			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

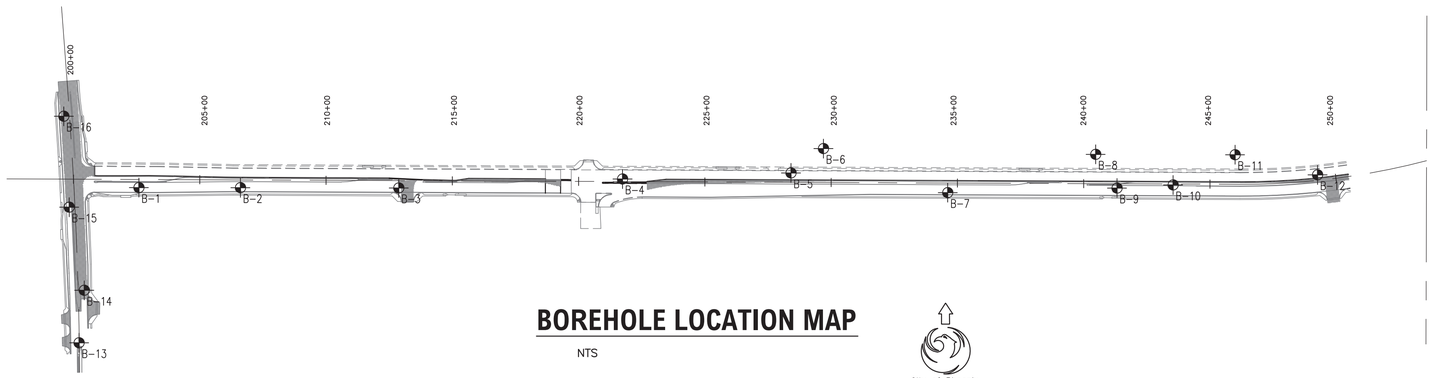
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	88	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



BOREHOLE LOCATION MAP

NTS

City of Phoenix
N

DATE DRILLED 10/24/12 BORING NO. B-1
GROUND ELEVATION 1,015' ± MSL SHEET 1 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0			30	1.3	104.8		SM	ALLUVIUM: Brown, damp, medium dense, silty SAND; trace gravel.
			23					Dense; increase in gravel content.
5			43				GM	Brown, damp, dense, silty GRAVEL with sand; cobbles and possible boulders.
			24					
10			39	2.6	104.5			Medium dense.
15								Total Depth = 15 feet. Groundwater not encountered during drilling. Backfilled on 10/24/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-1

DATE DRILLED 10/24/12 BORING NO. B-2
GROUND ELEVATION 1,017' ± MSL SHEET 1 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0			35				SM	FILL: Brown, damp, very dense, silty SAND; few gravel.
			25					Medium dense.
5			24				SM	ALLUVIUM: Brown, damp, dense, silty SAND; few gravel.
			27					Medium dense.
10			36				GM	Brown, damp, very dense, silty GRAVEL with sand; cobbles and possible boulders.
15								Total Depth = 15 feet. Groundwater not encountered during drilling. Backfilled on 10/24/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-2

DATE DRILLED 10/24/12 BORING NO. B-3
GROUND ELEVATION 1,013' ± MSL SHEET 1 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0			34	2.5	104.7		SM	FILL: Brown, damp, medium dense, silty SAND with gravel.
			42				GM	ALLUVIUM: Brown, damp, very dense, silty GRAVEL with sand; cobbles and possible boulders.
5			35					Medium dense.
			21				SM	Brown, damp, dense, silty SAND with gravel.
10			34				GP	Brown, damp, medium dense, poorly graded GRAVEL with sand.
							SM	Brown, damp, medium dense, silty SAND; few gravel.
15								Total Depth = 15 feet. Groundwater not encountered during drilling. Backfilled on 10/24/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-3

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

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.01
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

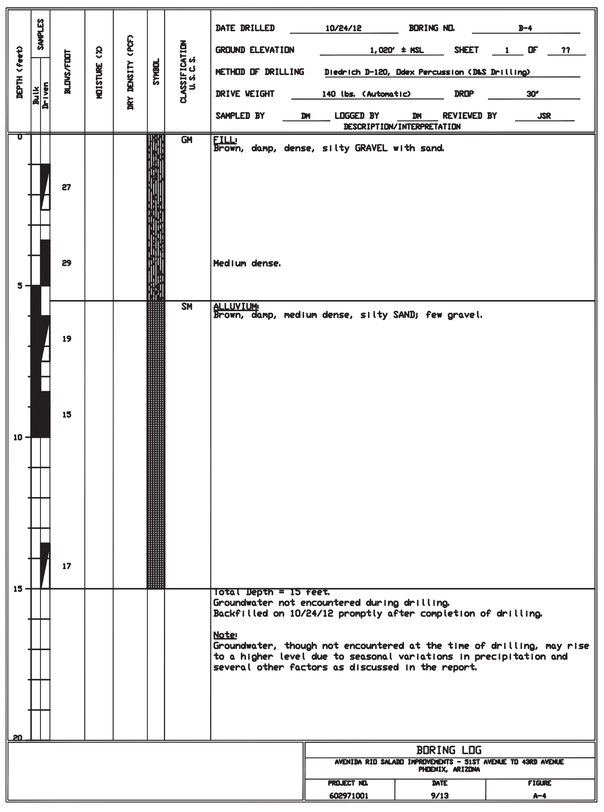
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	89	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

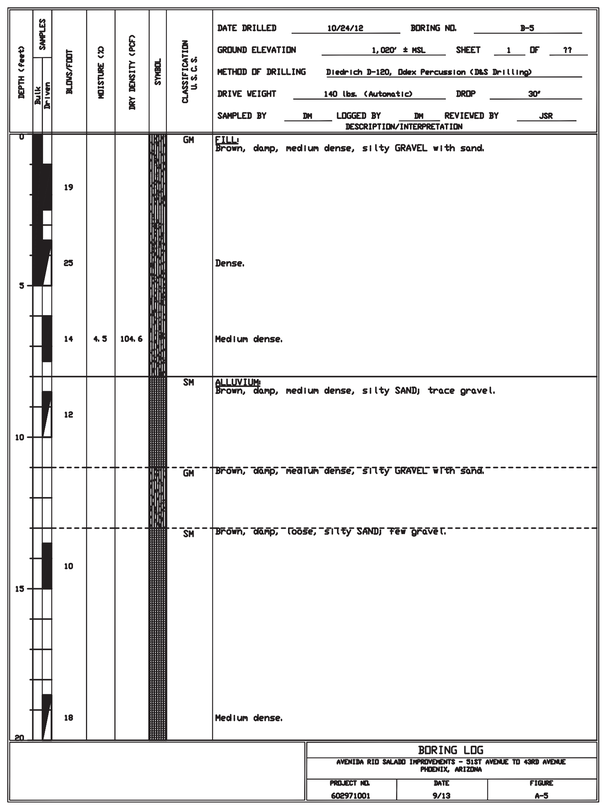
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



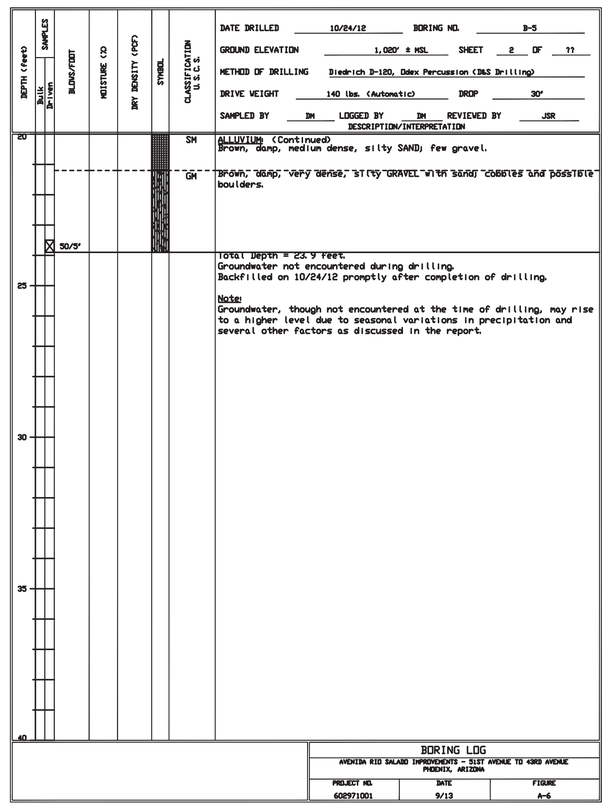
BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-4



BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-5



BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-6

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

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

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.02
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

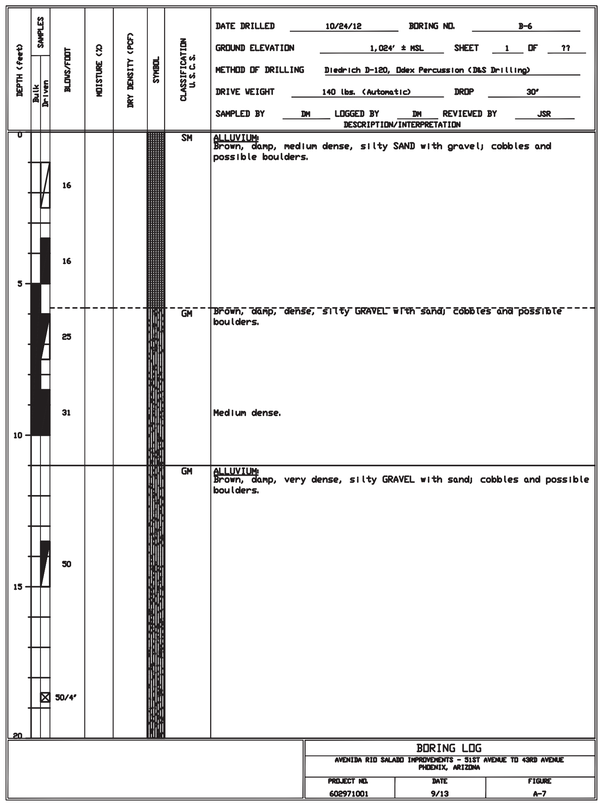
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	90	168

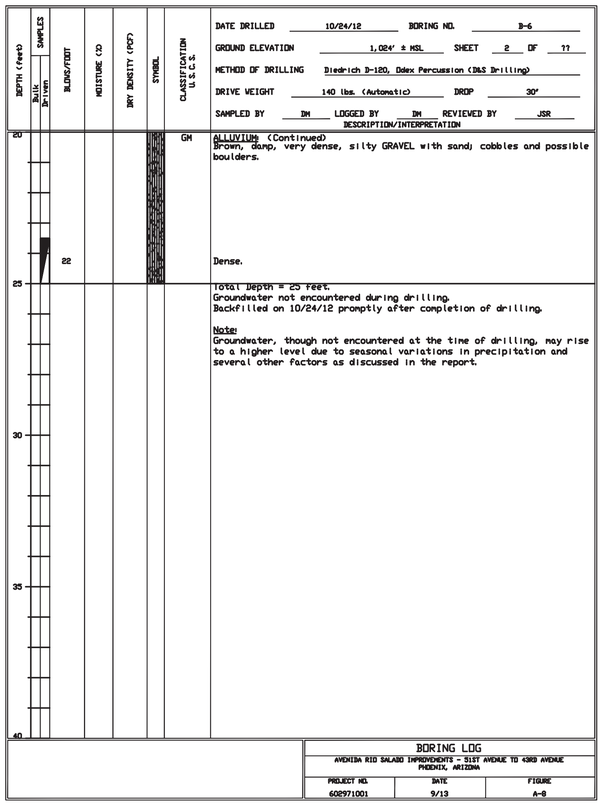
PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

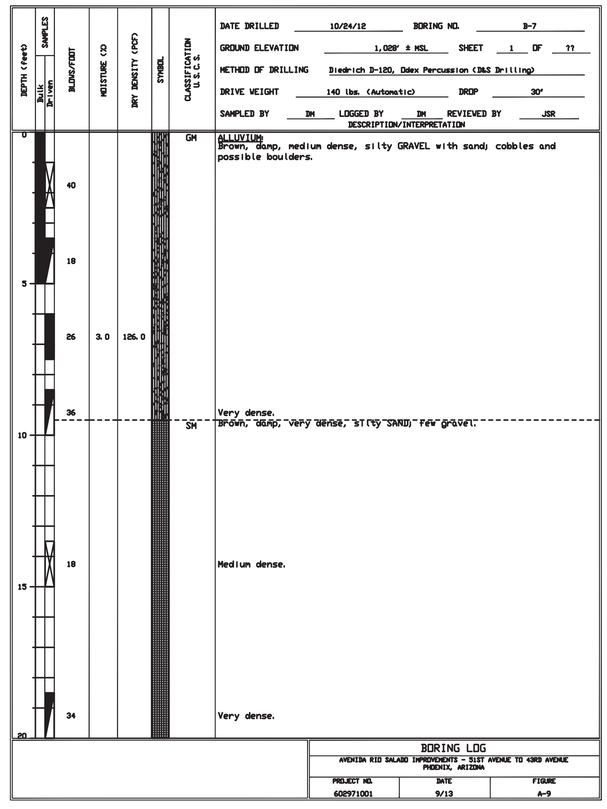
DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE







NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.03
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	91	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 10/24/12 BORING NO. B-7
GROUND ELEVATION 1,028' ± MSL SHEET 2 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20						SM	ALLUVIUM: (Continued) Brown, damp, very dense, silty SAND; few gravel.
		74/11"				GM	Brown, damp, very dense, silty GRAVEL with sand, cobbles and possible boulders.
25							Total Depth = 24.9 feet. Groundwater not encountered during drilling. Backfilled on 10/24/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30							
35							
40							

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-10

DATE DRILLED 10/19/12 BORING NO. B-8
GROUND ELEVATION 1,030' ± MSL SHEET 1 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0		15				SM	ALLUVIUM: Brown, damp, medium dense, silty SAND; few gravel.
		22				GM	Brown, damp, medium dense, silty GRAVEL with sand, cobbles and possible boulders.
5		17					
		26					
10		32					Dense.
15		50/5"					Very dense.
20							

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-11

DATE DRILLED 10/19/12 BORING NO. B-8
GROUND ELEVATION 1,030' ± MSL SHEET 2 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20						GM	ALLUVIUM: (Continued) Brown, damp, very dense, silty GRAVEL with sand; cobbles and possible boulders.
		32					Dense.
25							Total Depth = 25 feet. Groundwater not encountered during drilling. Backfilled on 10/19/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30							
35							
40							

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-12

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.04
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	92	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR | DES: RRS | CK: BBJ | DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 10/19/12 BORING NO. B-9
GROUND ELEVATION 1,027' ± MSL SHEET 1 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY JM LOGGED BY JM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0					GM		ALLUVIUM: Brown, damp, very dense, silty GRAVEL with sand, cobbles and possible boulders.
		50/5"					
5		50/4"					
		50/3"					
10		35					
					SM		Brown, damp, medium dense, silty SAND with gravel.
15		19					
20		19					

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-13

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 10/19/12 BORING NO. B-9
GROUND ELEVATION 1,027' ± MSL SHEET 2 OF ??
METHOD OF DRILLING Diedrich D-120, Odex Percussion (D&S Drilling)
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY JM LOGGED BY JM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
20					SM		ALLUVIUM: (Continued) Brown, damp, medium dense, silty SAND with gravel.
					GM		Brown, damp, very dense, silty GRAVEL with sand, cobbles and possible boulders.
25		50/5"					Total Depth = 23.9 feet. Groundwater not encountered during drilling. Backfilled on 10/19/12 promptly after completion of drilling. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
30							
35							
40							

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 12/27/12 BORING NO. B-10
GROUND ELEVATION -- SHEET 1 OF ??
METHOD OF DRILLING CME-75, 8" ODEX Percussion (Geomechanics Southwest,
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY LFM LOGGED BY LFM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk / Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0		9			SW-SM		ALLUVIUM: Brown, damp, medium dense, well-graded SAND with silt; trace gravel; cobbles and possible boulders.
		20					
5		8					
							Increase in gravel content.
10							
		50/3"					
15					GP		Brown, damp, very dense, poorly graded GRAVEL with sand, cobbles and possible boulders.
20							Total Depth = 19.4 feet. Groundwater not encountered during drilling.

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-15

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.05
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	93	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

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NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 12/27/12 BORING NO. B-10
GROUND ELEVATION — SHEET 2 OF ??
METHOD OF DRILLING CME-75, 8" IDEX Percussion (Geomechanics Southwest,
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY LFM LOGGED BY LFM REVIEWED BY JSR

DEPTH (Feet) | SAMPLES Bulk / Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S.

DESCRIPTION/INTERPRETATION

Backfilled on 12/27/12 promptly after completion of drilling.

Note:
Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.

20 25 30 35 40

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-16

DATE DRILLED 12/27/12 BORING NO. B-11
GROUND ELEVATION — SHEET 1 OF ??
METHOD OF DRILLING CME-75, 8" IDEX Percussion (Geomechanics Southwest,
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY LFM LOGGED BY LFM REVIEWED BY JSR

DEPTH (Feet) | SAMPLES Bulk / Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S.

DESCRIPTION/INTERPRETATION

0 5 10 15 20

GP — ALLUVIUM: Brown, damp, very dense, poorly graded GRAVEL with sand; cobbles and possible boulders.

71

SP-SM — Gray, damp, dense, poorly graded SAND with silt and gravel; cobbles and possible boulders.

84/9"

42

GP — Brown, damp, very dense, poorly graded GRAVEL with sand; cobbles and possible boulders.

51

37

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-17

DATE DRILLED 12/27/12 BORING NO. B-11
GROUND ELEVATION — SHEET 2 OF ??
METHOD OF DRILLING CME-75, 8" IDEX Percussion (Geomechanics Southwest,
DRIVE WEIGHT 140 lbs. (Automatic) DROP 30"
SAMPLED BY LFM LOGGED BY LFM REVIEWED BY JSR

DEPTH (Feet) | SAMPLES Bulk / Driven | BLOWS/FOOT | MOISTURE (%) | DRY DENSITY (PCF) | SYMBOL | CLASSIFICATION U.S.C.S.

DESCRIPTION/INTERPRETATION

Total Depth = 20 feet.
Groundwater not encountered during drilling.
Backfilled on 12/27/12 promptly after completion of drilling.

Note:
Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.

20 25 30 35 40

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-18

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

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PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.06
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	94	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

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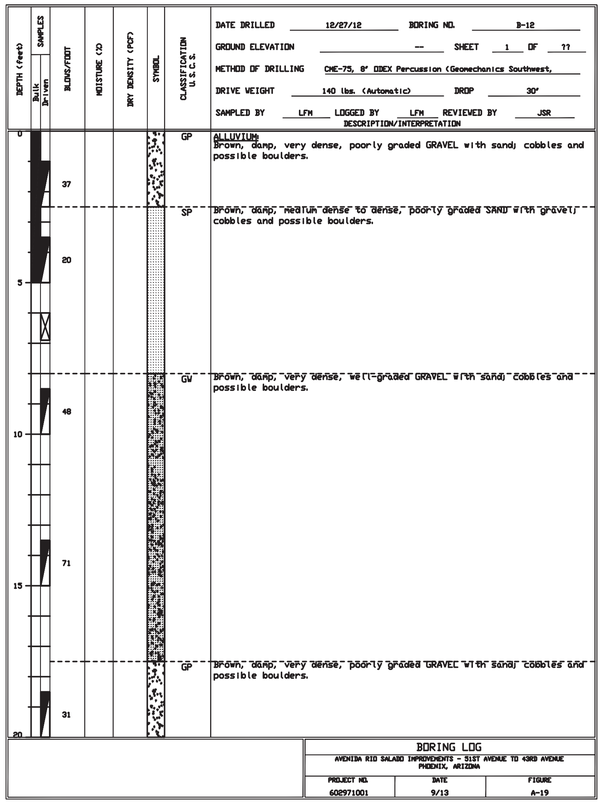
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

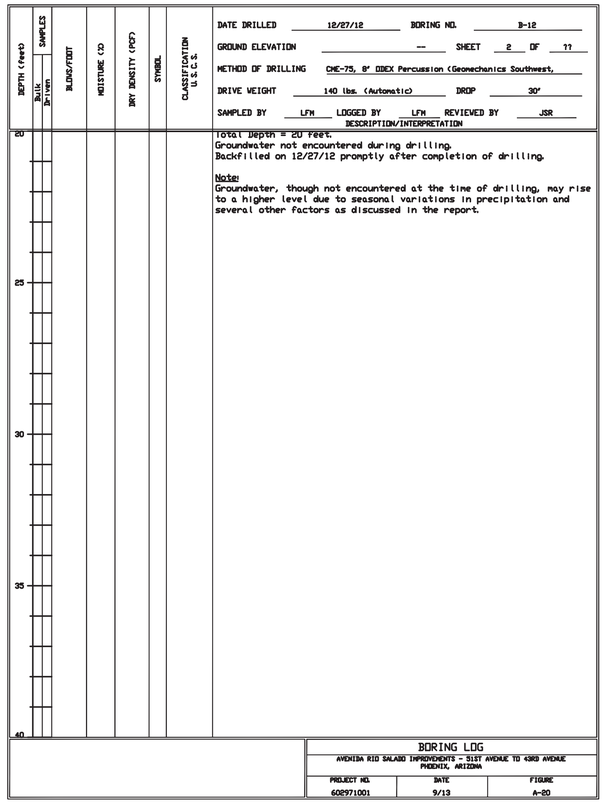
REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



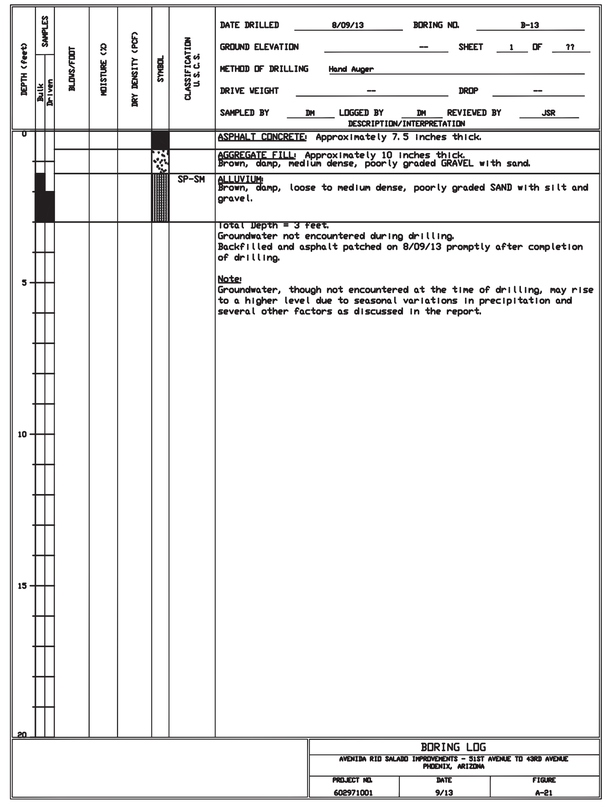
BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS - 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-19



BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS - 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-20



BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS - 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-21

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

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OUTSIDE MARICOPA COUNTY

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.07
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371(003)	95	168

PREMIER
ENGINEERING CORPORATION
6437 W. CHANDLER BLVD., SUITE 1
CHANDLER, AZ 85226; 480-829-6000
CONSULTING ENGINEER

DR: JRR	DES: RRS	CK: BBJ	DATE: 01/14

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

DATE DRILLED 8/15/13 BORING NO. B-14
GROUND ELEVATION -- SHEET 1 OF ??
METHOD OF DRILLING Hand Auger
DRIVE WEIGHT -- DROP --
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 7.5 inches thick.
								AGGREGATE FILL: Approximately 6 inches thick. Brown, damp, medium dense, poorly graded GRAVEL with sand.
							SM	FILL: Brown, damp, dense, silty SAND with gravel.
								Total Depth = 1.2 feet. Groundwater not encountered during drilling. Backfilled and asphalt patched on 8/15/13 promptly after completion of drilling.
								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
5								
10								
15								
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-22

DATE DRILLED 8/15/13 BORING NO. B-15
GROUND ELEVATION -- SHEET 1 OF ??
METHOD OF DRILLING Hand Auger
DRIVE WEIGHT -- DROP --
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 7.5 inches thick.
								AGGREGATE FILL: Approximately 5 inches thick. Brown, damp, medium dense, poorly graded GRAVEL with sand.
							CL	FILL: Brown, damp, very stiff, sandy lean CLAY; few gravel.
								Total Depth = 3 feet. Groundwater not encountered during drilling. Backfilled and asphalt patched on 8/15/13 promptly after completion of drilling.
								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
5								
10								
15								
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-23

DATE DRILLED 8/15/13 BORING NO. B-16
GROUND ELEVATION -- SHEET 1 OF ??
METHOD OF DRILLING Hand Auger
DRIVE WEIGHT -- DROP --
SAMPLED BY IM LOGGED BY IM REVIEWED BY JSR

DEPTH (Feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 5.5 inches thick.
								AGGREGATE FILL: Approximately 13 inches thick. Brown, damp, medium dense, poorly graded GRAVEL with sand.
							SM	FILL: Brown, damp, medium dense, silty SAND; trace gravel.
								Total Depth = 2 feet. Groundwater not encountered during drilling. Backfilled and patched on 8/15/13 promptly after completion of drilling.
								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
5								
10								
15								
20								

BORING LOG
AVENIDA RIO SALADO IMPROVEMENTS – 51ST AVENUE TO 43RD AVENUE
PHOENIX, ARIZONA

PROJECT NO.	DATE	FIGURE
602971001	9/13	A-24

NOTE:
THE MATERIAL BORING LOGS SHOWN ON THESE PLANS ARE INCLUDED FOR THE CMAR'S CONVENIENCE ONLY. THEY ARE NOT INTENDED TO IMPLY THAT THE CHARACTER OF MATERIALS SHOWN IN THE LOGS IS REPRESENTATIVE THROUGHOUT THE PROJECT. THE SOIL BORINGS ARE INDICATIVE OF THE SOIL CHARACTERISTICS ONLY AT THE BORING LOCATION AND TO THE DEPTH OF EACH OF THE BORINGS. EVEN IF NOT SPECIFICALLY SHOWN IN THE GEOTECHNICAL INFORMATION PROVIDED, THE CMAR MAY ENCOUNTER LARGE COBBLES, BOULDERS, CALICHE, CONGLOMERATE, HARD ROCK, PERCHED GROUNDWATER, HISTORIC OR PREHISTORIC CULTURAL RESOURCES, OR OTHER DIFFERING SITE CONDITIONS ON THIS PROJECT.

PREMIER ENGINEERING
PROJECT NO.: 2014046-04

CALL TWO WORKING DAYS BEFORE YOU DIG
CALL FOR THE BLUE STAKES
602-263-1100
1-800-STAKE-IT
OUTSIDE MARICOPA COUNTY

BORING LOG

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JRR	DES: RRS	CK: BBJ	DWG NO: BH-1.08
DATE: 01/14	DATE: 01/14	DATE: 01/14	
SCALE: 1"=50'			

ST85100371(003)

P:\2010011\CADD\Civil\Sheets\ST85100334BH08.dwg dbegell Nov 09, 2016 – 11:15am

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

SALT RIVER PROJECT (SRP) NOTES

1. CONTRACTOR SHALL CALL SRP FOR A PRE-CONSTRUCTION MEETING PRIOR TO ANY EXCAVATION AT (602) 236-6300.
2. CONTRACTOR WILL SUPPLY ALL TRENCHING AND CONDUIT IF REQUESTED BY THE COP PROJECT MANAGER.
3. CONTRACTOR WILL STAKE STREET LIGHTS PER CITY OF PHOENIX APPROVED STREET LIGHT CONSTRUCTION DRAWINGS.
4. GRADE STAKE WILL BE SET WITHIN TWO (2) FEET OF J-BOX LOCATION.
5. CONTRACTOR WILL COORDINATE WITH SRP AND CITY OF PHOENIX FOR DE-ENERGIZING OF STREETLIGHT CONDUCTOR.
6. GROUND ROD WILL BE PROVIDED AND INSTALLED BY CONTRACTOR IN SRP J-BOX AT EACH STREETLIGHT LOCATION.
7. #6 BARE COPPER GROUND WIRE TO BE ATTACHED FROM GROUNDING LUG ON STREETLIGHT POLE TO GROUND ROD IN J-BOX.
8. IF THE CONTRACTOR INSTALLS THE POLE, THE BARE #6 COPPER GROUND WIRE SHALL BE CONNECTED FROM THE GROUND ROD IN THE SRP J-BOX TO THE GROUND CONNECTION IN THE POLE HAND-HOLE.
9. ALL TRENCHING AND CONDUIT TO BE INSPECTED BY SRP. DO NOT BACKFILL UNTIL INSPECTED.
10. SRP CONSTRUCTION PRINT MUST BE USED AS A TRENCHING REFERENCE. TRENCHING VARIATIONS MUST HAVE WRITTEN SRP DESIGNER APPROVAL. FOLLOW DETAILS FOR CONSTRUCTION. VARIATIONS IN TRENCH ROUTE MAY RESULT IN A REDESIGN FEE PAYABLE BY CONTRACTOR.
11. TRENCHES SHOULD BE STRAIGHT, LEVEL AND FREE OF DEBRIS. ALL TRENCH DEPTHS MEASURED FROM FINAL GRADE TOP OF CONDUIT (PER SRP DESIGN) WITHIN ALL EASEMENTS AND RIGHT OF WAY. MAINTAIN MINIMUM 6" CLEARANCE FROM WATER LINES, 19" FROM ALL GAS LINES AND 12" CLEARANCE FORM OTHER UTILITIES.
12. USE DB120 PVC FOR ALL STRAIGHT CONDUIT, 36" RADIUS SCHEDULE 40 PVC SWEEPS FOR ALL ELBOWS. NO REDUCERS ARE ALLOWED IN CONDUIT SYSTEM, NO COUPLINGS OR BELL ENDS ARE ALLOWED AT EQUIPMENT LOCATIONS. ALL CONDUITS WITHIN ROAD RIGHT OF WAY OR P.U.E. MUST BE RED.
13. RETAINING WALLS ARE REQUIRED ADJACENT TO EQUIPMENT WHERE THE GRADE SLOPE IS GREATER THAN 30" IN 12'.
14. ALL CONDUIT STUB OUTS ARE TO BE CAPPED AND MARKED WITH ELECTRONIC MARKER AND 7" RED FLAG MARKING RIBBON.
15. HARD CSRP ARE TO BE USED FOR ALL STUB OUTS BELOW GRADE.
16. A MANDREL INSPECTION IS REQUIRED WITH SRP INSPECTOR WITHIN 3 DAYS OF FINAL INSPECTION. CONTRACTOR MUST PROVIDE 2 REPRESENTATIVES, MINIMUM 125-CFM TRAILER MOUNTED COMPRESSOR AND ALL NECESSARY ATTACHMENTS.
17. THE CONTRACTOR IS RESPONSIBLE FOR THE INTEGRITY OF ALL CONDUITS UNTIL SRP HAS INSTALLED CONDUCTORS.
18. BACKFILL REQUIREMENTS FOR A TRENCH IN OR UNDER FUTURE PAVEMENT TO BE 1 PART SLURRY MIX IN ROAD RIGHT OF WAY AND IN DIRT TO BE 1/2 SLURRY MIX AND 1/2 SLURRY MIX MAXIMUM UNDER ALL SRP EQUIPMENT.
19. SEE DUCT BANK SPECIFICATIONS FOR ALL DUCT BANK ENCASEMENT REQUIREMENTS.

LED STREETLIGHT NOTES

MAJOR

1. INSTALL 113W LED (10,000 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL ON A POLE AND MAST ARM AS SHOW IN THE PLANS AND PROVIDED IN THE SPECIFICATIONS. FOUNDATION AND GROUNDING PER SRP STANDARDS AND SPECIFICATIONS. POLE SHALL BE CENTERED 1'-0" BEHIND BACK OF SIDEWALK OR 4'-0" BEHIND BACK OF CURB. INSTALL (2) #12 THHN/THWN FROM LUMINAIRE TO FUSE HOLDER IN POLE. INSTALL SRP PULL BOX ADJACENT POLE WITH 1" FLEX CONDUIT TO POLE PER SRP SPECIFICATIONS AND REQUIREMENTS. ALL WIRING, FUSING, AND GROUNDING PER SRP DETAILS AND SPECIFICATIONS.

STREET LIGHTING GENERAL NOTES

THE FOLLOWING INFORMATION IS PROVIDED TO EMPHASIZE CRITICAL WORK AND IS INTENDED TO SUPPLEMENT THE SPECIFICATIONS.

1. THE CONTRACTOR SHALL COMPLY WITH STATE AND CITY STATUTES AND ORDINANCES.
2. THE ELECTRICAL CONTRACTOR SHALL COMPLY WITH ALL LICENSING REQUIREMENTS SET FORTH BY THE STATE REGISTRAR OF CONTRACTORS OFFICE TO PERFORM WORK RELATING TO STREET LIGHT INSTALLATION IN CITY OF PHOENIX RIGHT-OF-WAY.
3. ONE DRY UTILITY PERMIT FOR EACH CITY OF PHOENIX STREET LIGHT PROJECT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
4. LIGHT POLES SHALL BE INSTALLED PLUMB, BE ADJUSTED TO PROVIDE PROPER ALIGNMENT TO THE ROADWAY BEING LIGHTED AND BE PROPERLY GROUNDED WHEN THE INSTALLATION IS COMPLETED.
5. STREET LIGHTS ARE INSPECTED BY THE CITY OF PHOENIX STREETLIGHTING INSPECTOR. WHEN ACCEPTED AND ENERGIZED THE CONTRACTOR WILL INSTALL POLE NUMBERS PRIOR TO INSPECTION.
6. LUMINAIRES SHALL BE INSTALLED LEVEL AND INCLUDE A LAMP AND PHOTOCELL. THE LUMINAIRES SHALL BE FREE OF DUST, DIRT OR ANYTHING THAT WOULD IMPAIR THE OUTPUT OF THE LIGHT.
7. LUMINAIRES FURNISHED WITH MULTI-TAP DRIVERS SHALL BE REWIRED OR RECONNECTED TO MATCH THE VOLTAGE SUPPLIED BY THE ELECTRIC UTILITY COMPANY.
8. POLE SHALL BE SET PLUMB IN TWO DIRECTIONS, NINETY (90) DEGREES APART.
9. SURPLUS EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR.
10. WIRING SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. CONDUIT SHALL BE INSTALLED AT THE DEPTH SPECIFIED ON THEIR PLANS.
11. CONDUIT MUST BE LISTED AND LABELED AND SUITABLE FOR UNDERGROUND USE.
12. CONNECTIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS. EACH POLE SHALL HAVE A 8' X 5/8" COPPER CLAD GROUND ROD DRIVEN BENEATH PULL BOX. A #6 BARE COPPER LEAD FROM THE GROUND ROD IN PULL BOX TO LANDING LUG IN STREET LIGHT POLE HAND HOLE IS REQUIRED.
13. EXCAVATION FOR PULL BOXES AND MATERIAL SPECIFICATIONS SHALL BE PER SERVING UTILITY COMPANY STANDARDS.
14. TRENCH SHALL BE INSTALLED PER SERVING UTILITY COMPANY STANDARDS. THE USE OF A COMMON ELECTRIC UTILITY COMPANY TRENCH IS PERMITTED.
15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANY FOR COORDINATION OF THE TRENCHING AND THE INSTALLATION OF CONDUIT.
16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RESTORE ALL PROPERTY, LANDSCAPING, PAVING AND DRIVEWAYS THAT ARE DISTURBED DURING STREET LIGHT CONSTRUCTION TO THEIR ORIGINAL CONDITION IN CONFORMANCE WITH MAG SPECIFICATION SECTION 107.9.
17. IF A FIXTURE SHOULD FAIL, IT SHALL BE IMMEDIATELY REPLACED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL PERSONNEL AND EQUIPMENT NECESSARY TO SUCCESSFULLY REPAIR THE FIXTURE.
18. THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE ENGINEERING MANAGER, AGAINST IMPERFECT WORKMANSHIP, FAILURE, MALFUNCTION OF MATERIALS AND/OR EQUIPMENT DUE TO FAULTY OR IMPERFECT WORKMANSHIP.
19. THIS GUARANTEE IS TO BE IN WRITING TO THE CITY AT THE TIME OF ISSUING FINAL ACCEPTANCE. MATERIALS AND WORKMANSHIP FOUND TO BE DEFECTIVE WITHIN THE WARRANTY PERIOD SHALL BE REPLACED WITHOUT COST TO THE CITY.

LEGEND

- LED COBRAHEAD LUMINAIRE STREET LIGHT POLE (SEE NOTE FOR DESCRIPTION)
- EXISTING STREET LIGHT POLE
- EXISTING STREET LIGHT POLE WITH LED COBRAHEAD LUMINAIRE

ITEM NUMBER	TYPE OF STREET	QUANTITY	MOUNTING HEIGHT	POLE LENGTH	MAST ARM	APPROVED POLE & ARM MANUFACTURERS	LUMEN	TYPE	WATTAGE	VOLTAGE	LUMINAIRE STYLE	APPROVED LUMINAIRE MANUFACTURERS
1	ARTERIAL	26	32'-11"	38'-6"	6'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	10,000	LED	113 W	120/240 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS20D3E1740A GRAY R
7	ARTERIAL	5	38'-6"	38'-6"	8'	CEM-TEC MS-1944 VALMONT CB09159 SOUTHWEST FABRICATION, LLC 386RDB	10,000	LED	113 W	120/240 AS POWER CO. REQUIRES	COBRAHEAD	GENERAL ELECTRIC ERS20D3E1740A GRAY R

ALL CATALOG NUMBERS SHALL BE CONFIRMED WITH POWER COMPANY PRIOR TO ORDERING

Registered Professional Engineer
ARNAB B. GUPTA
44870
ARNAB GUPTA
Date Signed 11/09/16
ARIZONA, U.S.A.
Expires 09/30/2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	96	168

TRANSPORTATION

AECOM USA, Inc.
2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
AECOM
www.aecom.com
CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

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

STREET LIGHT NOTES

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: DT-4.01
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE:			

ST85100371 (003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	97	168

TRANSPORTATION

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2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
www.aecom.com

CONSULTING ENGINEER

DR: WBE | DES: KEB | CK: AG | DATE: 11/16

Registered Professional Engineer (Civil), Certificate No. 44870, ARNAB GUPTA, Date Signed 11/09/16, ARIZONA, U.S.A., Expires 09/30/2018

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

1944._ _

19 = 19' - 0" POLE SNG SIMPLEX
30 = 30' - 6" POLE SNG SIMPLEX
38 = 38' - 6" POLE SNG SIMPLEX
38X = 38' - 6" POLE DBL SIMPLEX
** SEE SPEC. NOTE

MAJOR

GRAY ROADWAY POLE STANDARDS

N.T.S.

CONSTRUCTION NOTES:

1 **ADJUST PHOTO EYE TO FACE NORTH**

2 **A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449 THRU 2460 FOR APPROVED ALTERNATES.**

3 **THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITINGS 180 APART FOR DOUBLE ARMS, SEE CHART.**

4 **APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING PLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.**

5 **POLES THAT HAVE MORE THAN ONE LUMINAIRE REQUIRE A SEPARATE CIRCUIT WITH FUSING FROM THE J-BOX TO EACH LUMINAIRE.**

ENGINEERING NOTES:

A **THE LIGHT CODE PROVIDES TWO SAME WATTAGE LUMINAIRES WHEN DOUBLE ARM ARE SPECIFIED.**

B **SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.**

C **SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.**

LIGHT CODE	COLOR	APN	TYPE	WATTS	VOLTS	INITIAL LUMENS	PHOTOMETRIC CURVE
CL63	GRAY	00128332	LED	113	120/280/240/277	10,000	454688

POLE TYPE	POLE CODE	POLE LENGTH	BURY DEPTH	POLE ABOVE GROUND	POLE BUTT DIAMETER			LUMINAIRE HEIGHT ABOVE GROUND ON ARM		
					STEP	TAPER	WEIGHT	20" X 6'	3' X 8'	8' X 8'
ARTERIAL	1944.38X	38' - 6"	6' - 6"	32' - 0"	6-5/8"	9-3/4"	640	32' - 11"	34' - 3"	39' - 3"

**FOR NON-STANDARD POLES, CONTACT THE STREET TRANSPORTATION STREETLIGHTING SECTION FOR INFORMATION.

ELECTRICAL REQUIREMENTS FOR NEW POLE INSTALLATION

1. JUNCTION BOXES SHALL MEET UTILITY COMPANY STANDARDS.
2. CONDUIT, CONDUCTORS, AND FUSE HOLDERS SHALL BE LISTED AND LABELED FOR USE IN A WET LOCATION WHEN USED IN A JUNCTION BOX. NEC300.5(B), 310.8(C)
3. IN-LINE FUSE HOLDER USED IN HAND HOLE OR SERVICE DROP SHALL BE CONSIDERED AS DISCONNECTING MEANS. FUSE HOLDERS TO BE RATED AT 22,000 AIC MINIMUM. NEC 240.40
4. ELECTRICAL CONNECTIONS-CONDUCTORS OF DISSIMILAR METALS SHALL NOT BE INTERMIXED IN A TERMINAL OR SPLICING CONNECTOR WHERE PHYSICAL CONTACT OCCURS BETWEEN DISSIMILAR CONDUCTORS, (COPPER, ALUMINUM) UNLESS THE DEVICE IS IDENTIFIED FOR THE PURPOSE AND CONDITIONS OF USE. NEC 110.14
5. ELECTRICAL CONNECTIONS OR SPLICES IN AN UNDERGROUND INSTALLATION SHALL BE APPROVED FOR WET LOCATIONS. (NEC 300.5)
6. NON-CURRENT CARRYING CONDUCTIVE MATERIALS ENCLOSING ELECTRICAL CONDUCTORS OR EQUIPMENT, OR FORMING PART OF SUCH EQUIPMENT, SHALL BE CONNECTED TO EARTH IN A MANNER THAT WILL LIMIT THE VOLTAGE IMPOSED BY LIGHTNING OR UNINTENTIONAL VOLTAGE DUE TO SHORT CIRCUITS AND LIMIT THE VOLTAGE TO GROUND ON THESE MATERIALS. NEC 250.4(B) (GROUND RODS)
7. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED FROM THE GROUND LUG IN THE HAND-HOLE TO THE LUMINAIRE WITH THE CURRENT CARRYING CONDUCTORS. NEC 410.30(B)(3).
8. CONNECTION TO THE GROUND ROD AND THE GROUNDING ELECTRODE SHALL BE LISTED AND LABELED FOR USE. NEC 250.8
9. CONNECT #6 BARE COPPER WIRE FROM THE GROUND ROD ADJACENT TO THE POLE OR IN JUNCTION BOX TO THE GROUND LUG IN THE POLE.

CONSTRUCTION NOTES:

1 ADJUST PHOTO EYE TO FACE NORTH

2 A GROUND ROD IS PROVIDED WITH THE JUNCTION BOX. WHERE A GROUND ROD CANNOT BE DRIVEN ALTERNATE GROUND SHALL BE USED. SEE 2449THRU 2460 FOR APPROVED ALTERNATES.

3 THE 40'-6" SELF-SUPPORTING STEEL POLE AND ONE OF THE 38'-0", HAVE TWO, MANUFACTURED INSTALLED SIMPLEX FITINGS 180 APART FOR DOUBLE ARMS,SEE CHART.

4 APN 33701054 IS A POLE BAND ADAPTOR WITH A SIMPLEX FITTING. ADAPTOR IS REQUIRED FOR THE SECOND ARM IN DOUBLE ARM APPLICATIONS ON EXISTING POLES IN THE FIELD WITHOUT TWO SIMPLEX FITTINGS. SEE 8198 FOR AVAILABLE SIZES.

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B SEE SPEC 8130 - 8131 FOR IN-LINE FUSE FOR UNDERGROUND FEEDS.

C SEE 8100 THRU 8107 FOR OVERHEAD ATTACHMENTS.

20 YEAR PHOTOCELL REQUIREMENTS

APN# 00073241 CONTROL PHOTO MULTI BR-20 CONTROL, PHOTO-ELECTRIC, BROWN, 20YEAR FAIL OFF, 120/208/240/277 MULTI-VOLT, SILICON, SOLID STATE, 2.40 TO 3.60 FC ON 1.2 TO 2.4 FC OFF, 60 HERTZ, 320 JOULE MOV, INVERSE ON/OFF RATIO .6:1 +/- .1, FAIL OFF, THREE PIN NEMA TWISTLOCK, 20 YEAR LIFE, 8483-SIDE SELC, MODEL #8483F2TMABR

GE Evolve II Gray Cobra LED Fixtures

WATT	LUMEN	DESCRIPTION	APN	MODEL#
113W	10,000	**SCALABLE ROADWAY GE LED GRAY Major Roadway** LUMINAIRE 113WATT, 4000K, 10,000 LUMEN, ROADWAY, LED, TERMINAL BOARD, 10KV SURGE PROTECTION, 90 DEGREE CUTOFF, GRAY, MULTIVOLT 120/208/240/277 DRIVER, IES NARROW ASYMMETRIC MEDIUM, ANSI C136.41 7 PIN TWISTLOCK PHOTO CONTROL RECEPTACLE, CSA OR UL CERTIFIED, ANSI C136.15 WATTAGE LABEL.	128332	ERS20D3E1740A GRAY R

NOTES:
1. STEEL POLES AND ALL MAST ARMS MUST BE GROUNDED.
2. OVERHEAD ATTACHMENTS MUST BE GROUNDED TO THE STREET LIGHT POLE. A $1\frac{1}{16}$" HOLE HAS BEEN ADDED 6" BELOW TOP OF STREET LIGHT POLE TO INSTALL A GROUNDING INSERT APN 00055552. TOOL TO INSTALL RIVNUT IS APH 00053279. SEE STANDARD 2408. WHERE RIVNUTS ARE NOT AVAILABLE GROUND PER DETAIL A.
3. ALL OVERHEAD FED STREET IGHT POLES SHALL HAVE A GROUND ROD INSTALLED AND A #6 GROUND WIRE BONDED TO THE GROUNDING LUG AT THE BACK OF THE HAND HOLE.
4. THESE CODES PROVIDE THE #14 CU FOR THE MAST ARMS., HARDWARE FOR ATTACHING TANGENT OR DEADEND SECONDARY, AND THE CONNECTORS.

CODE	8100	8101	8102	8103	8106	8107	DETAIL A	MATERIAL LIST	
ITEM	QTY	QTY	QTY	QTY	QTY	QTY	QTY	DESCRIPTION	APN
1	-	-	-	-	1	1	-	BOLT GALV MACH 5/8" X 10"	33001549
2	1	1	1	1	-	-	-	BOLT GALV MACH 5/8" X 8"	33001547
3	10	-	10	-	10	-	-	CABLE 2/C #14CU UF	31102132
4	-	10	-	10	-	10	-	CABLE 3/C #14CU UF	31102135
5	1	1	-	-	-	-	-	CLAMP ANGLE .162 TO .60	33002502
6	1	1	1	1	1	1	-	CLAMP GROUND ROD 5/8"	33002580
7	-	-	1	1	-	-	-	CLAMP WEDGE FELX 4-2AL	33002772
8	2	3	2	3	4	2	-	CONN AL PG - SEE 2250	
9	-	-	-	-	1	1	-	CONN CU "C" - SEE 2255	
10	1	1	1	1	1	1	-	CONN POST 1/2"S SS #6-1/0	00095704
11	1	2	1	2	1	2	-	COVER D DIE INSULATING	33003192
12	1	2	1	2	1	2	-	FUSE CARTRIDGE 15A	72602410
13	1	2	1	2	1	2	-	FUSEHOLDER IN-LINE 600V	00097502
14	-	-	-	-	1	1	-	GRIP DE PREF - SEE2135	
15	-	-	1	1	2	2	-	HOOK GUY - MED DUTY 5/8"	33003831
16	1	1	1	1	1	1	-	NUT INSERT RIVNUT	00055552
17	-	-	-	-	-	-	1	NUT SQ GALV 5/8"	33004176
18	1	1	1	1	1	1	-	ROD COPPERCLAD GRD 5/8" X 8"	33004805
19	2	2	-	-	-	-	-	SPACER MULTIPLEX CABLE	33006510
20	1	1	1	1	1	1	-	STOPPER BUG AND DUST	33806955
21	1	1	1	1	1	1	-	TUBING SHRINKABLE 1/4	71606200
22	2	2	2	2	-	-	-	WASHER GALV CU 3X3X1/4"	33007126
23	1	1	1	1	1	1	1	WASHER GALV DBL COIL 5/8"	33007154
24	-	-	-	-	-	-	2	WASHER GALV RD 5/8"	33007185
25	2	2	2	2	2	2	-	WIRE BARE #6 SOLID CU	33007580

STREET LIGHT POLE CABLE ATTACHMENTS AND GROUNDING DETAIL

N.T.S.

DETAIL A: 6' MAST ARM

N.T.S.

DETAIL B: 8' MAST ARM

N.T.S.

GRAY ROADWAY POLE LUMINAIRES

N.T.S.

GRAY ROADWAY LUMINAIRE DESCRIPTIONS

APN# 128332
113W LED RWGR - MAJOR
ERS20D3E1740A GRAY R

POLE HAND HOLE FUSING DETAIL

N.T.S.

GROUNDING DETAIL

N.T.S.

CODE	JUNCTION BARS
A	THREE-POSITION MOLDS
B	FIVE-POSITION MOLDS
C	EIGHT-POSITION MOLDS
D	TWO-POSITION GEL PACKS
N	NO CONNECTORS

8655._ _ _ _ SMALL BOX
8656._ _ _ _ MEDIUM BOX
8657._ _ _ _ LARGE BOX

IF APPLICABLE
G = APS GROUT APPROVED
IF APPICABLE
L = LIGHTS
SECONDARY WIRE CODES
JUNCTION BARS

J-BOX DETAIL

N.T.S.

NOTES:
1. CONCRETE GROUT SHALL BE PREMIX, APN 71301280 OR EQUIVALENT.
2. PENTA-HEAD BOLTS SHALL BE INSTALLED PRIOR TO ENERGIZING NEW UNDERGROUND SYSTEMS. LOST OR MISPLACED PENTA-HEAD BOLTS SHALL BE REPLACED WITH APN 71402608.
3. BRINGING ALL CABLE/CONDUITS AND GROUND ROD INTO THE SAME END OF THE BOX TO ENABLE CABLES TO BE RAISED AND LOWERED EASILY. CONDUIT SWEEPS SHALL BE POSITIONED AND ALIGNED SO THAT WHEN TWO AND FOUR POSITION JUNCTION BARS ARE SPECIFIED, THE ST. LT., SECONDARY AND SERVICE CONDUITS SHALL BE INSTALLED AS SHOWN IN DETAIL "A". WHEN SIX POSITION JUNCTION BARS ARE SPECIFIED, THE ST. LT., SECONDARY AND SERVICE CONDUITS SHALL BE INSTALLED AS SHOWN IN DETAIL "B".
4. COMPACTION BENEATH AND AROUND JUNCTION BOX SHALL BE A MINIMUM OF 85 PERCENT.
5. REPLACEMENT LID FOR MEDIUM PLASTIC JUNCTION BOX IS 33100981. PENTAHEAD BOLTS AND EMS MARKER MUST BE REUSED FROM OLD LID.
6. ADDITIONAL TRENCH DEPTH IS USUALLY REQUIRED AT ALL EQUIPMENT LOCATIONS. SEE 8648 FOR THE MINIMUM TRENCH DEPTHS AND THE DEGREE OF SLOPE ALLOWED AS THE TRENCH DEPTH CHANGES.
7. ON 277 VOLT STREET LIGHT CIRCUITS, INSTALL "277 VOLT" RED MICARTA TAG (APN 00080796) PROVIDED BY SPEC 8129.
8. TORQUE BOLTS TO 5 FT - LBS (60 IN - LBS).

DESCRIPTION
15" X 21" X 12" JUNCTION BOX WITH 3/8" CAPTIVE PENTA HEAD BOLTS

WORD "ELECTRIC" ON COVER

BOX TO BE POLYMER CONCRETE MATERIAL WITH POLYMER CONCRETE BOLT DOWN (NON-CONDUCTIVE COVER).

FLUSH MOUNTED–BOLT ON COMPOSOLITE LID

SRP APPROVED SUPPLIERS	PART NUMBER
STRONGWELL BOX	PC1118B513
	PC1118C504–17/UH0390AA COVER WITH ELECTRIC
ARMORCAST PRODUCTS	6001429A
CDR SYSTEMS	PA40–1015–12
CARSON & ASSOCIATES BOX	HLW111B–12
	HLW1118–PO LID

J-BOX SECTION

N.T.S.

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

STREET LIGHT DETAILS

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: DT–4.02
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE:			

ST85100371 (003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

City of Phoenix N

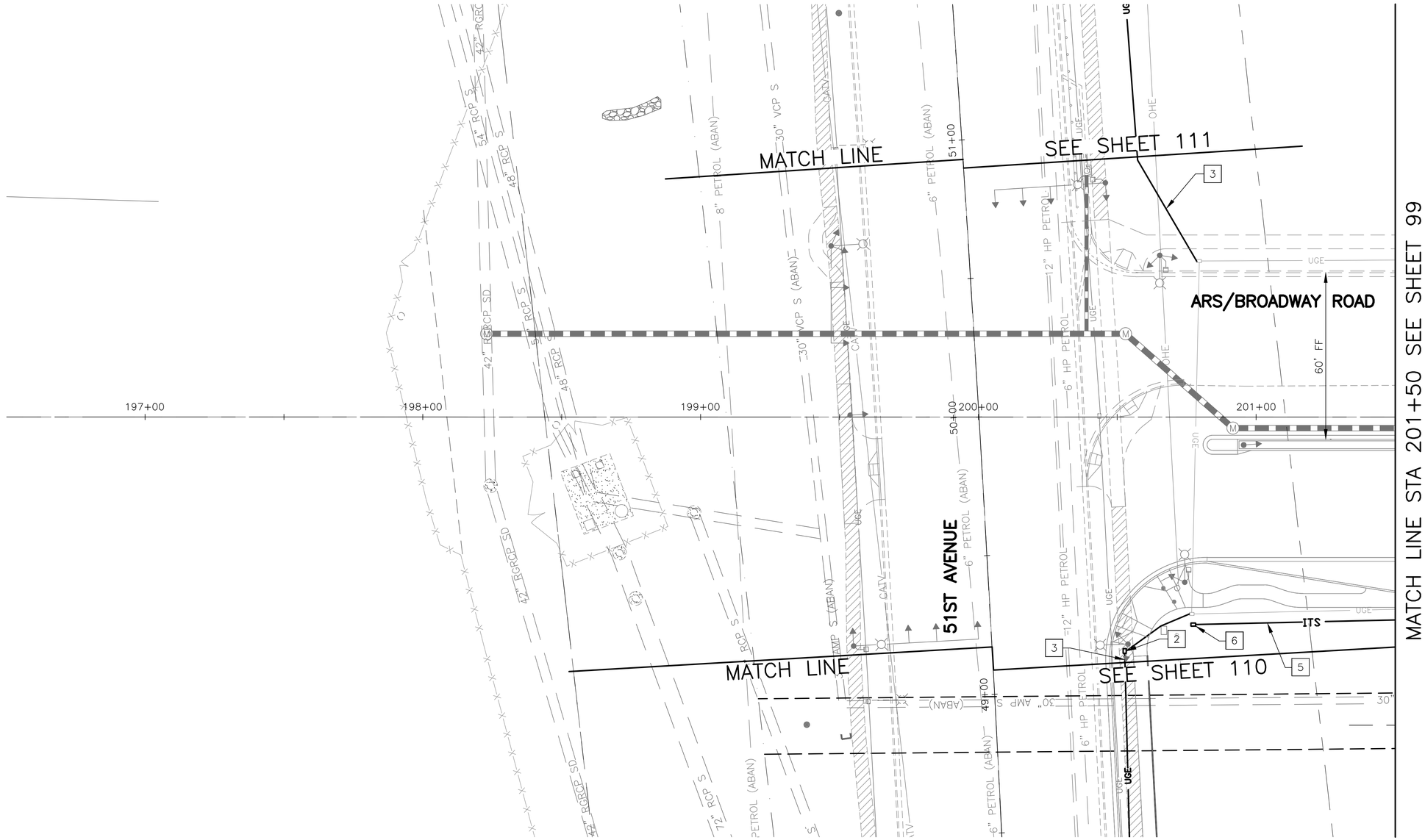
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	98	168

TRANSPORTATION

AECOM USA, Inc.
2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620

AECOM
www.aecom.com
CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
2	JUNCTION BOX	EA	1
3	2-1/2" PVC CONDUIT	LF	30
5	4" PVC CONDUIT	LF	120
6	NO. 7 PULL BOX	EA	1

NOTE:
SEE CITY OF PHOENIX SIGNAL PLANS FOR ANY EXISTING SIGNAL POLE MOUNTED STREET LIGHT REMOVALS.

CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
ARIZONA 811
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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.01
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

P:\60505722 Premier-Avenida Rio Salado\900-Work\60187751\Prod\ele\ST85100334SL03.dwg nathaniel.ewing Nov 09, 2016 – 4:47pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

City of Phoenix N

Registered Professional Engineer
ARNAB GUPTA
44870
CERTIFICATE NO.
ARIZONA, U.S.A.
Expires 09/30/2016

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	99	168

TRANSPORTATION

AECOM USA, Inc.
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CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REVISION BY CITY OF PHOENIX

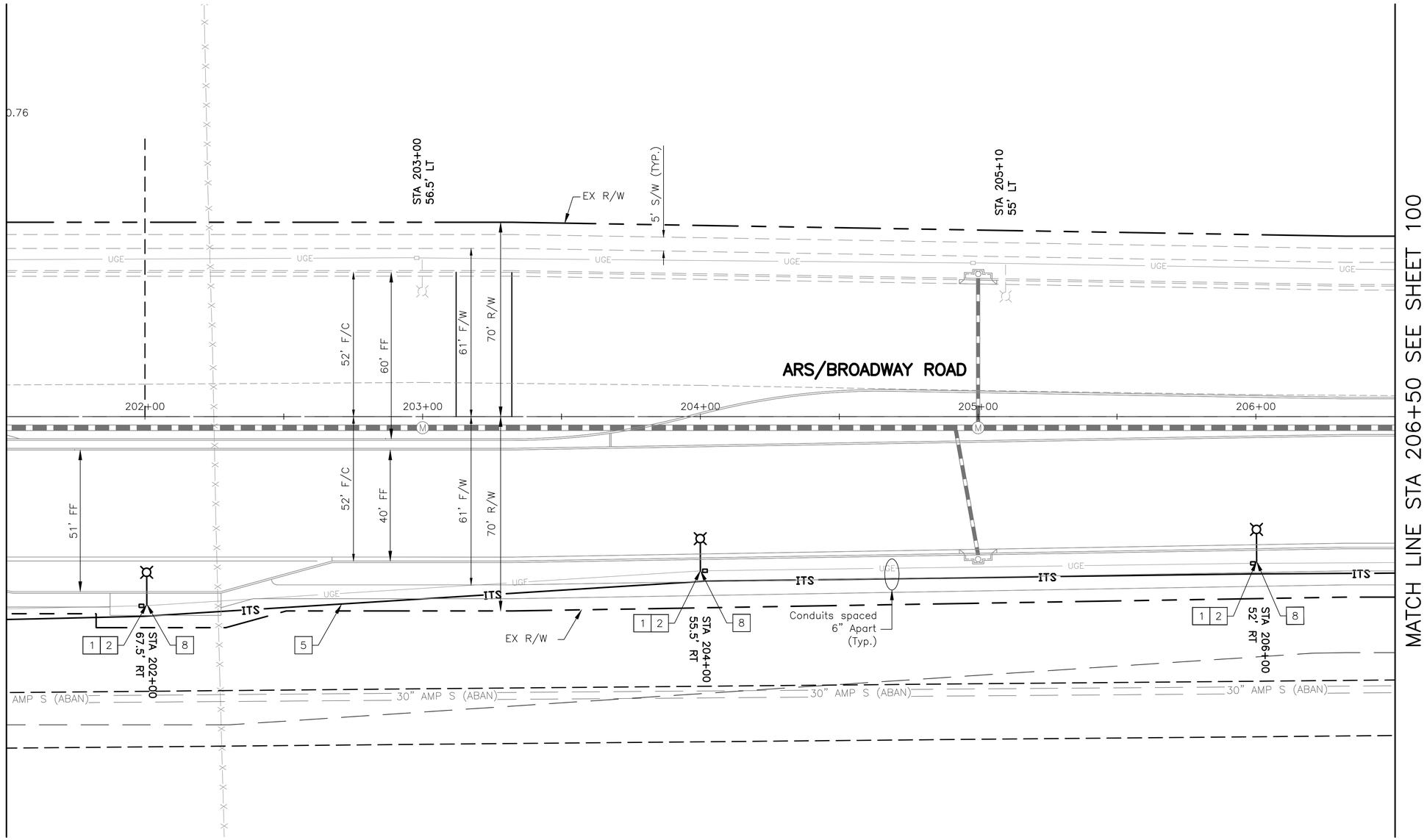
NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	3
2	JUNCTION BOX	EA	3
5	4" PVC CONDUIT	LF	500
8	1" FLEX CONDUIT	LF	24

CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
ARIZONA 811
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IN MARICOPA COUNTY: (602) 263-1100

STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL–1.02
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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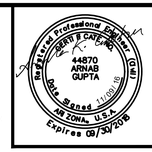
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'
20 0 20 40
SCALE FEET

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	100	168

TRANSPORTATION

AECOM USA, Inc.
2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
AECOM
www.aecom.com

CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

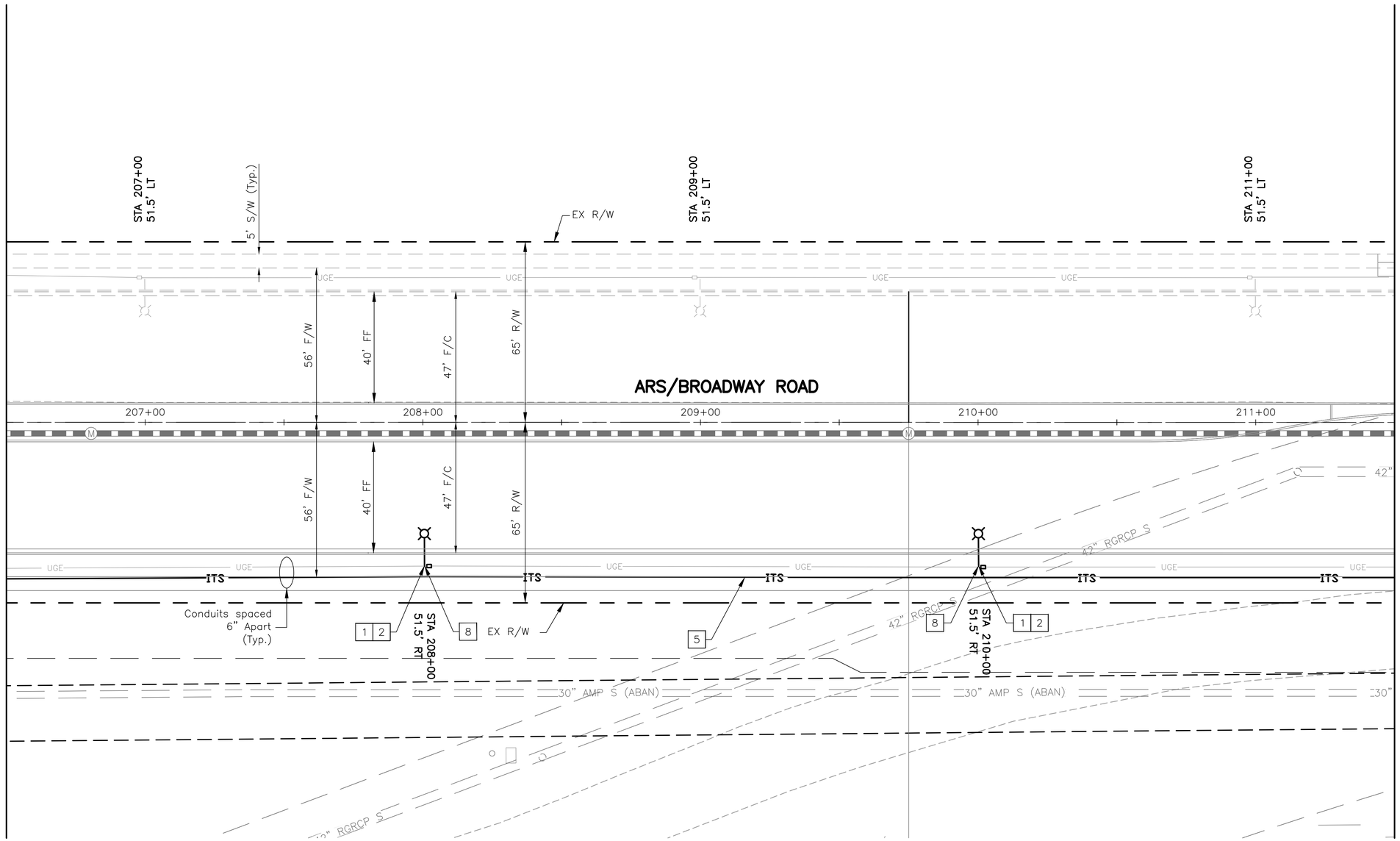
NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

MATCH LINE STA 206+50 SEE SHEET 99

MATCH LINE STA 211+50 SEE SHEET 101



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	2
5	4" PVC CONDUIT	LF	500
8	1" FLEX CONDUIT	LF	16

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ARIZONA 811
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IN MARICOPA COUNTY: (602) 263-1100

STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.03
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' 20 0 20 40 SCALE FEET

City of Phoenix N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	101	168

TRANSPORTATION

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Phoenix, Arizona 85016
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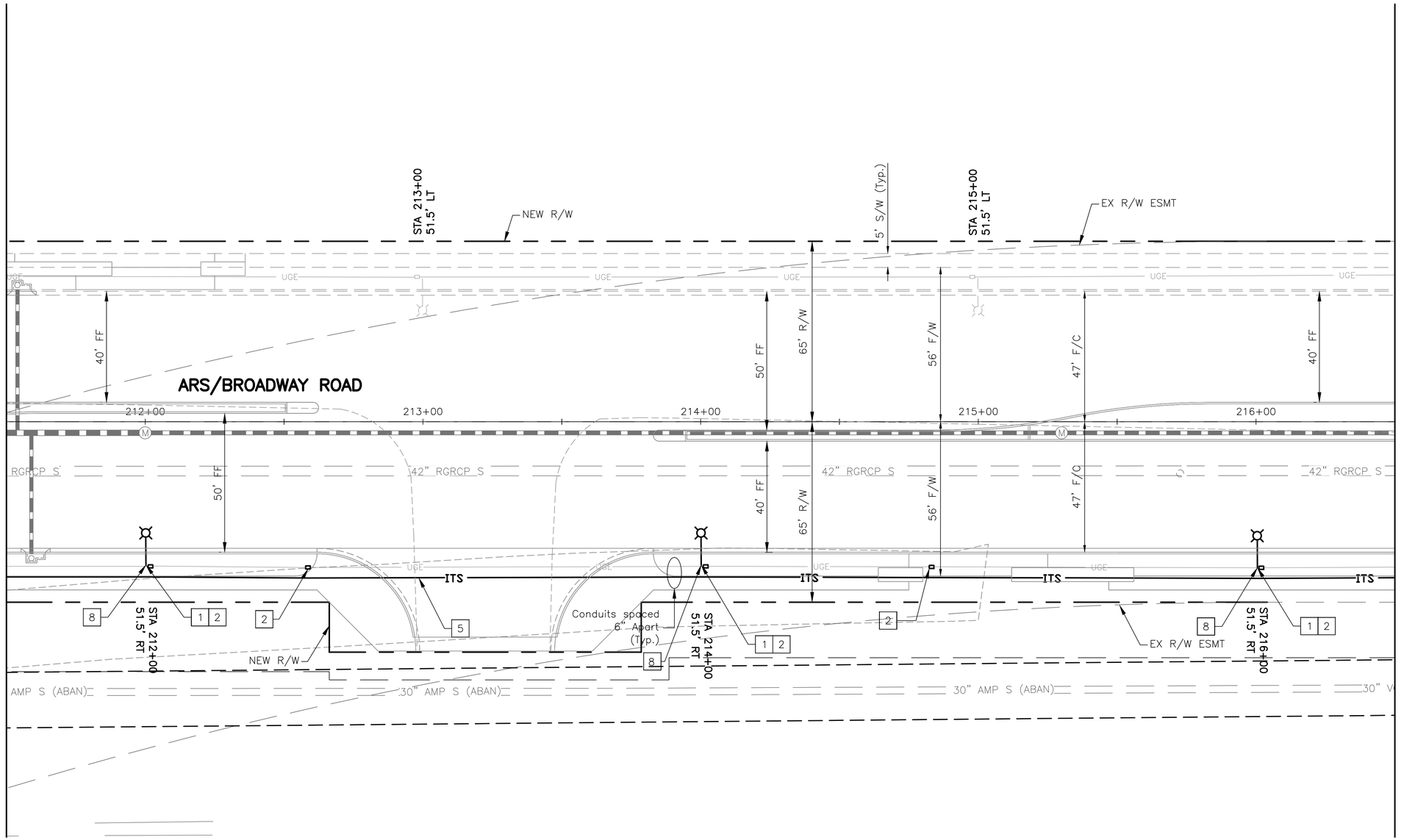
AECOM
www.aecom.com
CONSULTING ENGINEER

DR: WBE | DES: KEB | CK: AG | DATE: 11/16



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'-6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	3
2	JUNCTION BOX	EA	5
5	4" PVC CONDUIT	LF	500
8	1" FLEX CONDUIT	LF	24

CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
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Arizona Blue Stake, Inc.
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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.04
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'

20 0 20 40
SCALE FEET

City of Phoenix
N

Registered Professional Engineer
44870
ARNAB
GUPTA
Date Signed 11/30/16
Expires 09/30/2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	102	168

TRANSPORTATION

AECOM USA, Inc.
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Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
AECOM
www.aecom.com

CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

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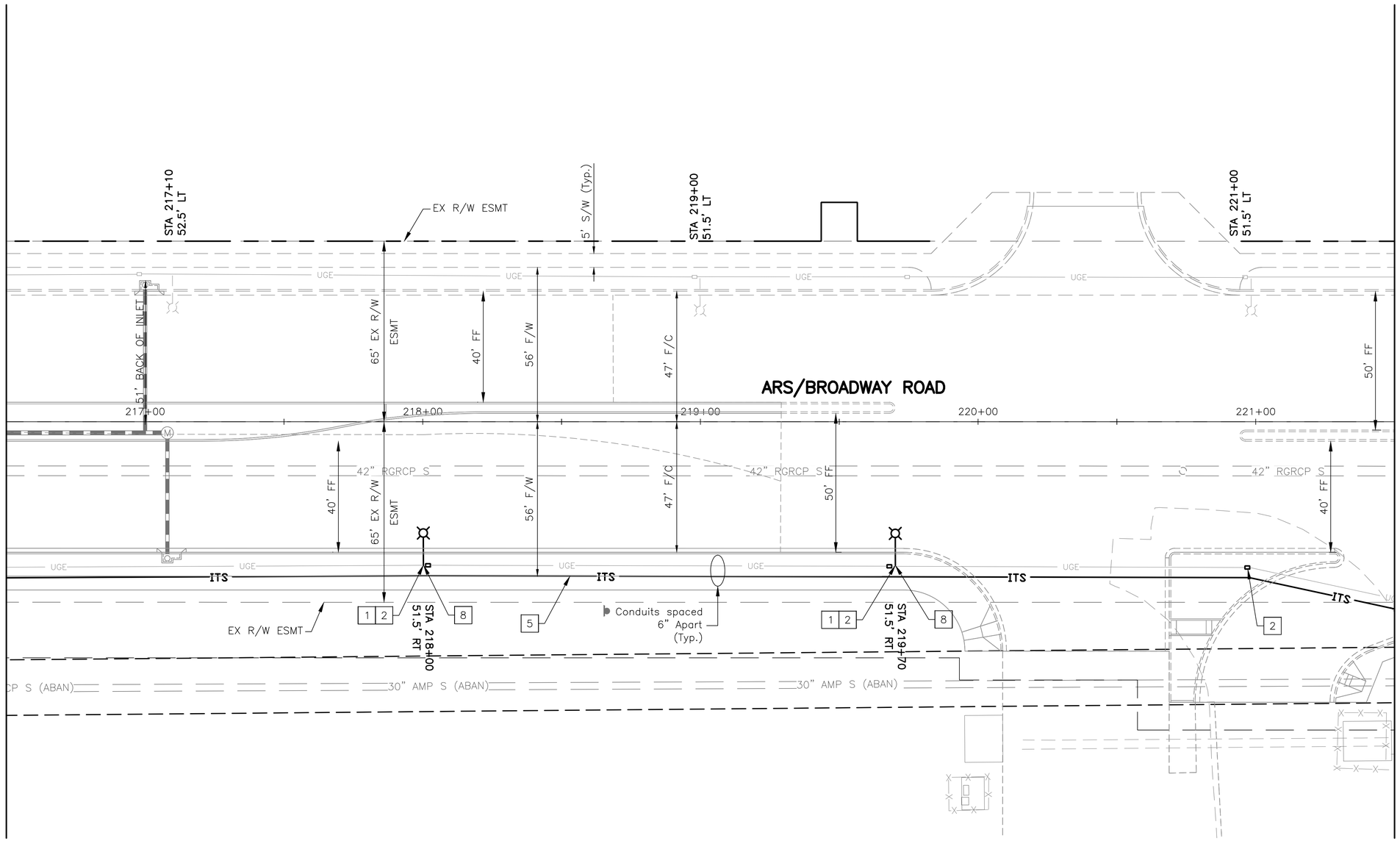
NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	3
5	4" PVC CONDUIT	LF	500
8	1" FLEX CONDUIT	LF	16

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ARIZONA 811
Arizona Blue Stake, Inc.
DIAL 8-1-1 OR 1-800-STAKE-IT (782-5348)
IN MARICOPA COUNTY: (602) 263-1100

STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL–1.05
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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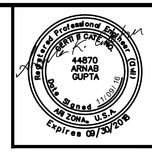
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'
20 0 20 40
SCALE FEET

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	103	168

TRANSPORTATION

AECOM USA, Inc.
2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
AECOM
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CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

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NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

MATCH LINE STA 221+50 SEE SHEET 102

MATCH LINE STA 226+50 SEE SHEET 104

STA 223+00
51.5' LT

STA 225+20
51.5' LT

EX R/W ESMT

5' S/W (Typ.)

OHE

UGE

50' FF

40' FF

65' EX R/W ESMT

56' F/W

47' F/C

ARS/BROADWAY ROAD

222+00 223+00 224+00 225+00 226+00

42" RGRCP S

54' FF

65' EX R/W ESMT

61' F/W

59' F/C

ITS

30" AMP S (ABAN)

1 2 8 STA 222+00 73' RT

1 2 8 STA 224+00 68.5' RT

5

EX R/W ESMT

Conduits spaced 6" Apart (Typ.)

1 2 8 STA 226+00 66.5' RT

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'-6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	3
2	JUNCTION BOX	EA	3
5	4" PVC CONDUIT	LF	500
8	1" FLEX CONDUIT	LF	24

CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
ARIZONA 811
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IN MARICOPA COUNTY: (602) 263-1100

STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.06
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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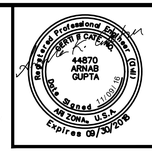
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'
20 0 20 40
SCALE FEET

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	104	168

TRANSPORTATION

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CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CKD. BY	DATE

MATCH LINE STA 226+50 SEE SHEET 103

MATCH LINE STA 231+50 SEE SHEET 105

STA 227+00
51.5' LT

EX R/W ESMT

STA 229+00
51.5' LT

5' S/W (Typ.)

STA 231+10
51.5' LT

UGE

40' FF

65' EX R/W ESMT

56' F/W

47' F/C

ARS/BROADWAY ROAD

227+00 228+00 229+00 230+00 231+00

42" RGRCP S

48' F/C

40' FF

ITS

30" RCP S (ABAN)

Conduits spaced 6" Apart (Typ.)

1 2 3 5 6 8

STA 228+00
62.5' RT

STA 230+00
55' RT

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	2
3	2–1/2" PVC CONDUIT	LF	350
5	4" PVC CONDUIT	LF	500
6	NO.7 PULL BOX	EA	1
8	1" FLEX CONDUIT	LF	16

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Arizona Blue Stake, Inc.
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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL–1.07
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

City of Phoenix N

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	105	168

TRANSPORTATION

AECOM USA, Inc.
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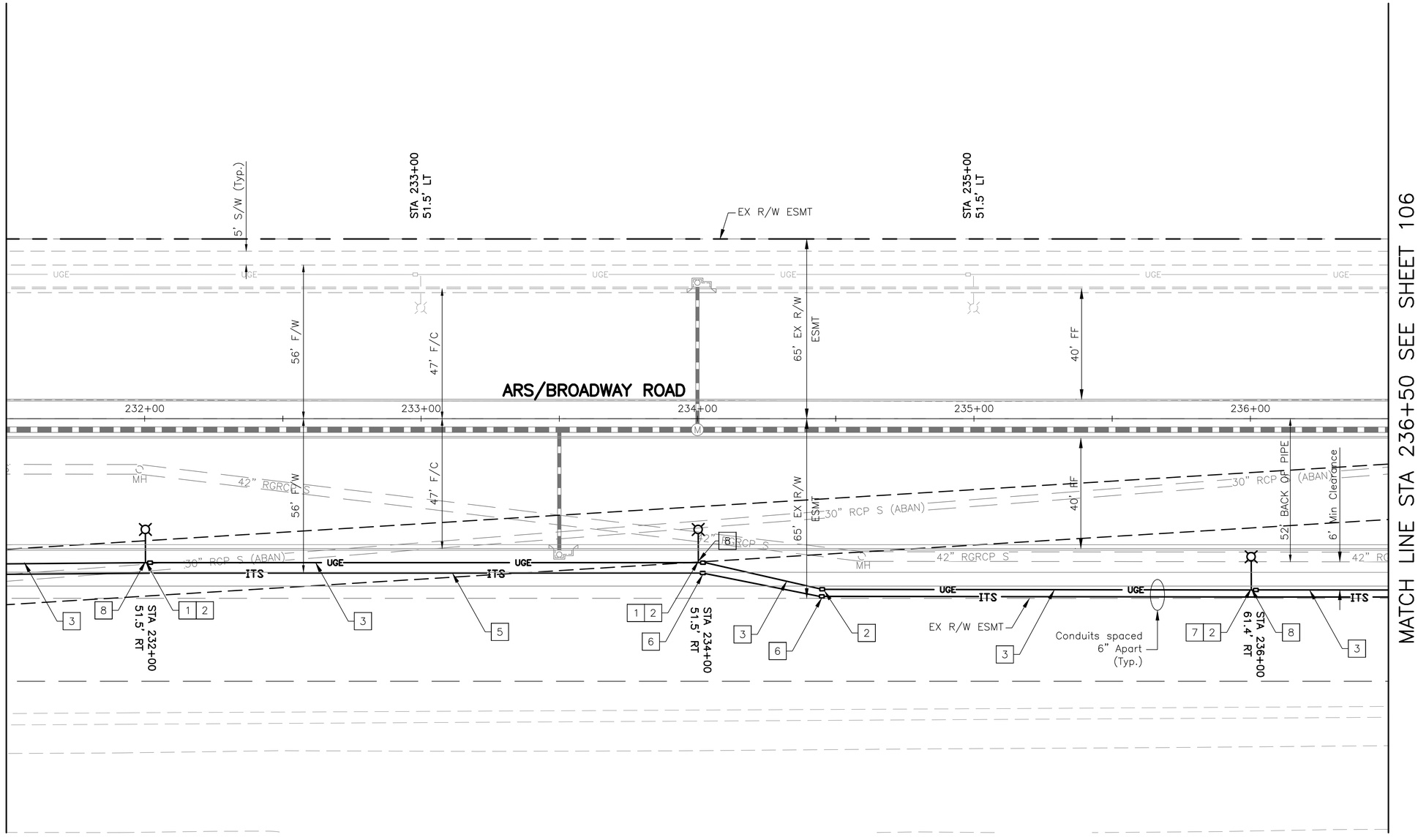
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620

AECOM
www.aecom.com
CONSULTING ENGINEER

DR: WBE | DES: KEB | CK: AG | DATE: 11/16



REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'-6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	4
3	2-1/2" PVC CONDUIT	LF	500
5	4" PVC CONDUIT	LF	500
6	NO.7 PULL BOX	EA	2
7	INSTALL 38'-6" STREET LIGHT POLE, 8' M/A & LED LUMINAIRE	EA	1
8	1" FLEX CONDUIT	LF	24

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ARIZONA 811 Arizona Blue Stake, Inc.
DIAL 8-1-1 OR 1-800-STAKE-IT (782-5348)
IN MARICOPA COUNTY: (602) 263-1100

STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.08
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

ST85100371 (003)

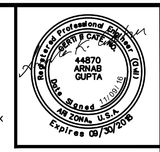
P:\60505722 Premier-Avenida Rio Salado\900-Work\60187751\Prod\ele\ST85100334SL10.dwg nathaniel.ewing Nov 09, 2016 – 4:50pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'

20 0 20 40
SCALE FEET

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	106	168

TRANSPORTATION
AECOM USA, Inc.
2325 E. Camelback Rd, Suite 200
Phoenix, Arizona 85016
T 602.337.2700 F 602.337.2620
AECOM
www.aecom.com
CONSULTING ENGINEER

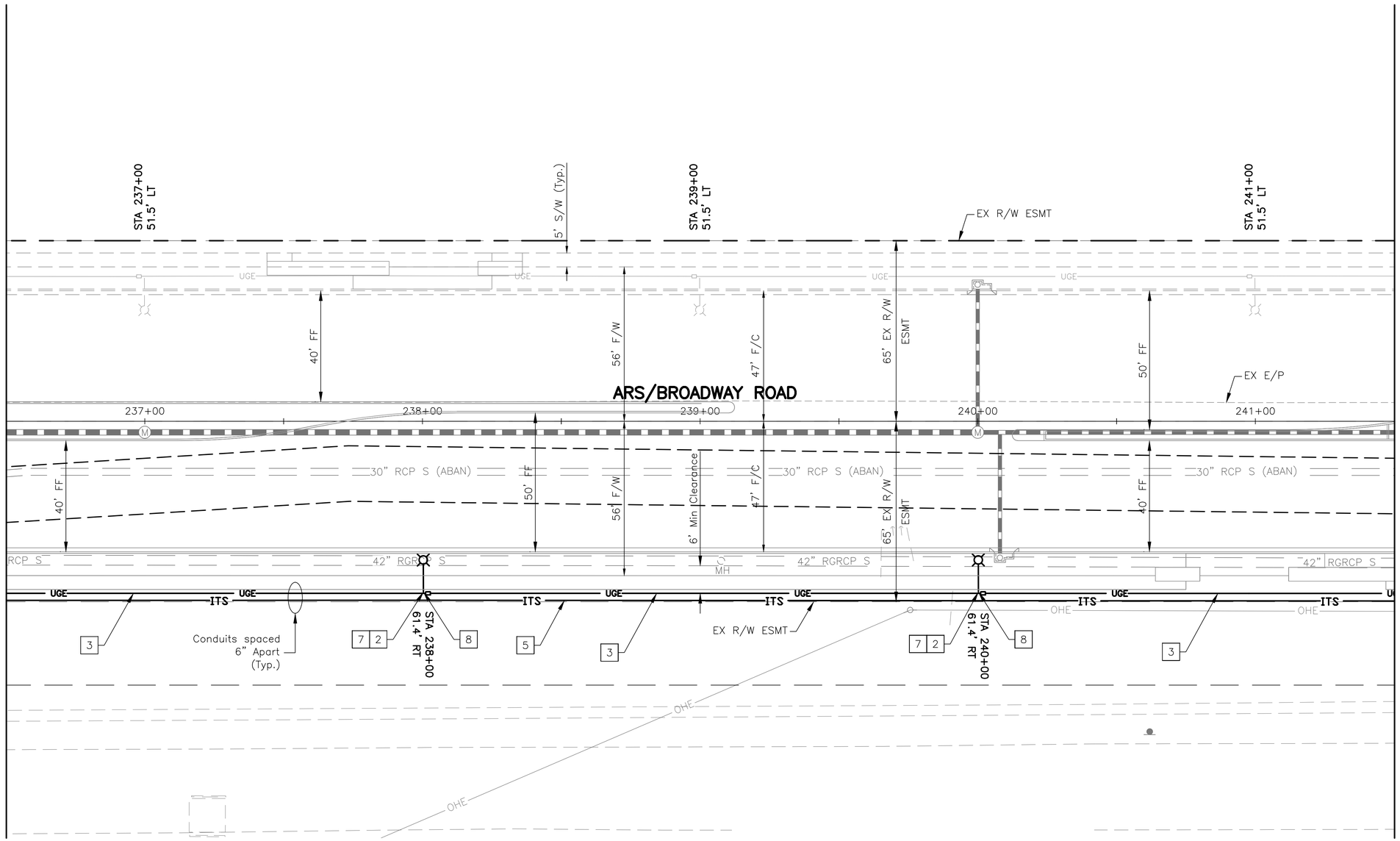
DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
2	JUNCTION BOX	EA	2
3	2-1/2" PVC CONDUIT	LF	500
5	4" PVC CONDUIT	LF	500
7	INSTALL 38'-6" STREET LIGHT POLE, 8' M/A & LED LUMINAIRE	EA	2
8	1" FLEX CONDUIT	LF	16



CALL AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.09
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

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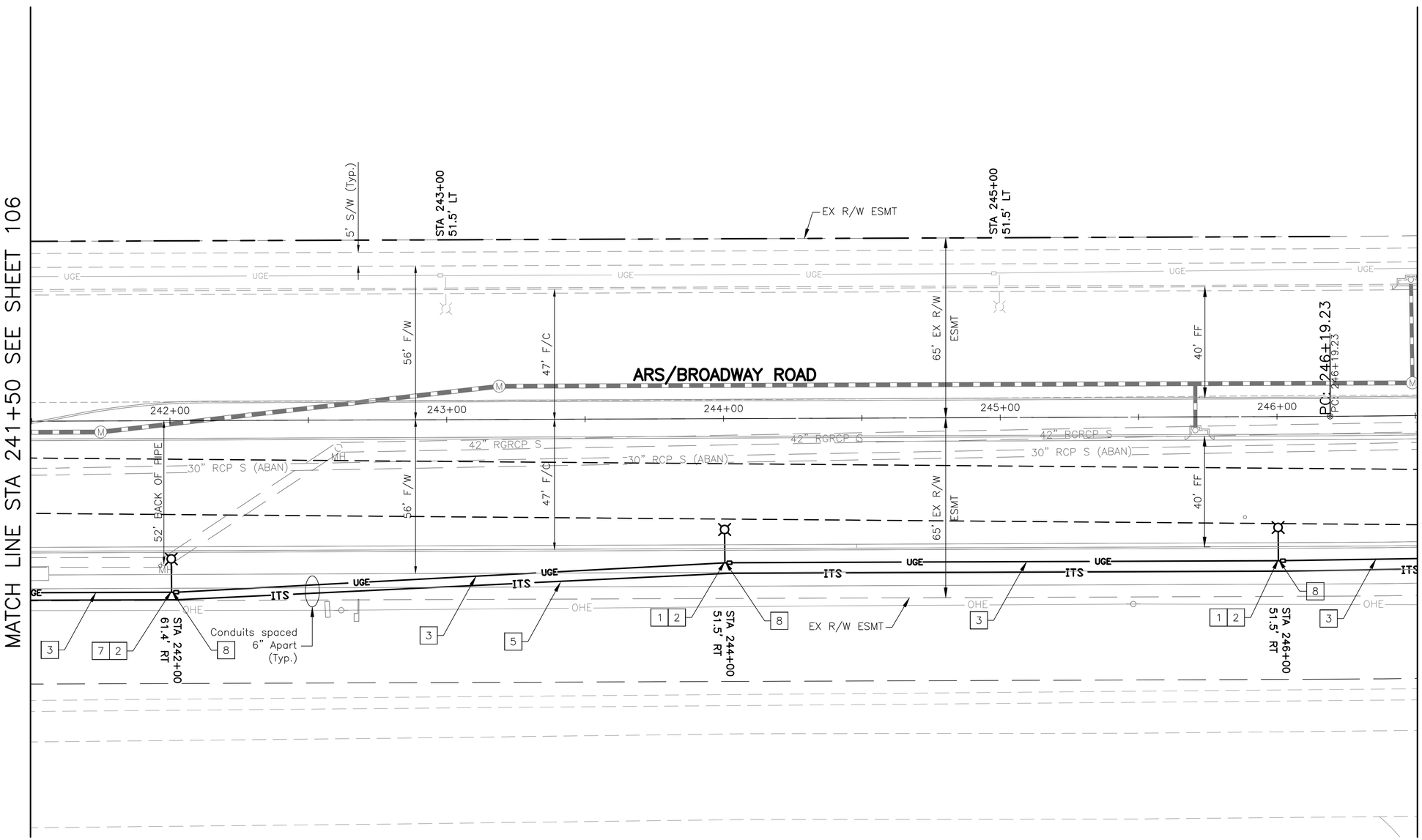
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

City of Phoenix N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	107	168

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DR: WBE | DES: KEB | CK: AG | DATE: 11/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'-6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	3
3	2-1/2" PVC CONDUIT	LF	500
5	4" PVC CONDUIT	LF	500
7	INSTALL 38'-6" STREET LIGHT POLE, 8' M/A & LED LUMINAIRE	EA	1
8	1" FLEX CONDUIT	LF	24

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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.10
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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NO.	DESCRIPTION	REV BY	CKD BY	DATE

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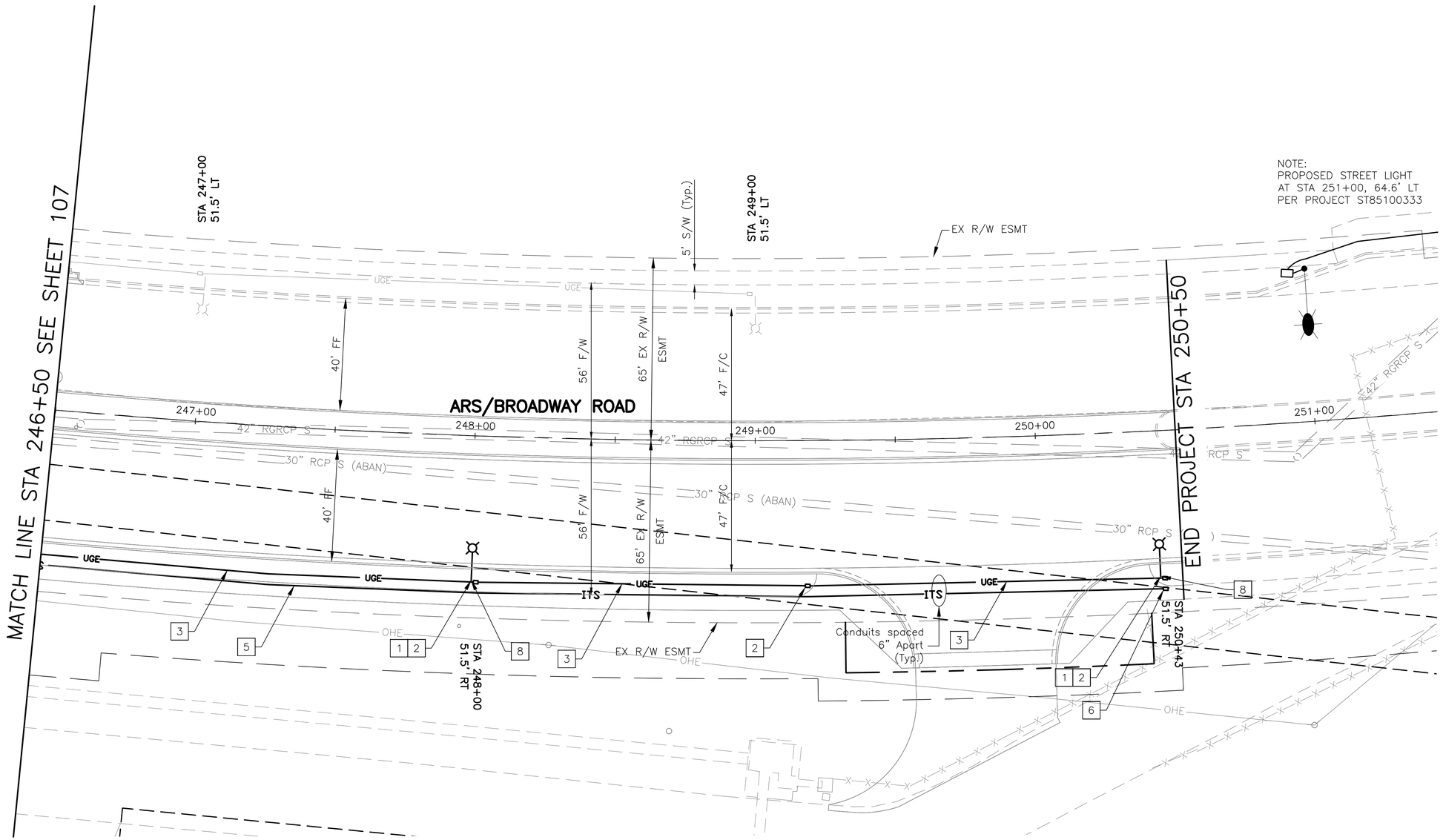
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

City of Phoenix N



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	108	168

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DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'-6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	3
3	2-1/2" PVC CONDUIT	LF	400
5	4" PVC CONDUIT	LF	400
6	NO.7 PULL BOX	EA	1
8	1" FLEX CONDUIT	LF	16

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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION
DEPARTMENT DESIGN AND CONSTRUCTION
MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.11
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

REVISION BY CITY OF PHOENIX

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REVISION BY CITY OF PHOENIX

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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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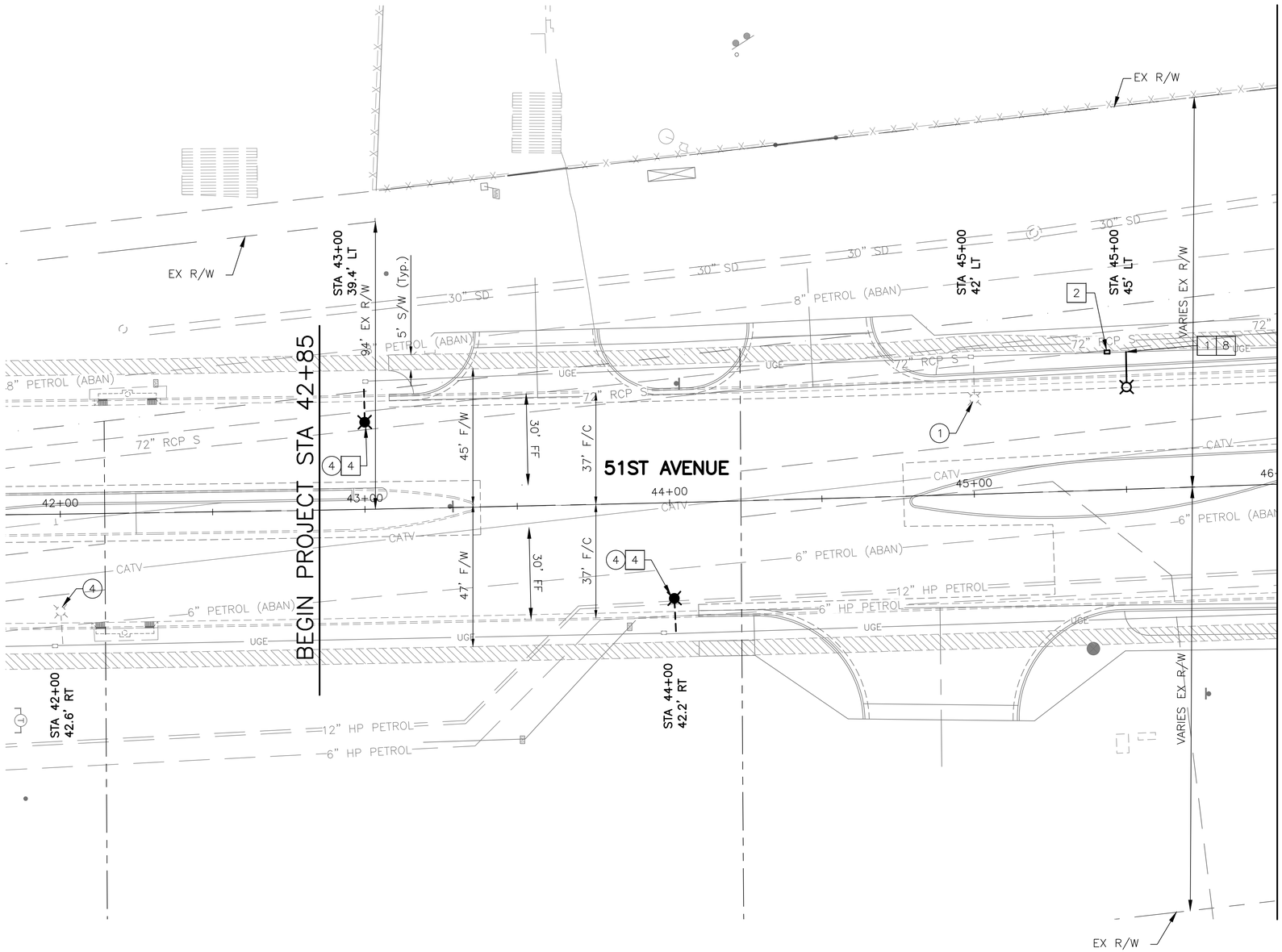
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

N City of Phoenix



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CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE AND PROPERLY DISPOSE OF ALL MATERIALS	EA	1
4	EXISTING TO REMAIN	EA	3

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	1
2	JUNCTION BOX	EA	1
4	REPLACE EXISTING LUMINAIRE WITH LED LUMINAIRE	EA	2
8	1" FLEX CONDUIT	LF	8

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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.12
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

REVISION BY CITY OF PHOENIX

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REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV. BY	CK'D BY	DATE

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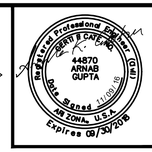
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20'
SCALE
20 0 20 40
FEET

N
City of Phoenix



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CONSULTING ENGINEER

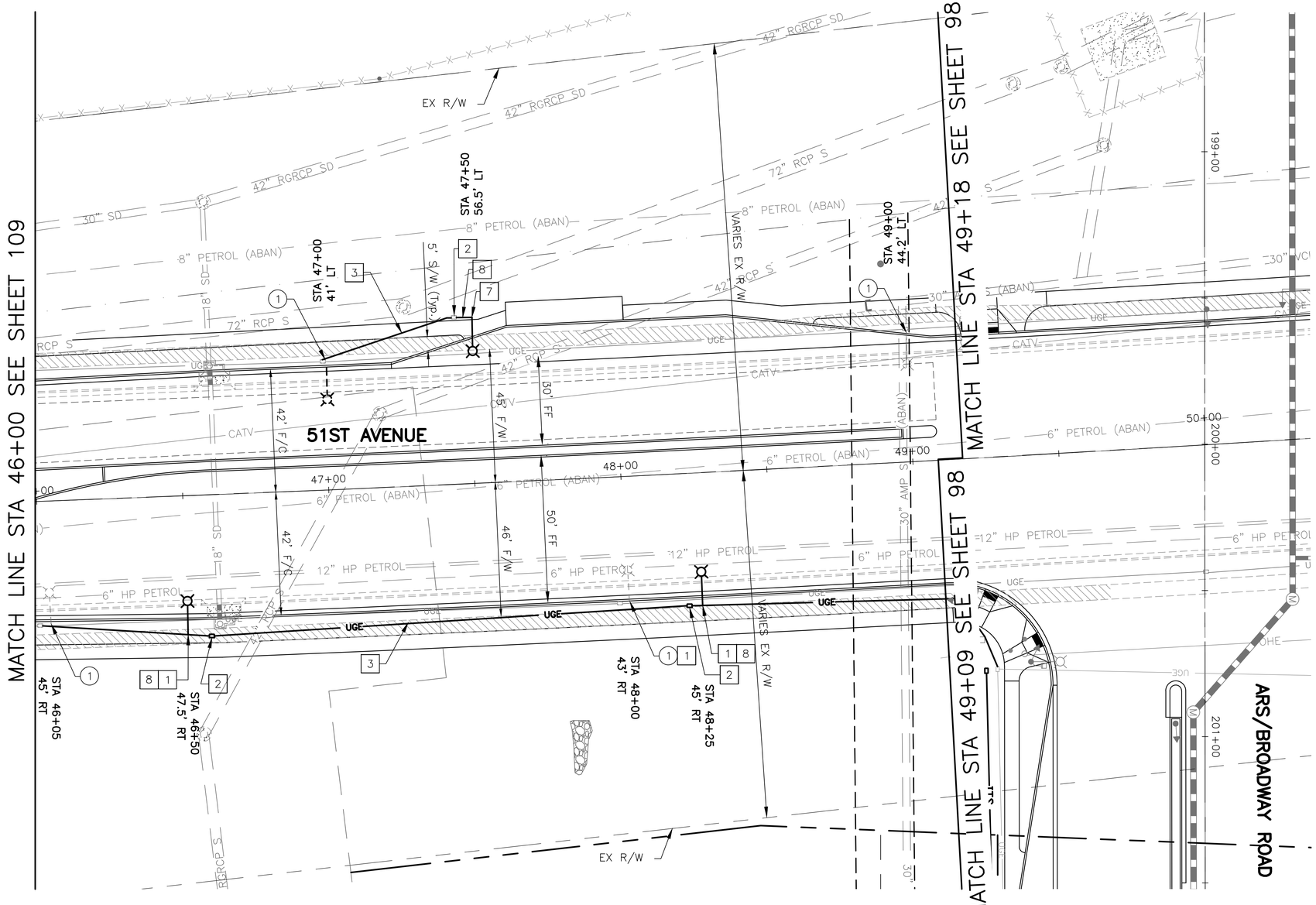
DR: WBE	DES: KEB	CK: AG	DATE: 11/16

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
(1)	REMOVE AND PROPERLY DISPOSE OF ALL MATERIALS	EA	4

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	3
3	2–1/2" PVC CONDUIT	LF	360
7	INSTALL 38'–6" STREET LIGHT POLE, 8' M/A & LED LUMINAIRE	EA	1
8	1" FLEX CONDUIT	LF	30



NOTE:

SEE CITY OF PHOENIX SIGNAL PLANS FOR ANY EXISTING SIGNAL POLE MOUNTED STREET LIGHT REMOVALS.

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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.13
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

1" = 20' SCALE 20 0 20 40 FEET

N City of Phoenix

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	ST85100371 (003)	111	168

TRANSPORTATION

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Phoenix, Arizona 85016
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AECOM
www.aecom.com
CONSULTING ENGINEER

DR: WBE	DES: KEB	CK: AG	DATE: 11/16

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REVISION BY CITY OF PHOENIX

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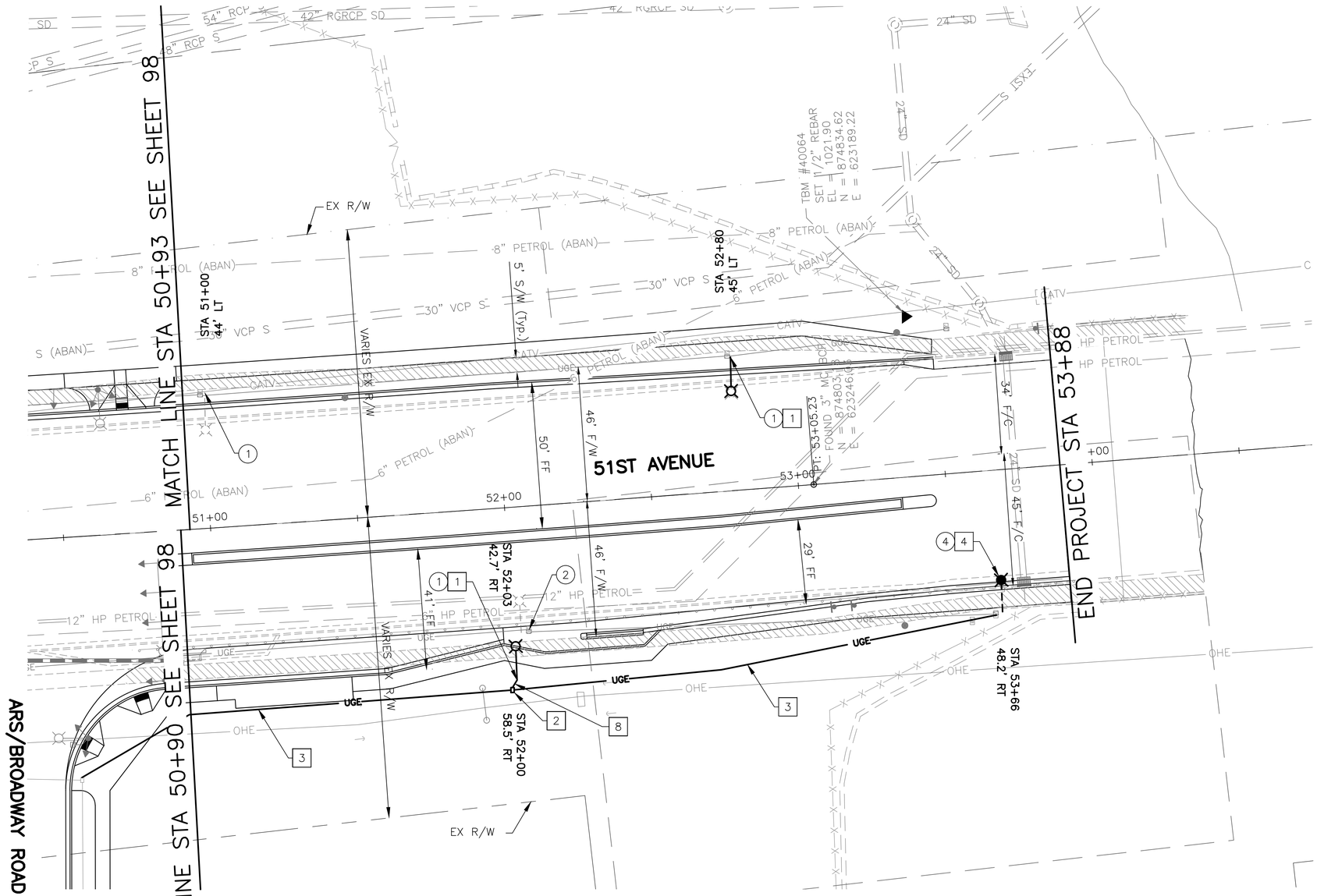

NOTE:

SEE CITY OF PHOENIX SIGNAL PLANS FOR ANY EXISTING SIGNAL POLE MOUNTED STREET LIGHT REMOVALS.

REMOVAL/RELOCATION NOTES

NO	DESCRIPTION	UNIT	QTY
1	REMOVE AND PROPERLY DISPOSE OF ALL MATERIALS	EA	3
2	REMOVE JUNCTION BOX	EA	1
4	EXISTING TO REMAIN	EA	1

CONSTRUCTION NOTES

NO	DESCRIPTION	UNIT	QTY
1	INSTALL 38'–6" STREET LIGHT POLE, 6' M/A & LED LUMINAIRE	EA	2
2	JUNCTION BOX	EA	1
3	2–1/2" PVC CONDUIT	LF	280
4	REPLACE EXISTING LUMINAIRE WITH LED LUMINAIRE	EA	1
8	1" FLEX CONDUIT	LF	8

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STREET LIGHT LAYOUT

CITY OF PHOENIX STREET TRANSPORTATION DEPARTMENT DESIGN AND CONSTRUCTION MANAGEMENT DIVISION

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: WBE	DES: KEB	CK: AG	DWG NO: SL-1.14
DATE: 11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			

ST85100371 (003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	112	168	

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
Tel(602)454-0402
Fax(602)454-0403
www.aztec.us

REGISTERED LANDSCAPE ARCHITECT — 27437 STEVEN E. LOHIDE — Date Signed 11/08/2016 — ARIZONA, U.S.A. — Expires 09/30/2017

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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NO.	DESCRIPTION	REV BY	CKD BY	DATE

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY	COMMENTS
TREES					
	ACACIA SALICINA	WILLOW ACACIA	24" BOX (2" CALIPER)	140	SINGLE–TRUNK, DENSE CANOPY
	CHILOPSIS LINEARIS 'DORIS DAY'	'DORIS DAY' WILLOW	24" BOX (2" CALIPER)	87	SINGLE–TRUNK, DENSE CANOPY
	DALBERGIA SISSOO	SISSOO	24" BOX (2" CALIPER)	4	SINGLE–TRUNK, DENSE CANOPY
	EUCALYPTUS PAPUANA	GHOST GUM	24" BOX (2" CALIPER)	42	SINGLE–TRUNK, DENSE CANOPY
	QUERCUS V. 'CATHEDRAL'	HERITAGE OAK	48" BOX (3" CALIPER)	28	SINGLE–TRUNK, DENSE CANOPY
	SOPHORA SECUNDIFLORA	TEXAS MOUNTAIN LAUREL	24" BOX (2" CALIPER)	3	MULTI–TRUNK, DENSE CANOPY
ACCENTS					
	AGAVE DESMETTIANA	SMOOTH AGAVE	5–GAL	353	AS PER PLAN
	ALOE X 'BLUE ELF'	BLUE ELF ALOE	5–GAL	220	AS PER PLAN
	EUPHORBIA ANTISYPHILITICA	CANDELILLA	5–GAL	242	AS PER PLAN
	FOUQUIERIA SPLENDENS	OCOTILLO	BAREROOT	81	10 CANE MIN./8' HEIGHT MIN.
	HESPERALOE PARVIFLORA	RED YUCCA	5–GAL	578	AS PER PLAN
	NOLINA MICROCARPA	BEAR GRASS	5–GAL	312	AS PER PLAN
	OPUNTIA SANTA–RITA 'TUBAC'	PURPLE PRICKLY PEAR	5–GAL	30	AS PER PLAN
SHRUBS					
	EREMOPHILA HYGROPHANA	BLUE BELLS	5–GAL	362	AS PER PLAN
	SIMMONDSIA CHINENSIS 'VISTA'	COMPACT JOJOBA	5–GAL	110	AS PER PLAN
GROUND COVERS					
	EREMOPHILA GLABRA	OUTBACK SUNRISE	1–GAL	188	AS PER PLAN
	LANTANA MONTEVIDENSIS	TRAILING LANTANA	1–GAL	521	AS PER PLAN
	RUELLIA BRITTONIANA 'KATIE'	KATIE RUELLIA	1–GAL	154	AS PER PLAN
	TETRANEURIS ACAULIS	ANGELITA DAISY	1–GAL	278	AS PER PLAN

MISCELLANEOUS

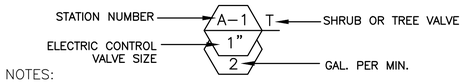
DECOMPOSED GRANITE – PLANTING AND DISTURBED AREAS SIZE: 3/4" MINUS, COLOR: EXPRESS BROWN 2" DEPTH IN ALL PLANTING AND DISTURBED AREAS (TYP)

BACK OF CURB TO SIDEWALK – 117,216 SQ. FT.
BACK OF SIDEWALK TO ROW – 55,304 SQ. FT.

SIGHT VISIBILITY TRIANGLE

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
A B	CONTROLLER: RAINMASTER EAGLE, I–CENTRAL READY, STAINLESS STEEL PEDESTAL MOUNT.INSTALL PER MANUFACTURER.S SPECIFICATONS. SEE DTL. 5, SHT. LD–1.04
	**NOTE: OWNER TO FIELD VERIFY ALL FINAL CONTROLLER LOCATIONS WITH LANDSCAPE CONTRACTOR PRIOR TO THE START OF LANDSCAPE CONSTRUCTION. COORDINATE LOCATIONS WITH NEW ELECTRICAL SERVICES FOR CONTROLLERS. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
M	WATER METERS – FIELD VERIFY PRIOR TO LANDSCAPE CONSTRUCTION. REFER TO TECHNICAL PROVISIONS FOR ADDITIONAL INFORMATION ON LOCATIONS.
E	NEW 100A 120/240V ELEC SERVICE & PEDESTAL, SEE DTL 3, SHT LD–1.05
	SCH. 40 PVC MIN. MAINLINE SIZE NOTED ON PLAN REF DETAIL 6, SHEET LD–1.05
TREE / SHRUB	PVC LATERAL : CLASS 200 MIN. (ALL 1/2" PIPE TO BE CLASS 315) REF DETAIL 6, SHEET LD–1.05
	SCH. 40 PVC SLEEVES UNDER PAVED AREAS FOR ALL IRRIGATION LINES REF. DETAIL 6, SHEET LD–1.05. PLACE PULL BOX AT EACH END OF ALL SLEEVES EXCEPT THOSE SLEEVES UNDER SIDEWALK ONLY.
	REDUCED PRESSURE BACKFLOW PREVENTER: FEBCO MODEL 825 YA. SAME SIZE AS METER. ENCLOSURE: LE MEUR OR APPROVED EQUAL REF DETAIL 4, SHEET LD–1.05
	ISOLATION VALVE – SAME SIZE AS MAINLINE. REF DETAIL 2, SHEET LD–1.04
	DRIP VALVE ASSEMBLY: REF. DETAIL 3, SHEET LD–1.04 CONTROL VALVE: RAINBIRD EFB–CP, ELECTRIC VALVES: SIZE PER PLAN IN–LINE PRESSURE REGULATOR: SENNINGER PRODUCTS PMR–LF 30 PSI Y–STRAINER: AGRICULTURAL PRODUCTS INC. 4E–1"–B W/200 MESH SCREEN
NO SYMBOL	BOWSMITH ML200 MULTI–OUTLET EMITTER FOR TREES. SEE EMITTER SCHEDULE REF DETAIL 1 & 2, SHEET LD–1.05
	FLUSH VALVE – REF DETAIL 6, SHEET LD–1.04



NOTES:

1. USE LARGE RADIUS SWEEP ELL BELOW CONTROLLER FOR VALVE WIRES SUPPLY 110V, 15 AMP POWER SOURCE, HARD WIRE TO J–BOX.
2. POINT OF CONNECTION– USE TYPE 'K' COPPER MINIMUM 5' BETWEEN SOURCE AND PRESSURE VACUUM BREAKER.
3. IRRIGATION VALVES, MAINLINE, AND LATERALS ARE SHOWN DIAGRAMMATICALLY. ALL COMPONENTS TO BE LOCATED WITHIN PLANTING AREAS.

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

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2–28 THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

LANDSCAPE AND IRRIGATION SUMMARY

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
NTS			LD–1.01

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	113	168	

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOHIDE
Date Signed 11/16/2016
ARIZONA, U.S.A.
Expires 09/30/2017

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
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GENERAL NOTES

1. THESE NOTES ARE TO BE USED FOR GENERAL REFERENCE IN CONJUNCTION WITH AND AS A SUPPLEMENT TO THE WRITTEN SPECIFICATIONS, APPROVED ADDENDUM, AND CHANGE ORDERS ASSOCIATED WITH THESE LANDSCAPE DRAWINGS.
2. A QUALIFIED SUPERVISOR SHALL BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. BEFORE WORK BEGINS ON THE PROJECT, THE LANDSCAPE CONTRACTOR SHALL REVIEW THE PROJECT WITH THE LANDSCAPE ARCHITECT AND/OR OWNER'S AUTHORIZED REPRESENTATIVE. THE LANDSCAPE ARCHITECT AND/OR OWNER'S AUTHORIZED REPRESENTATIVE SHALL APPROVE ANY OR ALL CHANGES PRIOR TO THE START OF ANY WORK.
4. LANDSCAPE CONTRACTOR SHALL INSPECT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE ALL SIDEWALK AND CURB DEFECTS PRIOR TO BEGINNING WORK. ALL HARDSCAPE SHALL BE RE-INSPECTED DURING THE FINAL WALK-THRU. ANY SUBSEQUENT DAMAGED AREAS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
5. VERIFY CRITICAL DIMENSIONS, REFERENCE POINT LOCATIONS, AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING CONSTRUCTION., NOTIFY THE OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY SHOULD CONFLICTS ARISE.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL CONSTRUCTION ELEMENT LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATIONS OF EXISTING AND FUTURE UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH THE WORK TO BE DONE. CONTACT BLUE STAKE AT 602-263-1100, 72 HOURS MINIMUM PRIOR TO INITIATING CONSTRUCTION. NOTIFY THE OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY SHOULD CONFLICTS ARISE.
7. OBSERVATION VISITS TO THE JOB SITE BY THE LANDSCAPE ARCHITECT DO NOT INCLUDE INSPECTIONS OF CONSTRUCTION METHODS AND SAFETY CONDITIONS AT THE WORK SITE. THESE VISITS SHALL NOT BE CONSTRUED AS CONTINUOUS AND DETAILED INSPECTIONS.
8. UNLESS OTHERWISE NOTED ON PLANS, DECOMPOSED GRANITE SHALL EXTEND UNDER SHRUBS AND BE RAKED UNIFORMLY ALONG WALK, SIDEWALK, AND CURBS.
9. LANDSCAPE CONTRACTOR SHALL PROVIDE BARRICADES AND TRAFFIC CONTROL ALONG PUBLIC STREETS IF REQUIRED DURING INSTALLATION.
10. REFER TO THE ENGINEERING DRAWINGS FOR DRAINAGE FLOWS. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE THAT THESE ARE MAINTAINED AND NOT IMPAIRED WITH OBSTRUCTIONS.
11. LANDSCAPE CONTRACTOR TO CONTACT LANDSCAPE ARCHITECT AND/OR OWNER'S AUTHORIZED REPRESENTATIVE BEFORE EACH APPLICATION OF PRE-EMERGENT FOR VERIFICATION.
12. PRE-EMERGENT IS TO BE PLACED IN ALL PLANTING AREAS PER MANUFACTURERS RECOMMENDATIONS PRIOR TO INSTALLATION OF DECOMPOSED GRANITE AND AFTER INSTALLATION OF DECOMPOSED GRANITE.

PLANTING NOTES

1. CLARIFICATION OF DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE SITE SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
2. ALL PLANT MATERIAL MUST MEET ANA SPECIFICATIONS.
3. THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL HE DEEMS UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE INSPECTED PRIOR TO INSTALLATION.
4. PLANTS TO BE LOCATED AWAY FROM OBSTACLES SUCH AS FIRE HYDRANTS, TRANSFORMERS, POWER POLES, AND LIGHT FIXTURES AS NECESSARY. DO NOT INSTALL PLANT MATERIAL IN ANY AREA WHICH WILL CAUSE HARM TO ADJACENT IMPROVEMENTS.
5. VERIFY PLANT QUANTITIES PRIOR TO INSTALLATION. QUANTITIES ARE LISTED FOR CONVENIENCE ONLY, THE ACTUAL NUMBER OF SYMBOLS INDICATED ON THE PLANTING PLANS SHALL HAVE PRIORITY OVER QUANTITIES DESIGNATED. NOTIFY THE LANDSCAPE ARCHITECT OF QUANTITY DISCREPANCIES IMMEDIATELY.
6. PLANT TREES, SHRUBS, AND CACTI PLUMB, AND FACED TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT PLANTS OR VIEWS.
7. NOTIFY OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY SHOULD SOIL CONDITIONS BE PRESENT WHICH WOULD PREVENT PROPER SOIL DRAINAGE AND ALLOW WATER TO STAND IN PLANTING PITS.
8. DOUBLE STAKE ALL TREES OUTSIDE ROOTBALL., EXCEPT FOR SALVAGED TREES.
9. LANDSCAPE CONTRACTOR TO PERFORM A SOILS TEST PRIOR TO LANDSCAPE CONSTRUCTION TO DETERMINE ANY NUTRIENT DEFICIENCIES. IF ANY DEFICIENCIES EXIST, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AMEND THE SOIL ACCORDINGLY.

IRRIGATION NOTES

1. ALL IRRIGATION EQUIPMENT TO BE LOCATED IN LANDSCAPE AREAS WITHIN ROW BOUNDARIES OF THE PROJECT – ALL LINES AND EQUIPMENT ARE SCHEMATIC AND ARE SOMETIMES SHOWN IN ROADWAYS, SIDEWALKS, OR OUTSIDE PROPERTY LINES. THIS IS DONE FOR CLARITY PURPOSES ONLY.
2. DO NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES, OR DIFFERENCES IN AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR CONFLICTS SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER AND LANDSCAPE ARCHITECT IMMEDIATELY. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
3. THE IRRIGATION SYSTEM DESIGN IS BASED ON A MINIMUM SOURCE PRESSURE OF xx PSI, A MINIMUM OPERATING PRESSURE OF xx PSI, AND A MAXIMUM FLOW DEMAND OF xx GPM. THE CONTRACTOR SHALL VERIFY WATER PRESSURES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE LANDSCAPE ARCHITECT IMMEDIATELY.
4. ALL MATERIAL USED SHALL BE INSTALLED AS DETAILED. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT SHALL APPROVE ALL DEVIATION'S FROM DRAWINGS OR MATERIALS USED.
5. THE OWNER'S REPRESENTATIVE MAY, AT ANY TIME, TAKE AND ANALYZE SAMPLES OF MATERIALS AND EQUIPMENT FOR CONFORMITY TO SPECIFICATIONS. THE CONTRACTOR SHALL MAKE SUCH SAMPLES AVAILABLE UPON REQUEST. REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED AT THE CONTRACTOR'S EXPENSE.
6. INSTALL BACKFLOW PREVENTION UNIT(S) PIPING BETWEEN THE POINT OF CONNECTION AND THE BPU PER LOCAL CODES. THE OWNER'S AUTHORIZED REPRESENTATIVE SHALL APPROVE THE FINAL LOCATION OF THE BPU. BACKFLOW PREVENTOR MUST BE SCREENED FROM VIEW.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING MATERIALS AND LABOR TO PROVIDE SPECIFIED ELECTRICAL SERVICE TO ALL CONTROLLER LOCATIONS. ALL ELECTRICAL WORK TO BE AS PER MANUFACTURER'S SPECIFICATIONS AND AS PER LOCAL CODE.
8. 24 VOLT WIRE SHALL BE 600V, UF, UL APPROVED, #14 GAUGE, SINGLE STRAND, PLASTIC INSULATED, COPPER WIRE. COMMON WIRE IS TO BE WHITE, CONTROL WIRE IS TO BE RED (USE NO BLACK WIRE). TAPE AND BUNDLE WIRE AT 10' ON CENTER. LAY BESIDE MAINLINE. SPLICE IN VALVE BOXES ONLY, USING MANUFACTURED EPOXY OR RESIN FILLED WIRE CONNECTORS. PROVIDE 18" SLACK AT EACH ELBOW IN MAIN LINE AND AT EACH REMOTE CONTROL VALVE. PULL ONE ADDITIONAL SPARE WIRE TO THE MOST DISTANT VALVE LOCATION FOR POTENTIAL FUTURE USE. COLOR OF EXTRA WIRE SHALL BE YELLOW.
9. LEVEL OF PEA GRAVEL IN IRRIGATION BOXES SHALL BE A MINIMUM OF 2" BELOW THE BOTTOM OF THE VALVE SO THAT THE VALVE IS COMPLETELY VISIBLE. ALL PEA GRAVEL IN VALVE BOX TO BE CLEANED FROM TOP OF VALVE SO THAT VALVE IS COMPLETELY VISIBLE. LIP OF VALVE BOX IS ALSO TO BE FREE OF DEBRIS.
10. LOCATE PRESSURE REGULATOR AND 'Y' STRAINER IN A VALVE BOX AS REQUIRED. REMOTE CONTROL VALVE TO BE LOCATED IN A SEPARATE (ADJACENT) VALVE BOX, OR A JUMBO VALVE BOX MAY BE USED IN LIEU OF TWO SEPARATE BOXES.
11. ALL DRIP SYSTEMS TO BE FLUSHED THROUGH FLUSH CAPS. FLUSH CAPS TO BE LOCATED IN 10" ROUND ECONOMY BOXES.
12. THE CONTRACTOR SHALL PROVIDE CHECK VALVES AND AIR VACUUM RELIEF VALVES AS REQUIRED, OR AT THE DISCRETION OF THE LANDSCAPE ARCHITECT, THROUGHOUT THE IRRIGATION SYSTEM LOCATED WITHIN SLOPED AREAS TO PREVENT LOW IRRIGATION HEAD DRAINAGE.
13. PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS AND PER PIPE SIZING SCHEDULE ON DETAIL SHEET. IF THERE IS A DISCREPANCY BETWEEN THE PIPE SIZES SHOWN ON THE PLAN AND THOSE OUTLINED IN THE PIPING SCHEDULE, THE SCHEDULE SHALL TAKE PRECEDENCE. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED BY THE LANDSCAPE ARCHITECT.
14. ALL PIPE SHALL BE BEDDED ON ALL SIDES WITH FOUR INCHES OF ROCK FREE (3/8" MINUS) MATERIAL IMPORT SAND IF NECESSARY. BACKFILL IN TWO OR MORE COMPACTED LIFTS. SETTLING OF TRENCHES BY MORE THAN AN INCH SHALL BE BROUGHT TO FINISH GRADE AT THE CONTRACTOR'S EXPENSE.
15. ALL IRRIGATION LINES ON SLOPES OR WITHIN RETENTION BASINS SHALL BE RUN PARALLEL WITH GRADE AND ARE TO MAINTAIN THE HIGHEST ELEVATIONS POSSIBLE AT ALL TIMES.
16. MULTI-OUTLET EMITTERS SHALL SERVICE ALL TREES AND SHRUBS AND/OR GROUNDCOVERS.
17. ALL PLANTS THAT REQUIRE MORE THAN ONE DRIP EMITTER SHALL HAVE EMITTERS DISTRIBUTED EVENLY AROUND PERIMETER OF PLANTING WELL. EMISSION POINTS AT ROOTBALLS SHALL BE LOCATED ON THE UPHILL SIDE, MIDWAY BETWEEN THE CENTER OF THE PLANT AND THE EDGE OF THE ROOTBALL.
18. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL LANDSCAPE SLEEVING. COORDINATE INSTALLATION WITH THE GENERAL CONTRACTOR. VERIFY ANY EXISTING SLEEVES INSTALLED BY OTHER CONTRACTORS.
19. IRRIGATION AND ELECTRICAL SLEEVES TO BE SCHEDULE 40 PVC. ALL SLEEVES TO EXTEND AT LEAST 12" BEYOND CONCRETE STRUCTURES. ALLOW AT LEAST 4" – 6" FROM END OF SLEEVES TO FIRST FITTING ON IRRIGATION LINE. ALL SLEEVES TO BE 24" BELOW GRADE AND/OR AS PER OWNER'S SPECIFICATIONS. ALL SLEEVES UNDER PARKING LOTS, STREETS, STAGING AREAS, AND PATIOS TO BE INSTALLED BY PAVING CONTRACTOR PRIOR TO PAVING.
20. NOTIFY THE OWNER'S REPRESENTATIVE 48 HOURS PRIOR TO THE FOLLOWING REQUIRED STAGES OF OBSERVATION FOR:
    MAINLINE: Installation, depth, valves, wire, line pressure test
    EMITTER LATERALS: Installation, depth, valves, emitters, outlet tubing, at line pressure
    CONTROLLER: Installation, functioning
21. PRIOR TO OWNER'S APPROVAL, AN IRRIGATION "TUNE UP" MUST BE PERFORMED AS FOLLOWS:
    A. ALL IRRIGATION EQUIPMENT (INCLUDING ALL PIPELINES AND SLEEVES) TO BE DOCUMENTED FROM TWO STATIONARY POINTS.
    B. ALL DRIP SYSTEMS TO BE FLUSHED BEGINNING WITH "Y" STRAINER, WORKING AWAY FROM THE PRESSURE REGULATOR.
    C. IRRIGATION VALVES TO BE LABELED ON A SHEET OF PAPER WITH STATIONS CORRESPONDING TO ETCHED LABELS ON TOP OF VALVE BOXES. THIS SHEET TO BE PLACED IN A PLASTIC POUCH AND ATTACHED TO INSIDE OF CONTROLLER.
22. LOCATE VALVE BOXES IN PLANTING AREAS SO THAT THEY ARE SCREENED FROM VIEW. NO VALVE BOXES SHALL BE LOCATED IN TURF AREAS.

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

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28 THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

LANDSCAPE AND IRRIGATION NOTES

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
NTS			LD-1.02

ST85100371(003)

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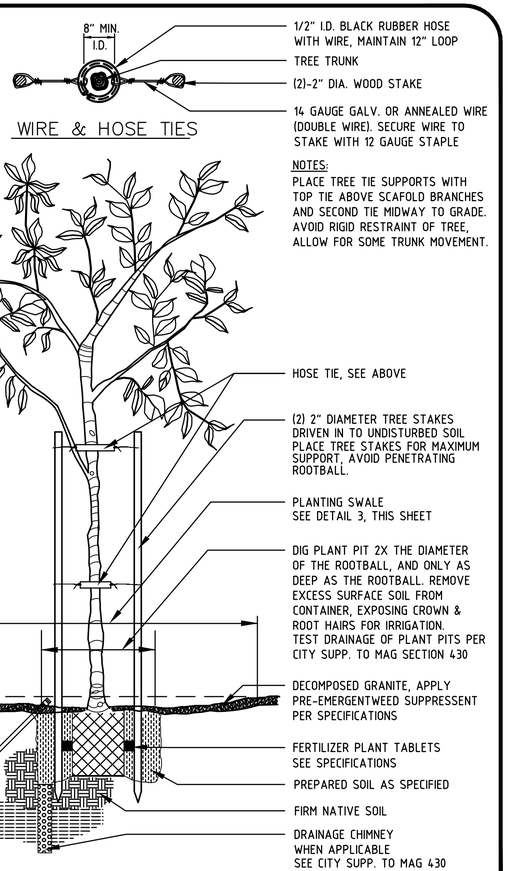
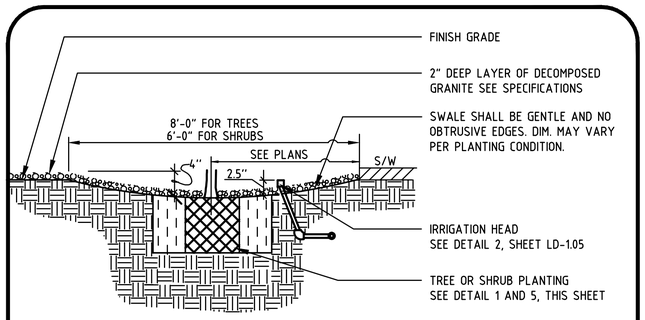
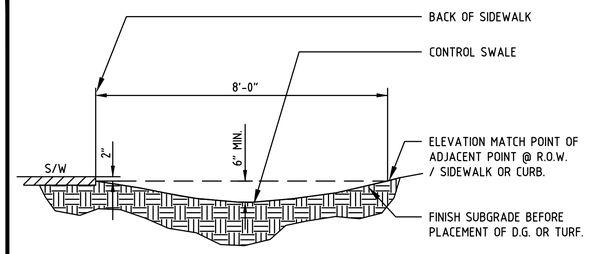
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



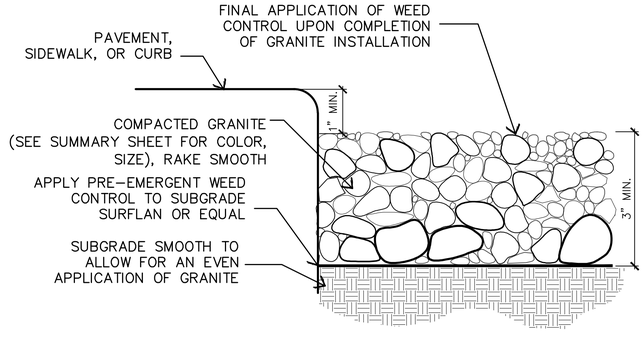
1 *TREE PLANTING & STAKING*
NOT TO SCALE PLT-TRE-02



3 *PLANTING DETAIL*
NOT TO SCALE PLT-SWL-01

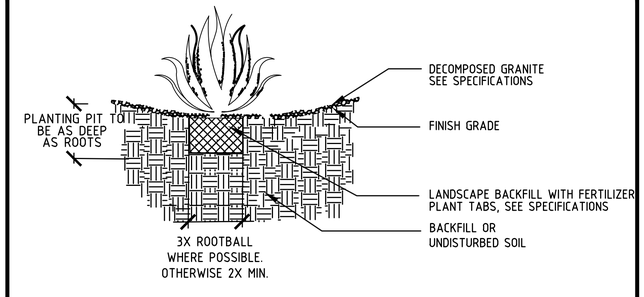


4 *NUISANCE WATER CONTROL SWALE*
NOT TO SCALE PLT-SWL-02



NOTE: PROVIDE GRANITE SAMPLE (1 CF) TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.

2 DECOMPOSED GRANITE
SCALE: N.T.S. LD-4



5 *SHRUB, GROUNDCOVER & ACCENT PLANTING DETAIL*
NOT TO SCALE PLT-ACCENT DETAIL

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LANDSCAPE DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

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51ST AVENUE TO 43RD AVENUE
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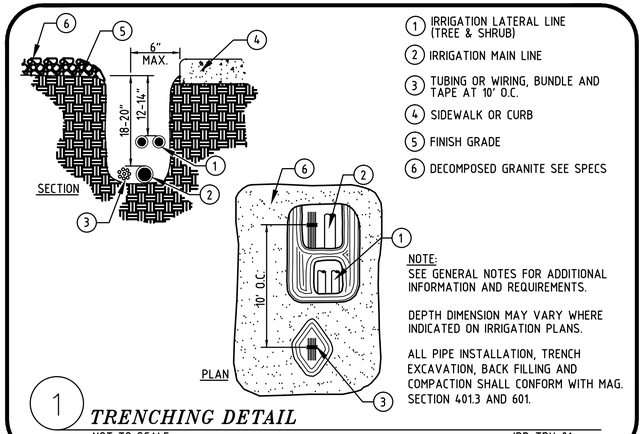


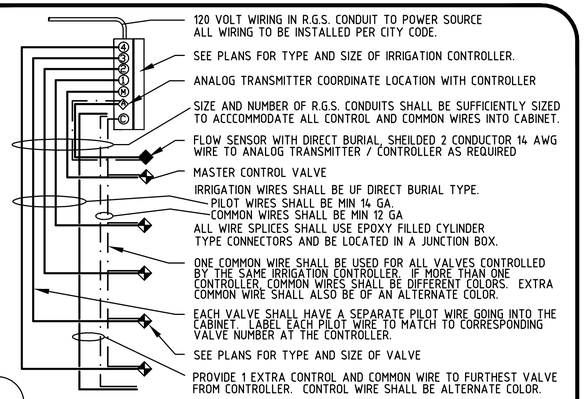
1. IRRIGATION LATERAL LINE (TREE & SHRUB)
2. IRRIGATION MAIN LINE
3. TUBING OR WIRING, BUNDLE AND TAPE AT 10' O.C.
4. SIDEWALK OR CURB
5. FINISH GRADE
6. DECOMPOSED GRANITE SEE SPECS

NOTE:
SEE GENERAL NOTES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DEPTH DIMENSION MAY VARY WHERE INDICATED ON IRRIGATION PLANS.

ALL PIPE INSTALLATION, TRENCH EXCAVATION, BACK FILLING AND COMPACTION SHALL CONFORM WITH MAG. SECTION 401.3 AND 601.

1 *TRENCHING DETAIL*
NOT TO SCALE IRR-TRH-01



120 VOLT WIRING IN R.G.S. CONDUIT TO POWER SOURCE
ALL WIRING TO BE INSTALLED PER CITY CODE.

SEE PLANS FOR TYPE AND SIZE OF IRRIGATION CONTROLLER.

ANALOG TRANSMITTER COORDINATE LOCATION WITH CONTROLLER

SIZE AND NUMBER OF R.G.S. CONDUITS SHALL BE SUFFICIENTLY SIZED TO ACCCOMMODATE ALL CONTROL AND COMMON WIRES INTO CABINET.

FLOW SENSOR WITH DIRECT BURIAL, SHEILDED 2 CONDUCTOR 14 AWG WIRE TO ANALOG TRANSMITTER / CONTROLLER AS REQUIRED

MASTER CONTROL VALVE

IRRIGATION WIRES SHALL BE UF DIRECT BURIAL TYPE.
PILOT WIRES SHALL BE MIN 14 GA.
COMMON WIRES SHALL BE MIN 12 GA
ALL WIRE SPLICES SHALL USE EPOXY FILLED CYLINDER TYPE CONNECTORS AND BE LOCATED IN A JUNCTION BOX.

ONE COMMON WIRE SHALL BE USED FOR ALL VALVES CONTROLLED BY THE SAME IRRIGATION CONTROLLER. IF MORE THAN ONE CONTROLLER, COMMON WIRES SHALL BE DIFFERENT COLORS. EXTRA COMMON WIRE SHALL ALSO BE OF AN ALTERNATE COLOR.

EACH VALVE SHALL HAVE A SEPARATE PILOT WIRE GOING INTO THE CABINET. LABEL EACH PILOT WIRE TO MATCH TO CORRESPONDING VALVE NUMBER AT THE CONTROLLER.

SEE PLANS FOR TYPE AND SIZE OF VALVE

PROVIDE 1 EXTRA CONTROL AND COMMON WIRE TO FURTHEST VALVE FROM CONTROLLER. CONTROL WIRE SHALL BE ALTERNATE COLOR.

4 *CONTROLLER WIRING*
NOT TO SCALE IRR-CTL-03

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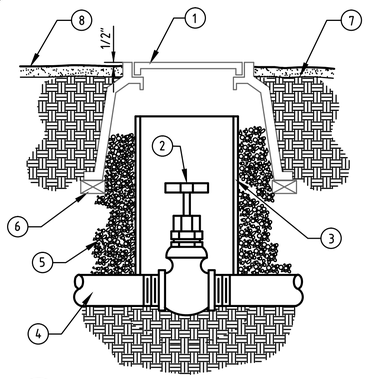


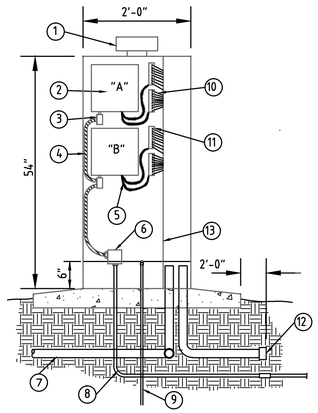
1. VALVE BOX WITH BOLT LOCKING COVER
2. NIBCO T-113 GATE VALVE
3. 6 INCH PVC SEWER PIPE (LENGTH AS REQUIRED)
4. PVC MAIN LINE LATERAL FROM PRESSURE B.F.P.U. OFF METER
5. BACKFILL TO DEPTH OF SEWER PIPE W/3" OF 3/4 INCH WASHED GRAVEL
6. BRICK (1 OF 4)
7. FINISH GRADE
8. DECOMPOSED GRANITE

NOTE:
NOMINAL SIZE OF GATE VALVE TO MATCH NOMINAL SIZE OF MAINLINE PIPE

2 *ISOLATION VALVE–2.5"& SMALLER*
NOT TO SCALE IRR-VAL-04

ENCLOSURE NOTES

- PRE-FABRICATED 10 GA. VANDAL RESISTANT SECURITY ENCLOSURE, 24" WIDE, 18" DEEP, 54" HIGH.
- MOUNT ENCLOSURE ON A 4" THICK CLASS "B" CONCRETE SLAB. PROVIDE 1'-0" WIDE MOWING STRIP ON ALL 4 SIDES.
- TOP OF CONCRETE SLAB 1 1/2" ABOVE FIN. GRADE.
- MOUNT CONTROLLERS & TERMINAL STRIP TO PLY-WOOD BACKBOARD. PROVIDE OPENINGS IN BACK BOARD FOR CONTROL WIRING.
- INSTALL 8' X 5/8" DIA. COPPER CLAMP GROUND ROD. THERMAL WELD #4 BARE CU. TO ENCLOSURE AND ROD.
- ALL R.G.S. IN CONTACT WITH EARTH SHALL BE TAPED WITH SCOTCH WRAP #50, MIN. THICKNESS = 40 MILS.
- STUB OUT ALL CONDUIT FOR CONTROL WIRING 2' BEYOND CONCRETE SLAB. BUSHINGS TYPICAL FOR ALL CONDUIT.
- TAPE CONTROL WIRING INTO NEAT BUNDLES. PROVIDE SLACK IN WIRE BUNDLES.



1. VENT W/BUILT-IN FAN.
2. IRR. CONTROLLER.
3. JUNCTION BOX
4. 1/2" FLEXIBLE CONDUIT
5. PRE-INSTALLED CABLE HARNESS.
6. 20A SINGLE POLE CIRCUIR BREAKER.
7. R.G.S. CONDUIT FOR IRR. CONTROL WIRING
8. 1" R.G.S. CONDUIT FOR POWER SOURCE.
9. GROUNDING ROD.
10. CONTROL WIRING
11. TERMINAL STRIPS.
12. BUSHING.
13. 6" X 12" WIRING GUTTER.

5 *CONTROLLER ENCLOSURE*
NOT TO SCALE IRR-CTL-01

REVISION BY CITY OF PHOENIX

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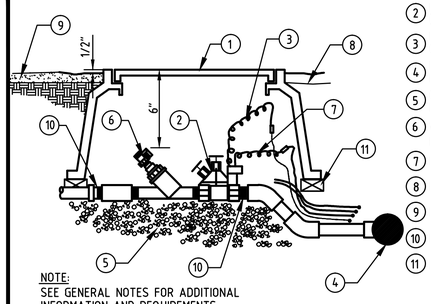
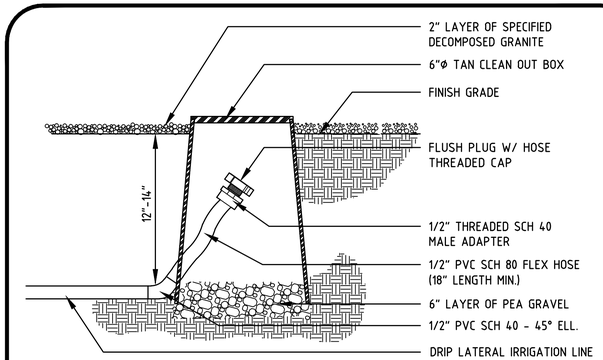


1. JUMBO VALVE BOX W/ BOLT LOCKING COVER
2. ELECT. REMOTE CONTROL VALVE (BRASS)
3. NO.12 COMMON WIRE TO VALVES ON SAME CONTROLLER. (WHITE)
4. MAIN LINE LATERAL FROM PRESSURE B.F.P.U. OFF METER
5. 6" LAYER OF PEA GRAVEL MIN. 1 CU. FT. MATERIAL.
6. WILKINS #500 YSBR 'Y' STRAINER FILTRATION DEVICE
7. NO. 14 CONTROL WIRE (ORANGE).
8. FINISH GRADE
9. DECOMPOSED GRANITE
10. PVC SCH. 80 TOE NIPPLE
11. BRICK (1 OF 4)

NOTE:
SEE GENERAL NOTES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 *EMITTER CONTROL VALVE ASSEMBLY*
NOT TO SCALE IRR-VAL-02



2" LAYER OF SPECIFIED DECOMPOSED GRANITE
6"ø TAN CLEAN OUT BOX
FINISH GRADE
FLUSH PLUG W/ HOSE THREADED CAP
1/2" THREADED SCH 40 MALE ADAPTER
1/2" PVC SCH 80 FLEX HOSE (18" LENGTH MIN.)
6" LAYER OF PEA GRAVEL
1/2" PVC SCH 40 - 45° ELL.
DRIP LATERAL IRRIGATION LINE

6 *FLUSH VALVE W/ CLEAN OUT BOX*
NOT TO SCALE IRR-FLUSH VALVE

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

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IRRIGATION DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
NTS			LD-1.04

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

PLANT SIZE	FLOW/PER PLANT	EMITTER/BUBBLER	QTY
1 GAL.	1 GPH	BOWSMITH ML-210	(4-5) SHRUBS MAX.
5 GAL.	1 GPH	BOWSMITH ML-210	(4-5) SHRUBS MAX.
15 GAL.	4 GPH	BOWSMITH ML-210	1
24" BOX	6 GPH	BOWSMITH ML-210	2
36" BOX	8 GPH	BOWSMITH ML-210	2
48" BOX	12 GPH	BOWSMITH ML-220	2
54"-72" BOX	16 GPH	BOWSMITH ML-220	3

NOTE:
1. PROVIDE IRRIGATION TO 4-5 SHRUBS MAX PER MULTI PORT EMITTERS. (TYP.)
2. ALL EMITTERS TO BE BOWSMITH MODEL ONLY, NO SUBSTITUTIONS.
3. DO NOT PROVIDE IRRIGATION TO CACTUS.

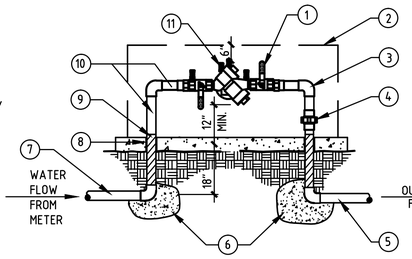
1 EMITTER SIZING SCHEDULE

SCALE: N.T.S.

ID-13

NOTE:
1. ALL PIPE / FITTINGS TO BE TYPE "L" COPPER.
2. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH.
3. INSTALL BACKFLOW PREVENTION ASSEMBLY WITH RELIEF PORT FACING TOWARD THE GROUND.
4. BACKFLOW PREVENTION ASSEMBLY MUST BE LEVEL AND INSTALLED A MINIMUM OF 12 INCHES FROM RELIEF PORT TO GRADE.
5. TEST COCKS, (4) SHALL BE FITTED WITH BRASS PLUGS AND INSTALLED W/ TEFLON TAPE.
6. SHUTOFF VALVES TO BE RESILIENT BALL TYPE W/ RMOVABLE HANDLES.
7. COMPRESSION TYPE FITTINGS ARE NOT ALLOWED.
8. STAKE LOCATION OF ASSEMBLY FOR APPROVAL BY THE ENGINEER BEFORE INSTALLATION BEGINS.
9. A COPPER / BRASS UNION MUST BE INSTALLED IN THE MIDDLE OF THE DOWNSTREAM RISER.
10. PROVIDE TEST CERTIFICATE FROM CITY APPROVED TESTING COMPANY PRIOR TO APPROVAL.
11. COPPER FITTINGS SHALL BE INSTALLED W/ LEAD FREE SOLDER JOINTS.
12. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NOTE: USE COP SUPPLEMENT DET. 1351 FOR ASSEMBLIES 3" AND OVER



1. BALL VALVE W/ REMOVABLE HANDLE (TYP.)
2. SECURITY CAGE
3. COPPER / 90 ELBOWS
4. BRASS OR COPPER UNION
5. IRRIGATION MAINLINE, CLASS & SIZE PER PLANS AND SPECIFICATIONS.
6. THRUST BLOCKS
7. MAINLINE PIPING METER TO RPBP DEVISE: SCH 80 PVC (EXCEPT WITH IN ROW USE TYPE "L" COPPER)
8. EXPANSION JOINT 1/2" FILLER STRIP
9. WRAP PIPE BELOW GRADE FOR CORROSION PROTECTION PER MAG 753.2
10. COPPER SPOOL (TYPE L) TYP. BETWEEN FITTINGS
11. TEST COCKS W/BRASS PLUGS OR ADAPTORS W/ CAPS INSTALLED. (4 REQUIRED)

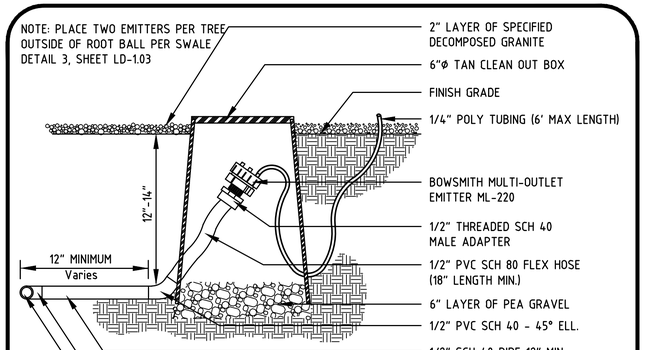
4 *REDUCED PRESSURE BACKFLOW ASSEMBLY(2.5 INCH AND UNDER)*

NOT TO SCALE

IRR-BFP-05

SEAL BY STEVEN LOHIDE IS FOR DETAILS 1,2,4,5,6 THIS SHEET.

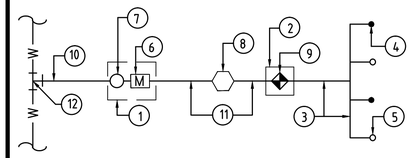
NOTE: PLACE TWO EMITTERS PER TREE OUTSIDE OF ROOT BALL PER SWALE DETAIL 3, SHEET LD-1.03



2 *MULTI-EMITTER-W/ CLEAN OUT BOX*

NOT TO SCALE

IRR-EMT-03



1. CONC. WATER METER BOX, INSTALLED BY CITY OF PHOENIX.
2. PLASTIC VALVE BOX W/LOCKING COVER, 1-VALVE BOX PER VALVE
3. P.V.C. LATERAL -1/2" , 3/4", 1", 1-1/4" SCH 40
4. 1/2 G.P.M. PRESSURE COMPENSATION EMITTER (1-PER TREE).
5. 1/4 G.P.M. PRESSURE COMPENSATION EMITTER (1-PER SHRUB).
6. WATER METER, INSTALLED BY CITY OF PHOENIX.
7. CURB STOP, INSTALLED BY CITY OF PHOENIX.
8. REDUCED PRESSURE TYPE BACKFLOW PREVENTER.
9. ELECTRIC VALVE
10. WATER MAIN.
11. SCHED. 80. PIPE
12. WATER TAP.

5 *WATER SYSTEM SCHEMATIC*

NOT TO SCALE

IRR-SCH-01

NOTE:
ALL PIPE SLEEVES SHALL BE SCHEDULE 40 PVC AND INSTALLED WITH A MINIMUM OFFSET AT THE JOINTS TO PERMIT EASY INSTALLATION AND REMOVAL OF THE IRRIGATION LINES. ALL PLASTIC LINES SHALL BE INSTALLED IN SLEEVES UNDER PAVED AREAS. SLEEVES SHALL EXTEND AT LEAST 12" BEYOND THE EDGES OF THE PAVEMENT. PULL BOXES SHALL BE PLACED AT EACH END OF THE SLEEVE UNLESS SLEEVE IS UNDER SIDEWALK ONLY. SIZE OF SLEEVES SHALL BE AS FOLLOWS:

SLEEVING SCHEDULE

PIPE SIZE	MIN. SLEEVE SIZE	PIPE SIZE	MIN. SLEEVE SIZE
1/2"	2"	2", 2-1/4"	4"
3/4"	2-1/2"	3", 4"	6"
1", 1-1/4", 1-1/2"	3"		

PIPE SIZING SCHEDULE

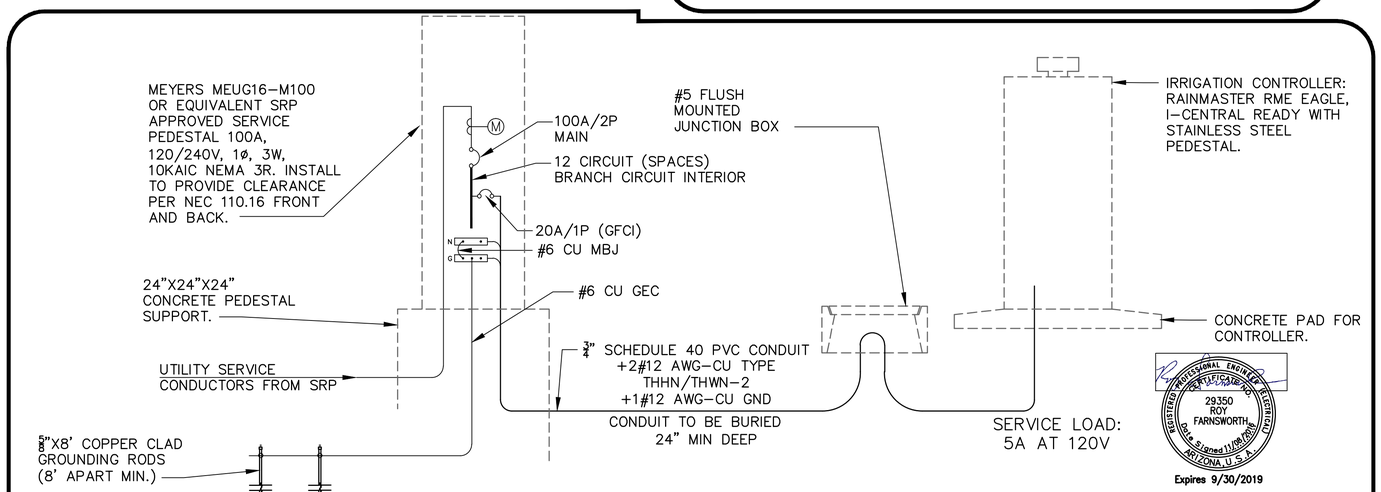
PIPE SIZE	FLOW (GPM)	PIPE SIZE	FLOW (GPM)
1/2"	0 – 5	2"	36 – 60
3/4"	6 – 10	2-1/2"	61 – 80
1"	11 – 15	3"	81 – 120
1-1/4"	16-25	3 1/2"	121 – 150
1-1/2"	26 – 35	4"	151 – 200

NOTE:
ALL MAINLINE PIPE 2 1/2" AND LARGER SHALL BE A MINIMUM CLASS 200 RING-TIGHT PIPE. MAINLINE 2" AND LESS SHALL BE A MINIMUM SCHEDULE 40 PVC. ALL LATERAL PIPE ABOVE 1/2" SHALL BE MINIMUM CLASS 200. ALL 1/2" LATERAL PIPE SHALL BE CLASS 315.

6 SLEEVE/PIPE SIZE

SCALE: N.T.S.

ID-8



3 *IRRIGATION CONTROLLER ELECTRICAL SERVICE – 1 LINE DIAGRAM*

NOT TO SCALE

SEAL BY ROY FARNSWORTH IS FOR DETAIL 3, THIS SHEET.

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IRRIGATION DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
NTS			LD-1.05

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	116	168	

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Fax(602)454-0403
www.aztec.us

REVISION BY CITY OF PHOENIX

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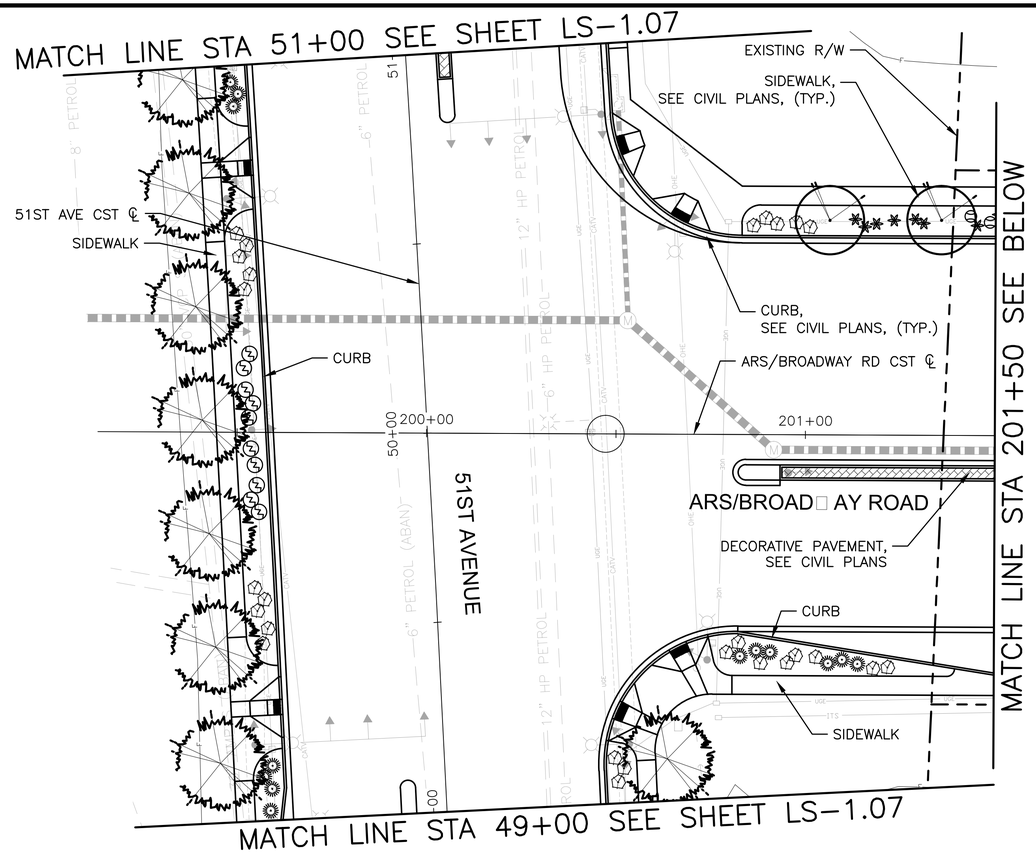
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

ST85100371(003)

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



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27437 STEVEN E. LOHIDE — Date Signed 11/08/2016 — ARIZONA, U.S.A. — Expires 09/30/2017

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PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

- ACACIA SALICINA — WILLOW ACACIA
- CHILOPSIS LINEARIS 'DORIS DAY' — WILLOW
- DALBERGIA SISSOO — SISSOO
- EUCALYPTUS PAPUANA — GHOST GUM
- QUERCUS V. 'CATHEDRAL' — HERITAGE OAK
- SOPHORA SECUNDIFLORA — TEXAS MOUNTAIN LAUREL

ACCENTS

- AGAVE DESMETTIANA
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- SIMMONDSIA CHINENSIS 'VISTA'

GROUND COVERS

- EREMOPHILA GLABRA
- LANTANA MONTEVIDENSIS
- RUELLIA BRITTONIANA 'KATIE'
- TETRANEURIS ACAULIS

MISCELLANEOUS

DECOMPOSED GRANITE-PLANTING AND DISTURBED AREAS BACK OF CURB TO SIDEWALK AND BACK OF SIDEWALK TO ROW (SIZE: 3/4" MINUS, COLOR: EXPRESS BROWN) 2" DEPTH IN ALL AREAS (TYP)

SIGHT VISABILITY TRIANGLE

CALL TWO WORKING DAYS BEFORE YOU DIG
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LANDSCAPE PLAN

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROAD□AY ROAD
51ST AVENUE TO □3RD AVENUE
ST85100371 □003□

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.01

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

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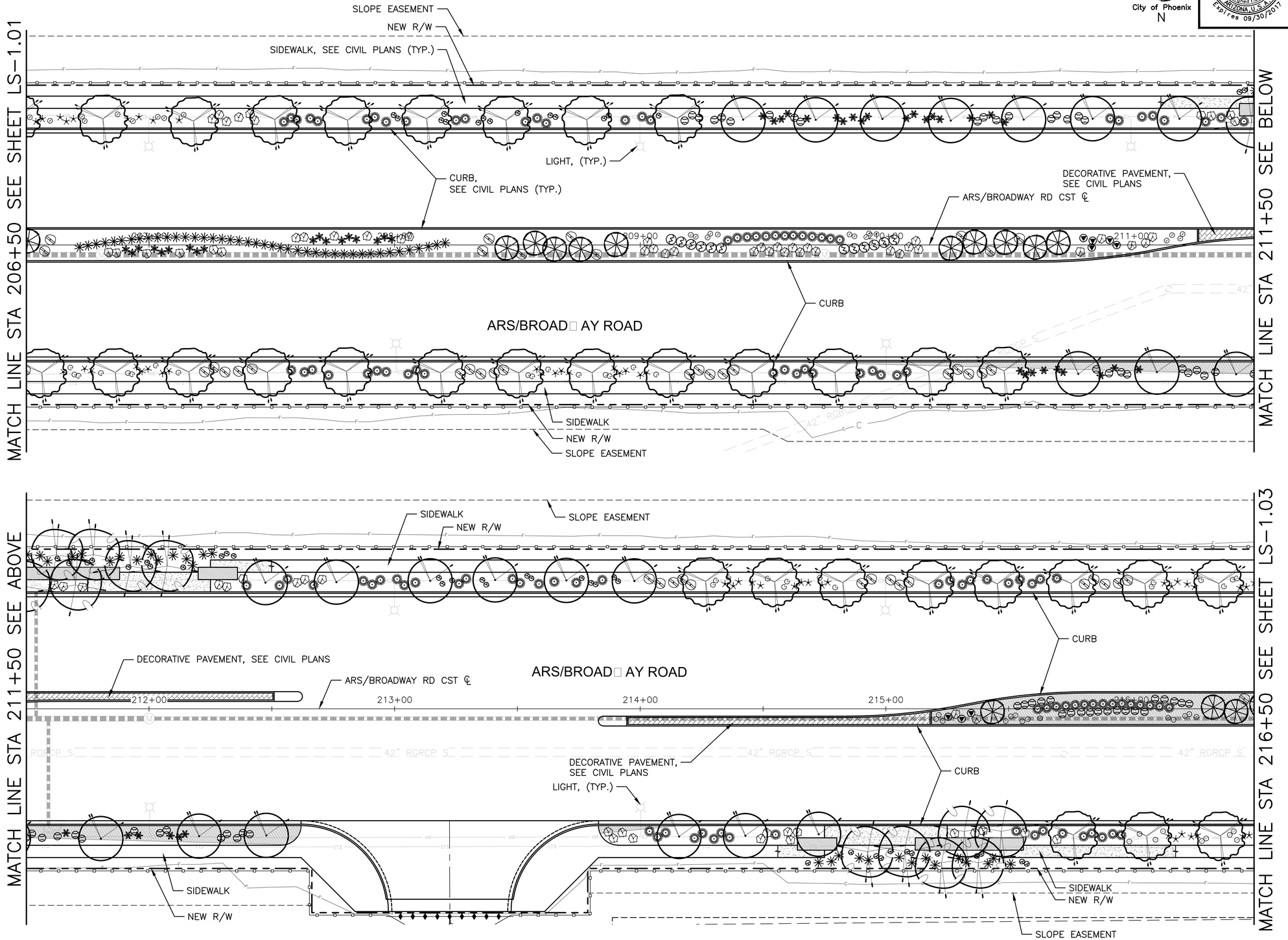

City of Phoenix
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STEVEN E. LOHIDE
27437
Date Signed 11/08/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	118	168	

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PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

- ACACIA SALICINA — WILLOW ACACIA
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SIGHT VISABILITY TRIANGLE

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LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.02

ST85100371(003)

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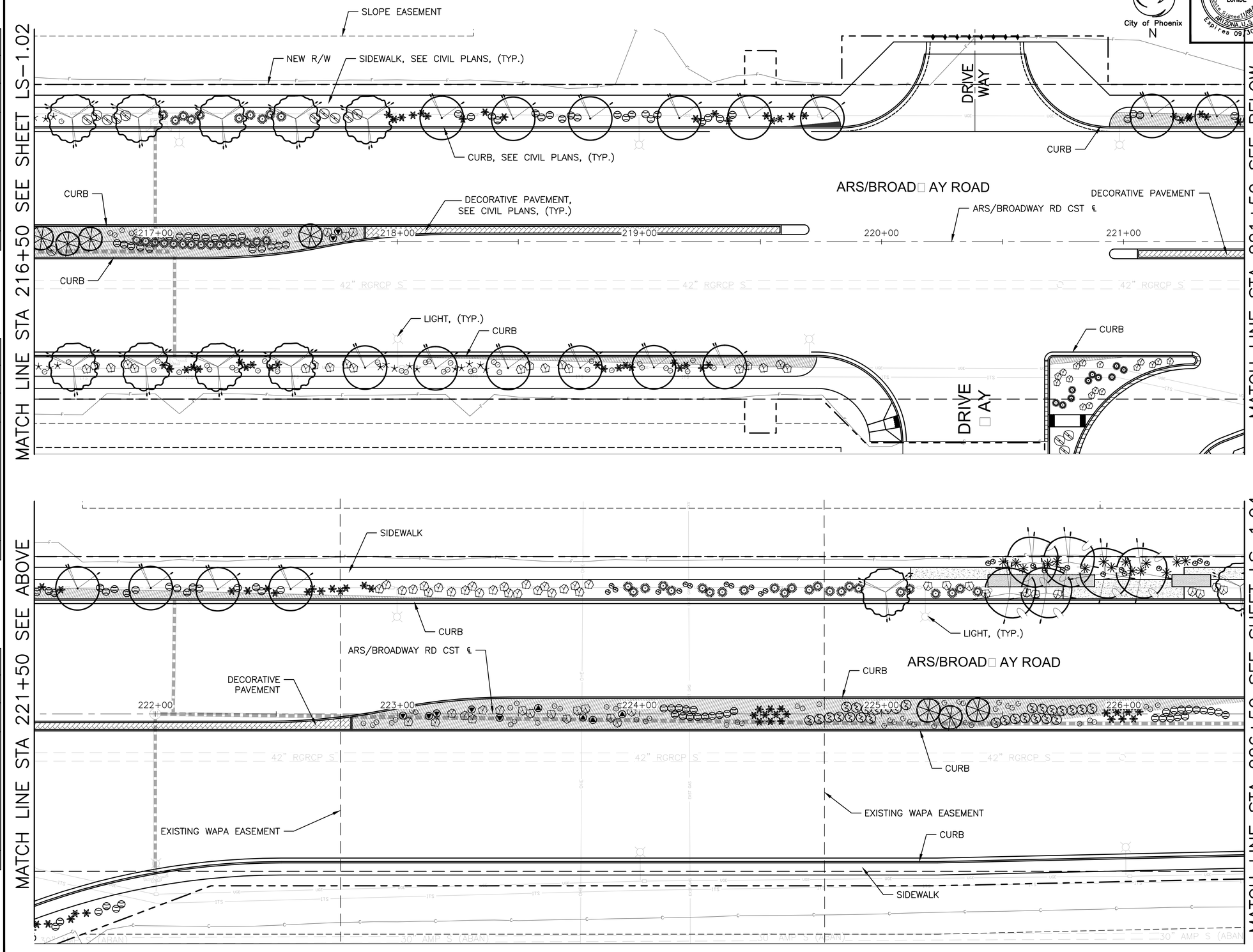
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



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ARIZONA LANDSCAPE ARCHITECT REGISTERED
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Date Signed 11/16/2016
ARIZONA, U.S.A.
Expires 09/30/2017

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9	ARIZ.	ST85100371(003)	119	168	

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PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

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LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.03

ST85100371(003)

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AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
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27437
STEVEN E. LOHIDE
Date Signed 11/08/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	120	168	

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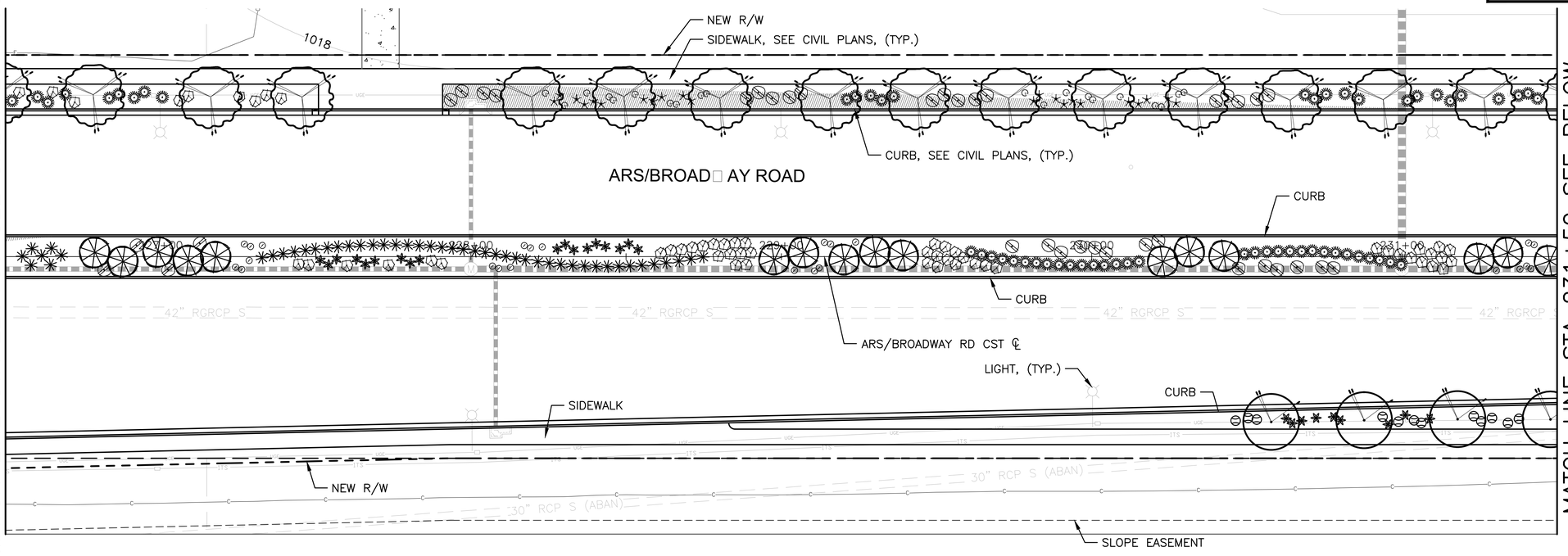
NO.	DESCRIPTION	REV BY	CKD BY	DATE

MATCH LINE STA 226+50 SEE SHEET LS-1.03

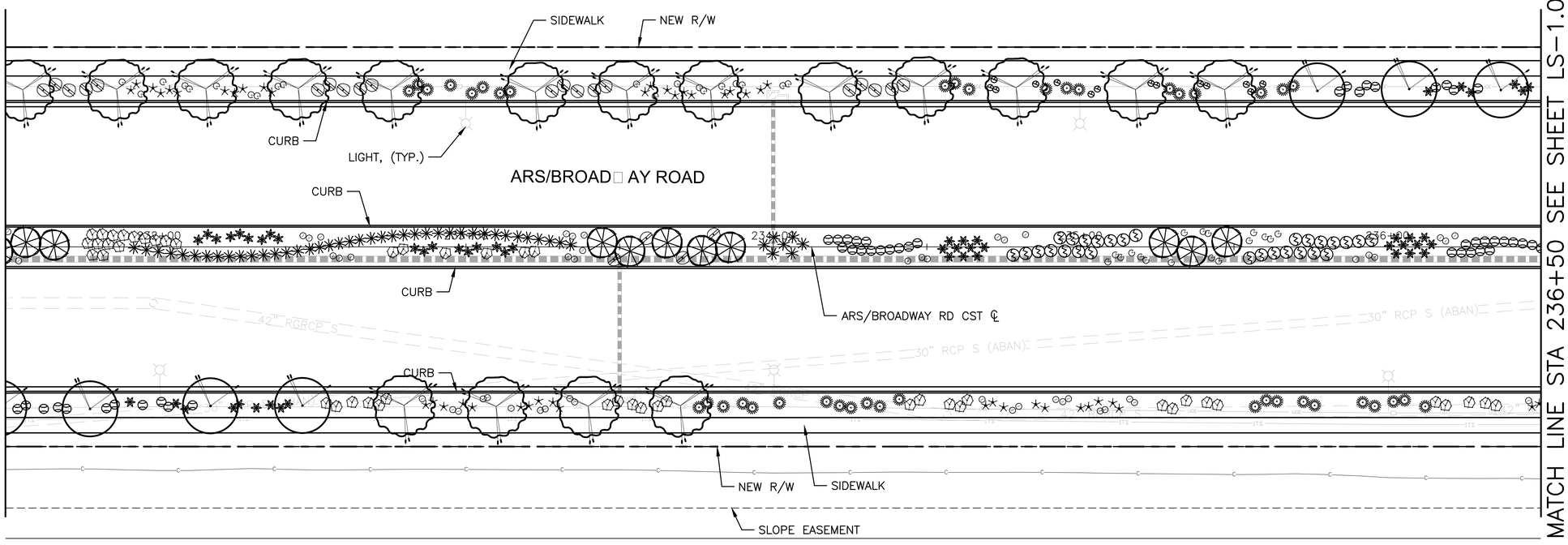


MATCH LINE STA 231+50 SEE BELOW

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

MATCH LINE STA 231+50 SEE ABOVE



MATCH LINE STA 236+50 SEE SHEET LS-1.05

PLANT SCHEDULE

SYMBOL	BOTANICAL NAME / COMMON NAME
TREES	
	ACACIA SALICINA — WILLOW ACACIA
	CHILOPSIS LINEARIS 'DORIS DAY' — WILLOW
	DALBERGIA SISSOO — SISSOO
	EUCALYPTUS PAPUANA — GHOST GUM
	QUERCUS V. 'CATHEDRAL' — HERITAGE OAK
	SOPHORA SECUNDIFLORA — TEXAS MOUNTAIN LAUREL
ACCENTS	
	AGAVE DESMETTIANA
	ALOE X 'BLUE ELF'
	EUPHORBIA ANTISYPHILITICA
	FOUQUIERIA SPLENDENS
	HESPERALOE PARVIFLORA
	NOLINA MICROCARPA
	OPUNTIA SANTA-RITA 'TUBAC'
SHRUBS	
	EREMOPHILA HYGROPHANA
	SIMMONDSIA CHINENSIS 'VISTA'
GROUND COVERS	
	EREMOPHILA GLABRA
	LANTANA MONTEVIDENSIS
	RUELLIA BRITTONIANA 'KATIE'
	TETRANEURIS ACAULIS

MISCELLANEOUS

DECOMPOSED GRANITE-PLANTING AND DISTURBED AREAS BACK OF CURB TO SIDEWALK AND BACK OF SIDEWALK TO ROW (SIZE: 3/4" MINUS, COLOR: EXPRESS BROWN) 2" DEPTH IN ALL AREAS (TYP)

SIGHT VISABILITY TRIANGLE

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

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28 THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.04

ST85100371(003)

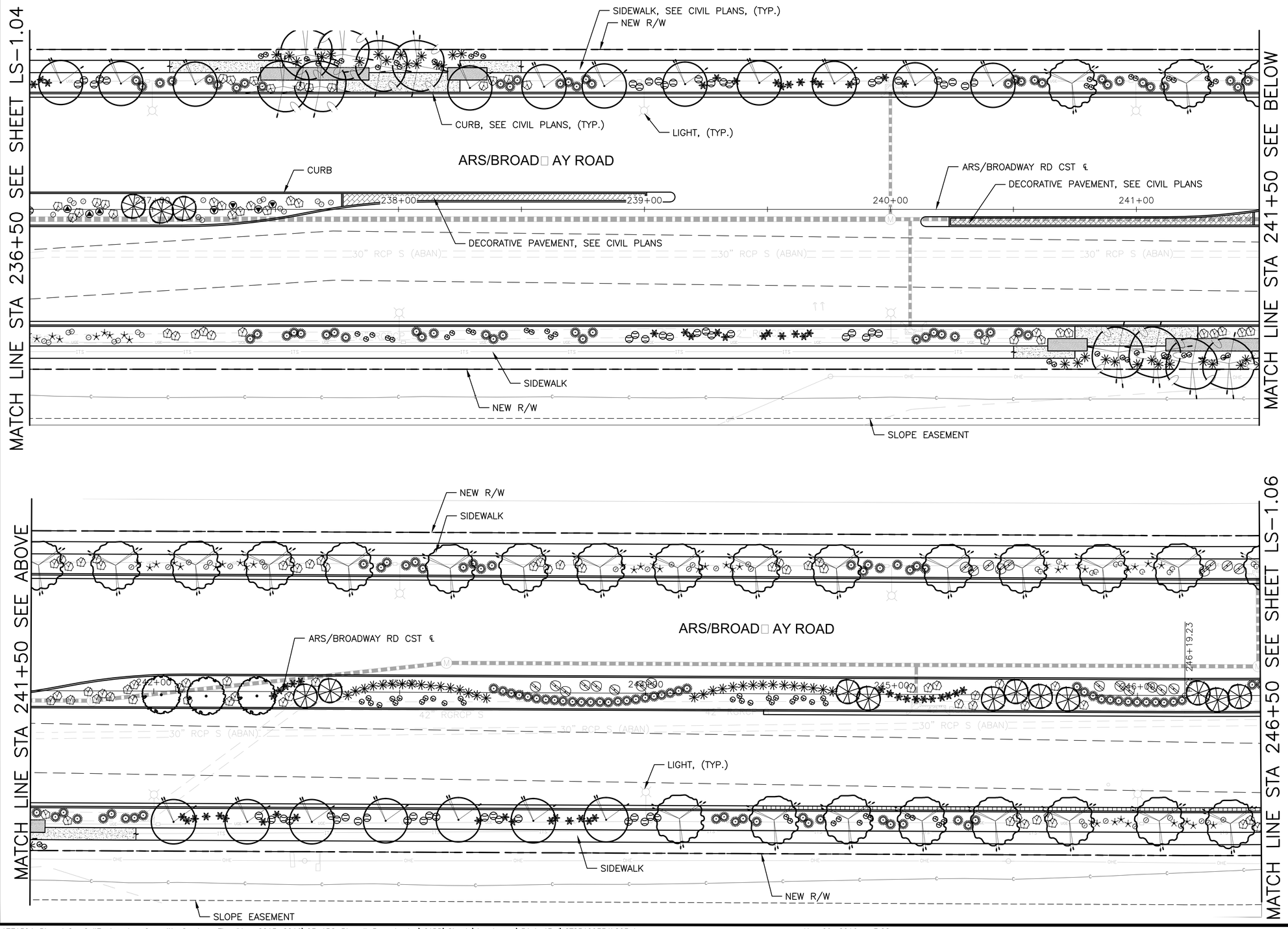
R:\Phoenix\Projects\AZE1504_PhoenixOn-CallEngineering_ConsultingServices_FiscalYears2015-2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS04.dwg jperillo Nov 09, 2016 - 3:01pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX				
NO.	DESCRIPTION	REV BY	CKD BY	DATE



City of Phoenix
N

27437
STEVEN E. LOHIDE
Date Signed 11/18/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	121	168	

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008–4505
Tel(602)454–0402
Fax(602)454–0403
www.aztec.us

PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

- ACACIA SALICINA — WILLOW ACACIA
- CHILOPSIS LINEARIS 'DORIS DAY' — WILLOW
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- SIMMONDSIA CHINENSIS 'VISTA'

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MISCELLANEOUS

DECOMPOSED GRANITE–PLANTING AND DISTURBED AREAS BACK OF CURB TO SIDEWALK AND BACK OF SIDEWALK TO ROW (SIZE: 3/4" MINUS, COLOR: EXPRESS BROWN) 2" DEPTH IN ALL AREAS (TYP)

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LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

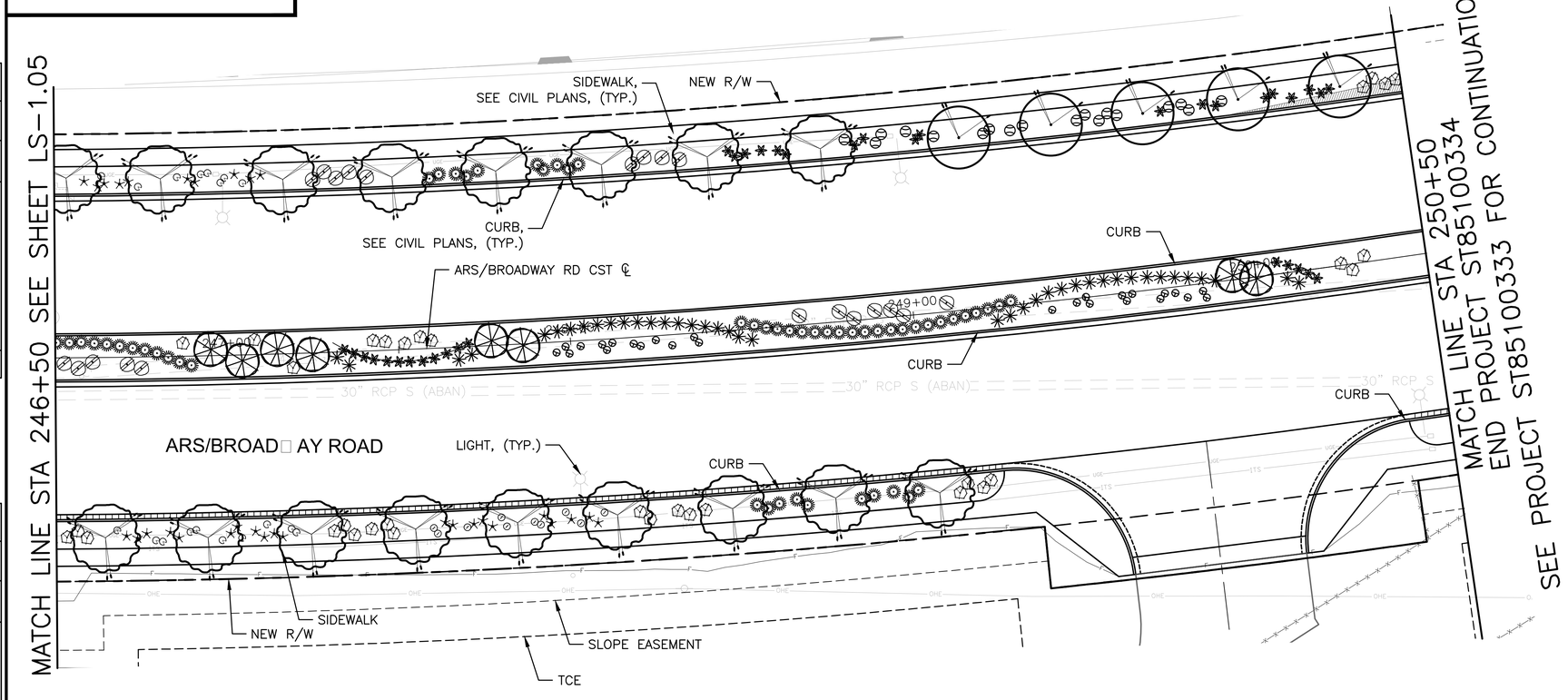
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371(003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS–1.05

ST85100371(003)

R:\Phoenix\Projects\AZE1504_PhoenixOn–CallEngineering_ConsultingServices_FiscalYears2015–2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS05.dwg jperillo Nov 09, 2016 – 3:02pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



City of Phoenix
N

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOHIDE
Date Signed 11/28/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	122	168	

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PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

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LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 003

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.06

ST85100371(003)

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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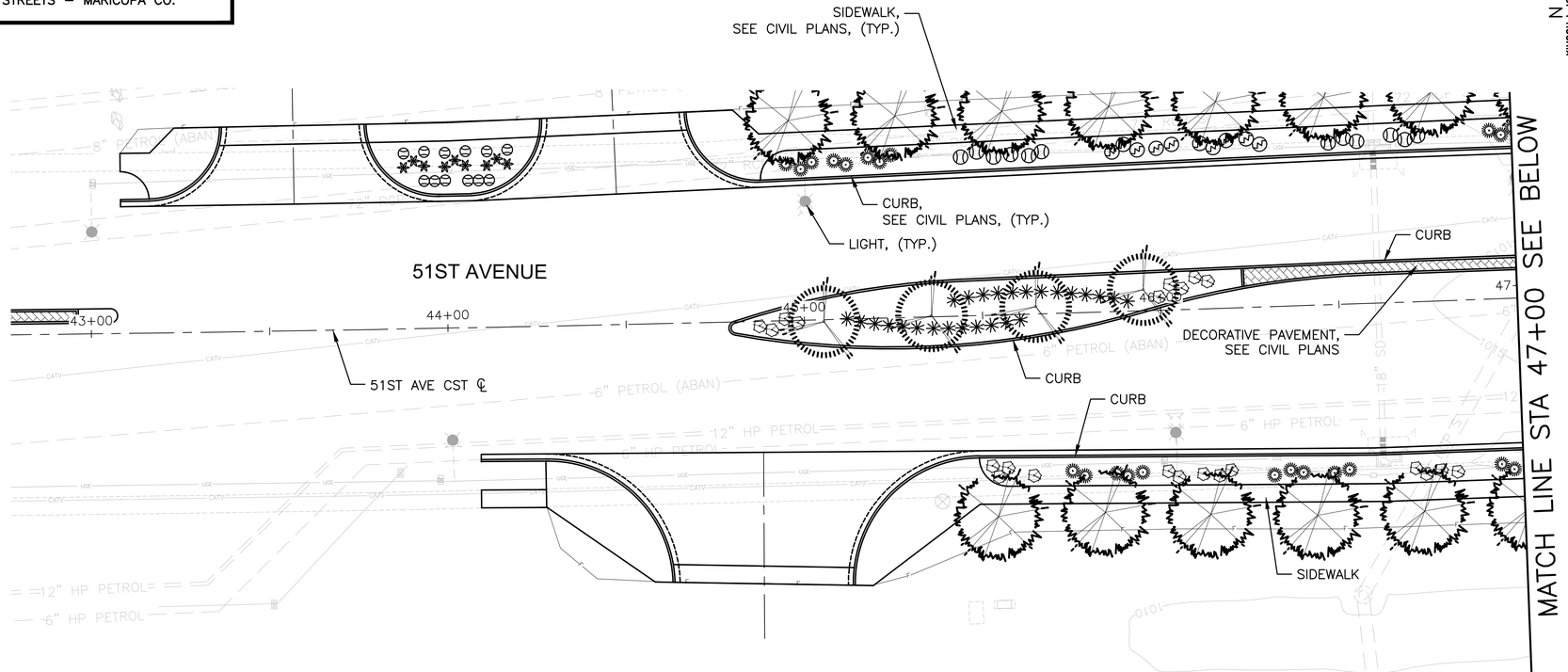
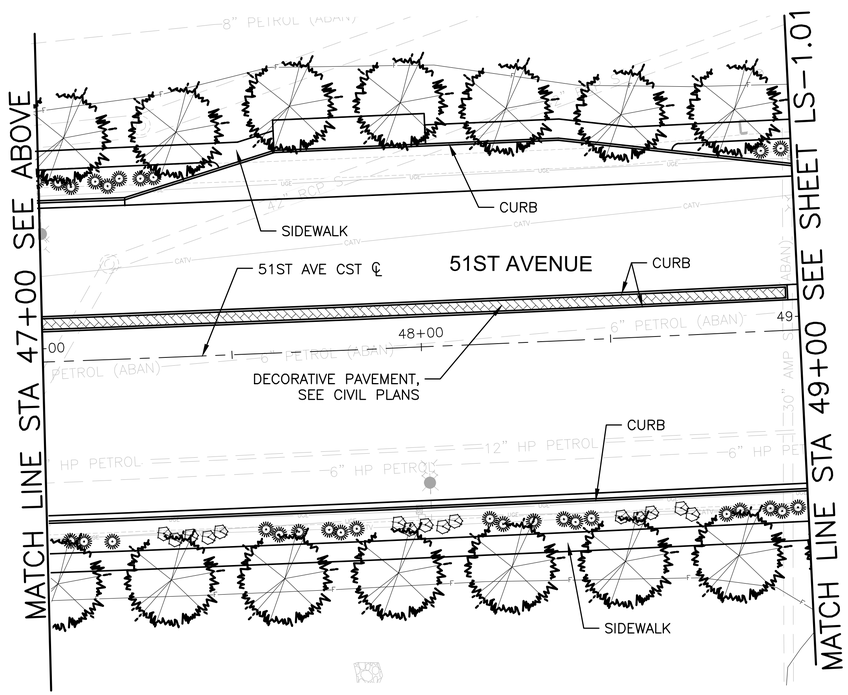
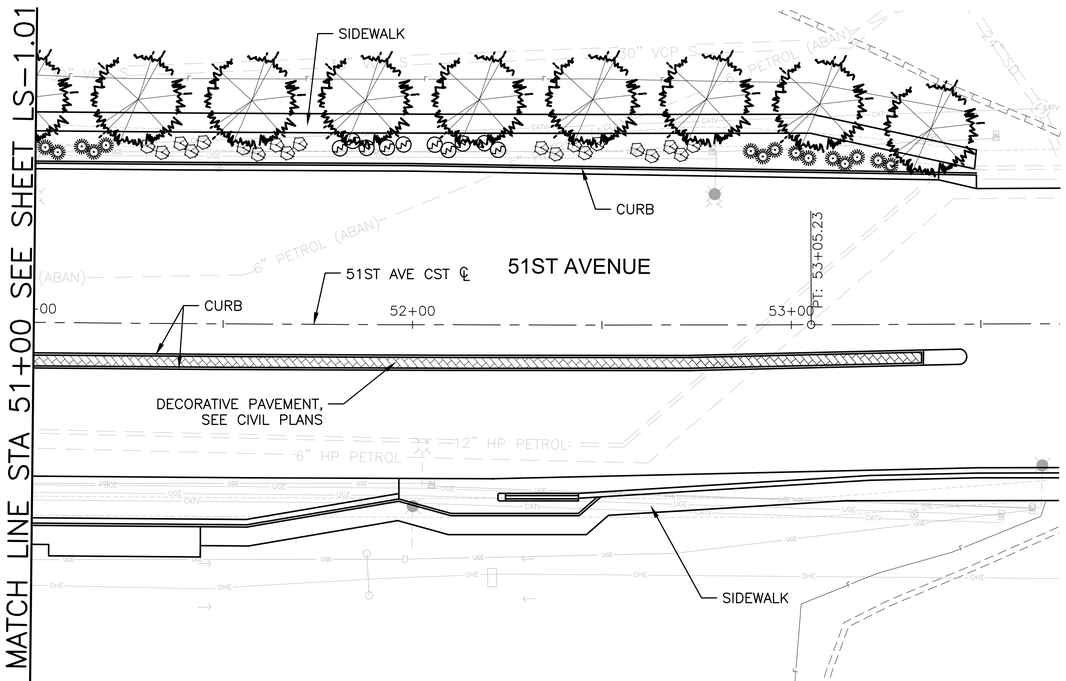
NO.	DESCRIPTION	REV BY	CKD BY	DATE

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.







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NO.	DESCRIPTION	REV BY	CKD BY	DATE

City of Phoenix

27437 STEVEN E. LOHIDE
Date Registered 11/30/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	123	168	

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
Tel(602)454-0402
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PLANT SCHEDULE

SYMBOL BOTANICAL NAME

TREES

BOTANICAL NAME
COMMON NAME

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SIGHT VISABILITY TRIANGLE

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LANDSCAPE PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS-1.07

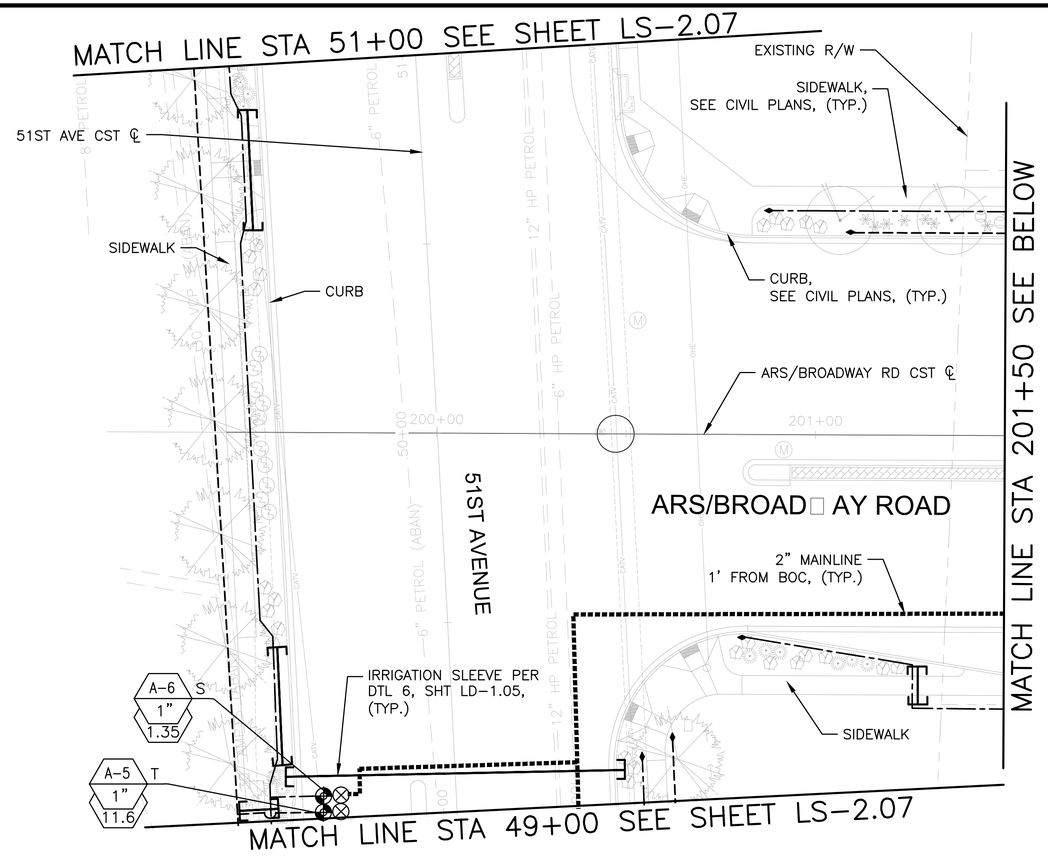
ST85100371(003)

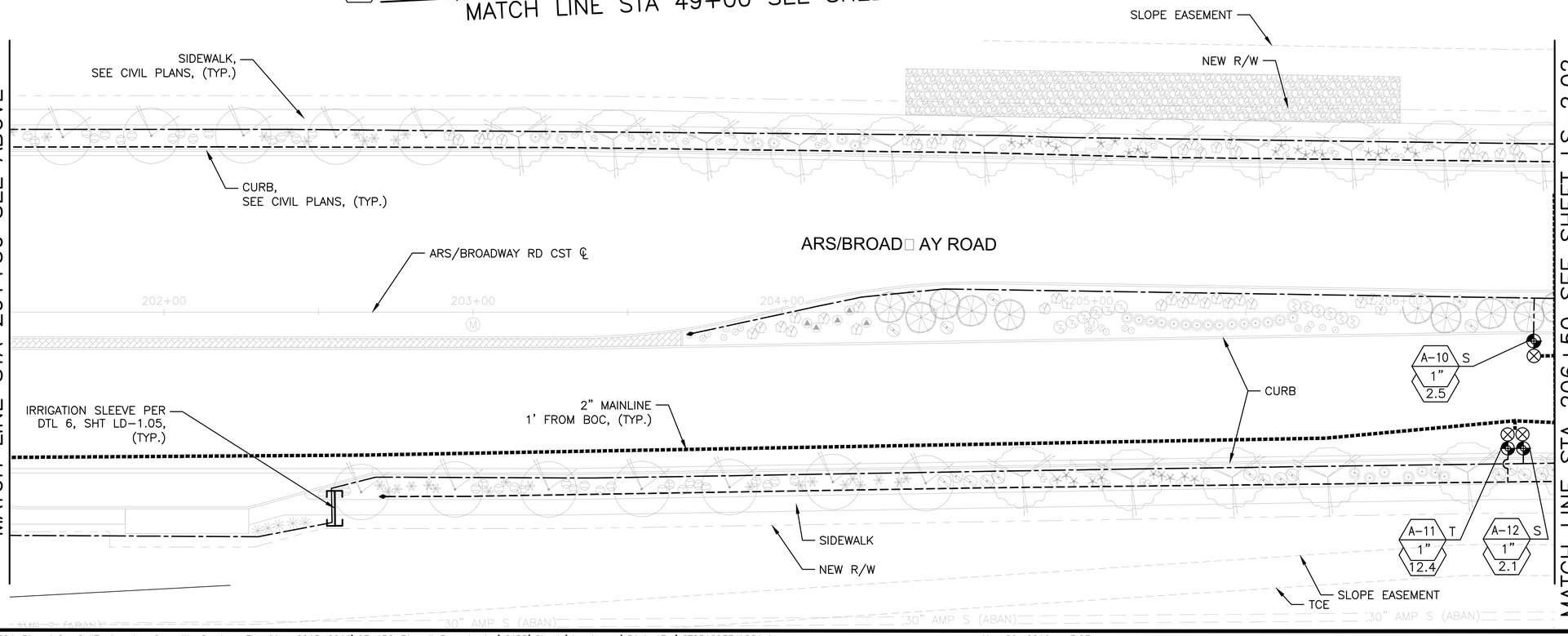
R:\Phoenix\Projects\AZE1504_PhoenixOn-CallEngineering_ConsultingServices_FiscalYears2015-2016\03_ARS_Phasell_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS07.dwg jperillo Nov 09, 2016 - 3:03pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE





City of Phoenix
N

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	124	168	

27437 STEVEN E. LOHIDE
Date Registered 11/08/2016
ARIZONA, U.S.A.
Expires 09/30/2017

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008–4505
Tel(602)454–0402
Fax(602)454–0403
www.aztec.us

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
C	CONTROLLER: RAINMASTER EAGLE, I–CENTRAL READY, STAINLESS STEEL PEDESTAL MOUNT. INSTALL PER MANUFACTURER.S SPECIFICATONS. SEE DTL 5, SHT LD–1.04
M	WATER METER–FIELD VERIFY PRIOR TO LANDSCAPE CONSTRUCTION. REF. TO TECHNICAL PROVISIONS FOR ADDITIONAL INFORMATION ON LOCATIONS.
E	NEW 100A 120/240V ELEC SERVICE & PEDESTAL,SEE DTL 3, SHT LD–1.05
	SCH. 40 PVC MIN. MAINLINE SIZE NOTED ON PLAN, REF DTL 6, SHT LD–1.05
TREE / SHRUB	PVC LATERAL : CLASS 200 MIN. (ALL 1/2" PIPE TO BE CLASS 315) REF DTL 6, SHT LD–1.05
	SCH. 40 PVC SLEEVES WITH PULL BOXES UNDER PAVED AREAS FOR ALL IRRIGATION LINES REF. DTL 6, SHT LD–1.05
	REDUCED PRESSURE BACKFLOW PREVENTER: FEBCO MODEL 825 YA. SAME SIZE AS METER. ENCLOSURE: LE MEUR OR APPROVED EQUAL, REF DTL 4, SHT LD–1.05
	ISOLATION VALVE – SAME SIZE AS MAINLINE. REF DTL 2, SHT LD–1.04
	DRIP VALVE ASSEMBLY: REF. DTL 3, SHT LD–1.04, CONTROL VALVE: RAINBIRD EFB–CP, ELECTRIC VALVES: SIZE PER PLAN IN–LINE PRESSURE REGULATOR: SENNINGER PRODUCTS MR–LF30 PSI Y–STRAINER: AGRICULTURAL PRODUCTS INC. 4E–1"–B W/200 MESH SCREEN
NO SYMBOL	BOWSMITH ML200 MULTI–OUTLET EMITTER FOR TREES. SEE EMITTER SCHEDULE REF DTL 1 & 2, SHT LD–1.05
	FLUSH VALVE, SEE DTL 6, SHT LD–1.04

STATION NUMBER → A–1 T ← SHRUB OR TREE VALVE
ELECTRIC CONTROL VALVE SIZE → 1" 2 ← GAL. PER MIN.

NOTES:
1. USE LARGE RADIUS SWEEP ELL BELOW CONTROLLER FOR VALVE WIRES SUPPLY 110V, 15 AMP POWER SOURCE, HARD WIRE TO J–BOX.
2. POINT OF CONNECTION– USE TYPE 'K' COPPER MINIMUM 5' BETWEEN SOURCE AND PRESSURE VACUUM BREAKER.
3. IRRIGATION VALVES, MAINLINE, AND LATERALS ARE SHOWN DIAGRAMMATICALLY. ALL COMPONENTS TO BE LOCATED WITHIN PLANTING AREAS.

CALL TWO WORKING DAYS BEFORE YOU DIG
602–263–1100
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IRRIGATION PLAN

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROAD□AY ROAD
51ST AVENUE TO □3RD AVENUE
ST85100371 □003□

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS–2.01

ST85100371(003)

R:\Phoenix\Projects\AZE1504_PhoenixOn–CallEngineering_ConsultingServices_FiscalYears2015–2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS21.dwg jperillo Nov 09, 2016 – 3:03pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

27437 STEVEN E. LOHIDE — Date Registered 11/08/2016 — ARIZONA, U.S.A. — Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	125	168	

AZTEC
4561 E. McDowell Road
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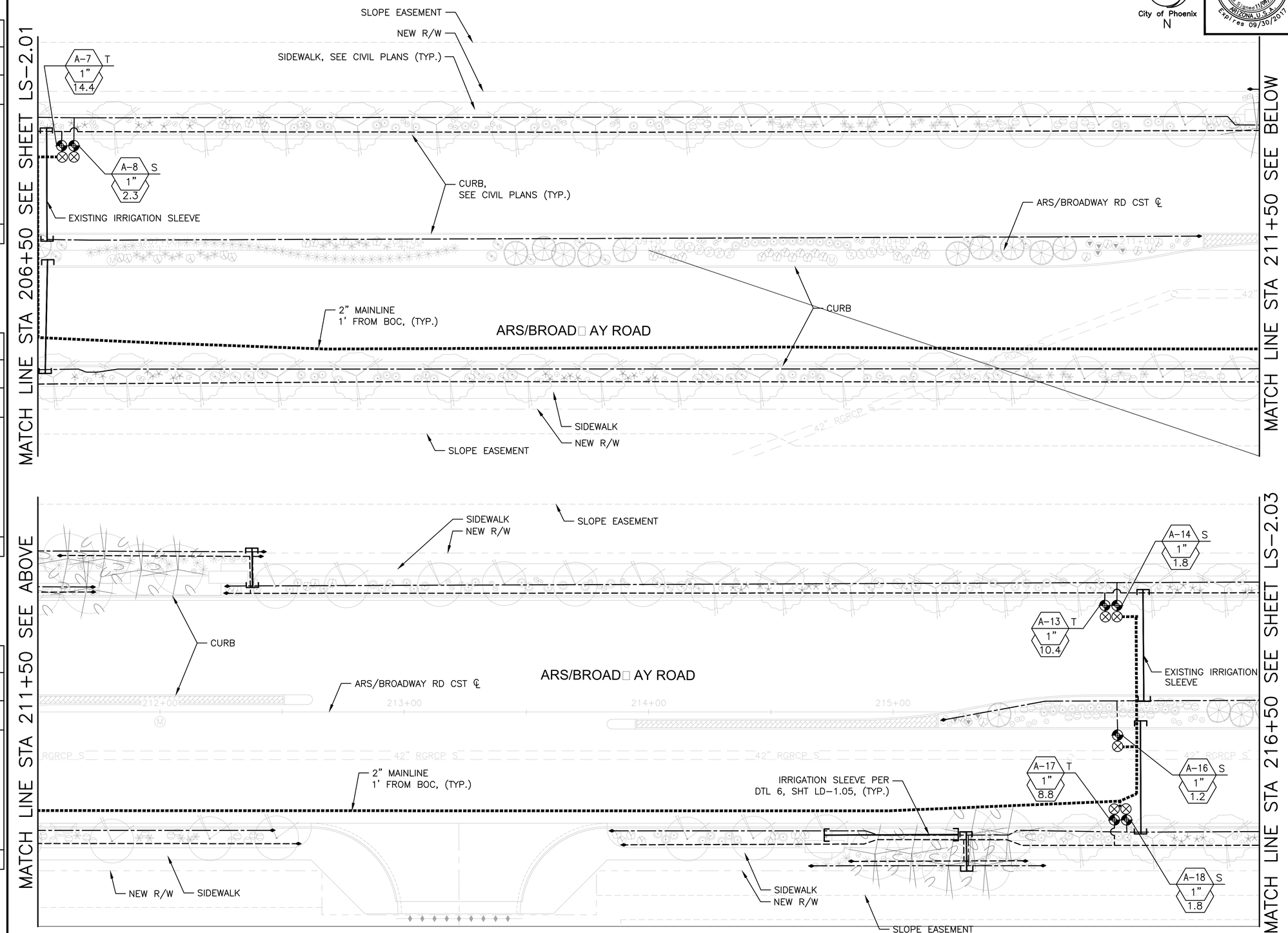
Tel(602)454-0402
Fax(602)454-0403
www.aztec.us

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE



IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
C	CONTROLLER: RAINMASTER EAGLE, I–CENTRAL READY, STAINLESS STEEL PEDESTAL MOUNT. INSTALL PER MANUFACTURER.S SPECIFICATONS. SEE DTL 5, SHT LD–1.04
M	WATER METER–FIELD VERIFY PRIOR TO LANDSCAPE CONSTRUCTION. REF. TO TECHNICAL PROVISIONS FOR ADDITIONAL INFORMATION ON LOCATIONS.
E	NEW 100A 120/240V ELEC SERVICE & PEDESTAL,SEE DTL 3, SHT LD–1.05
	SCH. 40 PVC MIN. MAINLINE SIZE NOTED ON PLAN, REF DTL 6, SHT LD–1.05
TREE / SHRUB	PVC LATERAL : CLASS 200 MIN. (ALL 1/2" PIPE TO BE CLASS 315) REF DTL 6, SHT LD–1.05
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	FLUSH VALVE, SEE DTL 6, SHT LD–1.04

STATION NUMBER — A–1 T — SHRUB OR TREE VALVE
ELECTRIC CONTROL VALVE SIZE — 1" — 2 — GAL. PER MIN.

NOTES:
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IRRIGATION PLAN

CITY OF PHOENIX, ARI□ONA
STREET TRANSPORTATION DEPARTMENT

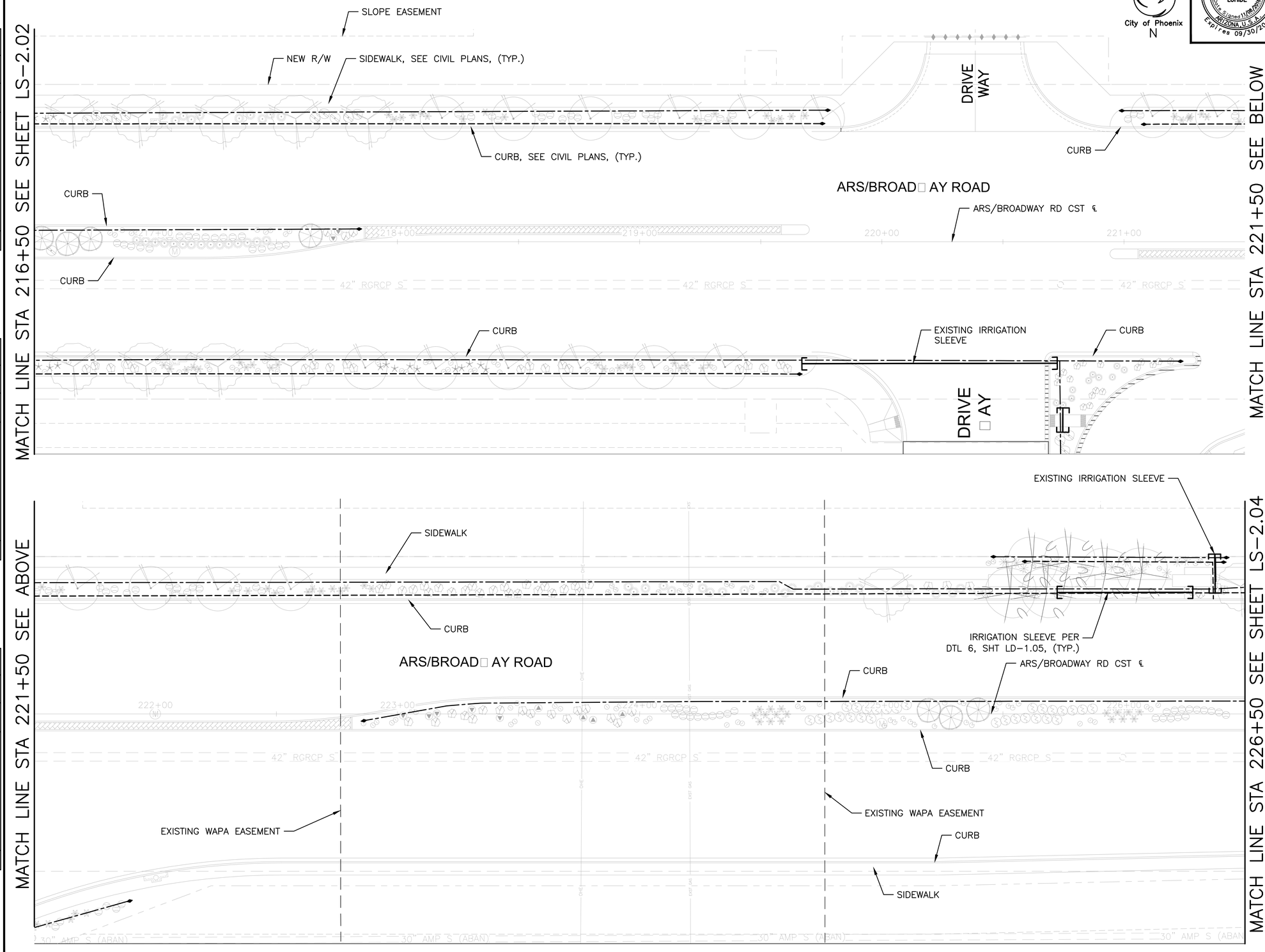
AVENIDA RIO SALADO/BROAD□AY ROAD
51ST AVENUE TO □3RD AVENUE
ST85100371 □003□

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS–2.02

ST85100371(003)

R:\Phoenix\Projects\AZE1504_PhoenixOn–CallEngineering_ConsultingServices_FiscalYears2015–2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS22.dwg jperillo Nov 09, 2016 – 3:03pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.



City of Phoenix
N

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

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Date Registered 11/30/2016
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Expires 09/30/2017

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IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
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	SCH. 40 PVC MIN. MAINLINE SIZE NOTED ON PLAN, REF DTL 6, SHT LD-1.05
TREE / SHRUB	PVC LATERAL : CLASS 200 MIN. (ALL 1/2" PIPE TO BE CLASS 315) REF DTL 6, SHT LD-1.05
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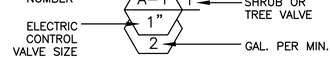
	FLUSH VALVE, SEE DTL 6, SHT LD-1.04



NOTES:
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IRRIGATION PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS-2.03

ST85100371(003)

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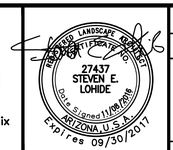
AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N



F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	127	168	

AZTEC
4561 E. McDowell Road
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REVISION BY CITY OF PHOENIX

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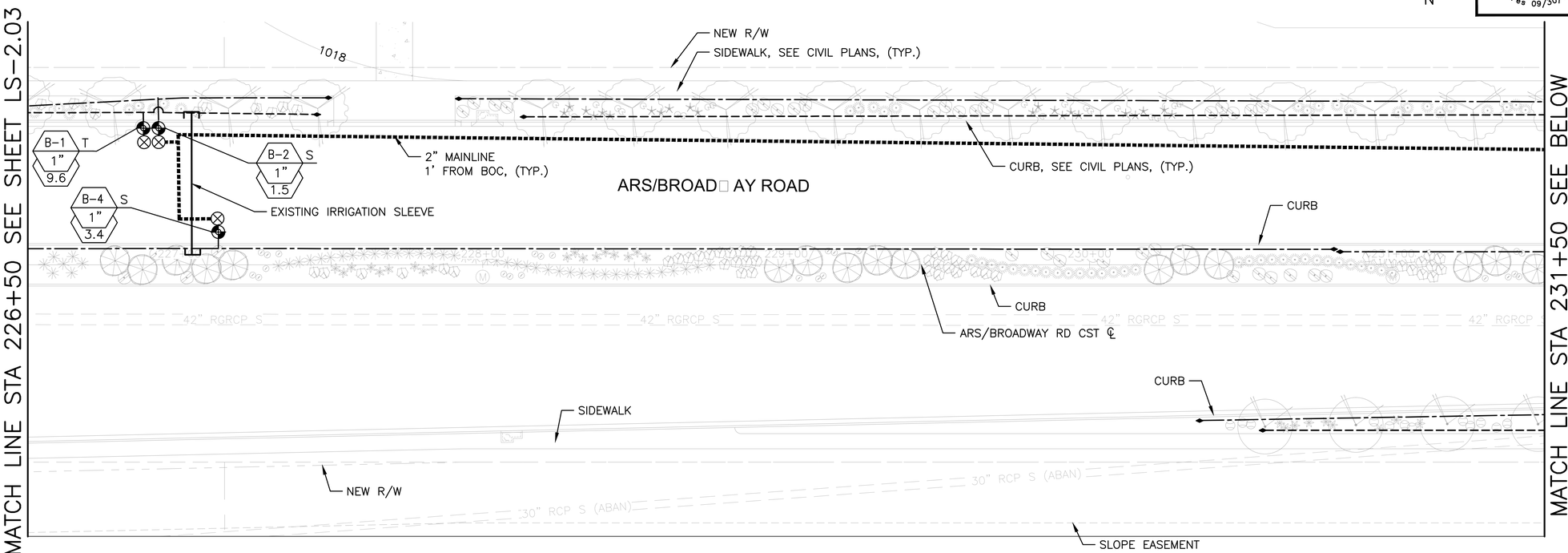

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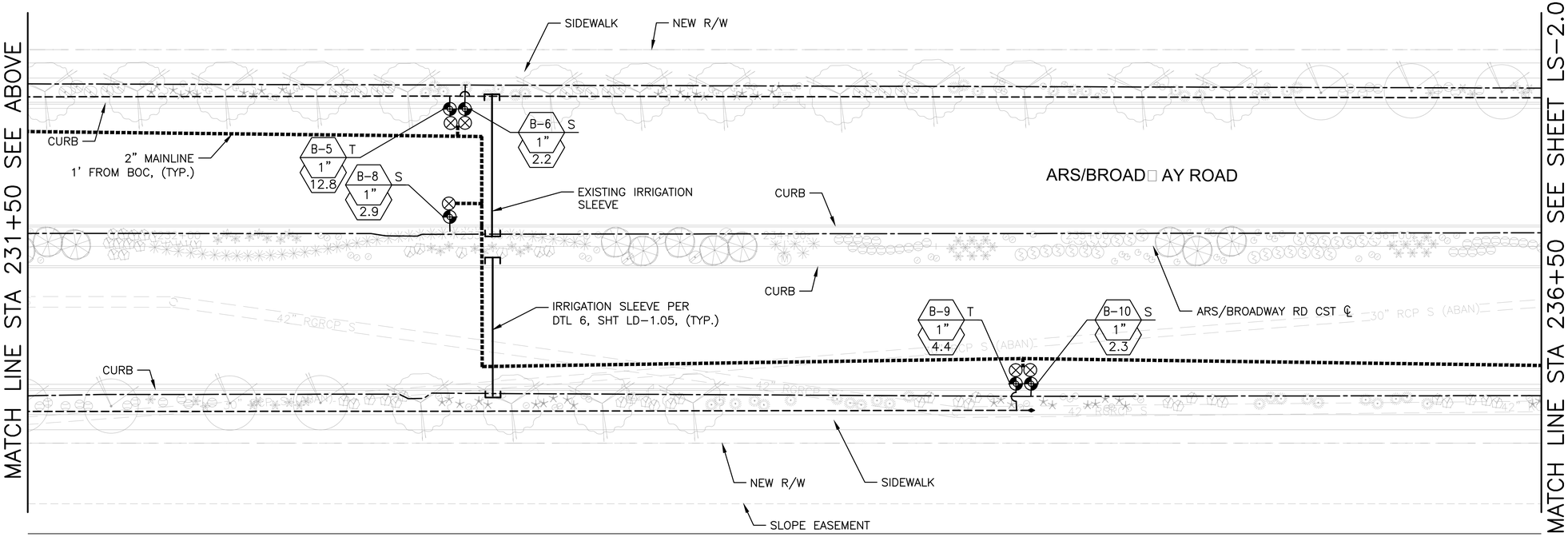

IRRIGATION SCHEDULE

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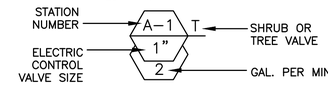

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CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS-2.04

ST85100371(003)

R:\Phoenix\Projects\AZE1504_PhoenixOn-CallEngineering_ConsultingServices_FiscalYears2015-2016\03_ARS_PhaseII_Repackaging\CADD\Sheets\Landscape\51st_43rd\ST85100334LS24.dwg jperillo Nov 09, 2016 - 3:04pm

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
PHOENIX STREETS – MARICOPA CO.

City of Phoenix
N

REVISION BY CITY OF PHOENIX

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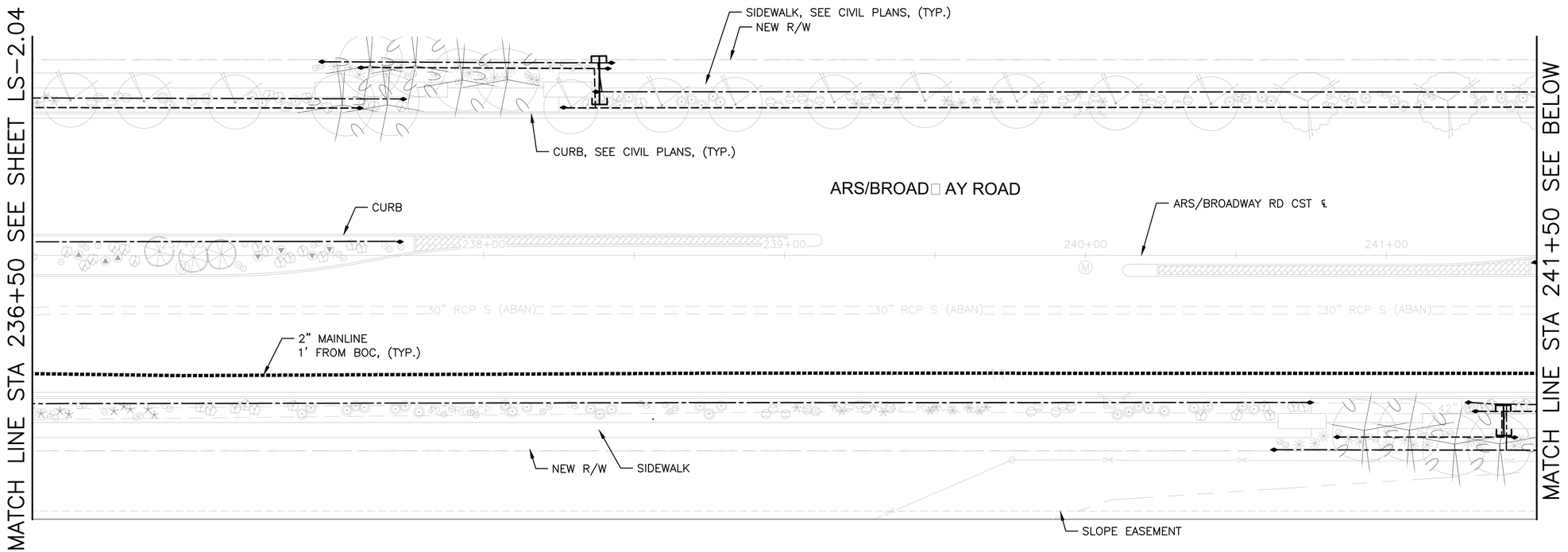

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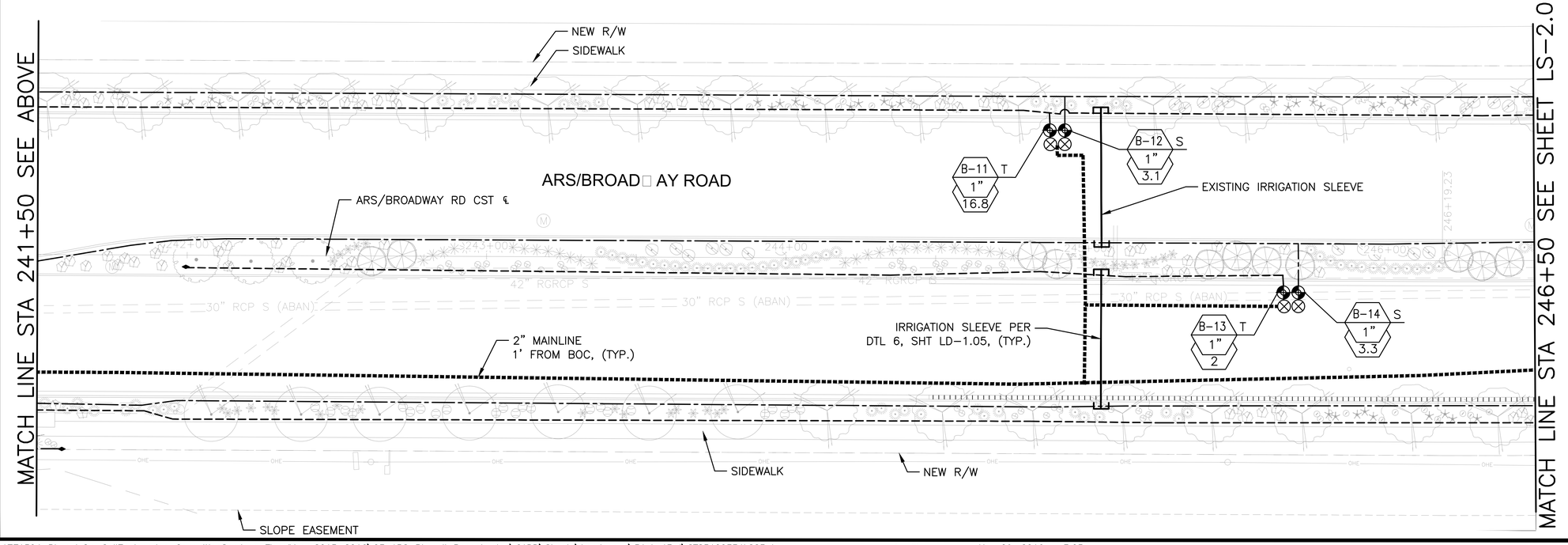

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	128	168	

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
Tel(602)454-0402
Fax(602)454-0403
www.aztec.us

27437 STEVEN E. LOHIDE — Date Registered 11/08/2016 — ARIZONA, U.S.A. — Expires 09/30/2017

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
C	CONTROLLER: RAINMASTER EAGLE, I–CENTRAL READY, STAINLESS STEEL PEDESTAL MOUNT. INSTALL PER MANUFACTURER.S SPECIFICATONS. SEE DTL 5, SHT LD–1.04
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STATION NUMBER → A–1 T ← SHRUB OR TREE VALVE
ELECTRIC CONTROL VALVE SIZE → 1" / 2 ← GAL. PER MIN.

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CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS–2.05

ST85100371(003)

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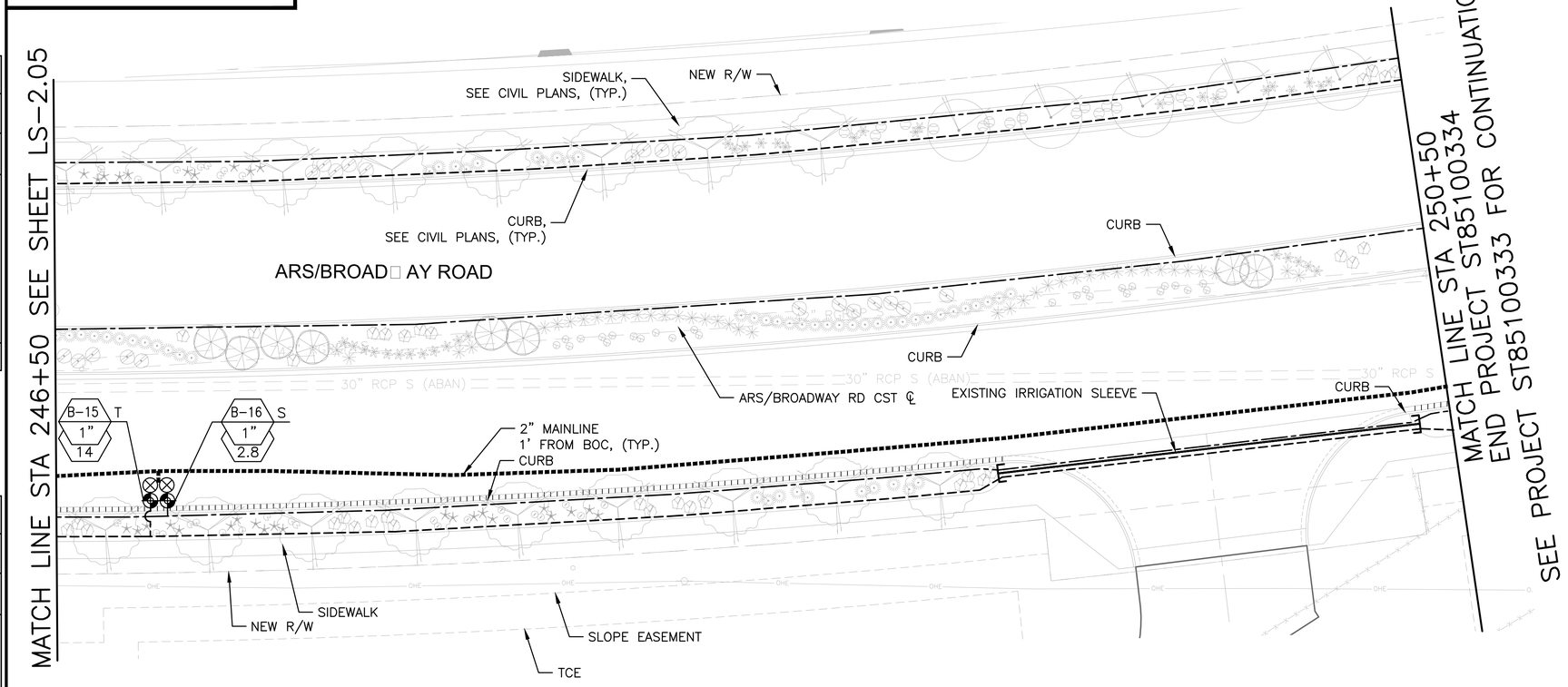

N

City of Phoenix

REGISTERED LANDSCAPE ARCHITECT
27437
STEVEN E. LOHIDE
Date Signed 11/28/2016
ARIZONA, U.S.A.
Expires 09/30/2017

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100371(003)	129	168	

AZTEC
4561 E. McDowell Road
Phoenix, AZ 85008-4505
Tel(602)454-0402
Fax(602)454-0403
www.aztec.us

IRRIGATION SCHEDULE

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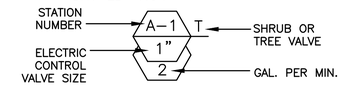

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IRRIGATION PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO/BROADWAY ROAD
51ST AVENUE TO 43RD AVENUE
ST85100371 (003)

DR: JL	DES: SEL	CK: SEL	DWG SERIES No.
DATE:09/16	DATE: 09/16	DATE: 09/16	
SCALE: 1"=20'			LS-2.06

ST85100371(003)

REVISION BY CITY OF PHOENIX

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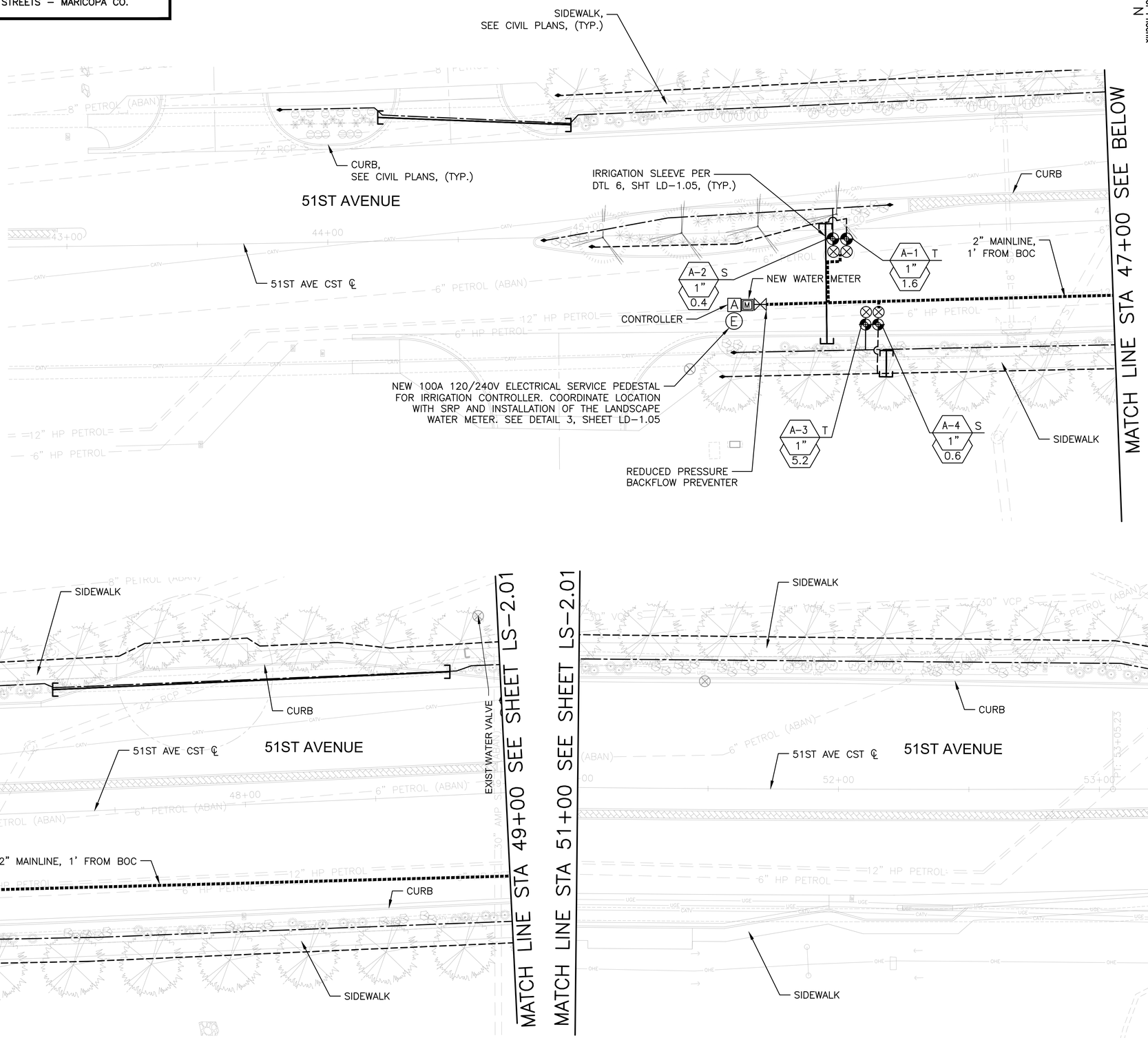

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27437 STEVEN E. LOHIDE — Date Registered 11/08/2016 — ARIZONA, U.S.A. — Expires 09/30/2017

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ST85100371 (003)

DR: JP	DES: SEL	CK: RG/SEL	DWG SERIES No.
DATE:11/16	DATE: 11/16	DATE: 11/16	
SCALE: 1"=20'			LS–2.07

ST85100371(003)

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TRAFFIC SIGNAL SUMMARY

F.H.W.A. REGION	STATE	PROJECT NO.	NO.	TOTAL	AS BUILT
9	ARIZ.	ST85100330(003)	131	168	

ITEM No.	DESCRIPTION	UNIT	SHEET 10421 - 51st Ave Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	TOTAL QUANTITY
M4711002	2" PVC Conduit under new pavement or landscaping	LF	260															260 LF
M4711004	2 ½" Conduit under new pavement or landscaping	LF	1070															1070 LF
M4712002	No. 5 Junction Box	EA	7															7 EA
M4712003	No. 7 Junction Box	EA	1															1 EA
M4721003	Foundation for Type LM Pole	EA	3															3 EA
M4721005	Foundation for Type SR Pole	EA	3															3 EA
M4721006	Foundation for Type SQ Pole	EA	1															1 EA
M4741004	Type LM Pole	EA		3														3 EA
M4741006	Type SR Pole	EA		3														3 EA
M4741007	Type SQ Pole	EA		1														1 EA
M4741014	45' Mast Arm for SR pole	EA		2														2 EA
M4741017	60' Mast Arm for SQ Pole	EA		1														1 A
M4741020	COP Luminaire Mast Arm	EA		6														6 EA
M4741021	5' Riser for LM/SM/SR Pole	EA		6														6 EA
M4741023	20' Riser for LM/SM/SR Pole	EA		1														1 EA

NOTE:

Lineal Feet quantities for PVC conduit are measured from point to point and may not reflect actual field conditions

TRAFFIC SIGNAL REMOVALS

ITEM No.	DESCRIPTION	UNIT	10421 - 51st Ave Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	Found	Equip	Wiring	
M4791001	Removal of A Pole	EA	1															1 EA
M4791003	Removal of LM Pole	EA	3															3 EA
M4791005	Removal of M Pole w/ Mast Arm	EA	3															3 EA
M4793001	Removal of Traffic Signal Pole Foundations	CY	8.5															8.5 CY
M4794001	Removal of Incidental Traffic Items	LS	1															1 EA

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REVISION BY CITY OF PHOENIX

NO.	DESCRIPTION	REV BY	CKD BY	DATE

REGISTERED PROFESSIONAL ENGINEER (CIVIL) CERTIFICATE NO. 42880 STEVEN M. OGBURN 11/1[illegible]/16 Date Signed ARIZONA, U.S.A.

Expires 6/30/2017

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28 THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF THE CONTRACTOR'S CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SUMMARY

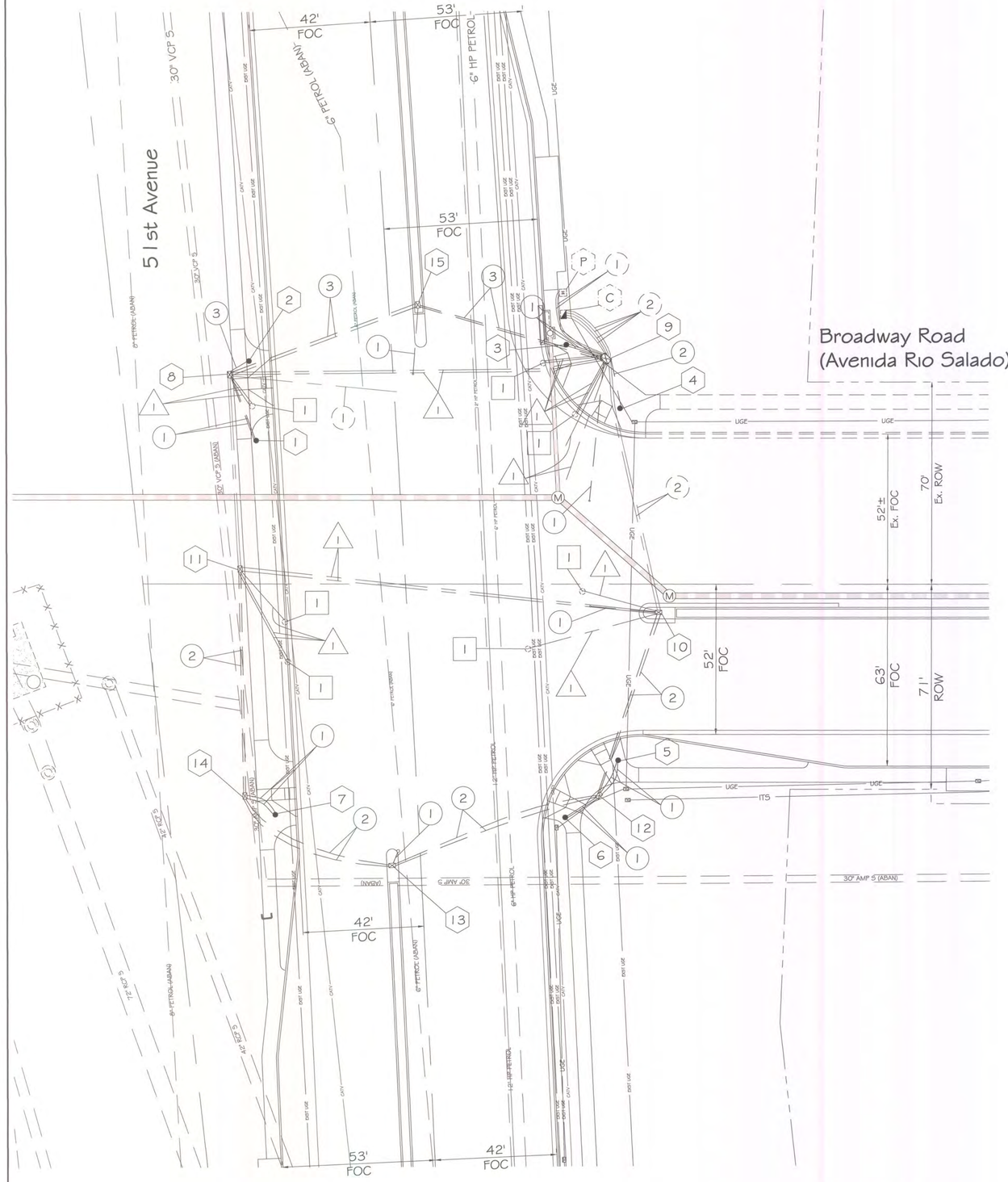
CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY ROAD/AVENIDA RIO SALADO

51st AVENUE TO 43rd AVENUE
ST85100371(003)

DES:	CK:	DWG SERIES No.
DATE:	DATE:	
SCALE: N/A		G-2.01

ST85100330



1. GENERAL NOTES:

1.1 The contractor shall notify the City Of Phoenix Traffic Signal Shop (602-262-6733) a minimum of fourteen (14) calendar days prior to beginning any traffic signal work. Submittals of all equipment shall be furnished to the Signal Shop and approved prior to the ordering of any traffic signal equipment. The contractor shall verify that they have the most current set of drawings prior to start and ordering of any equipment.

1.2 Foundation elevations must be within 1/4" of finished sidewalk grade.

1.3 The Contractor shall layout all ADA ramps, junction boxes and foundation locations for approval by the traffic signal representative prior to any excavation.

1.4 A minimum of four (4) feet of clearance is required between all traffic signal poles and the back edge of sidewalk pedestrian ramps.

1.5 Traffic Signal Plan approval is valid for 365 calendar days from date sealed. If signal construction has not begun prior to the 365 days elapsing, the signal plans must be re-submitted for approval or an extension granted by the Deputy Director Traffic Services or an authorized representative to ensure that existing traffic signal equipment locations and standard detail references are current.

1.6 The contractor shall have a complete set of construction drawings including current City of Phoenix standard details on site at all times during signal construction activities.

2. CONTRACTOR NOTE FOR CITY OF PHOENIX TRAFFIC SIGNAL POLES

2.1 The contractor shall provide and install one (1) City of Phoenix Type SQ poles, three (3) City of Phoenix Type SR poles, three (3) City of Phoenix Type LM poles, all with anchor cages, nuts bolts, one (1) 20 ft. pole extension, six (6) standard 5 ft. pole extensions, six (6) 8 ft. luminaire mast arms, one (1) 60 ft. signal mast arms, two (2) 45 ft. signal mast arms as per C.O.P. Street Transportation drawing # 10164.

2.2 Signal poles, mast arms, mast arm extensions, pole extensions and 8 ft. luminaire mast arms shall be powder coated with a color prescribed by the Traffic Signal Construction Supervisor. Contact the Supervisor at (602) 262-6733 to confirm color.

2.3 Separate pull strings shall be installed from end of signal mast arm for every signal device on the signal mast arms and a single pull string on the luminaire mast arms to the hand hole at the base of each traffic signal pole.

3. WORK TO BE PERFORMED BY THE CONTRACTOR

The contractor shall provide the traffic signal equipment as indicated in note 2.1. The contractor is to provide all underground work including, but not limited to:

3.1 - All demolition work, unless otherwise noted
- All trenching
- All foundations (pole, controller and power service pedestal)
- All pole anchor cages, nuts and bolts required for pole foundations installed by the contractor in addition to those specified in note 2.1
- All junction boxes with 18" of sump
- All conduit runs
- Provide and install the power service pedestal
- Provide and install conduit runs from PSP to Utility Company feed

3.2 All underground conduits shall be schedule 40 rigid polyvinyl chloride (PVC) installed 24 inches to 30 inches below finished grade with the exception of loop lead-in conduits, which shall be schedule 40 rigid PVC installed in accordance with the latest City of Phoenix Standard Detail Sheet. All conduits shall be installed in straight lines (unless approved by the Signal Shop Inspector) junction box to junction box or junction box to signal equipment foundation with one 90 degree sweep on each end as specified in the plans. All conduits entering junction boxes shall be vertical. Conduits in all foundations shall be located as close as possible to center of the foundation and vertical with foundation below the bottom of the cover. All conduit ends except those in the controller cabinet foundation will be provided with a "bell end" fitting of appropriate size.

3.3 Removal of existing streetlights:

The contractor shall:
- Request de-energization of all streetlights listed for removal,
- Provide complete removal of streetlight pole, mast arm and luminaire
- Properly dispose of all streetlight material

4. WORK TO BE PERFORMED BY CITY OF PHOENIX SIGNAL CREWS

The City of Phoenix traffic signal crews will provide and install all above ground traffic signal equipment including:

- All poles and mast arms except as indicated in note 2.1
- All signal heads
- All pedestrian heads
- All APS push buttons
- All controllers
- All LED luminaires
- All illuminated street signs
- All signal wiring
- All loop and non-invasive detectors
- All pole grouting
- All cameras
- All radios

54530
BRUCE E. LITTLETON
REGISTERED PROFESSIONAL ENGINEER
ARIZONA, U.S.A.
EXPIRES: 06-30-2018

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		133	168

DR:	DES:	CK:	DATE:

EXISTING FOUNDATION SCHEDULE

NO.	TYPE	FROM M.OF AVENIDA RIO SALADO	FROM M.OF 51st AVENUE
C	CONT	93 ft. NORTH	60 ft. EAST
P	PSP	101 ft. NORTH	61 ft. EAST

PROPOSED FOUNDATION SCHEDULE

NO.	TYPE	FROM M.OF AVENIDA RIO SALADO	FROM M.OF 51st AVENUE
1	SQ	50 ft. NORTH	49 ft. WEST
2	LM	77 ft. NORTH	49 ft. WEST
3	SR	82 ft. NORTH	61 ft. EAST
4	LM	61 ft. NORTH	78 ft. EAST
5	SR	61 ft. SOUTH	70 ft. EAST
6	LM	81 ft. SOUTH	51 " EAST
7	SR	80 ft. SOUTH	49 ft. WEST

REMOVE AND REPLACE JUNCTION BOX SCHEDULE

NO.	TYPE	FROM M.OF AVENIDA RIO SALADO	FROM M.OF 51st AVENUE
8	#5	72 ft. NORTH	57 ft. WEST
9	#7	78 ft. NORTH	78 ft. EAST
10	#5	10 ft. SOUTH	87 ft. EAST
11	#5	5 ft. NORTH	57 ft. WEST

PROPOSED JUNCTION BOX SCHEDULE

NO.	TYPE	FROM M.OF AVENIDA RIO SALADO	FROM M.OF 51st AVENUE
12	#5	73 ft. SOUTH	62 ft. EAST
13	#5	97 ft. SOUTH	10 ft. WEST
14	#5	73 ft. SOUTH	60 ft. WEST
15	#5	97 ft. NORTH	10 ft. EAST

INSTALL

- (C) 8 Phase Controller Foundation
- (P) Power Service Pedestal Foundation
- (1) thru (7) Traffic Signal Pole Foundation
- (8) thru (15) Traffic Signal Junction Box

CONDUIT

- (1) 2" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout
- (2) 2½" Schedule 40 PVC with #10 copper pull wire bent over lip of stubout

REMOVE

- [1] Traffic Signal Foundation - 7
  - SR - 3
  - A - 1
  - LM - 3

ABANDON IN PLACE

- [1] Traffic Signal Conduit

Two working days before you dig CALL FOR THE BLUE STAKES (602) 263-1100 Blue Stake Center CALL COLLECT

PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW

N

10421.dwg JUL/08/16 2:55pm

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E Wolen

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

TRAFFIC SIGNAL PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENDIA RIO SALADO AT 51st AVENUE FOUNDATION

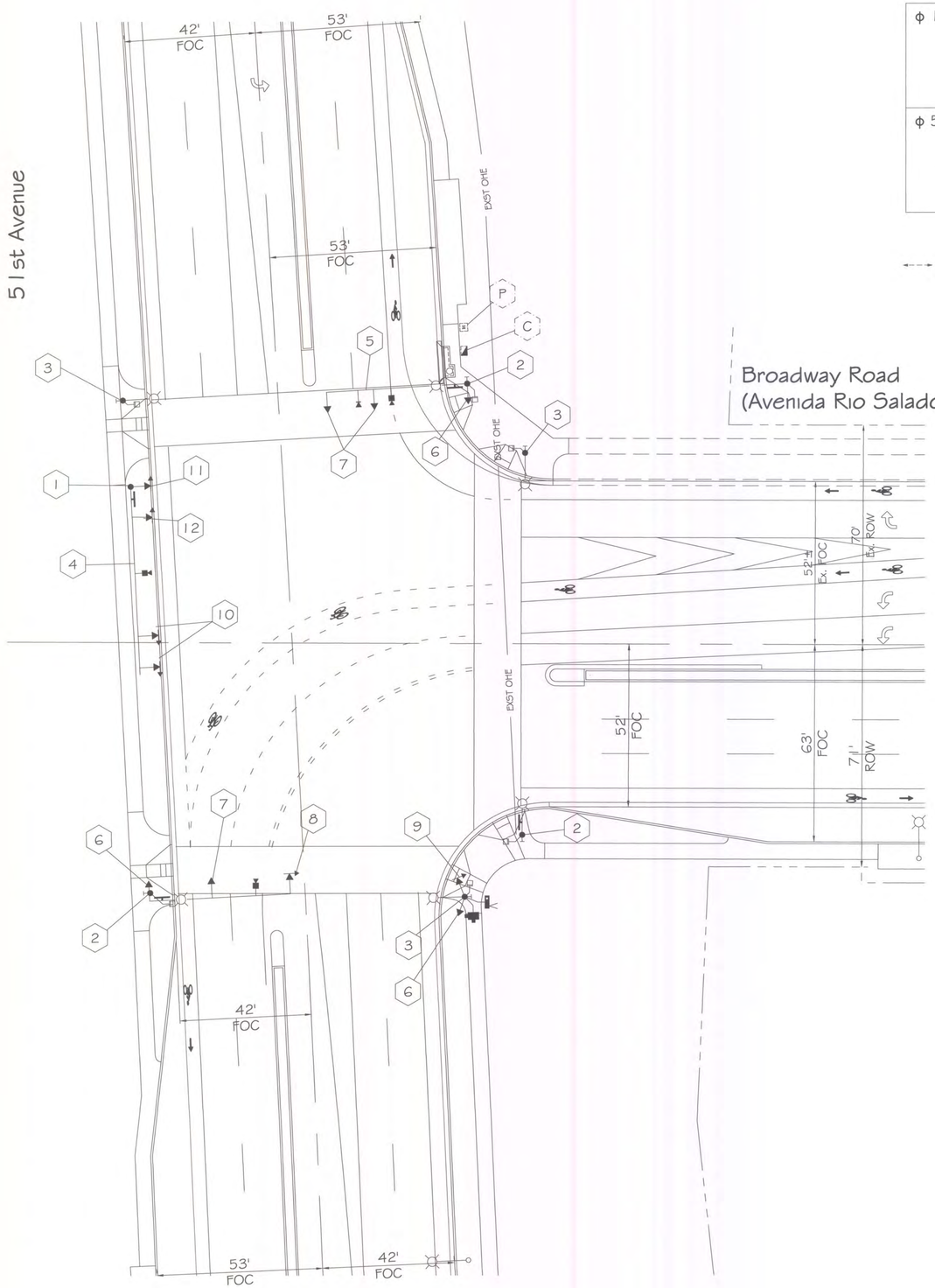
PROJECT #:			FILE NO: 10421
DR: tsy	DES:	CK:	SHEET NO: 1
DATE: JUNE 2016	DATE:	DATE:	TOTAL SHEETS 3
SCALE: 1" = 20'	QS. #: 4-17		

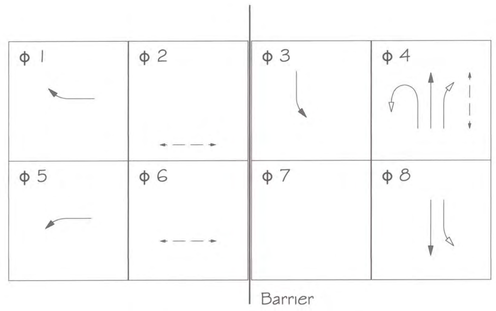
BROADWAY/ARS # 51st AVE

PROJECT #: ST85100371(003)

FILE #: 10421

DWG SERIES No.
TS-1.02





6 Type "F" 3 Section 12" Vehicle Signal Head Mounted on Signal Pole

7 Type "F1" with Plumbizer 3 Section 12" Vehicle Signal Head Mounted on Signal Mast Arm

8 Type "Q2" with Plumbizer 5 Section 12" Signal Head Left Arrow Mounted on Signal Mast arm

9 Type "Q" 5 Section 12" Vehicle Signal Head Left Arrow Mounted on Signal Pole

10 Type "R1" with Plumbizer 3 Section 12" Vehicle Signal Head with Left Arrows Mounted on Signal Mast Arm

11 Type "R" 3 Section 12" Vehicle Signal Head with Right Arrows Mounted on Signal Pole

12 Type "R1" with Plumbizer 3 Section 12" Vehicle Signal Head with Right Arrows Mounted on Signal Mast Arm

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		134	168

54530 BRUCE E. LITTLETON — Registered Professional Engineer (Civil) — Not Valid Without Signature — ARIZONA, U.S.A. — EXPIRES: 06-30-2018

DR:	DES:	CK:	DATE:

EQUIPMENT LIST

- C — 8 Phase Controller Cabinet - 1 existing
- P — Power Service Pedestal - 1 existing
- 1 — Traffic signal Pole Type SQ - 1 New
- 2 — Traffic Signal Pole Type SR - 3 New
- 3 — Traffic Signal Pole Type LM - 3 New
- 4 — 60 ft Signal Mast Arm - 1 New
- 5 — 45 ft Signal Mast Arm - 2 New
- 6 — Type F 12" Signal Head - 3 New Pole Mount
- 7 — Type F1 12" Signal Head - 3 New Mast Arm Mount w/Plumbizer
- 8 — Type Q2 5 Section Signal Head w /Left Arrows - 1 New Doghouse Style, Mast Arm Mount w/Plumbizer
- 9 — Type Q 5 Section Signal Head w/Left Arrows - 1 New Inline Style, Pole Mount
- 10 — Type R1 3 Section Signal Head w/Left Arrows - 2 New Mast Arm Mount w/Plumbizer
- 11 — Type R 3 Section Signal Head w/RB, YA, GA - 1 New Pole Mount
- 12 — Type R1 3 Section Signal Head w/RB, YA, GA - 1 New Mast Arm Mount w/Plumbizer

- LED Luminaire - 6 New
- LED Illuminated Street Sign - 4 New
  - 51st Avenue - 2
  - Broadway Road - 2
- Pedestrian Signal Head - 6 New
- APS Pedestrian Push Button - 6 New
- Video Detection - 3 New
- EVP Detector and Confirmation Light- 2 New
- PTZ CCTV Camera w/20' Riser - 1 New
- Wireless Network Radio - 1 New

BROADWAY/ARS & 51st AVE

PROJECT #: ST85100371(003)

FILE #: 10421

Two working days before you dig CALL FOR THE BLUE STAKES (602) 263-1100 Blue Stake Center CALL COLLECT

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TRAFFIC SIGNAL PLAN

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

AVENIDA RIO SALADO AT 51st AVENUE

EQUIPMENT

APPROVED BY:

TRAFFIC SIGNAL ENGINEER

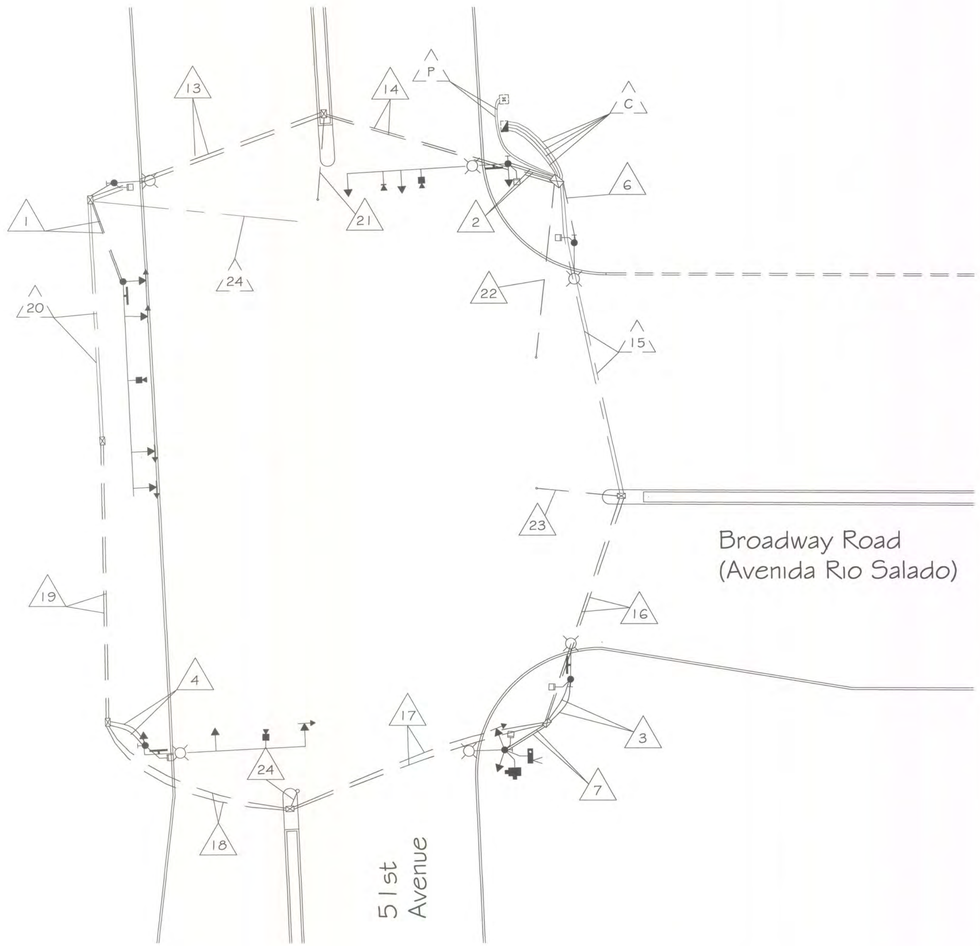
ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR

N

10421.dwg JULIO8/16 2:55pm

PROJECT #:			FILE NO: 10421
DR: hsy	DES:	CK:	SHEET NO: 2
DATE: JUNE 2016	DATE:	DATE:	TOTAL SHEETS 3
SCALE: 1" = 20'	QS. #: 4-25		

DWG SERIES No. TS-1.03



C Controller to #7 Junction Box

CONDUIT 1	CONDUIT 2	CONDUIT 3	CONDUIT 4
#10 Bare Copper #10 AWG White 42C IM5A Cable	#10 Bare Copper Detector Lead In (4) EVP Detection Cable (4) EVP Confirmation Cable (4) CCTV Cable (1) CAT 5e Cable (1)	#10 Bare Copper #8 AWG Black #8 AWG White #8 AWG Green	Detectible Mule Tape

P Power Service Pedestal to #7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #8 AWG Black #8 AWG White #8 AWG Green 5C IM5A Cable #C IM5A Cable (Radio)	Detectible Mule Tape

1 NWC Junction Box to SQ Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Sign) 20C IM5A Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

2 NEC Junction Box to 5R Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Sign) 3C IM5A Cable (Luminaire) 20C IM5A Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

3 SEC Junction Box to 5R Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Sign) 3C IM5A Cable (Luminaire) 20C IM5A Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

4 SWC Junction Box to 5R Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Sign) 3C IM5A Cable (Luminaire) 20C IM5A Cable	#10 Bare Copper EVP Detection Cable (1) EVP Confirmation Cable (1) Detection Camera Cable (1)

5 NWC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IM5A Cable (Luminaire) 20C IM5A Cable

6 NEC Junction Box to LM Pole

CONDUIT 1
#10 Bare Copper #10 AWG White 3C IM5A Cable (Luminaire) 20C IM5A Cable

7 SEC Junction Box to LM Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Radio) 3C IM5A Cable (Luminaire) 20C IM5A Cable	#10 Bare Copper CCTV Cable (1) ITS Cable (1)

13 NWC Junction Box to North Median Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1)

14 North Median Junction Box to NEC #7 Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1)

15 NEC Junction Box to East Median Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Radio) 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1) CCTV Cable (1) CAT 5e Cable (1)

16 East Median Junction Box to SEC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 3C IM5A Cable (Radio) 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1) CCTV Cable (1) CAT 5e Cable (1)

17 SEC Junction Box to South Median Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1)

18 South Junction Box to SWC Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IM5A Cable 42C IM5A Cable	#10 Bare Copper Detection Camera Cable (1) EVP Detection Cable (1) EVP Confirmation Cable (1)

19 SWC Junction Box to West Median Junction Box

CONDUIT 1	CONDUIT 2
Detectible Mule Tape	Detectible Mule Tape

20 West Median Junction Box to NWC Junction Box

CONDUIT 1	CONDUIT 2
Detectible Mule Tape	Detectible Mule Tape

21 North Median Island Junction Box to Loop

CONDUIT 1
#10 Bare Copper

22 NEC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

23 East Median Island Junction Box to Loop

CONDUIT 1
#10 Bare Copper

24 NWC Junction Box to Loop

CONDUIT 1
#10 Bare Copper

N

BROADWAY/AR3 AT 51st AVE

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.		135	168

DR:	DES:	CK:	DATE:

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 54530 BRUCE E. LITTLETON Date Signed 7/21/16 ARIZONA, U.S.A. EXPIRES: 06-30-2018

Two working days before you dig CALL FOR THE BLUE STAKES (602) 263-1100 Blue Stake Center CALL COLLECT

PER PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY AND MAY NOT BE FURNISHED FOR INSPECTION OR COPYING, EXCEPT AS SPECIFICALLY STATED IN THE CITY CODE, OR AS REQUIRED BY LAW

TRAFFIC SIGNAL PLAN

APPROVED BY:

TRAFFIC SIGNAL ENGINEER: Thomas E. Weber

ACTING STREET TRANSPORTATION TRAFFIC SERVICES DEPUTY DIRECTOR:

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

BROADWAY RD/AVENIDA RIO SALADO AT 51st AVENUE

WIRING DIAGRAM

PROJECT #:			FILE NO: 10421	
DR: hsy	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE: JUNE 2016	DATE:	DATE:		
SCALE: 1" = 20'		QS. #: 4-25	3	3

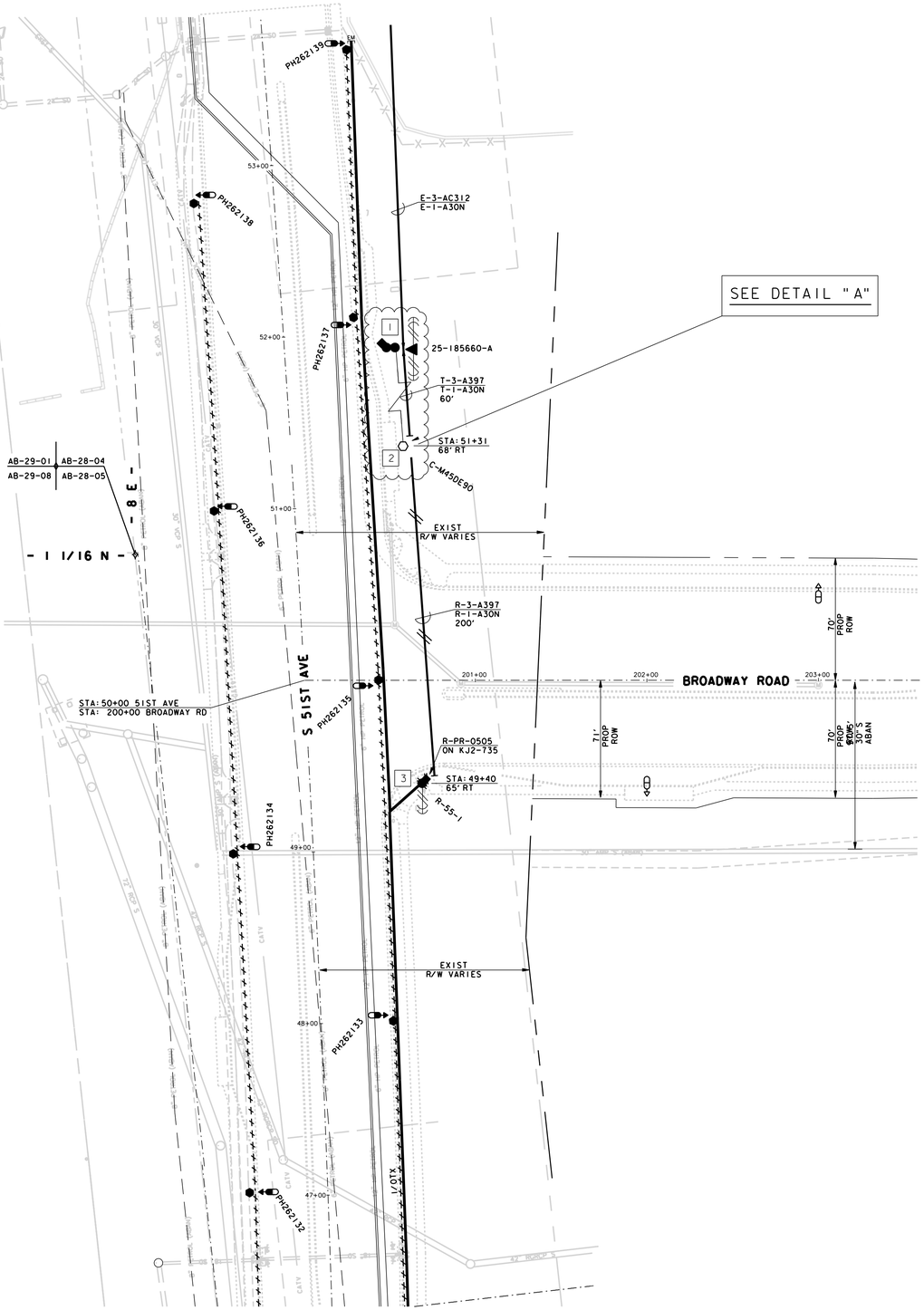
PROJECT #: ST85100371(003)

FILE #: 10421

10421.dwg JUL/08/16 2:55pm

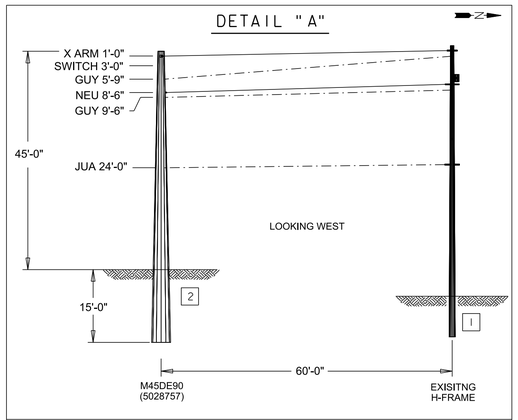
DWG SERIES No.
TS-1.04

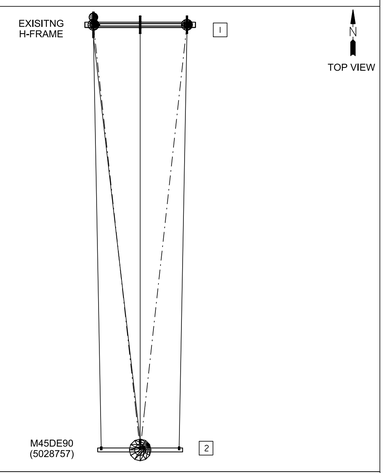
MAINLINE



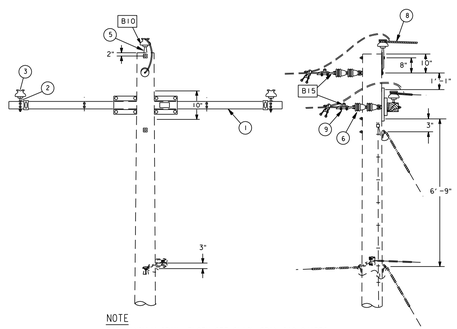
SCALE: 1" = 40'

DETAIL "A"





P36.. CONDUCTORS A2, A266, A30, A397, C2, C20, C4, C6, R2, R30



NOTE
FOR MAXIMUM SPAN LENGTH SEE SLACK SPAN SAG CHARTS.

ITEM	MATERIAL DESCRIPTION	QUANTITY	STOCK NO.
1	CROSSARM, 8', 3000 lb. CONDUCTOR TENSION	1	58-0290
2	PIN, INSULATOR, 5/8 X 5.75 IN. LONG	2	58-7500
3	INSULATOR, PIN, 12KV, PORCELAIN GRAY	3	59-3765
5	PIN, INSULATOR, 18 IN. LENGTH, HOT GALV.	1	58-7290
6	INSULATOR, SUSPENSION, 6-1/4 IN., CLEVIS	6	59-4330
8	DEADEND GRIP, VARIOUS	3	BDG..
9	DEADEND CLAMP, VARIOUS	3	BD..

Overhead Distribution Construction Standards
SRP PROPRIETARY MATERIAL

REV. REMOVED POLE GROUND MOLDING

PRIMARY CONSTRUCTION UNITS
THREE PHASE DEADEND
180 DEG. SLACK SPAN. CROSSARM

5-35-1

ISSUE DATE: 09/30/71
REV. DATE: 05/31/11
APPROVAL: B.PRIEST
8512E131.DGN

GRAPHIC SYMBOLS

- DOUBLE SLASH INDICATES REMOVAL
- WORK ACTIVITY POINT
- EXISTING OH TRANSFORMER
- EXISTING FORGEIN POLE
- EXISTING OH GANG SWITCH
- EXISTING WOOD POLE
- EXISTING STEE POLE
- EXISTING PRIVATE LIGHT
- EXISTING STREET LIGHT ON POLE
- EXISTING STREET LIGHT
- PROPOSED DOWN GUY
- OVERHEAD GUY
- PROPOSED WOOD POLE WITH RISER
- OH PRIMARY CONDUCTOR
- OH SECONDARY CONDUCTOR
- OH STREET LIGHT CONDUCTOR
- OH SERVICE CONDUCTOR

PHOENIX PERMIT BOXES

CITY OF PHOENIX
0000000
/ /2013
UTILITY PERMIT NO.
CITY OF PHOENIX
DEVELOPER: SALT RIVER PROJECT
CONTACT: JASON HUGHES
PHONE NO.: 602-516-8679
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE: 0'
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 0'
INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.

CONTACTS

PRIMARY:
KEITH FAULKNER
PHONE: (602)236-3793
MOBILE: (602)653-1387

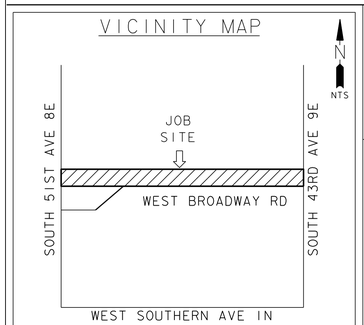
SECONDARY:
JASON HUGHES
PHONE: (602)236-0886

SUPERVISOR/SPECIALIST:
RYAN EARWOOD
PHONE: (602)236-4128
MOBILE: (602)818-2952

CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements. However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains. all measurements outside to outside.

VICINITY MAP



NOTICE

THIS JOB ORDER INVOLVES
OVERHEAD, UNDERGROUND
AND/ OR SERVICES
TRANS. 69KV= TI740618
TRANS. 12KV= T2017759
UG= KJ2-735
ST/LT= KJL-380

FIELD INSPECTION STAMP

REV	REVISED BY	DATE	REVISION DESCRIPTION
4			
3			
2			
1	JAHUGHES	1-22-15	MADE CHANGES AT POINT 1&2 RE-ISSUED PRINTS
0	AXLUEVAN	9-26-14	SENT FOR WHITE PRINTS

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE
FIS JO JJ2-211 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO TI713887 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T +10

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: 1-602-263-1100

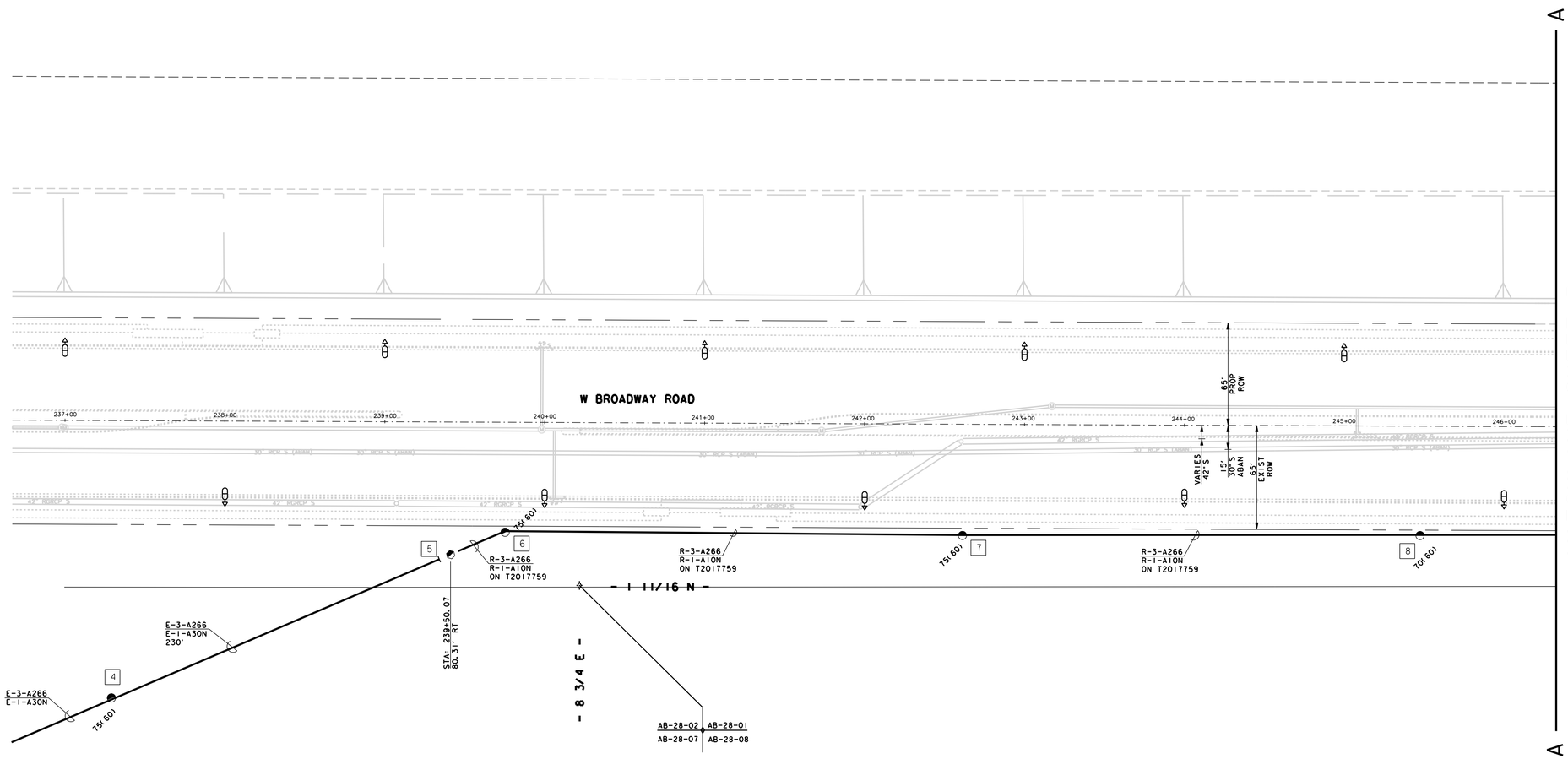
SHEET NUMBER 1 OF 3

CS122x34FRM.JD2 04-03-2011
DWG SERIES No.
SRPP-1.01

MAINLINE

N

SCALE: 1" = 40'



CONTACTS

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MOBILE: (602)653-1387

SECONDARY:
JASON HUGHES
PHONE: (602)236-0886

SUPERVISOR/SPECIALIST:
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MOBILE: (602)818-2952

FIELD INSPECTION STAMP

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE
FIS JO JJ2-211 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713887 AMP VERSION

COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T +10

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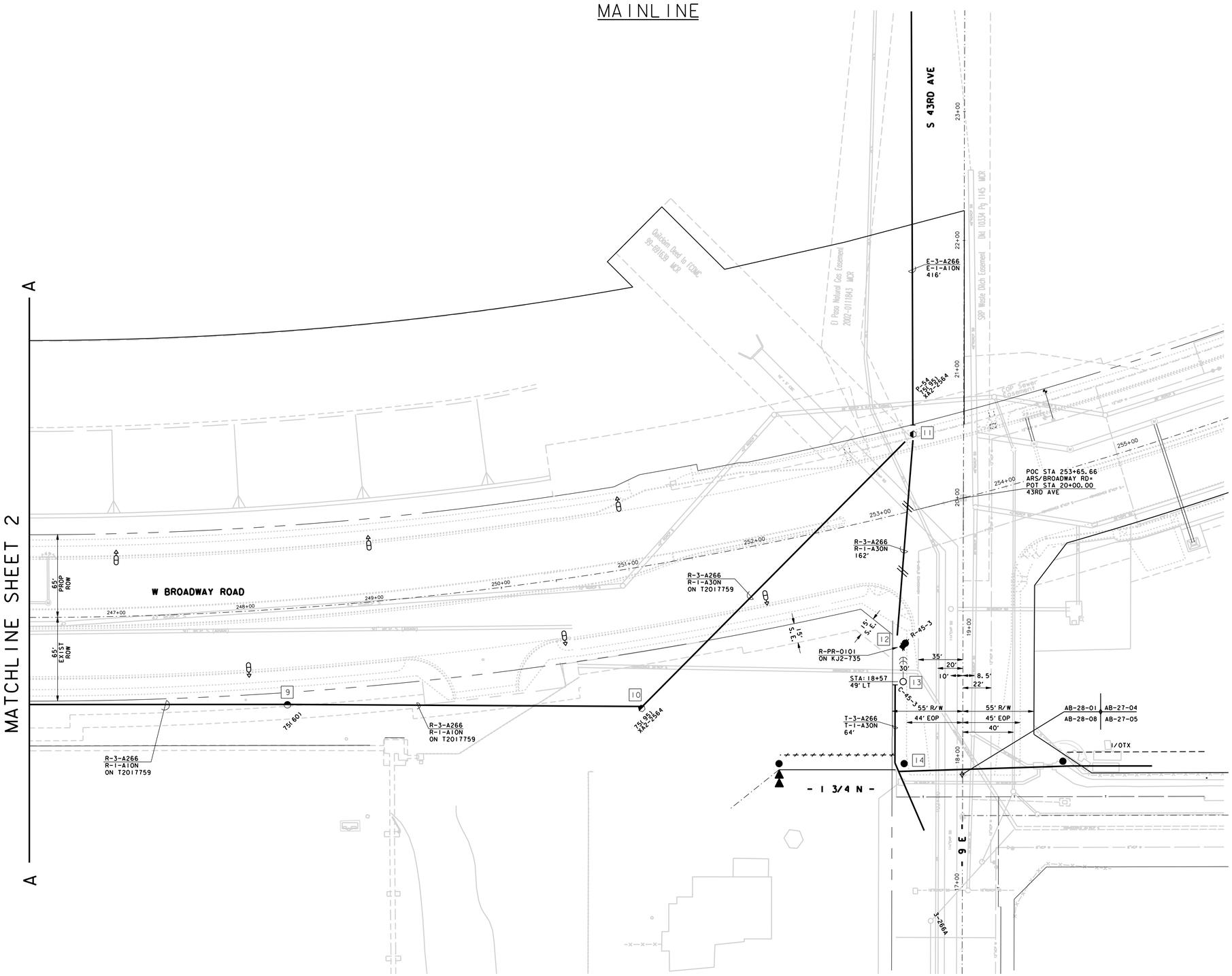
SHEET NUMBER 2 OF 3

MAINLINE



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FIS JO JJ2-211 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
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SRP

COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T +10

SHEET NUMBER 3 OF 3

CS122x34FRM_NR_JD2 04-03-2011

DWG SERIES No.
SRPP-1.03

NOTES:

CITY OF PHOENIX PROJECT ST85100334

CATHERINE ROGERS CITY OF PHOENIX UTILITY COORDINATION

DAVID RUTKOWSKI AZTEC ENGINEERING

CITY BENCHMARK:
C.O.P. B.C. IN NORTH H.H., ABOUT 15' NORTH OF SECOND C.O.P. B.C. IN H.H. AT THE INTERSECTION OF 35TH AVE AND BROADWAY RD.
EL. 1034.893

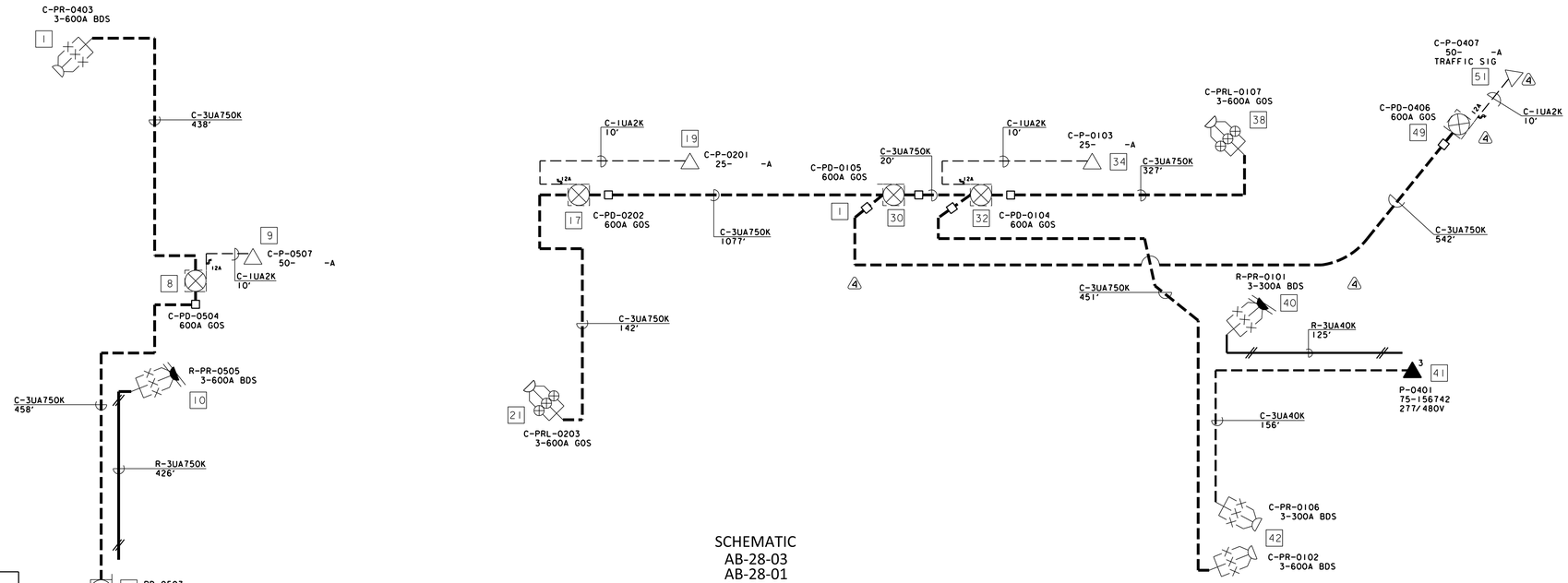
FINAL GRADE TO BE SET PRIOR TO SRP SETTING POLES AND EQUIPMENT

CITY OF PHOENIX TO PROVIDE AND INSTALL ALL CONST. SURVEY, TRENCH, CONDUIT, STREET LIGHTS, BACKFILL, AND CALL FOR SRP INSPECTIONS ON ALL INSTALLATIONS.

CITY OF PHOENIX TO REMOVE EXISTING STREET LIGHTS AS INDICATED.

SRP TO PULL WIRE AND ENERGIZE STREET LIGHTS WITH PROVIDED INSPECTIONS ON ALL INSTALLATIONS.

AVENIDA RIO SALADO / BROADWAY RD
ARS 8: 51ST AVE - 43RD AVE
C.O.P. JOB # ST85100334
SRP JOB# KJ2-735/ T1713864



SCHEMATIC
AB-28-03
AB-28-01
AB-27-03

LEGEND

- EXISTING UG PRIMARY TRENCH ROUTE
- PROPOSED UG PRIMARY TRENCH ROUTE
- EXISTING UG STREET LIGHT TRENCH ROUTE
- EXISTING PADMOUNT THREE PHASE TRANSFORMER
- PROPOSED PADMOUNT SINGLE PHASE TRANSFORMER
- PROPOSED PADMOUNT SWITCH CABINET
- EXISTING WOOD POLE
- EXISTING WOOD POLE TO BE REMOVED
- EXISTING FOREIGN OWNED WOOD POLE
- EXISTING FOREIGN OWNED STEEL POLE
- EXISTING UG RISER
- EXISTING UG RISER TO BE REMOVED
- PROPOSED UG RISER
- DOUBLE DOWN GUY
- EXISTING MUNICIPAL STREET LIGHT
- PROPOSED MUNICIPAL STREET LIGHT
- EXISTING UG J-BOX
- PROPOSED UG J-BOX
- PROPOSED CONDUIT SPLICE POINT
- WORK POINT NUMBER

N. T. S.

SCHEMATIC LEGEND
*UNLESS OTHERWISE INDICATED

- C-3UA750K
- C-3UA40K
- C-2UA2K
- C-1UA2K
- E-3UA40K
- E-1UA2

CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements.However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains, all measurements outside to outside.

PHOENIX PERMIT BOXES
CITY OF PHOENIX

/ /2014
UTILITY PERMIT NO.
CITY OF PHOENIX

DEVELOPER: SALT RIVER PROJECT
P.O. BOX 52025
PHOENIX, AZ 85072
CONTACT: KEITH FAULKNER
PHONE NO.: 602-653-1387
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE:
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 0

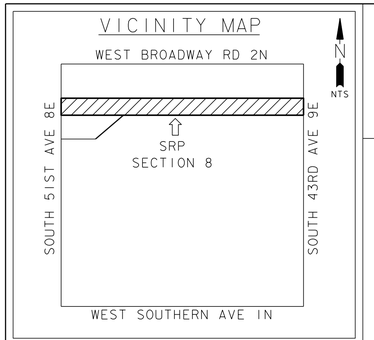
INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6" CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.
-ALSO MINIMUM OF 3" CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER SERVICES.

D13

SHEET INDEX
1: SCHEMATIC
2-3: CONDUIT ONE-LINE
4-6: MAINLINE
7: DETAILS

VICINITY MAP



NOTICE
THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# JJ2-211
TRANS# T1740618
ST/LT# KJL-380

FIELD INSPECTION STAMP

CONTACTS 8

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MOBILE: (602)818-2952

REV	REVISED BY	DATE	REVISION DESCRIPTION
4	JAHUGHES	12/19/14	ADDED EQIPMENT AND RUNNING LINE EAST OF 43RD AVE
3	JAHUGHES	12-16-14	MOVED RUNNING LINE AT POINT 36A & 37
2	AXLUEVAN	9/26/14	SENT FOR WHITES
1	JAHUGHES	8/19/14	SENT FOR YELLOWS
0	KWFAULKN	8/29/13	DESIGN START

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE
FIS JO KJ2-735 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713864 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1, 5 CSI, L, G, T+I
SHEET NUMBER | OF 6

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

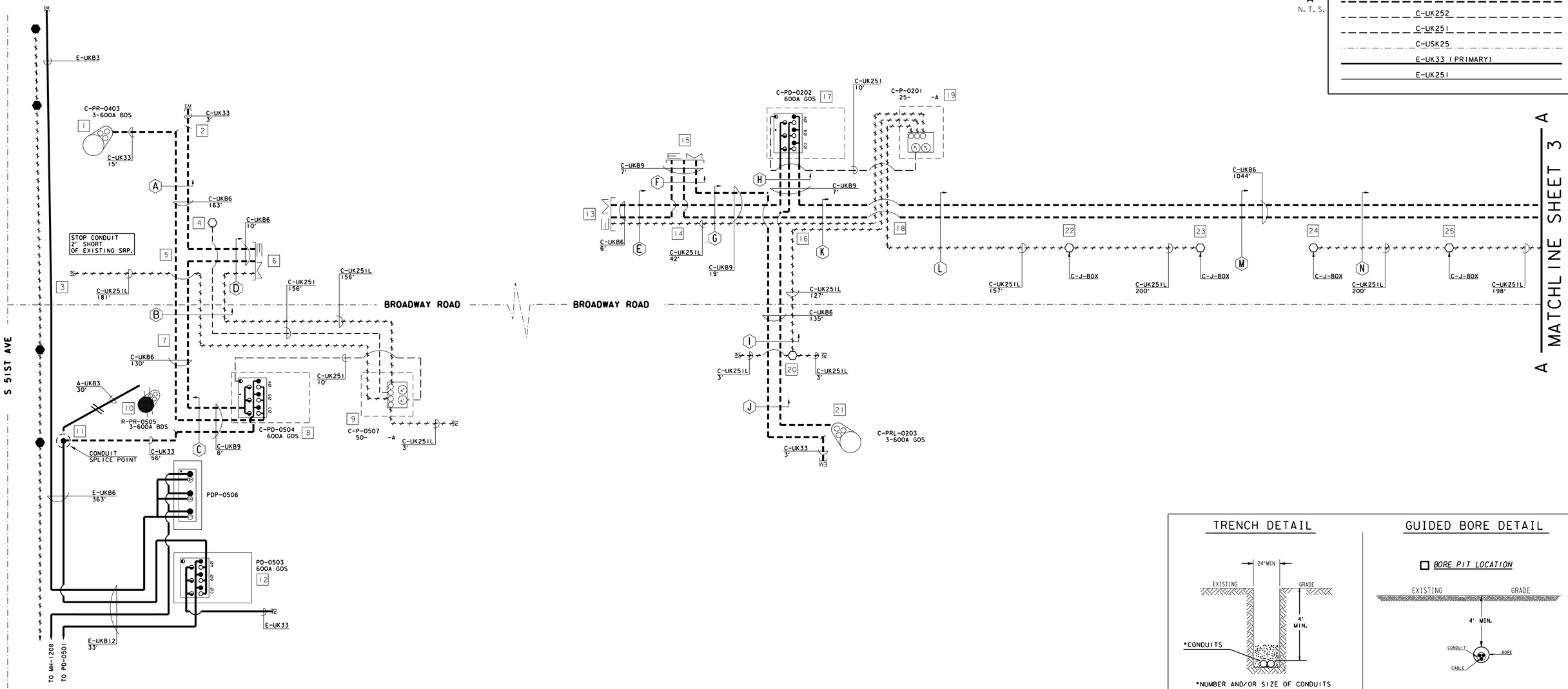
CS122x34FRM JD2 04-03-2011
DWG SERIES No.
SRPP-1.04

CONDUIT ONE LINE

N
N. T. S.

CONDUIT ONELINE LEGEND
(CONDUITS ARE AS FOLLOWS UNLESS NOTED OTHERWISE)

- C-UK33(FEEDER)
- C-UK253(PRIMARY)
- C-UK252
- C-UK251
- C-USK25
- E-UK33 (PRIMARY)
- E-UK251



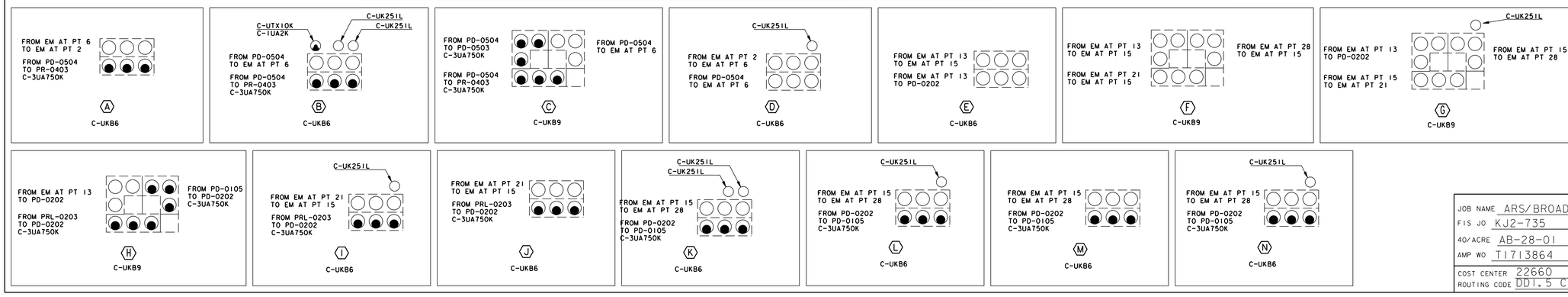
TRENCH DETAIL

*NUMBER AND/OR SIZE OF CONDUITS IN TRENCH MAY VARY.
(SEE CONDUIT ONE LINE)

GUIDED BORE DETAIL

*NUMBER AND/OR SIZE OF CONDUITS IN BORE MAY VARY.
(SEE CONDUIT ONE LINE)

CONDUIT RACKING DETAILS



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AMP WO T1713864 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T+I

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ARIZONA811
Arizona Blue Stake, Inc.
Dial 811 or 1-800-STAKE-IT (1-800-782-5348)
In Maricopa County: 1-602-263-1100

SKP

SHEET NUMBER 2 OF 6

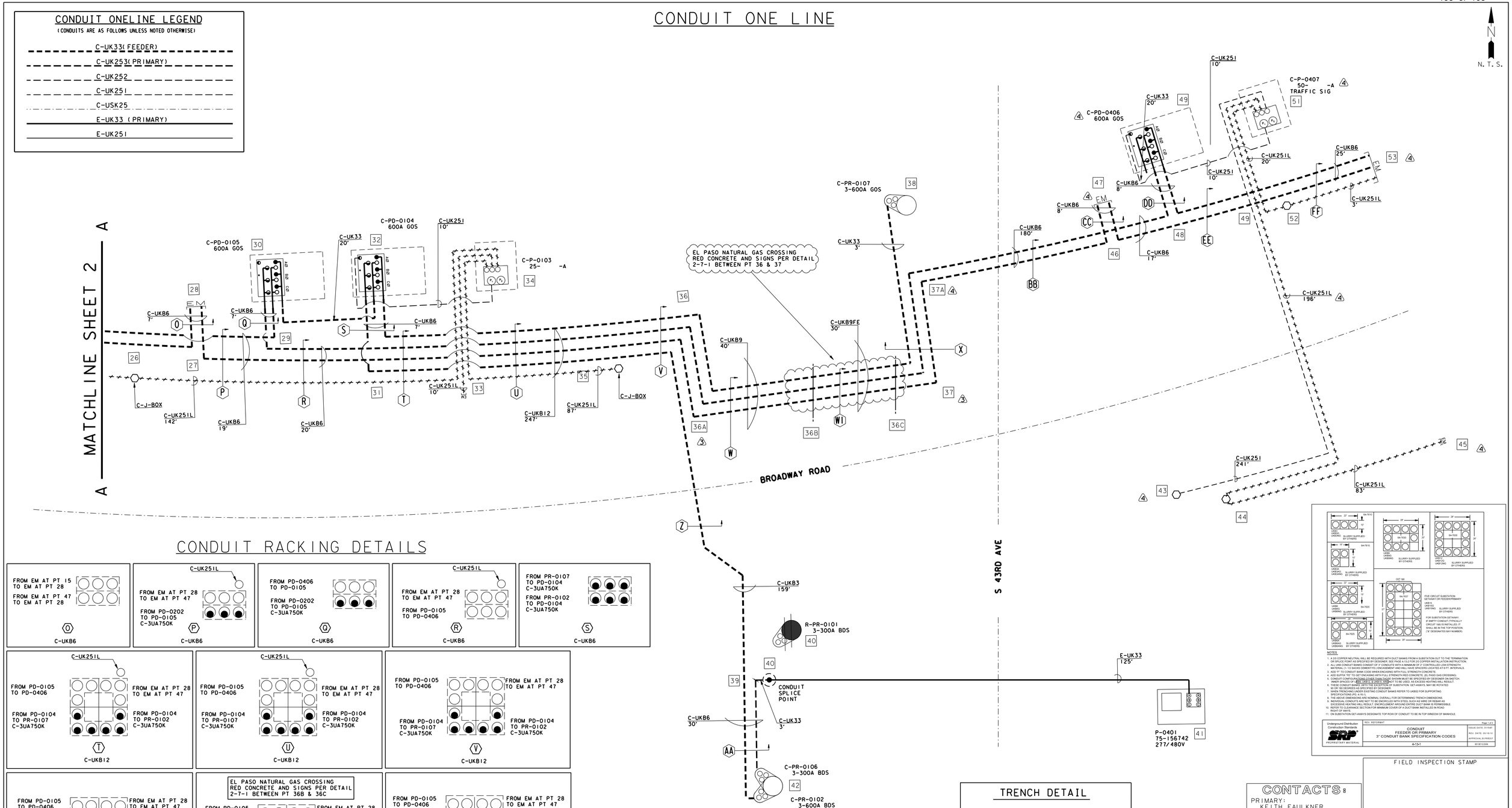
CS122x34FRM_NS_JD2 04-03-2011
DWG SERIES No.
SRPP-1.05

CONDUIT ONE LINE

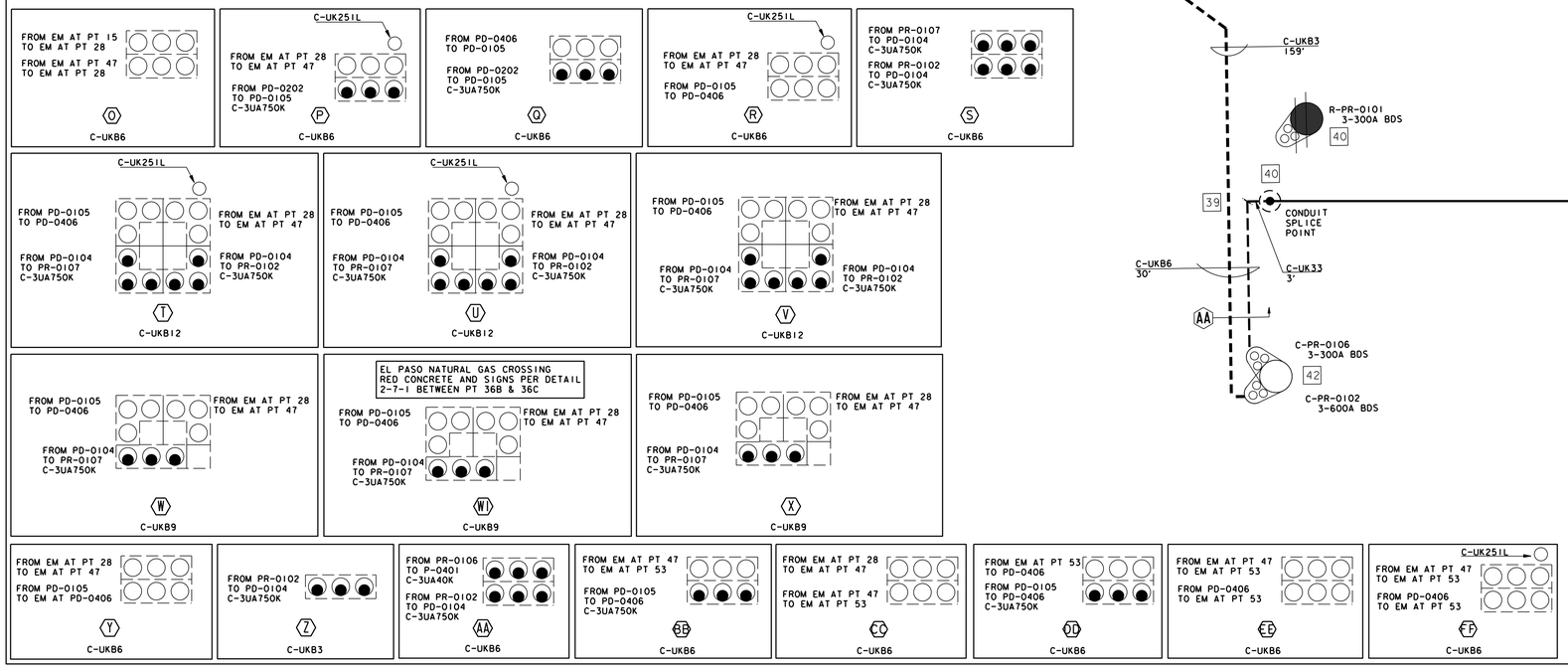
CONDUIT ONELINE LEGEND

(CONDUITS ARE AS FOLLOWS UNLESS NOTED OTHERWISE)

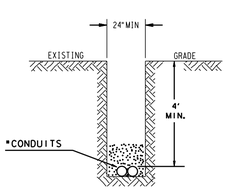
- C-UK33 (FEEDER)
- C-UK253 (PRIMARY)
- C-UK252
- C-UK251
- C-USK25
- E-UK33 (PRIMARY)
- E-UK251



CONDUIT RACKING DETAILS



TRENCH DETAIL



*NUMBER AND/OR SIZE OF CONDUITS IN TRENCH MAY VARY.
(SEE CONDUIT ONE LINE)

NOTES:
1. A 2/0 COPPER NEUTRAL WILL BE REQUIRED WITH DUCT BANKS FROM A SUBSTATION OUT TO THE TERMINATION OR SPLICE POINT AS SPECIFIED BY DESIGNER. SEE PAGE 4-13.2 FOR 2/0 COPPER INSTALLATION INSTRUCTION.
2. ALL UKB CONDUIT BANKS CONSIST OF 3" CONDUITS WITH A MINIMUM OF 2" CONTROLLED LOW STRENGTH MATERIAL (CLSM) ENCASEMENT. SPACERS SHALL BE USED TO MAINTAIN CONDUIT SPACING AT 5 FT. INTERVALS.
3. ADD "F" TO CONDUIT BANK CODE WHEN ENCASING WITH FULL STRENGTH CONCRETE.
4. ADD SUFFIX "FE" TO GET ENCASING WITH FULL STRENGTH RED CONCRETE. (EL PASO GAS CROSSING).
5. CONDUIT CONFIGURATIONS OTHER THAN THOSE SHOWN MUST BE SPECIFIED BY DESIGNER ON SKETCH. INNER SPACES OF 4 WIDE UKB'S & UKB'S ARE NOT TO BE USED. AS EXCESS HEATING WILL RESULT.
6. WHEN TRENCHING UNDER EXISTING CONDUIT BANKS FOR A SUBSTATION GET-AWAYS, MAY BE ROTATED 90 OR 180 DEGREES AS SPECIFIED BY DESIGNER.
7. WHEN TRENCHING UNDER EXISTING CONDUIT BANKS REFER TO UKBS2 FOR SUPPORTING SPECIFICATIONS (PG. 4-15.7).
8. THE ABOVE DIMENSIONS ARE NOMINAL OVERALL FOR DETERMINING TRENCH DIMENSIONS.
9. MAINTAIN 3" MINIMUM CLEAR SPACE BETWEEN CONDUITS AND 3" MINIMUM CLEAR SPACE TO EARTH. EXCESSIVE HEATING WILL RESULT. ENCIRCLEMENT AROUND ENTIRE DUCT BANK IS PERMISSIBLE.
10. REFER TO CLEARANCE SECTION FOR MINIMUM COVER OF A DUCT BANK INSTALLED IN ROAD RIGHT OF WAYS.
11. ON SUBSTATION GET-AWAYS DESIGNATE TOP ROW OF CONDUIT TO BE IN TOP WINDOW OF MANHOLE.

Underground Distribution Construction Standards	REV. REFORMAT	Page 1 of 1
SRP PROPRIETARY MATERIAL	CONDUIT FEEDER OR PRIMARY 3" CONDUIT BANK SPECIFICATION CODES	ISSUE DATE: 01/97 REV. DATE: 05/10 APPROVAL #: PRINT
	4-13.1	4918013.DGN

FIELD INSPECTION STAMP

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40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713864 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T+I

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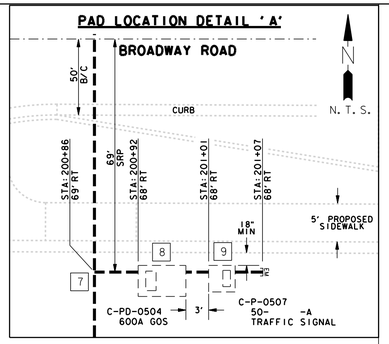
SHEET NUMBER 3 OF 6

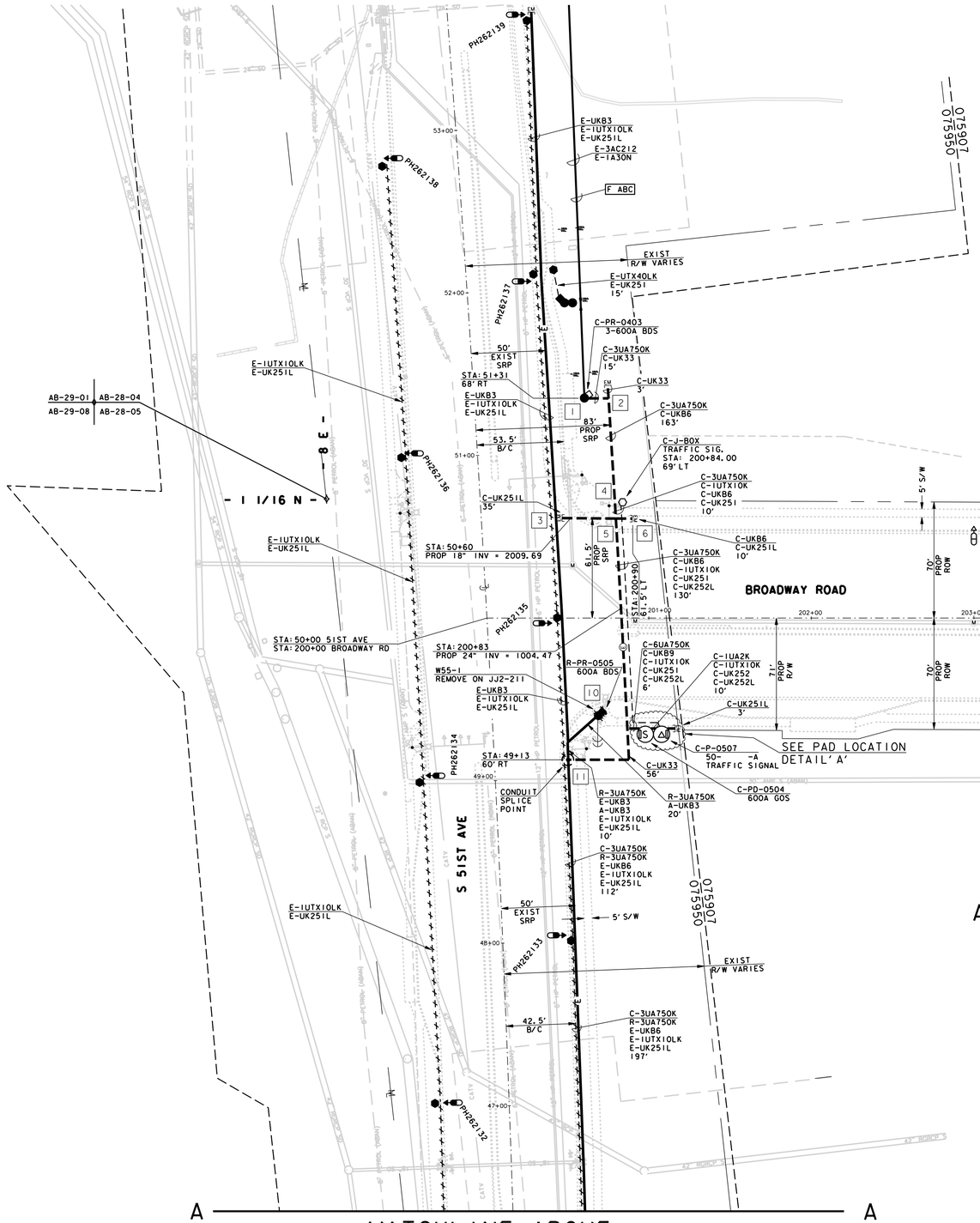
CS122x34FRM.NR_JD2 04-03-2011
DWG SERIES No.
SRPP-1.06

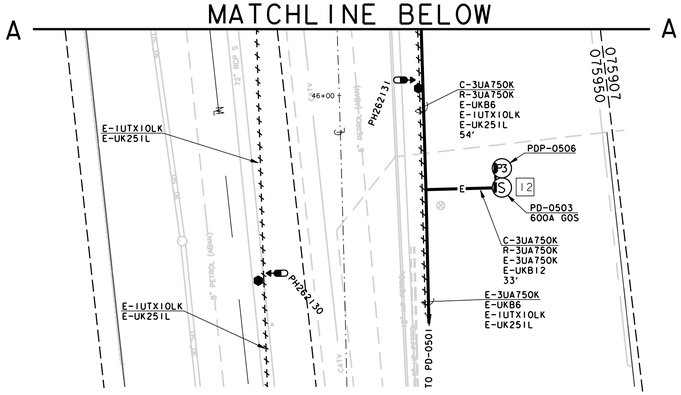
MAINLINE

SCALE: 1" = 40'

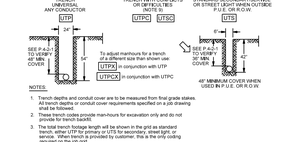
PAD LOCATION DETAIL 'A'





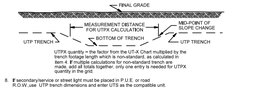


TRENCHING EXCAVATION CODES



NOTES:

1. Trench depths and conduit cover are to be measured from final grade stakes. All trench depths or conduit cover requirements specified on a job drawing shall be followed.
2. These trench codes provide man-hours for excavation only and do not include trench backfill.
3. The total trench footage length will be shown in the grid as standard trench, either UTP for primary or UTS for secondary, street light, or service. When trench is provided by customer, this is the only coding required on the job grid.
4. Non standard trench locations will be identified on the job order sketch and the applicable trench footage length shown.
5. When trenching is provided by SRP, non standard trenches shall have 2 compatible unit codes in the grid. UTP plus the UTPX, to adjust the time for digging.
6. When specified depth cannot be obtained because of solid rock, a minimum depth shall be that which provides a minimum 2" encasement of concrete surrounds the conduit.
7. Use example shown to figure length of UTPX trench, unless the entire trench is non standard.

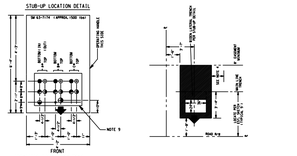


UTPX quantity = the factor from the UTX Chart multiplied by the trench footage length which is non-standard, as calculated in item 4. If multiple calculations for non-standard trench are made, add all totals together, only one entry is needed for UTPX quantity in the grid.

8. If secondary/service or street light must be placed in P.U.E. or road R.O.W. use UTP trench dimensions and enter UTS as the compatible unit.
9. Provides 7.5 times regular man-hours
10. Trench bottom shall be smooth and free of sharp rocks. Where excavation is in rock, bottom of trench to have protective layer of clean, level, tamped backfill or sand.

Underground Distribution Construction Standards	REV. CORRECTED TRENCH DEPTH TYPO.	Page 1 of 2
PROPRIETARY MATERIAL	TRENCHING EXCAVATION CODES	ISSUE DATE: 01/09/97
		REV. DATE: 03/06/13
	6-T-1	APPROVAL & PRESET 8108130.00K

SWITCHING AND FUSING DEAD FRONT SWITCHING ENCLOSURE



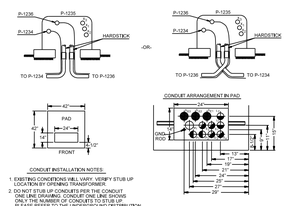
IDENTIFICATION OF SYMBOLS

SYMBOL	POSITION	CABLE TERMINATION
1	TOP	3" CONDUIT FOR EITHER 500KCM FEEDER OR 750MCM FEEDER
2	TOP-TAP	3" CONDUIT FOR EITHER 500KCM FEEDER, 750MCM FEEDER OR #4/0L
3	TOP-TAP	2-3" CONDUIT FOR #4/0L TAP
4	TOP-TAP	2-3" CONDUIT FOR SINGLE PHASE PRIMARY UNITS OR TAP INTERNALLY FUSED, 1 # 2 TAP ONLY!
5	BOTTOM-TAP	3" CONDUIT FOR #4/0 AL CABLE TAP IS OPTIONAL *6 BLOW REQUIRES PARKING STAND EXTENSION 43-0750
6	BOTTOM	3" CONDUIT FOR EITHER 500KCM FEEDER OR 750MCM FEEDER
	GROUND ROD	

NOTES:

1. ALL PAD ELEVATIONS SHALL BE ESTABLISHED BY SURVEY (BLUE TOP), AND TOP OF PAD SHALL BE 4" ABOVE FINISH GRADE. (MAXIMUM 6" ABOVE FINISH GRADE).
2. PAD MUST BE LEVEL BEFORE SETTING ENCLOSURE.
3. AREA UNDER PAD MUST BE COMPACTED PER TRENCH SPECIFICATIONS.
4. MAINTAIN A MINIMUM OF 3 FT. SEPARATION BETWEEN SWITCH PAD AND THE PAD OF ADJACENT TRANSFORMER.
5. PROVIDE 10' CLEAR SPACE ON THE RIGHT SIDE (WHEN #1 IS UNDERSTOOD, A SWITCH WITH THE OPERATING HANDLE ON THE LEFT SIDE IS AVAILABLE, STOCK CODE 0631730S. BE AWARE THIS SWITCH DOES NOT HAVE THE SINGLE PHASE FUSED TAP OPTION.)
6. MAINTAIN A MINIMUM OF 12 FT. CLEARANCE IN FRONT OF SWITCH DOORS.
7. IF OBSTACLES ARE ANTICIPATED IN FRONT OF THE SWITCH (E.G. DESIGNATED PARKING), THE SWITCH SHALL BE ROTATED 90°, SO THE OPERATING HANDLE FACES ROAD RIGHT OF WAY. ADDITIONAL LABELING SHALL BE PLACED ON THE SIDE OF THE ENCLOSURE FACING ROAD RIGHT OF WAY.
8. STUB-UP CONDUIT LOCATIONS ARE SHOWN ABOVE, BOTTOM ENTRY OR EXITING IS ALSO AVAILABLE. FOR BOTTOM ENTRY OR EXITING, USE A FINAL BOX OR SPLICE BOX TO SEPARATE THE A/U & U/G CONDUCTORS.
9. SEE PAGE 3-13-3 AND 3-13-4 WHEN THIS SWITCH WILL BE TIED INTO DIRECT BURIED CABLE OR OVERHEAD SYSTEM THAT WILL BE CONVERTED TO ALL CONDUIT SYSTEM IN THE FUTURE.
10. 50KVA MAY HAVE ONE 50KVA OR TWO 25KVA TRANSFORMERS, IF TWO 25KVA TRANSFORMERS ARE CONNECTED, TRAFFIC SIGNALS/AUTO OR RAIL/ MAY ONLY BE SERVED FROM FIRST TRANSFORMER OUT.

Underground Distribution Construction Standards	REV. DELETED PREVIOUS NOTE 9 ADDRESSING SPEEDCRETE.	Pg 2 of 13
PROPRIETARY MATERIAL	SWITCHING AND FUSING DEAD FRONT SWITCHING ENCLOSURE	ISSUE DATE: 01/15/97
		REV. DATE: 02/15/11
	3-15.2	APPROVAL & PRESET 8108300.00K



CONDUIT INSTALLATION NOTES:

1. EXISTING CONDITIONS WILL VARY. VERIFY STUB UP LOCATION BY OPENING TRANSFORMER.
2. DO NOT STUB UP CONDUITS PER THE CONDUIT ARRANGEMENT IN PAD DRAWING IF THERE IS ONLY ONE NUMBERED SECONDARY CONDUIT SHOWN. PLEASE REFER TO THE UNDERGROUND DISTRIBUTION LINE CONSTRUCTION STANDARDS PAGE 5-T-1.7 FOR PROPER CONDUIT PLACEMENT.
3. WHEN STUBBING UP PRIMARY CONDUITS INTO EXISTING TRANSFORMER WINDOWS (WITH EXISTING DIRECT BURIED PRIMARY CABLES), POSITION THE PRIMARY CONDUIT STUB UP WITH THE EXISTING PRIMARY CABLES.
4. THE TOP OF THE GROUND ROD AND ALL CONDUITS ARE TO BE 1 INCH ABOVE THE TOP OF THE PAD WHEN INSTALLED IN EXISTING TRANSFORMERS. MAKE SURE THE GROUND ROD IS NOT IN THE WAY OF A STICK FROM THE ELBOWS INTO THE TRANSFORMER PAD WINDOW.
5. INSTALL PLUGS IN ALL CONDUIT STUB UPS. DO NOT GLUE PLUGS.
6. IF ONLY ONE SECONDARY CONDUIT IS TO BE INSTALLED, PLACE IT IN POSITION SEC2.

LEGEND

MAXIMUM NUMBER OF SERVICES:
SECONDARY CONDUITS #1 & #
Ty - SECONDARY CONDUIT 3"
L - LIGHT CONDUIT 2-1/2"
S - SERVICE CONDUIT 2-1/2"
P - PRIMARY CONDUIT 3-1/2"
M - METER CENTER SERVICE OR SECONDARY
2-1/2" O.D. = 2.875"
3" O.D. = 3.5"

Underground Distribution Construction Standards	REV.	
PROPRIETARY MATERIAL	#1 TRANSFORMER STUB-UP DETAIL FOR EXISTING TRANSFORMERS (CABLE REPLACEMENT)	ISSUE DATE: 02/16/12
		REV. DATE: 0
	6-11-5	APPROVAL & PRESET 8515570.00K

FIELD INSPECTION STAMP

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SUPERVISOR/SPECIALIST:
RYAN EARWOOD
PHONE: (602)236-4128
MOBILE: (602)818-2952

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE
FIS JO KJ2-735 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713864 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T+I

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

SHEET NUMBER 4 OF 6

CS122x34FRM.NR.JD2 04-03-2011
DWG SERIES No.
SRPP-1.07

PAD LOCATION DETAIL 'C'

MAINLINE

NOTES:

1. Trench depths and conduit cover are to be measured from final grade stakes. All trench depths or conduit cover requirements specified on a job drawing shall be followed.
2. These trench codes provide man-hours for excavation only and do not provide for trench backfill.
3. The total trench footage length will be shown in the grid as standard trench, either UTP for primary or UTS for secondary, street light, or service. When trench is provided by customer, this is the only coding required on the job grid.
4. Non standard trench locations will be identified on the job order sketch with required width and depth dimensions given.
5. When trenching is provided by SRP, non standard trenches shall have 2 compatible unit codes in the grid, UTP plus the UTPX, to adjust the time for digging.
6. When specified depth cannot be obtained because of solid rock, a minimum earth cover of 24" is acceptable, provided a minimum 2" encasement of concrete surrounds the conduit.
7. Use example shown to figure length of UTPX trench, unless the entire trench is non standard.

UTPX quantity = the factor from the UT-X Chart multiplied by the trench footage length which is non-standard, as calculated in item 4. If multiple calculations for non-standard trench are made, add all totals together, only one entry is needed for UTPX quantity in the grid.

8. If secondary/service or street light must be placed in P.U.E. or road R.O.W.,use UTP trench dimensions and enter UTS as the compatible unit.
9. Provides 1.5 times regular man-hours.
10. Trench bottom to be smooth and free of sharp rocks. Where excavation is in rock, bottom of trench to have protective layer of clean, level, tamped backfill or sand.

Underground Distribution Construction Standards / SRP / PROPRIETARY MATERIAL	REV. CORRECTED TRENCH DEPTH TYPO.	Page 1 of 2
	TRENCHING EXCAVATION CODES	ISSUE DATE: 01/15/87 REV. DATE: 03/06/13 APPROVAL: B.PRIEST
	6-11-1	8513E135.DGN

STUB-UP LOCATION DETAIL

IDENTIFICATION OF SYMBOLS

SYMBOL	POSITION	CABLE TERMINATION
1	TOP	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
2	TOP-TAP	3" CONDUIT FOR EITHER: 500MCM FEEDER, 750MCM FEEDER OR 4/0AL
3	TOP-TAP	4" CONDUIT FOR 3-4/0 AL (NOTE 8)
4	TOP-TAP	2-1/2" CONDUIT FOR FUSED SINGLE PHASE TRANSFORMER (NOTE 10) TAP INTERNALLY FUSED. (A B TOP ONLY)
5	BOTTOM-TAP	3" CONDUIT FOR 4/0 AL CAPACITOR TAP (W/SYMBOL #6 BELOW REQUIRES PARKING STAND EXTENSION 63-0350)
6	BOTTOM	3" CONDUIT FOR EITHER: 500MCM FEEDER OR 750MCM FEEDER
7		GROUND ROD

NOTES:

1. ALL PAD ELEVATIONS SHALL BE ESTABLISHED BY SURVEY (BLUE TOP), AND TOP OF PAD SHALL BE 4" ABOVE FINAL GRADE IN IMMEDIATE AREA.
2. PAD MUST BE LEVEL BEFORE SETTING ENCLOSURE.
3. AREA UNDER PAD MUST BE COMPACTED PER TRENCH SPECIFICATIONS.
4. MAINTAIN A MINIMUM OF 3 FT. SEPARATION BETWEEN SWITCH PAD AND THE PAD OF ADJACENT EQUIPMENT.
5. IF 3 FT. OF CLEAR SPACE ON THE RIGHT SIDE (NOTE 4) IS OBSTRUCTED, A SWITCH WITH THE OPERATING HANDLE ON THE LEFT SIDE IS AVAILABLE, STOCK CODE 063-7305. BE AWARE THIS SWITCH DOES NOT HAVE THE SINGLE-PHASE FUSED TAP CAPABILITY.
6. MAINTAIN A MINIMUM OF 12 FT. CLEARANCE IN FRONT OF SWITCH DOORS.
7. IF OBSTACLES ARE ANTICIPATED IN FRONT OF THE SWITCH (E.G. DESIGNATED PARKING), THE SWITCH SHALL BE ROTATED 90° SO THE OPERATING HANDLE FACES ROAD RIGHT OF WAY. ADDITIONAL LABELING SHALL BE PLACED ON THE SIDE OF THE ENCLOSURE FACING ROAD RIGHT OF WAY.
8. STUB UP ONE 4" CONDUIT AS SHOWN ABOVE WHEN TAPPING INTO AN EXISTING 3-4/0 AL IN ONE 4" CONDUIT. THIS AVOIDS THE NEED FOR A PULL BOX AT THE SWITCH TO SEPARATE THE 4/0 AL OUT INTO 3-3" CONDUIT.
9. SEE PAGE 3-13-3 AND 3-13-4 WHEN THIS SWITCH WILL BE TIED INTO DIRECT BURIED CABLE OR OVERHEAD SYSTEM THAT WILL BE CONVERTED TO ALL CONDUIT SYSTEM IN THE FUTURE.
10. 50KVA MAXIMUM. ONE 50KVA OR TWO 25KVA TRANSFORMERS. IF TWO 25KVA TRANSFORMERS ARE CONNECTED, TRAFFIC SIGNALS (AUTO OR RAIL) MAY ONLY BE SERVED FROM FIRST TRANSFORMER OUT.

Underground Distribution Construction Standards / SRP / PROPRIETARY MATERIAL	REV. DELETED PREVIOUS NOTE 9 ADDRESSING SPEEDCRETE.	Pg. 2 of 12
	SWITCHING AND FUSING DEAD FRONT SWITCHING ENCLOSURE	ISSUE DATE: 01/15/87 REV. DATE: 02/10/11 APPROVAL:B.PRIEST
	3-13-2	8513E524.DGN

CONDUIT INSTALLATION NOTES:

1. EXISTING CONDITIONS WILL VARY. VERIFY STUB UP LOCATION BY OPENING TRANSFORMER.
2. DO NOT STUB UP CONDUITS PER THE CONDUIT ONE LINE DRAWING. CONDUIT ONE LINE SHOWS ONLY THE NUMBER OF CONDUITS TO STUB UP. PLEASE REFER TO THE UNDERGROUND DISTRIBUTION LINE CONSTRUCTION STANDARDS,PAGE 9-11-1, FOR PROPER CONDUIT PLACEMENT.
3. WHEN STUBBING UP PRIMARY CONDUITS INTO EXISTING TRANSFORMER WINDOWS WITH EXISTING DIRECT BURIED PRIMARY CABLES, POSITION THE CONDUITS TO MATCH UP WITH THE EXISTING PRIMARY CABLES.
4. THE TOP OF THE GROUND ROD AND ALL CONDUITS ARE TO BE 1 INCH ABOVE THE TOP OF THE PAD WHEN INSTALLED IN EXISTING TRANSFORMERS. INSTALL A MINIMUM OF 6 INCHES OF PVC HARD STICK FROM THE ELBOWS INTO THE TRANSFORMER PAD WINDOW.
4. INSTALL PLUGS IN ALL CONDUIT STUB UPS. DO NOT GLUE PLUGS.
6. IF ONLY ONE SECONDARY CONDUIT IS TO BE INSTALLED, PLACE IT IN POSITION SE2.

LEGEND

MAXIMUM NUMBER OF SERVICE/ SECONDARY CONDUITS IS 8.
SE - SECONDARY CONDUIT 3"
L - LIGHT CONDUIT 2-1/2"
S - SERVICE CONDUIT 2-1/2"
P - PRIMARY CONDUIT 2-1/2"
M1 - MAY BE SERVICE OR SECONDARY
2-1/2" O.D. = 2.875"
3" O.D. = 3.5"

Underground Distribution Construction Standards / SRP / PROPRIETARY MATERIAL	REV.	
	TRANSFORMERS Ø1 TRANSFORMER STUB-UP DETAIL FOR EXISTING TRANSFORMERS (CABLE REPLACEMENT)	ISSUE DATE: 02/16/12 REV. DATE: 0 APPROVAL:B.PRIEST
	9-11-5	8513E573 .DGN

FIELD INSPECTION STAMP

NOTES

1. A 2/0 COPPER NEUTRAL WILL BE REQUIRED WITH DUCT BANKS FROM A SUBSTATION OUT TO THE TERMINATION OR SPLICE POINT AS SPECIFIED BY DESIGNER. SEE PAGE 4-13-2 FOR 2/0 COPPER INSTALLATION INSTRUCTION.
2. ALL UKB CONDUIT BANKS CONSIST OF 3" CONDUITS WITH A MINIMUM OF 2" CONTROLLED LOW STRENGTH MATERIAL (1- 1/2 SACKS CEMENT/YD.) ENCASEMENT AND WILL HAVE SPACERS LOCATED AT 6 FT. INTERVALS.
3. ADD "F" TO CONDUIT BANK CODE WHEN ENCASING WITH FULL STRENGTH CONCRETE.
4. ADD SUFFIX "FE" TO GET ENCASING WITH FULL STRENGTH RED CONCRETE. (EL PASO GAS CROSSING)
5. CONDUIT CONFIGURATIONS OTHER THAN THOSE SHOWN MUST BE SPECIFIED BY DESIGNER ON SKETCH. INNER SPACES OF UKB9, UKB12, & UKB15 ARE NOT TO BE USED, AS EXCESS HEATING WILL RESULT.
6. THESE CONDUIT BANKS, WITH THE EXCEPTION OF SUBSTATION GET-AWAYS, MAY BE ROTATED 90 OR 180 DEGREES AS SPECIFIED BY DESIGNER.
7. WHEN TRENCHING UNDER EXISTING CONDUIT BANKS REFER TO UKBS2 FOR SUPPORTING SPECIFICATIONS (PG. 4-16-1).
8. THE ABOVE DIMENSIONS ARE NOMINAL OVERALL FOR DETERMINING TRENCH DIMENSIONS.
9. INDIVIDUAL CONDUITS ARE NOT TO BE ENCIRCLED WITH STEEL SUCH AS WIRE OR REBAR AS EXCESSIVE HEATING WILL RESULT. ENCIRCLEMENT AROUND ENTIRE DUCT BANK IS PERMISSIBLE.
10. REFER TO CLEARANCE SECTION FOR MINIMUM COVER OF A DUCT BANK INSTALLED IN ROAD RIGHT OF WAYS.
11. ON SUBSTATION GET-AWAYS DESIGNATE TOP ROW OF CONDUIT TO BE IN TOP WINDOW OF MANHOLE.

Underground Distribution Construction Standards / SRP / PROPRIETARY MATERIAL	REV. REFORMAT	Page 1 of 2
	CONDUIT FEEDER OR PRIMARY 3" CONDUIT BANK SPECIFICATION CODES	ISSUE DATE: 01-15-87 REV. DATE: 05/16/10 APPROVAL:B.PRIEST
	4-13-1	8513E13.DGN

REQUIRED CONDUIT CONFIGURATION TO FIT RISER BOOTS

(THE QUADRANT CONFIGURATION FOR THE POLE RISER WILL BE SPECIFIED BY THE DESIGNER)

Electric Service Specifications / SRP / PROPRIETARY MATERIAL		
	TRENCHING AND CONDUIT POLE RISER ELBOW AND LOCATION	ISSUE DATE: 09/01/09 REV. DATE: 10/05/10 APPROVAL: M.MILLIES
	6-3	8509E310 .DGN

NOTES

1. Minimum vertical or horizontal separations between electric conduit systems and communications conduit systems (NESC Rule 320B2):

2. Minimum clearance between an electric conduit system and other existing underground structures or utilities (note 4):

3. Horizontal clearance for parallel structures (NESC Rule 320B):

4. An alternative to 12" of 85-90% compacted earth is a rigid support for the upper structure to prevent it from transferring any direct load to lower structure.
5. Conduit should be installed as far as practical from a water main to protect it from being undermined if the main breaks.
6. Municipals and other utilities may have additional requirements.

Electric Service Specifications / SRP / PROPRIETARY MATERIAL	REV. REFORMAT	
	CLEARANCES UNDERGROUND CONDUIT	ISSUE DATE: 04/15/86 REV. DATE: 11/09/10 APPROVAL:M.MILLIES
	5-14	8509E149.DGN

PVC STRAIGHT AND ELBOW BELLED END

CONDUIT DIAMETER	MINIMUM SOCKET DEPTH
2 1/2"	2 3/8"
3"	2 7/8"

COUPLINGS

SHALL NOT BE LESS THAN THE INSIDE DIAMETER OF THE DB120 STRAIGHT CONDUIT IT CONNECTS.

CONDUIT COUPLING DIAMETER	COUPLING SRP STOCK CODE
2 1/2"	64-5355
3"	64-5360

SOCKET DEPTH SHALL BE 2 1/2" MINIMUM FOR ALL SIZES OF CONDUIT PER TRI-UTILITY CONDUIT SPEC 7.8

END BELL FITTING

CONDUIT STUB UP MUST BE SPACED MINIMUM 3/4" APART TO INSTALL END BELL FITTING.

REDUCER AT PULL FITTING

Electric Service Specifications / SRP / PROPRIETARY MATERIAL	REV. EXTENSIVE REVISION	
	TRENCHING AND CONDUIT SIZES & SPECIFICATIONS BELLED ENDS AND FITTINGS	ISSUE DATE: 03/13/01 REV. DATE: 09/09/10 APPROVAL:M.MILLIES
	6-2	8509E127.DGN

TOTAL ENCASEMENT
ACCEPTABLE PER DETAIL
VERTICAL ELBOW REINFORCEMENT

NOTES

1. FOR ELBOWS WHICH WILL HAVE SIDEWALL PRESSURE GREATER THAN 300 Lbs/Ft OR FOR OTHER SITUATIONS AS REQUIRED.
2. DOES NOT APPLY TO CABLE PREASSEMBLED IN CONDUIT (C-I-C) OR TO CONTINUOUS SPOOLED DUCT.
3. BACKFILL AROUND ELBOWS WITH CLSM 1/2 SACK (00-0104).

Underground Distribution Construction Standards / SRP / PROPRIETARY MATERIAL	REV. REFORMAT	
	CONDUIT ELBOW REINFORCEMENT DETAILS	ISSUE DATE: 03/13/87 REV. DATE: 04/05/10 APPROVAL:B.PRIEST
	4-6-1	8513E1.DGN

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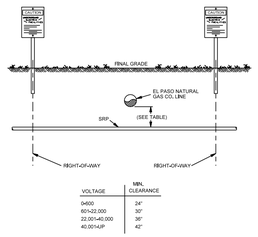
JOB NAME	ARS/BROADWAY RD: 51ST AVE TO 43RD AVE		
FIS JO	KJ2-735	MAP 1/4	NE S 28 T 1N R 2E
40/ACRE	AB-28-01	COORDS	8 7/8E - 1 3/4N
AMP WO	T1713864	AMP VERSION	
COST CENTER	22660	SHEET NUMBER	5 OF 6
ROUTING CODE	DD1.5 CSI,L,G,T+1		

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

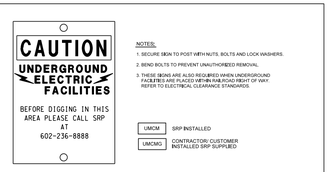
KINDER MORGEN CROSSING
BROADWAY RD STATION 253+27.6



VOLTAGE	MIN. CLEARANCE
0-600	24"
601-22,000	30"
22,001-40,000	36"
40,001-AUP	42"

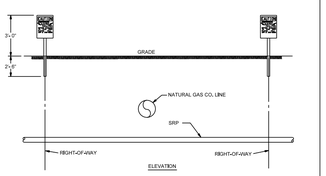
NOTES:
1. EL PASO NATURAL GAS CO. REQUIRES ALL CROSSINGS TO BE BELOW THEIR FACILITIES IN PLASTIC CONDUIT WITH 5" THICK ENCASEMENT WITH RED DYED 2500 PSI CONCRETE. THE CLEARANCE SHALL BE MAINTAINED ACROSS THE ENTIRE EL PASO RIGHT-OF-WAY.
2. WARNING SIGNS ARE REQUIRED. SEE UNDERGROUND CONSTRUCTION STANDARDS, MISCELLANEOUS SECTION, COMPATIBLE UNIT UMCM.

Electrical Clearance Standards — PROPRIETARY MATERIAL	REV: REFORMAT	UNDERGROUND CLEARANCES EL PASO GAS LINES	ISSUE DATE: 10/04/91 REV. DATE: 03/13/06 APPROVAL #:3158	2-7-1	892ET.DGN



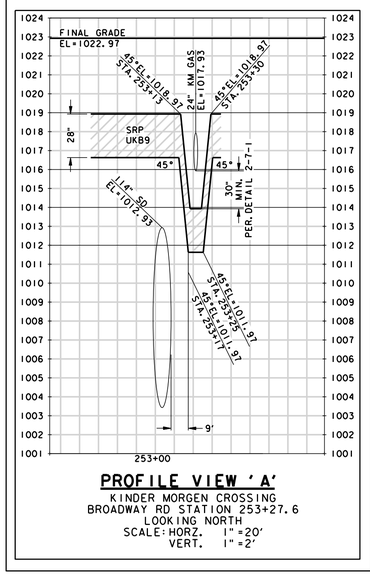
NOTES:
1. SECURE SIGN TO POST WITH NUTS, BOLTS AND LOCK WASHERS.
2. BEND BOLTS TO PREVENT UNAUTHORIZED REMOVAL.
3. THESE SIGNS ARE ALSO REQUIRED WHEN UNDERGROUND FACILITIES ARE PLACED WITHIN RAILROAD RIGHT OF WAY. REFER TO ELECTRICAL CLEARANCE STANDARDS.

UMCM	SRP INSTALLED
UMCMG	CONTRACTOR/ CUSTOMER INSTALLED SRP SUPPLIED

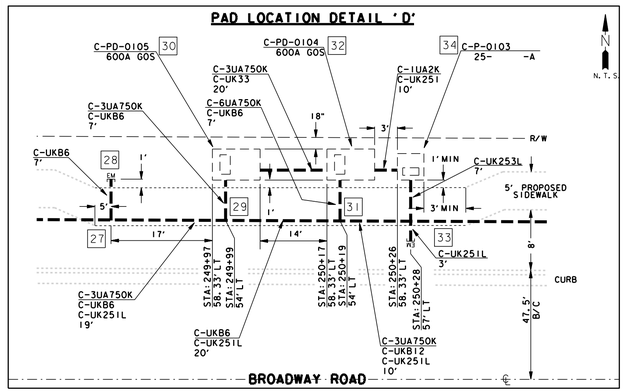


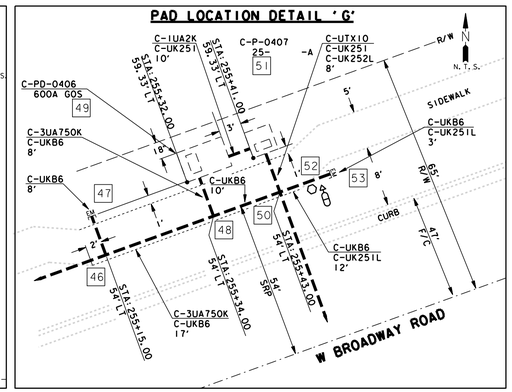
ELEVATION

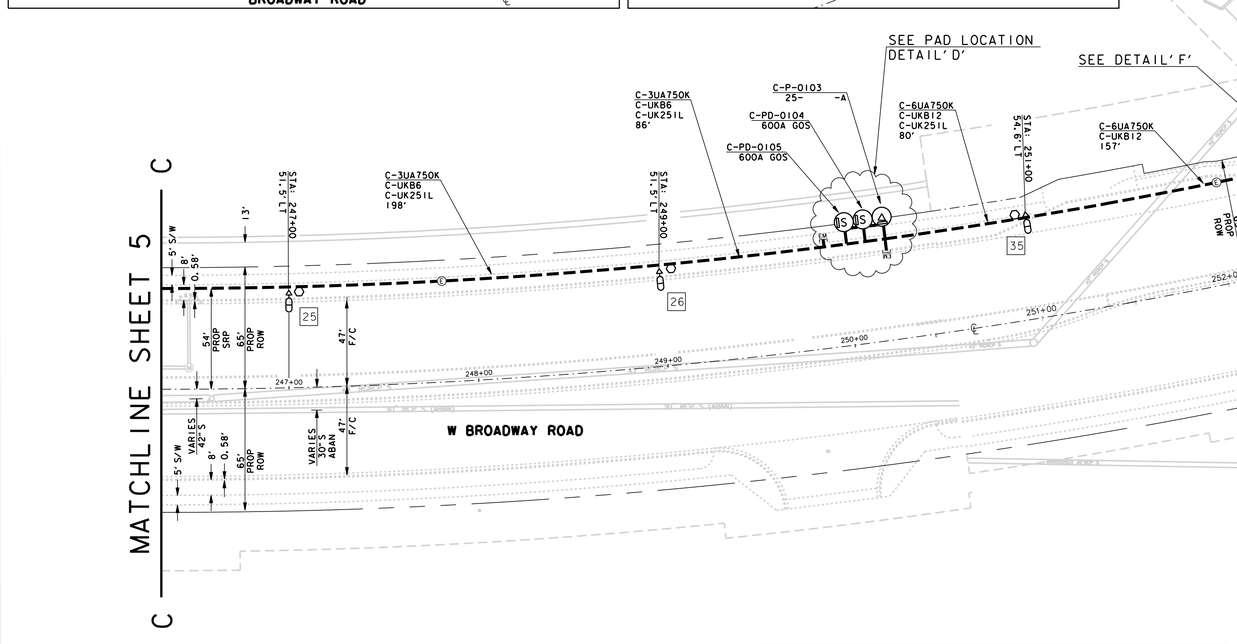
Underground Distribution Construction Standards — PROPRIETARY MATERIAL	REV: CHANGED PAGE NUMBER.	MISCELLANEOUS SIGN, CAUTION UNDERGROUND ELECTRIC FACILITIES	ISSUE DATE: 01/19/87 REV. DATE: 09/20/12 APPROVAL #:PRESET.	1-25-1	892ET2.DGN

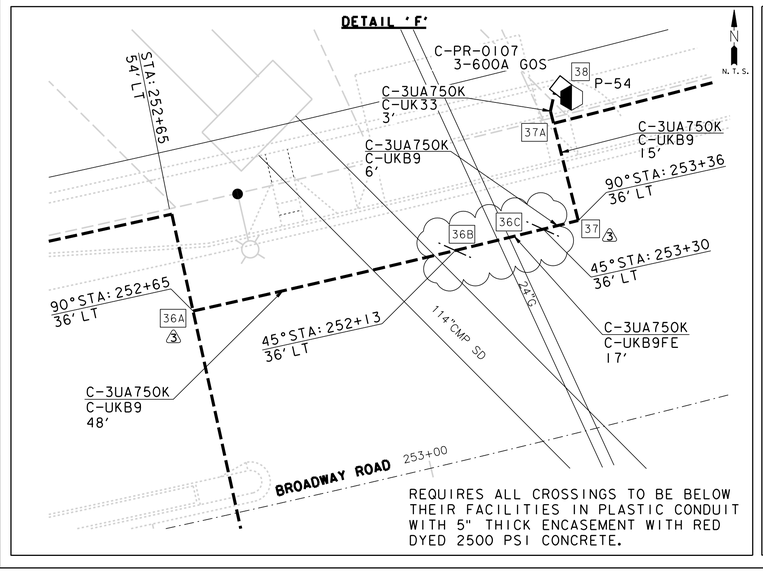


PROFILE VIEW 'A'
KINDER MORGEN CROSSING
BROADWAY RD STATION 253+27.6
LOOKING NORTH
SCALE: HORZ. 1" =20'
VERT. 1" =2'

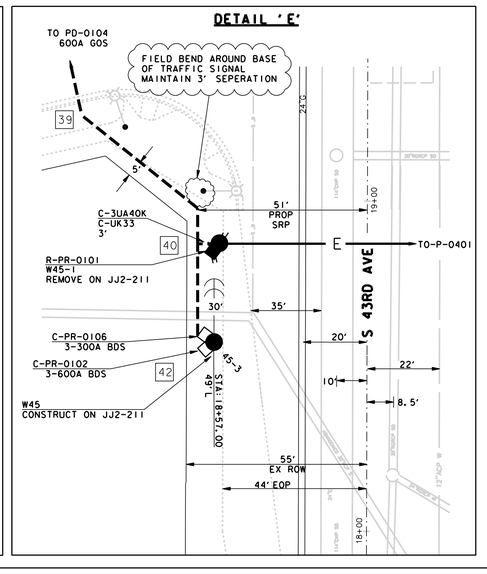








REQUIRES ALL CROSSINGS TO BE BELOW THEIR FACILITIES IN PLASTIC CONDUIT WITH 5" THICK ENCASEMENT WITH RED DYED 2500 PSI CONCRETE.



FIELD INSPECTION STAMP

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JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE
FIS JO KJ2-735 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713864 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1, 5 CSI, L, G, T+I
SHEET NUMBER 6 OF 6

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

CS122x34FRM.NR, JD2 04-03-2011
DWG SERIES No.
SRPP-1.09

NOTES:

CITY OF PHOENIX PROJECT ST85100334

CATHERINE ROGERS CITY OF PHOENIX UTILITY COORDINATION

DAVID RUTKOWSKI AZTEC ENGINEERING

CITY BENCHMARK:
C.O.P. B.C. IN NORTH H.H., ABOUT 15' NORTH OF
SECOND C.O.P. B.C. IN H.H. AT THE INTERSECTION
OF 35TH AVE AND BROADWAY RD.
EL. 1034.893

FINAL GRADE TO BE SET PRIOR TO SRP SETTING POLES AND EQUIPMENT

CITY OF PHOENIX TO PROVIDE AND INSTALL ALL CONST. SURVEY, TRENCH, CONDUIT, STREET LIGHTS, BACKFILL, AND CALL FOR SRP INSPECTIONS ON ALL INSTALLATIONS.

CITY OF PHOENIX TO REMOVE EXISTING STREET LIGHTS AS INDICATED.

SRP TO PULL WIRE AND ENERGIZE STREET LIGHTS WITH PROVIDED INSPECTIONS ON ALL INSTALLATIONS.

N

NTS

AVENIDA RIO SALADO / BROADWAY RD

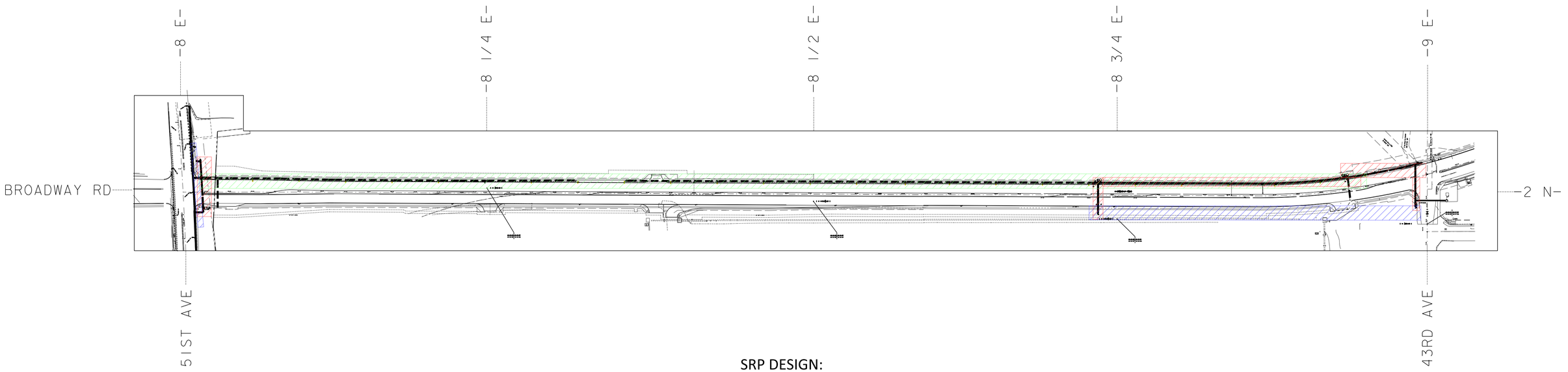
ARS 8: 51ST AVE - 43RD AVE

C.O.P. JOB # ST85100334

SRP JOB# KJ2-735/ T1713864

SRP JOB# JJ2-211/ T1713887

SRP JOB# KJL-380/ T1713910



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RYAN EARWOOD (SUPERVISOR)
OFFICE 602-236-4128

CHRIS REYNOSO (MANAGER)
OFFICE 602-236-8697

SRP SCHEDULEING

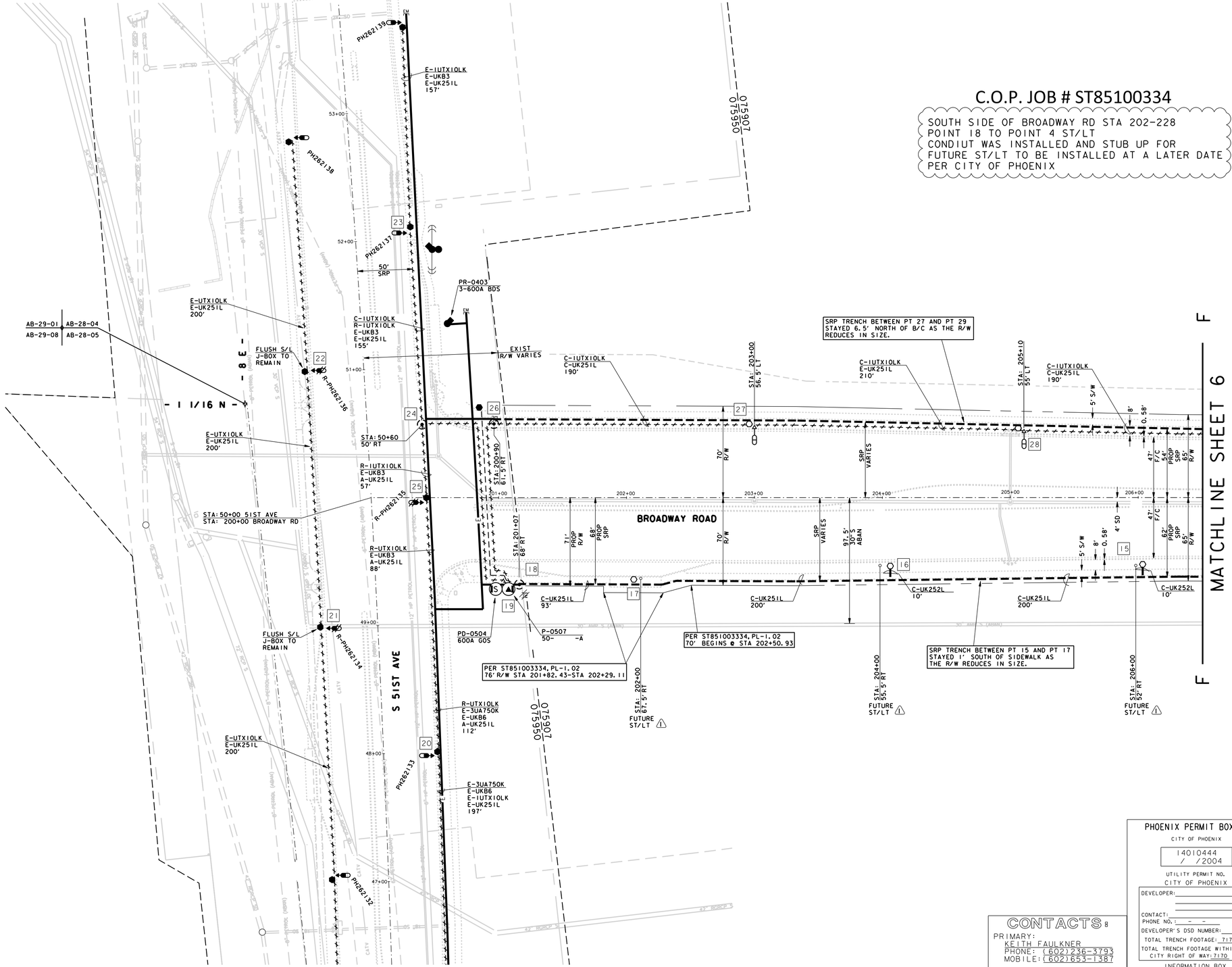
PRE-CONSTRUCTION / INSPECTIONS
OFFICE 602-236-0436

CONSTRUCTION SCHEDULEING
OFFICE 602-236-4184

SRP INSPECTOR

BRAD HAWN (LEAD INSPECTOR)
CELL-602-332-2240

MAINLINE



C.O.P. JOB # ST85100334

SOUTH SIDE OF BROADWAY RD STA 202-228
POINT 18 TO POINT 4 ST/LT
CONDIUT WAS INSTALLED AND STUB UP FOR
FUTURE ST/LT TO BE INSTALLED AT A LATER DATE
PER CITY OF PHOENIX

N
SCALE: 1" =40'

LEGEND

- DOUBLE SLASHES INDICATES REMOVAL
- WORK ACTIVITY POINT
- EXISTING UNDERGROUND SINGLE PHASE TRANSFORMER.
- PROPOSED PAD MOUNTED SWITCHING CUBICLE
- EXISTING PAD MOUNTED SWITCHING CUBICLE
- EXISTING ELECTRIC MANHOLE
- PROPOSED ELECTRIC MANHOLE
- EXISITNG UNDERGROUND J-BOX
- EXISTING STREET LIGHT
- PROPOSED FOREIGN OWNED STEEL POLE & LIGHT
- APS FED LIGHT
- EXISTING FOREIGN OWNED WOOD POLE
- EXISTING RISER
- UNDERGROUND ELECTRONIC MARKER.
- OVERHEAD SINGLE PHASE TRANSFORMER
- SPLICE POINT
- EXISTING UNDERGROUND FACILITIES
- UNDERGROUND STREET LIGHT CONDUCTOR
- CENTERLINE
- PROPERTY LINE

CITY OF PHOENIX
GENERAL NOTES FOR UTILITY CONSTRUCTION

1. All utility construction shall conform to the latest Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, and the City of Phoenix Supplements to MAG
2. All work performed in the City of Phoenix rights-of-way shall be governed by the latest edition of the City of Phoenix Traffic Barricade Manual.
3. This set of plans was reviewed by the City of Phoenix Utility Coordination Section in compliance with City requirements. However, such review shall not prevent the City from requiring correction of errors found to be in violation of any law ordinance or City of Phoenix requirement for utility construction in the rights-of-way
4. The contractor shall have a copy of the approved/stamped construction plans and approved traffic control plan at the project site at all times.
5. All utilities crossing streets must be bored or punched unless permission to open cut has been given in writing by the City Engineer.
6. Before starting any work on a major or collector street, the utility company shall schedule a preconstruction meeting with the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section.
7. The City of Phoenix does not warrant any quantities shown on these plans.
8. Utility companies are to coordinate alley work with the Refuse Section.
9. The utility company shall contact the City of Phoenix Street Transportation Department 5/32 s Utility Inspection Section a minimum of 48 hours in advance of starting work, giving location and permit number in order to schedule inspections.
10. All work requiring asphalt replacement, concrete replacement, or resurfacing alleys in the City of Phoenix right-of-way will require a final inspection with the utility company representative at time of completion.
11. Maintain a minimum six (6) feet horizontal separation and one (1) foot vertical from all water and sewer mains, all measurements outside to outside.

CONTACTS

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D13

PHOENIX PERMIT BOXES

CITY OF PHOENIX

14010444
/ /2004

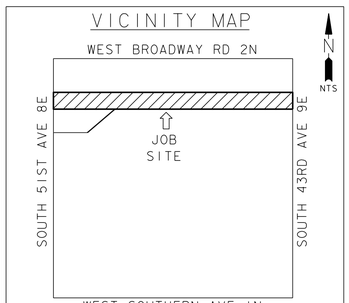
UTILITY PERMIT NO.
CITY OF PHOENIX

DEVELOPER:
CONTACT:
PHONE NO.: - -
DEVELOPER'S DSD NUMBER:
TOTAL TRENCH FOOTAGE: 7170
TOTAL TRENCH FOOTAGE WITHIN CITY RIGHT OF WAY: 7170

INFORMATION BOX

NOTE:
-CUSTOMER TO MAINTAIN MINIMUM OF 6' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER MAINS.
-ALSO MINIMUM OF 3' CLEARANCE FROM ELECTRICAL TRENCH TO WATER AND SEWER SERVICES.

VICINITY MAP



NOTICE

THIS JOB ORDER INVOLVES OVERHEAD, UNDERGROUND AND/ OR SERVICES
OH# JJ2-211
UG# KJ2-735
TRANS# T1740618

FIELD INSPECTION STAMP

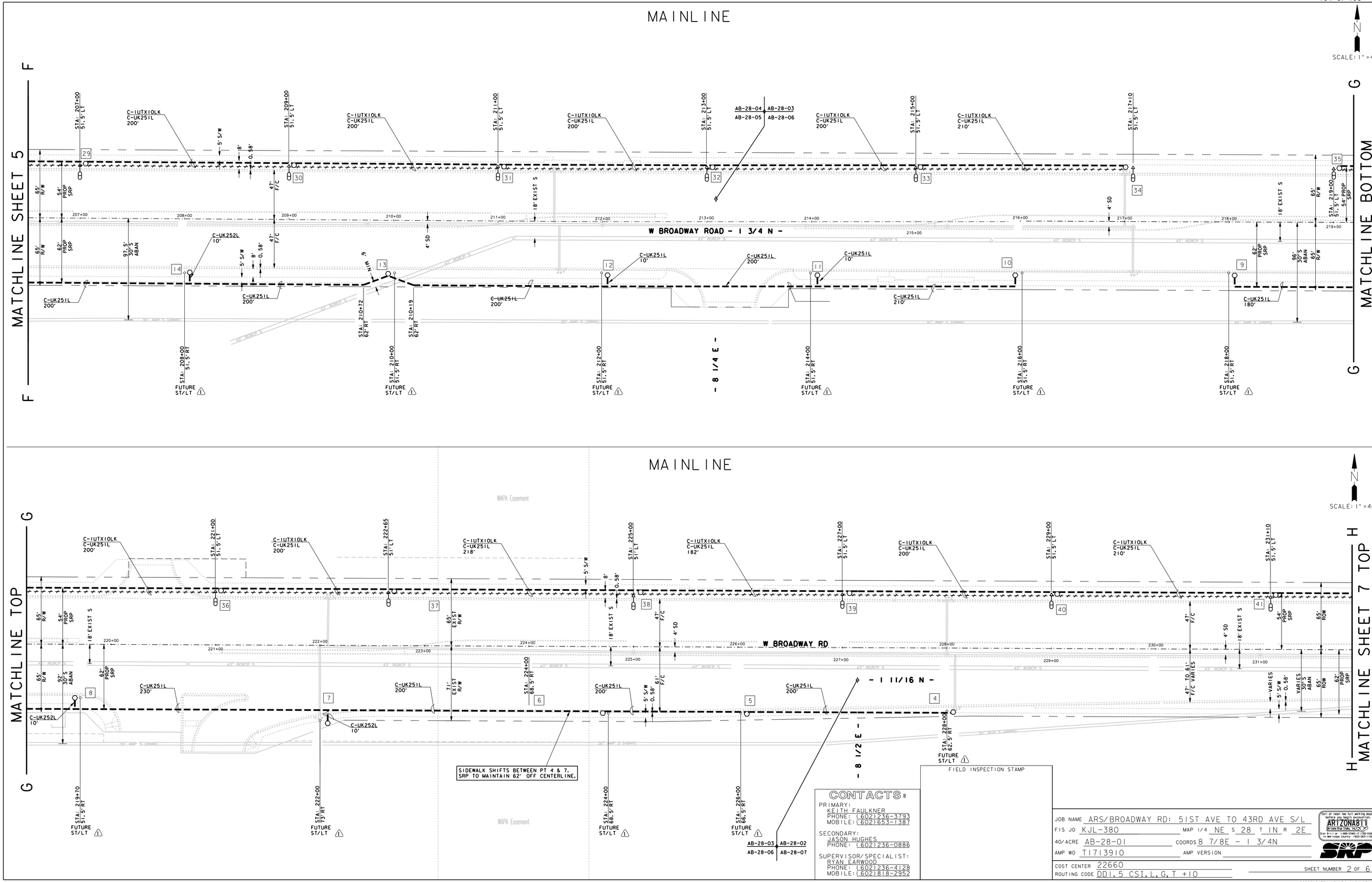
REV	REVISED BY	DATE	REVISION DESCRIPTION
4			
3			
2	JAHUGHES	1/6/15	SENT FOR WHITES
1	JAHUGHES	12/12/14	CITY DEFERED SOUTH SIDE OF BROADWAY ST/LTS
0	KWFAULKN	1/21/14	DESIGN START.

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE S/L
FIS JO KJL-380 MAP I/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713910 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI,L,G,T +10

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

SHEET NUMBER | OF 6

CSI22x34FRM, JD2 04-03-2011
DWG SERIES No.
SRPP-1.11



FIELD INSPECTION STAMP

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JASON HUGHES
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JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE S/L
FIS JO KJL-380 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713910 AMP VERSION
COST CENTER 22660
ROUTING CODE DD1.5 CSI.L.G.T +10
SHEET NUMBER 2 OF 6

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: 1602)263-1100

CS122x34FRM_NR_JD2 04-03-2011

DWG SERIES No.
SRPP-1.12

MAINLINE

N
NTS

MATCHLINE SHEET 6 BOTTOM

MATCHLINE BOTTOM

C-1UTX10LK C-UK25IL 200'

C-1UTX10LK C-UK25IL 200'

C-1UTX10LK C-UK25IL 200'

C-1UTX10LK C-UK25IL 200'

C-1UTX10LK E-UKB6 E-UK25IL 6'

C-1UTX10LK C-UK25IL 16'

PD-0202 600A GOS

P-0201 25- -A

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 150'

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 200'

E-3UA750K E-UKB6 200'

C-3UTX10LK E-UK253L 7'

C-2UTX10LK E-3UA750K E-UKB6 E-UK252L 10'

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 19'

W BROADWAY ROAD

42 43 44 45 46 47 48 49

STA: 233+00 51.5' LT

STA: 235+00 51.5' LT

STA: 237+00 51.5' LT

STA: 239+00 51.5' LT

STA: 239+16 54' LT

STA: 241+00 51.5' LT

STA: 243+00 51.5' LT

65' R/W

47' F/C

62' PROP SRP

54' PROP SRP

4' SD

50' EXIST S

5' S/W

8'

0.58'

18' EXIST S

PR-0203 3-600A BDS

STA: 239+41 62' RT

- I 11/16 N -

- 8 3/4 E -

AB-28-02 AB-28-01

AB-28-07 AB-28-08

MATCHLINE SHEET 8

MATCHLINE TOP

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 200'

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 198'

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 19'

C-1UTX10LK E-3UA750K E-UKB6 E-UK25IL 86'

PD-0105 600A GOS

PD-0104 600A GOS

P-0103 25- -A

C-3UTX10LK E-UK253L 7'

C-1UTX10LK E-6UA750K E-UKB12 E-UK25IL 80'

C-1UTX10LK E-UK25IL 3'

C-1UTX10LK E-3UA750K E-UKB12 E-UK25IL 10'

C-UK25IL 100'

C-1UTX10LK E-UKB6 E-UK25IL 20'

E-6UA750K E-UKB12

W BROADWAY ROAD

50 51 52 53 1 2 3

STA: 245+00 51.5' LT

STA: 247+00 51.5' LT

STA: 249+00 51.5' LT

STA: 251+00 54' LT

65' R/W

47' F/C

54' PROP SRP

12' SD

5' S/W

8'

0.58'

PR-0107 3-600A BDS

STA: 253+55 54' LT

S 43RD AVE

STA: 253+65.64 BROADWAY RD

PR-0106 3-300A BDS

ABANDONED 30"ROP S

PR-0102 3-600A BDS

P-0401 75-156742 277/480V

AB-28-01 AB-27-04

AB-28-08 AB-27-05

- 9 E -

- I 3/4 N -

El Paso Natural Gas Easement 2002-011843 MCR

Quitclaim Deed to FCDMC 99-581638 MCR

SRP Waste Ditch Easement Dkt 10334 Pg 1145 MCR

COP Sewer Easement

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MOBILE: (602)818-2952

FIELD INSPECTION STAMP

JOB NAME ARS/BROADWAY RD: 51ST AVE TO 43RD AVE S/L
FIS JO KJL-380 MAP 1/4 NE S 28 T 1N R 2E
40/ACRE AB-28-01 COORDS 8 7/8E - I 3/4N
AMP WO T1713910 AMP VERSION
COST CENTER 22660
ROUTING CODE DDI.5 CSI,L,G,T +10

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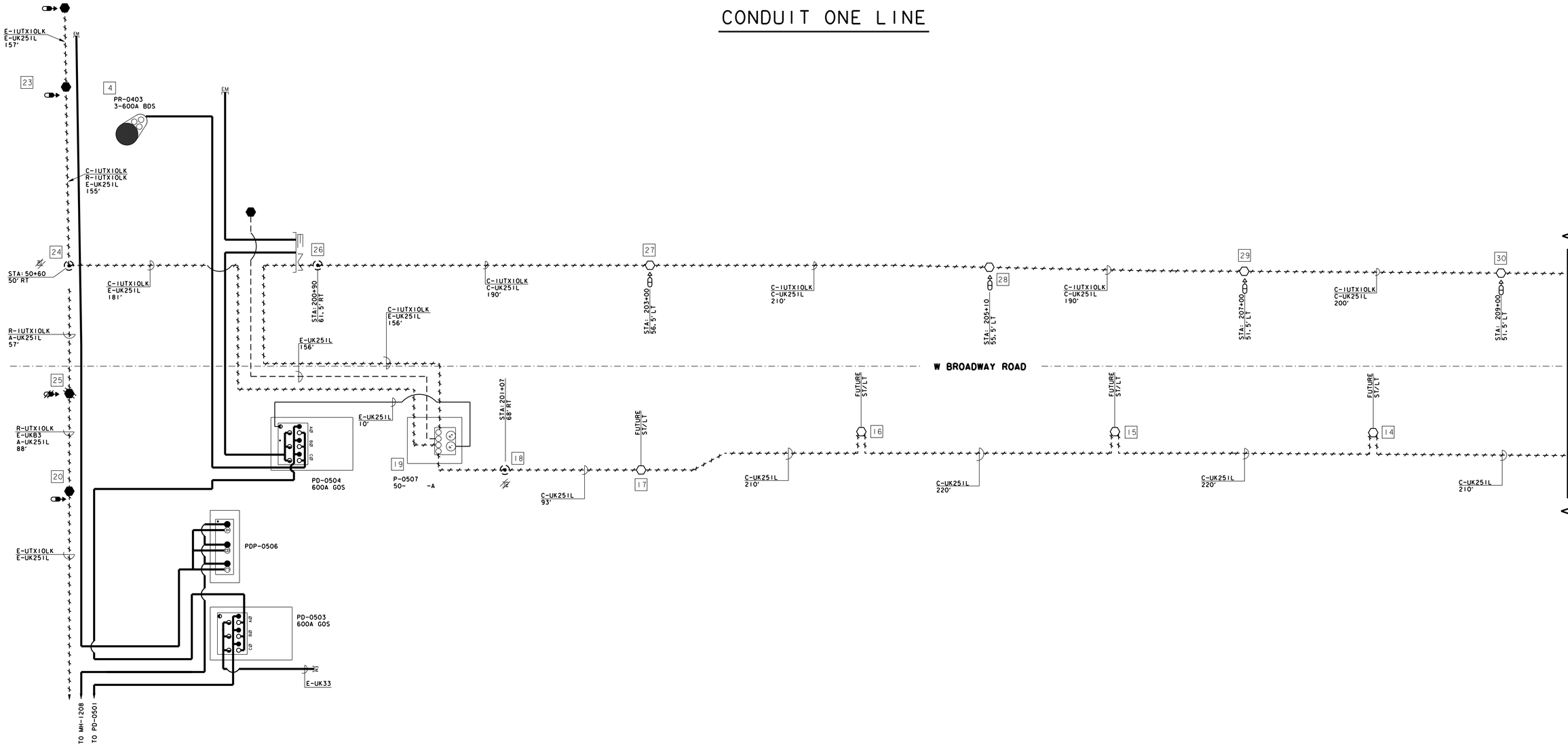
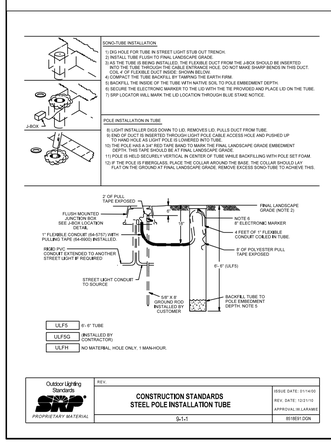
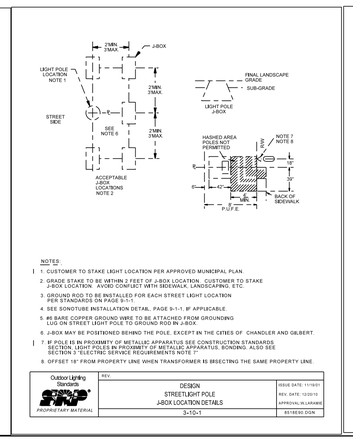
SHEET NUMBER 3 OF 6

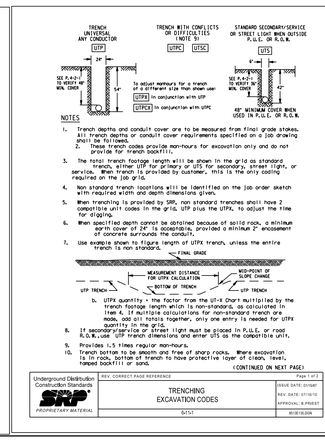
CS122x34FRM.NP.J02 04-01-2011
DWG SERIES No.
SRPP-1.13

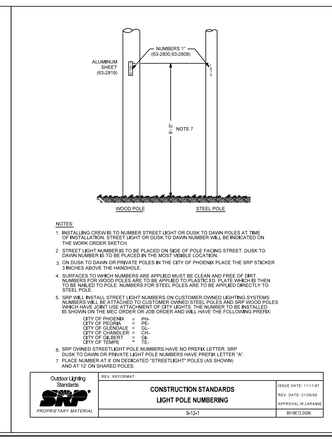
CONDUIT ONE LINE

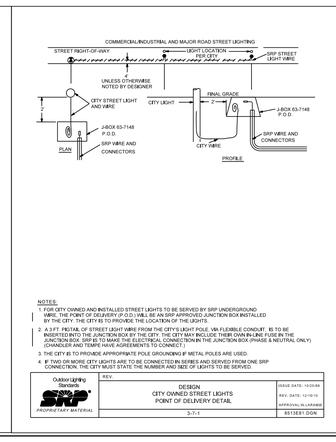












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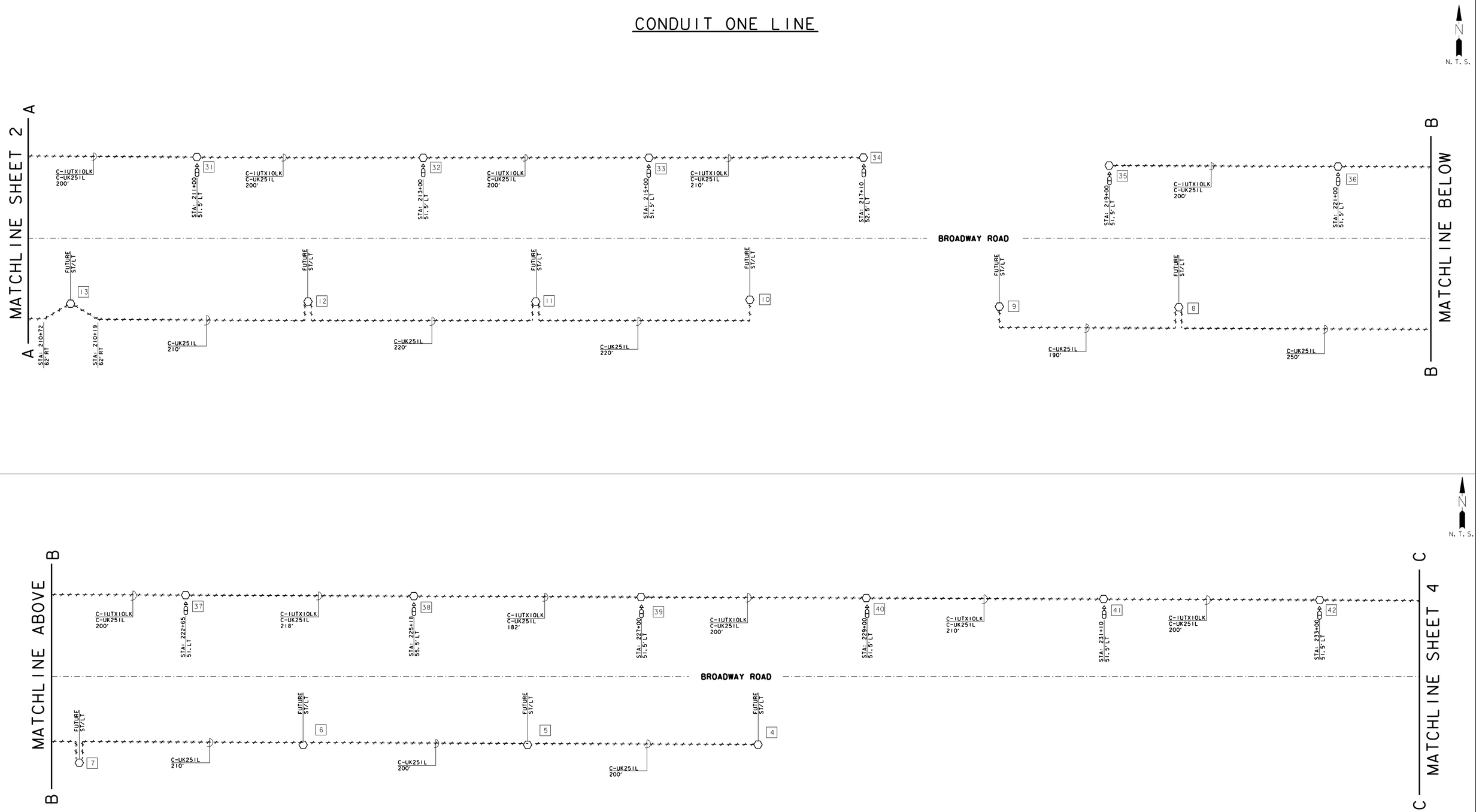
SHEET NUMBER 4 OF 6

CS122x34FRM_N6_J02 04-03-2011
DWG SERIES No.
SRPP-1.14

CONDUIT ONE LINE



FIELD INSPECTION STAMP

CONTACTS 8

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40/ACRE AB-28-01 COORDS 8 7/8E - 1 3/4N
AMP WO T1713910 AMP VERSION

COST CENTER 22660
ROUTING CODE DD1.5 CSI.L.G.T +10

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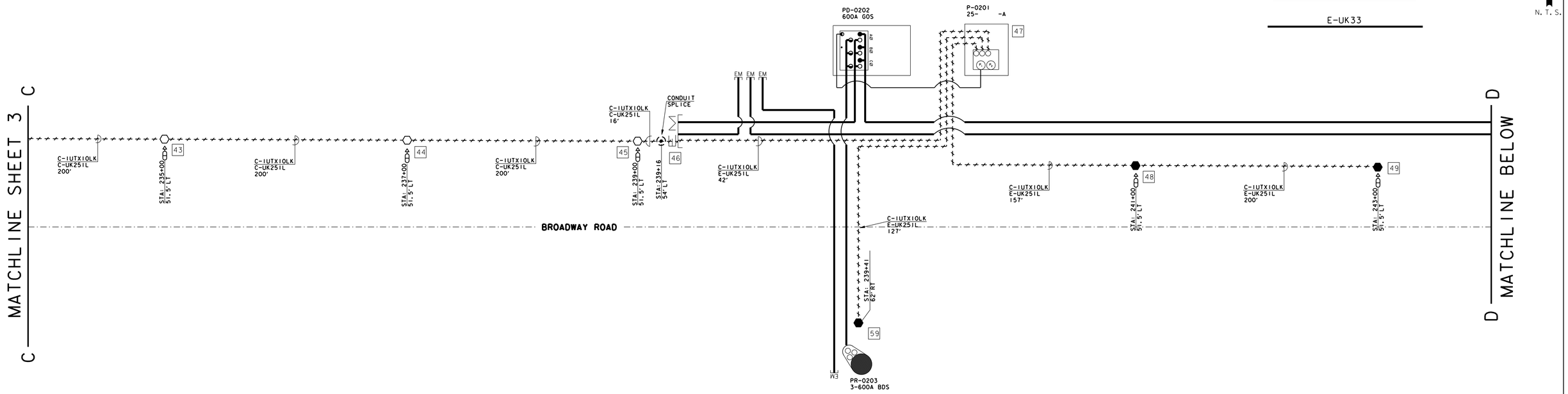
SRP

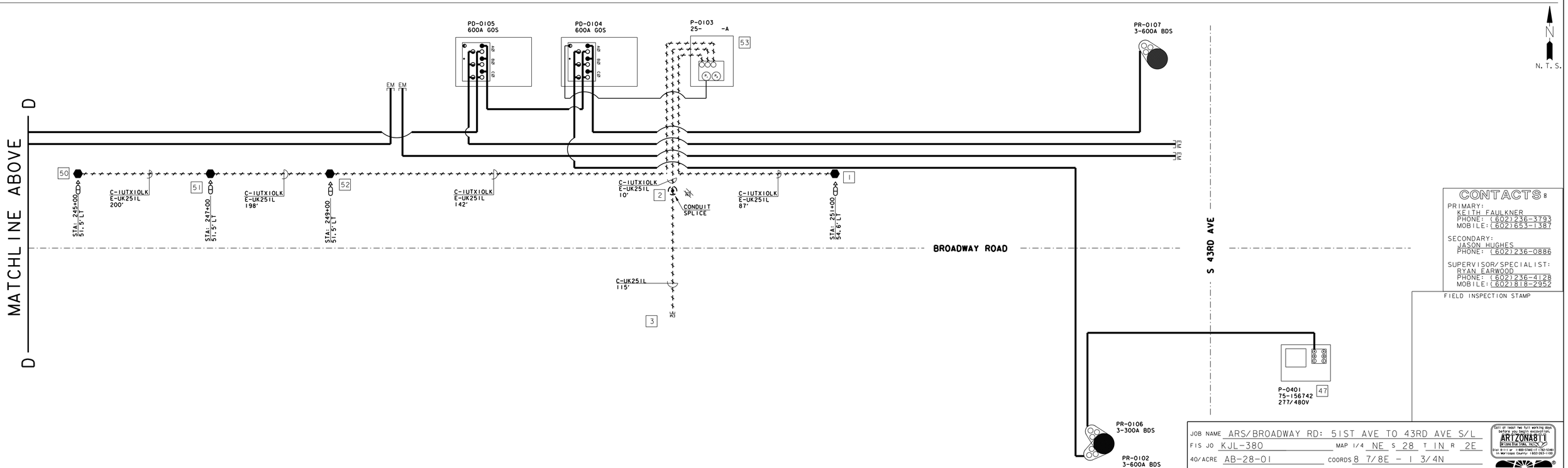
SHEET NUMBER 5 OF 6

CSI22x34FRM_NR_JD2 04-03-2011

DWG SERIES No.
SRPP-1.15

CONDUIT ONE LINE





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FIELD INSPECTION STAMP

JOB NAME	ARS/BROADWAY RD: 51ST AVE TO 43RD AVE S/L		
FIS JO	KJL-380	MAP 1/4 NE S 28 T 1N R 2E	
40/ACRE	AB-28-01	COORDS 8 7/8E - 1 3/4N	
AMP WO	T1713910	AMP VERSION	
COST CENTER	22660		
ROUTING CODE	DD1.5 CSI,L,G,T +10	SHEET NUMBER 6 OF 6	

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

SRP

GENERAL NOTES:

1 The contractor shall notify the City Of Phoenix Traffic Signal Shop ((602) 262-6733) a minimum of fourteen (14) calendar days prior to beginning any traffic signal work. Submittals of all equipment shall be furnished to the Signal Shop and approved prior to the ordering of any traffic signal equipment. The Contractor shall verify that they have the most current set of drawings prior to start and ordering of any equipment.

2 The Contractor shall layout all ADA ramps, junction boxes and foundation locations for approval by the traffic signal representative prior to any excavation.

3 The Contractor shall provide and install all traffic signal items as shown on the approved traffic signal plans.

4 Foundation elevations must be within ¼" of finished sidewalk grade.

5 A minimum of four (4) feet of clearance is required between all traffic signal poles and the back edge of sidewalk pedestrian ramps.

TRAFFIC SIGNAL STANDARD DETAILS INDEX

POLES

SHEET NO.	DESCRIPTION	APPROVED
TS1 - 1	Type SQ Pole, Mast Arms and Mast Arm Extensions	10-31-2014
TS1 - 2	Type SR Pole, Mast Arms and Mast Arm Extensions	10-31-2014
TS1 - 3	Type SM Pole, Mast Arms and Mast Arm Extensions	10-31-2014
TS1 - 4	Type LM Pole and Risers	10-31-2014
TS1 - 5	Type A and PB (Pushbutton) Poles	10-31-2014
TS1 - 6	Loads for Poles, Mast Arms Signal Equipment	10-31-2014

JUNCTION BOXES AND FOUNDATIONS

SHEET NO.	DESCRIPTION	APPROVED
TS2 - 1	Junction Boxes, Foundations for Controller and Power Service Pedestal	08-01-2014
TS2- 2	Pole Foundations	11-21-2014

EQUIPMENT MOUNTING

SHEET NO.	DESCRIPTION	APPROVED
TS3 - 1	Mounting Details - Side Mount Signal Equipment	08-01-2014

WIRING

SHEET NO.	DESCRIPTION	APPROVED
TS4 - 1	Wire Code Tables, Pull Box/Pole Hand Hole Wiring	08-01-2014
TS4 - 2	Color Coding/Banding Scheme, Loop Numbering	08-01-2014

DETECTION

SHEET NO.	DESCRIPTION	APPROVED
TS5 - 1	Detection Loops	08-01-2014

NON-VEHICLE SIGNALS

SHEET NO.	DESCRIPTION	APPROVED
TS6 - 1	HAWK Pedestrian Crossing Beacon	08-01-2014

SPECIAL USE POLES

SHEET NO.	DESCRIPTION	APPROVED
S1	Verizon SR Comm Signal Pole - Pole Details	10-31-2014
S2	Verizon SR Comm Signal Pole - Foundation Details	10-31-2014
S1	Verizon SM Comm Signal Pole - Pole Details	10-31-2014
S2	Verizon SM Comm Signal Pole - Pole Details	10-31-2014
S1	Verizon LM Comm Signal Pole - Pole & Foundation Details	10-31-2014

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS:

PROJECT #:

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

INDEX SHEET

PDP File Number 10164 | INDEX

TRAFFIC SERVICES DEPUTY DIRECTOR | 8-1-2014

10164.dwg NOV/21/14 1:41 pm

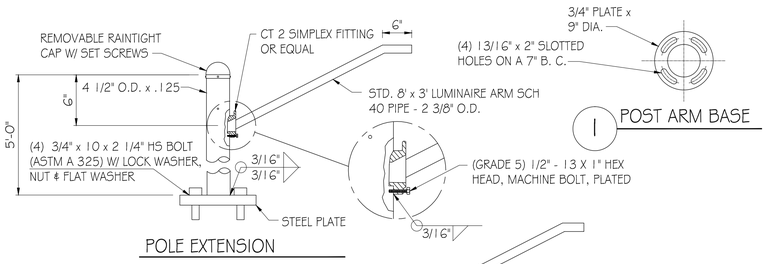
TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

PROJECT #:

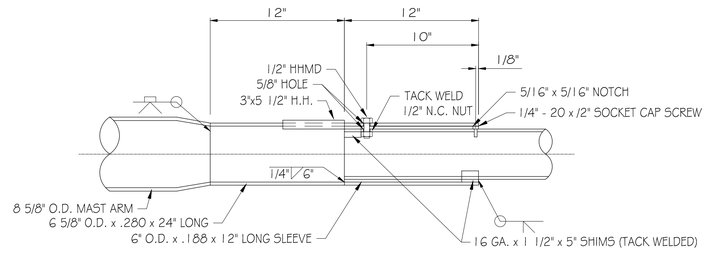
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 1	19

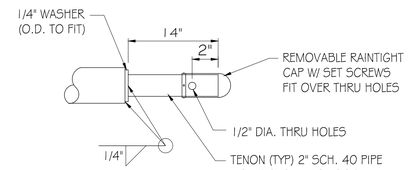
MAST ARM STAGE PIPE DIAMETER			
PRIMARY MAST ARM LENGTH	COLUMN A	COLUMN B	COLUMN C
40'	12 3/4" O.D. X 0.312 X 13'-4" (42 KSI)	10 3/4" O.D. X 0.25 X 13'-4" (42 KSI)	8 5/8" O.D. X 0.25 X 10'-1" (42 KSI)



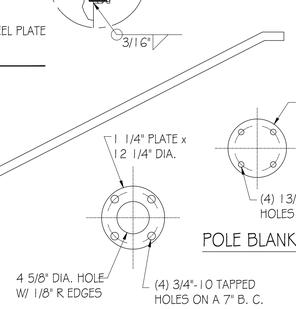
POLE EXTENSION

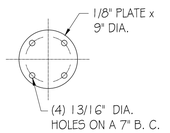
I POST ARM BASE





H TENON DETAIL

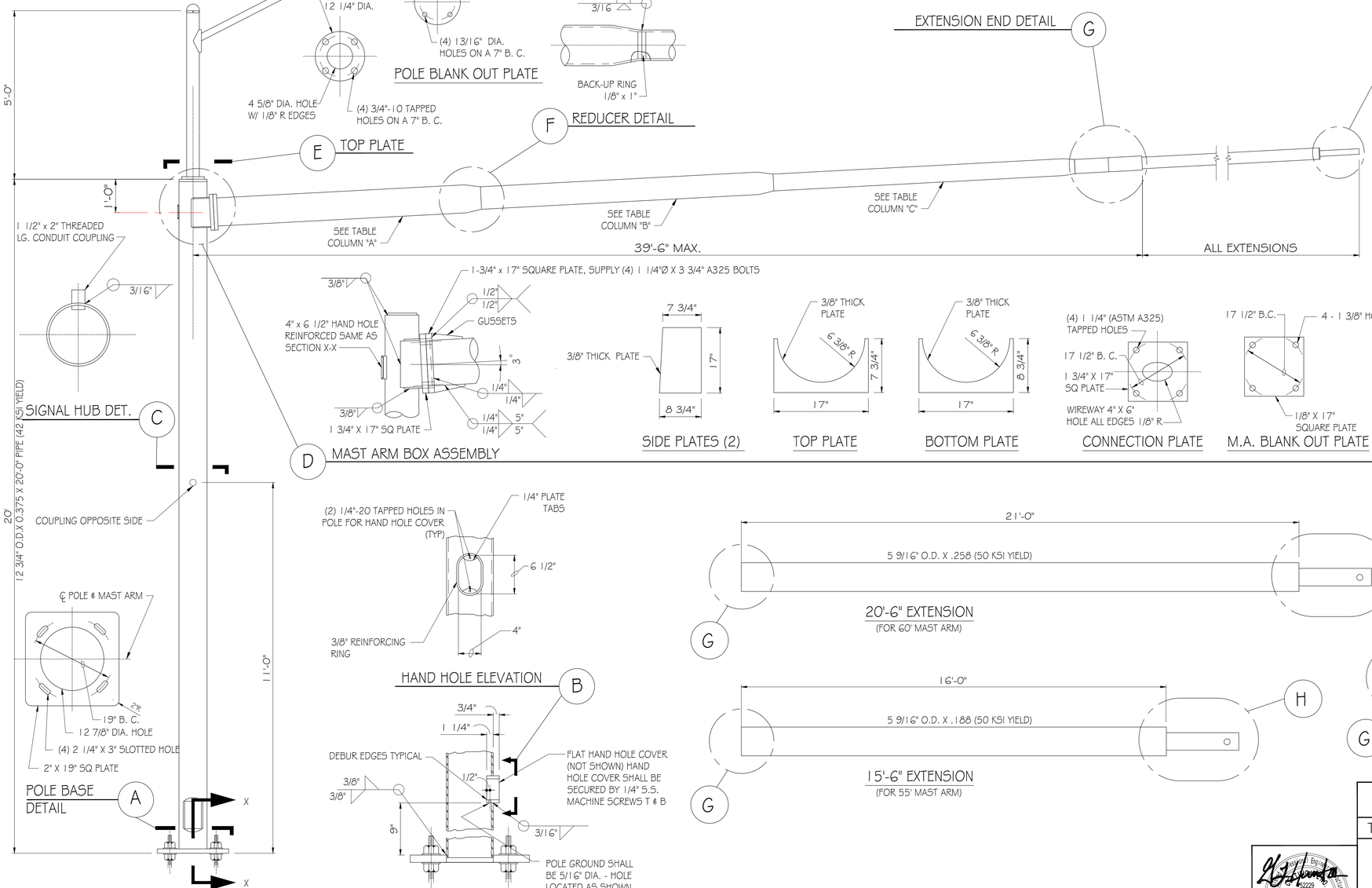




POLE BLANK OUT PLATE

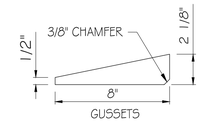
F REDUCER DETAIL

EXTENSION END DETAIL G



SIGNAL HUB DET. C

D MAST ARM BOX ASSEMBLY

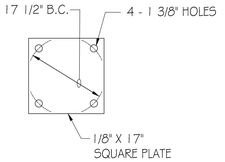


SIDE PLATES (2)

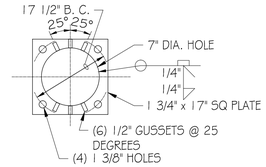
TOP PLATE

BOTTOM PLATE

CONNECTION PLATE



M.A. BLANK OUT PLATE



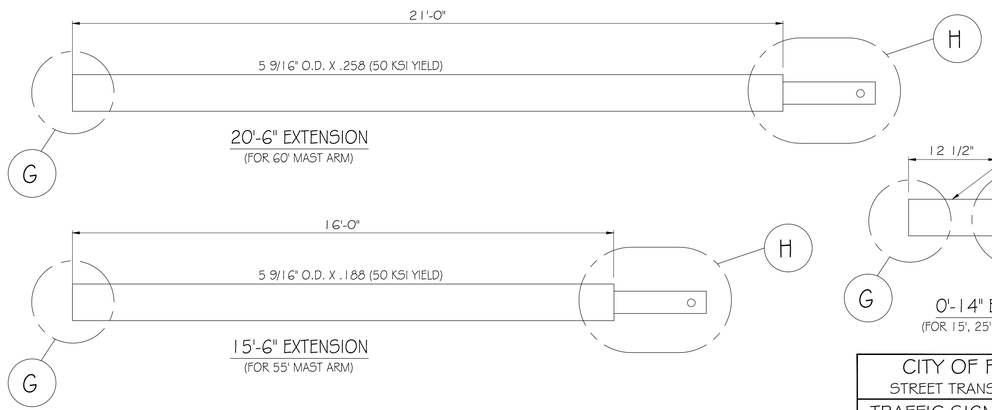
MAST ARM BRACKET

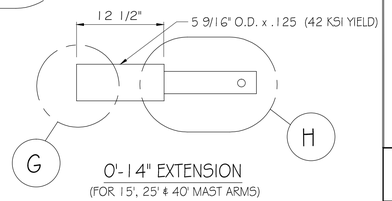
POLE BASE DETAIL A

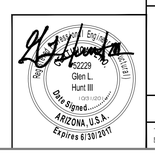
"SQ" POLE ASSEMBLY

HAND HOLE ELEVATION B

SECTION X-X







F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. PIPE SHALL HAVE MINIMUM YIELD STRENGTH SPECIFIED.
3. ALL OTHER STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
4. WELDING SHALL BE WITH E-70 LOW HYDROGEN RODS AND SHALL CONFORM TO AWS D1.1 LATEST EDITION).
5. POLE AND ARM SHALL BE POWDER COATED PER CITY SPECIFICATIONS.
6. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4"-20 SS MACHINE SCREWS.
7. 'SQ' POLE CAN SUPPORT THE 55', & 60' MAST ARMS AS SHOWN.
8. 'SQ' POLE IS NOT COMPATIBLE WITH OTHER MAST ARMS.

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

SQ POLE
MAST ARMS
AND MAST ARM EXTENSIONS

PDP File Number 10164	TS 1-1
TRAFFIC SIGNAL ENGINEER	10-31-2014

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

PROJECT #:

DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 2	19

TRAFFIC SIGNAL DETAILS

PROJECT #:

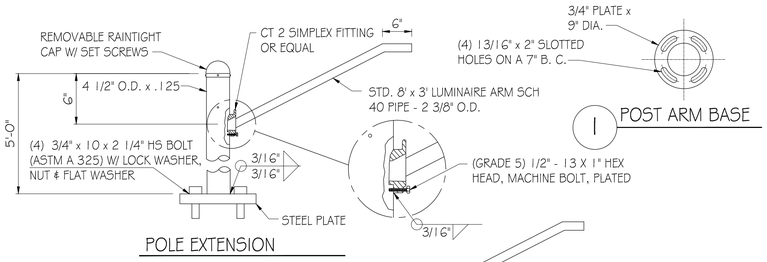
MAST ARM STAGE PIPE DIAMETER			
PRIMARY MAST ARM LENGTH	COLUMN A	COLUMN B	COLUMN C
15'	8 5/8" O.D. X 0.156 X 6'-4" (42 KSI)	6 5/8" O.D. X 0.156 X 6'-0" (42 KSI)	
25'	8 5/8" O.D. X 0.188 X 13'-4" (56 KSI)	6 5/8" O.D. X 0.156 X 8'-8" (56 KSI)	
40'	10 3/4" O.D. X 0.250 X 13'-4" (46 KSI)	8 5/8" O.D. X 0.250 X 13'-4" (46 KSI)	6 5/8" O.D. X 0.250 X 10'-1" (52 KSI)

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

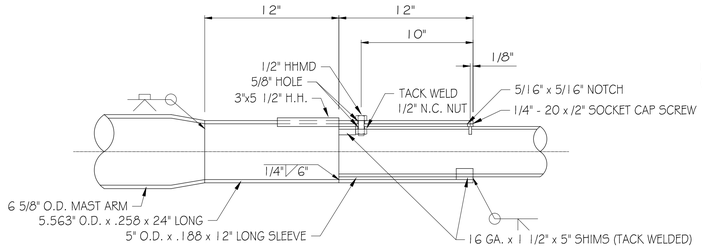
NOTES:

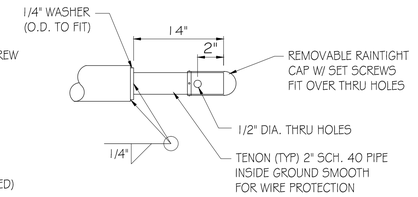
1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. PIPE SHALL HAVE MINIMUM YIELD STRENGTH SPECIFIED.
3. ALL OTHER STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
4. WELDING SHALL BE WITH E-70 LOW HYDROGEN RODS AND SHALL CONFORM TO AWS D1.1 LATEST EDITION).
5. POLE AND ARM SHALL BE POWDER COATED PER CITY SPECIFICATIONS.
6. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4"-20 SS MACHINE SCREWS.
7. 'SR' POLE CAN ONLY SUPPORT UP TO A 50' MAST ARM.



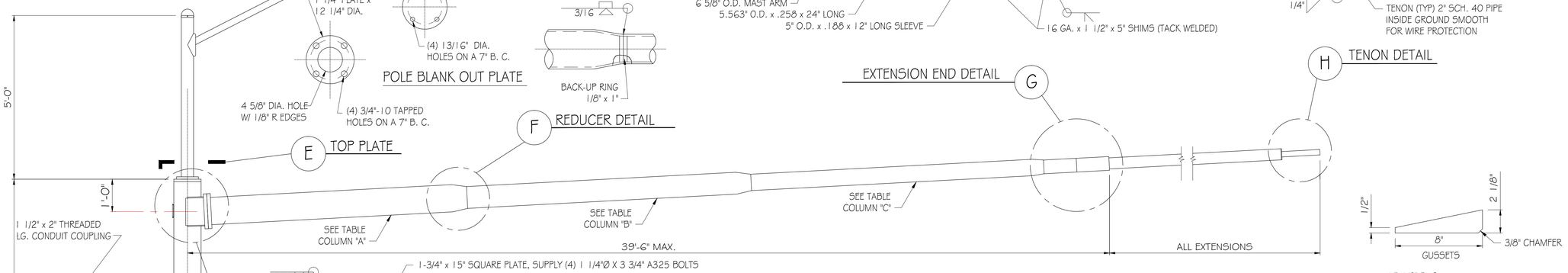
I POST ARM BASE

POLE EXTENSION





H TENON DETAIL

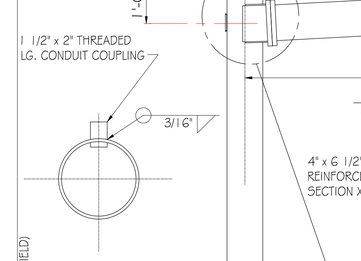


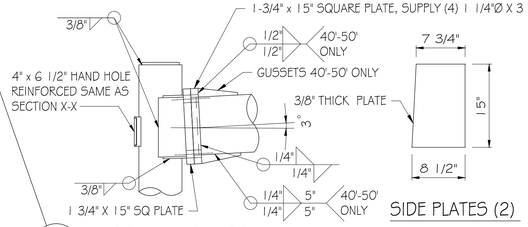
E TOP PLATE

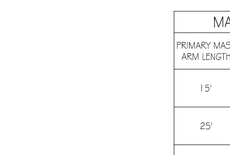
F REDUCER DETAIL

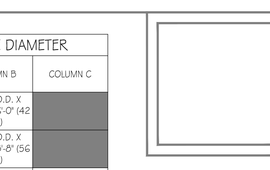
EXTENSION END DETAIL G

POLE BLANK OUT PLATE







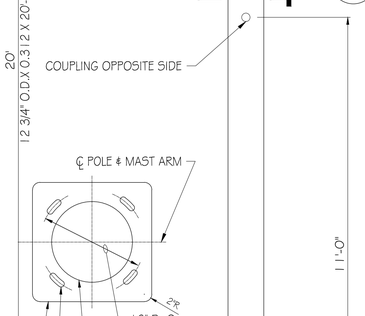


SIDE PLATES (2) | TOP PLATE | BOTTOM PLATE | CONNECTION PLATE | M.A. BLANK OUT PLATE

MAST ARM BRACKET
(FOR 40' ONLY)

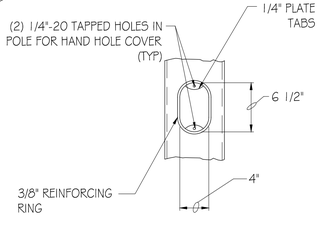
D MAST ARM BOX ASSEMBLY

SIGNAL HUB DET. C

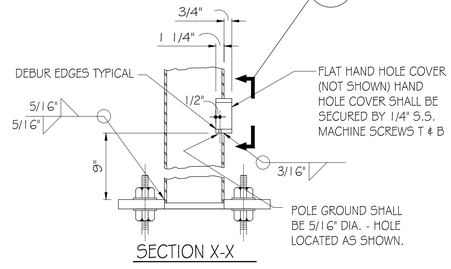


POLE BASE DETAIL A

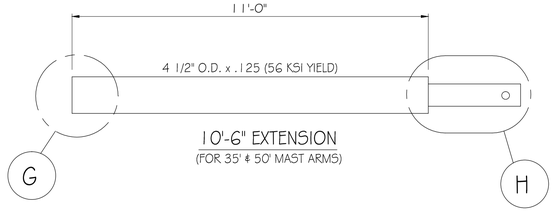
"SR" POLE ASSEMBLY



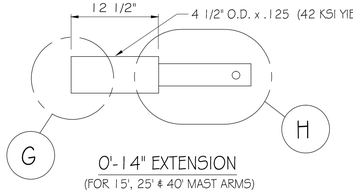
HAND HOLE ELEVATION B



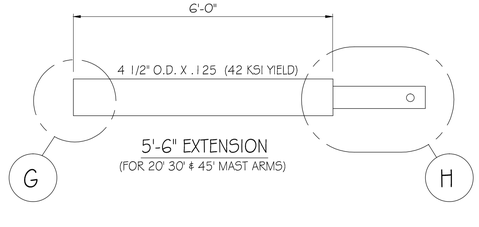
SECTION X-X



10'-6" EXTENSION
(FOR 35' & 50' MAST ARMS)



0'-14" EXTENSION
(FOR 15', 25' & 40' MAST ARMS)



5'-6" EXTENSION
(FOR 20' 30' & 45' MAST ARMS)

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

SR POLE
MAST ARMS
AND MAST ARM EXTENSIONS

PDP File Number 10164 | TS 1-2

TRAFFIC SIGNAL ENGINEER | 10-31-2014

PROJECT #:

DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 3	19

PROJECT #:

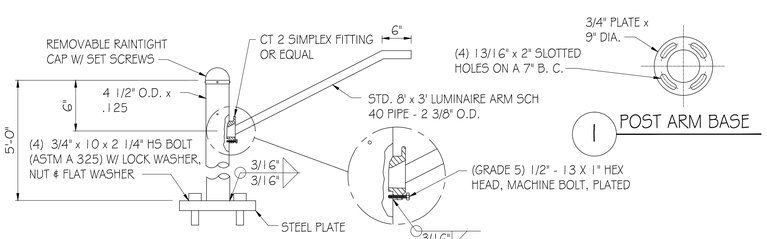
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: | DES: | CK: | DATE:

NOTES:

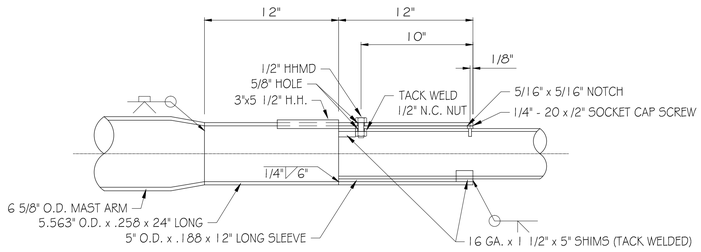
1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. PIPE SHALL HAVE MINIMUM YIELD STRENGTH SPECIFIED.
3. ALL OTHER STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
4. WELDING SHALL BE WITH E-70 LOW HYDROGEN RODS AND SHALL CONFORM TO AWS D1.1 LATEST EDITION).
5. POLE AND ARM SHALL BE POWDER COATED PER CITY SPECIFICATIONS.
6. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4"-20 SS MACHINE SCREWS.
7. 'SM' POLE CAN ONLY SUPPORT UP TO A 35' MAST ARM.

MAST ARM STAGE PIPE DIAMETER		
PRIMARY MAST ARM LENGTH	COLUMN A	COLUMN B
15'	8 5/8" O.D. X 0.188 X 6'-4" (42 KSI)	6 5/8" O.D. X 0.156 X 6'-0" (42 KSI)
25'	8 5/8" O.D. X 0.188 X 13'-4" (56 KSI)	6 5/8" O.D. X 0.156 X 8'-8" (56 KSI)

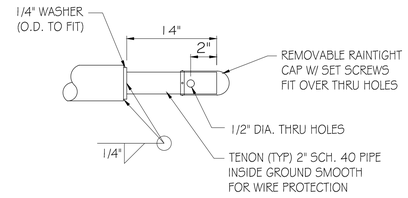


POLE EXTENSION

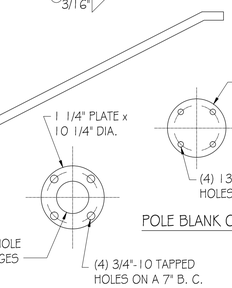
I POST ARM BASE



G EXTENSION END DETAIL

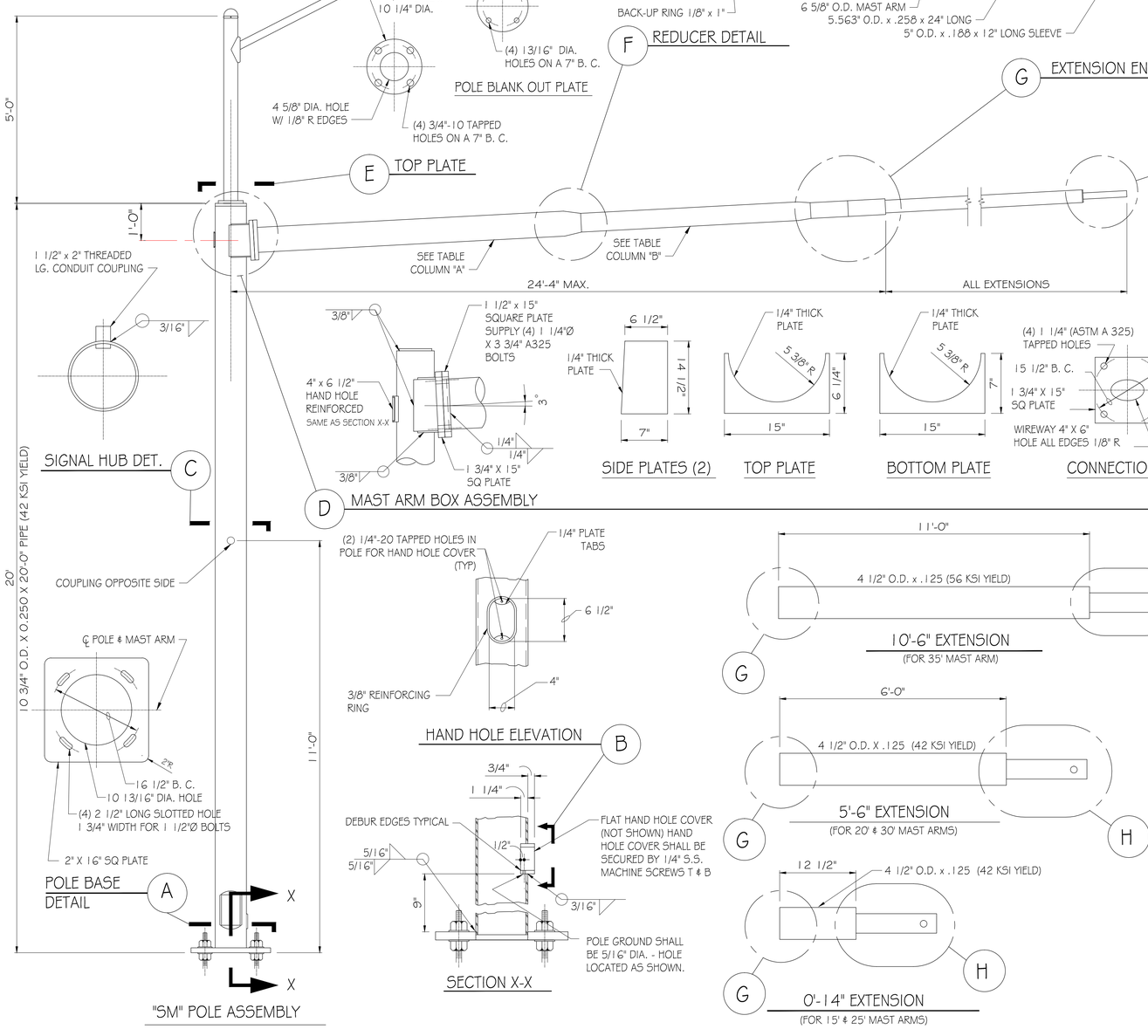


H TENON DETAIL



F REDUCER DETAIL

POLE BLANK OUT PLATE



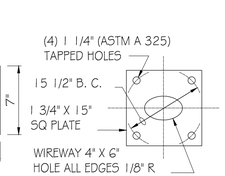
"SM" POLE ASSEMBLY

D MAST ARM BOX ASSEMBLY

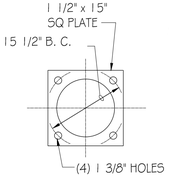
SIDE PLATES (2)

TOP PLATE

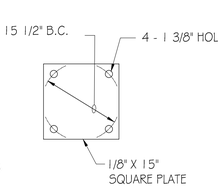
BOTTOM PLATE



CONNECTION PLATE



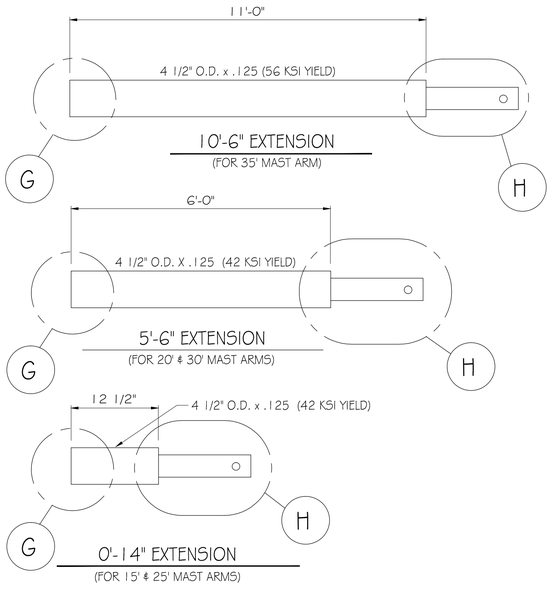
MAST ARM PLATE

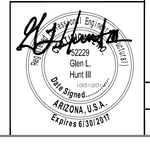


M.A. BLANK OUT PLATE

HAND HOLE ELEVATION B

SECTION X-X





CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

SM POLE
MAST ARMS
AND MAST ARM EXTENSIONS

PDP File Number 10164 | TS 1-3

TRAFFIC SIGNAL ENGINEER | 10-31-2014

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

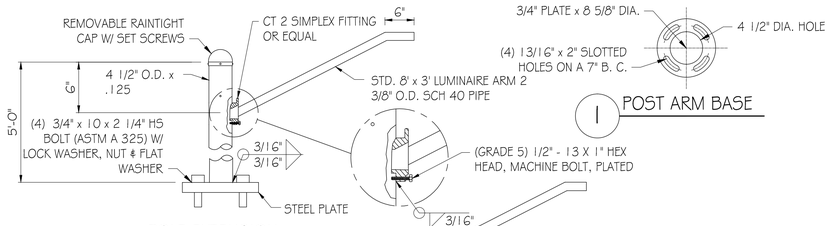
TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

PROJECT #:

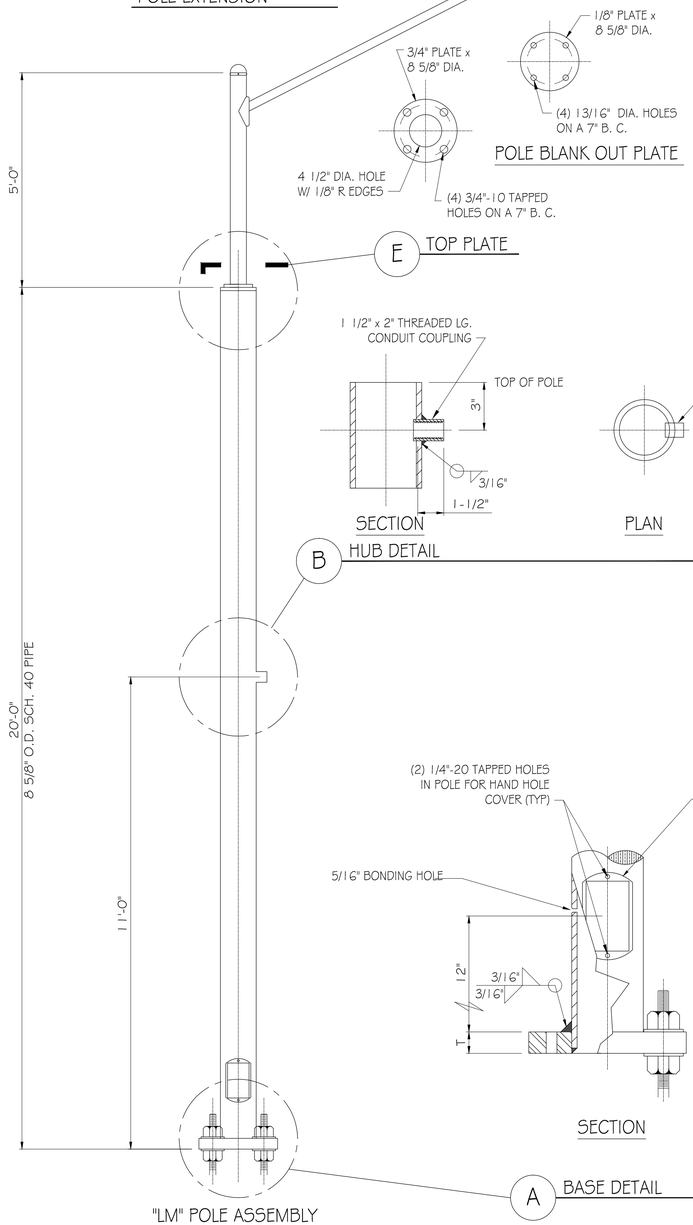
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 4	19

PROJECT #:



POLE EXTENSION

1 POST ARM BASE



E TOP PLATE

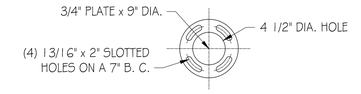
SECTION

PLAN

B HUB DETAIL

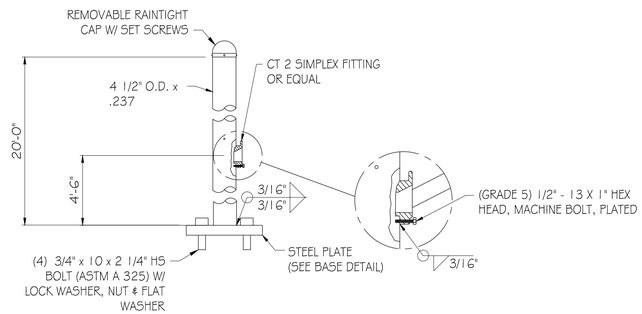
A BASE DETAIL

"LM" POLE ASSEMBLY

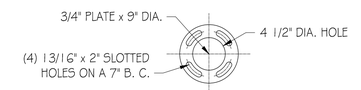


BASE DETAIL

MATERIALS - 20' POLE EXTENSION
PIPE - 56 KSI MINIMUM YIELD STRENGTH
ALL OTHER STEEL - 50 KSI MINIMUM YIELD STRENGTH

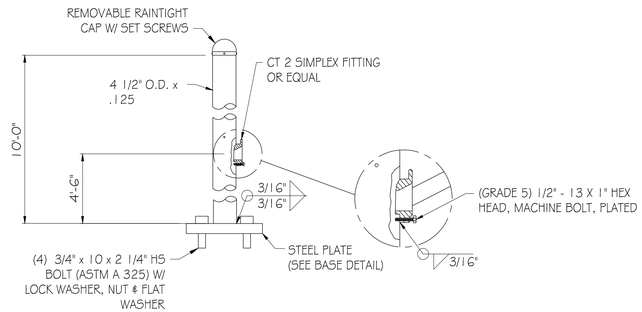


20' POLE EXTENSION



BASE DETAIL

MATERIALS - 10' POLE EXTENSION
PIPE - 56 KSI MINIMUM YIELD STRENGTH
ALL OTHER STEEL - 36 KSI MINIMUM YIELD STRENGTH



10' POLE EXTENSION

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. MATERIALS - ALL NEW
   PIPE - ASTM A 53 GR B
   PLATES - ASTM A 36
   ANCHOR BOLTS - ASTM A 36
3. WELDING
   ALL WELDING SHALL USE E-70 ELECTRODES AND SHALL CONFORM TO ANSI/A.W.S. D1.1.
4. POLE AND ARM SHALL BE POWDER COATED PER CITY SPECIFICATIONS.
5. TOP MOUNTED CAMERA DIMENSIONS: 5" X 5" X 25"

TRAFFIC SIGNAL DETAILS:

PROJECT #:

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SIGNAL STANDARD DETAILS

LM POLE AND RISERS

Registered Engineer (Civil) 52229 Glen L. Hunt III Date signed 10/31/2014 ARIZONA, U.S.A. Expires 6/30/2015

PDP File Number 10164 | TS 1-4

TRAFFIC SIGNAL ENGINEER | 10-31-2014

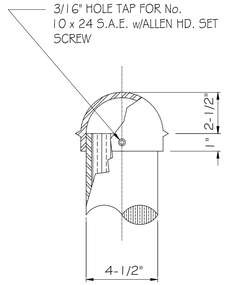
PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 5	19

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

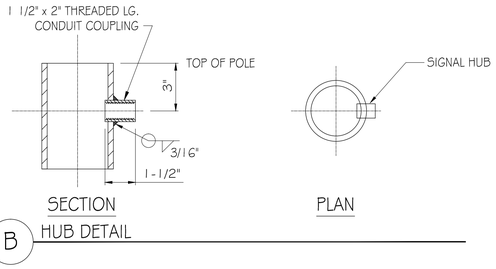
DR:	DES:	CK:	DATE:

NOTES:

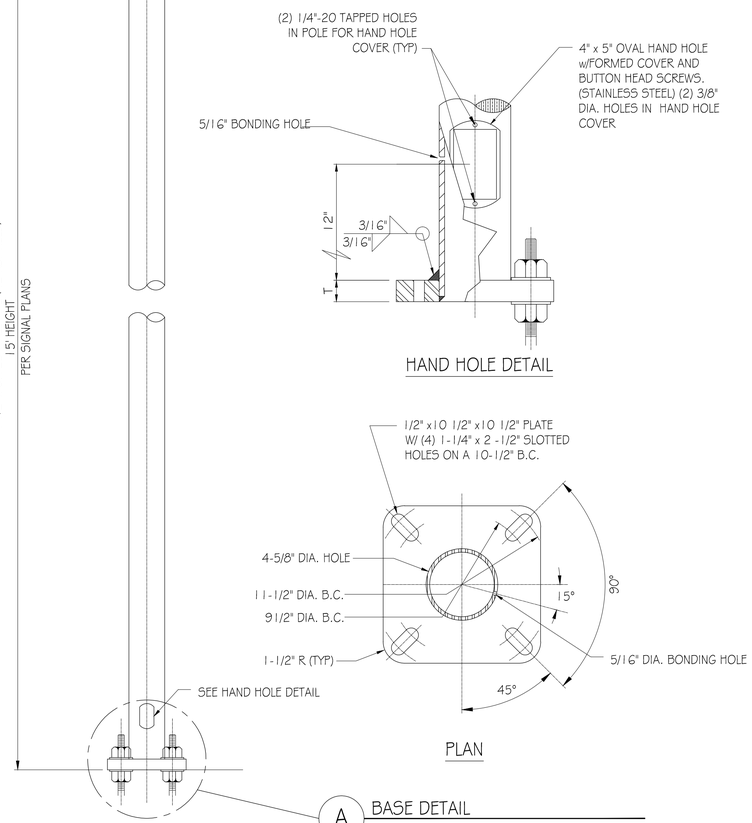
1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. PIPE SHALL HAVE MINIMUM YIELD STRENGTH SPECIFIED.
3. ALL OTHER STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
4. WELDING
   ALL WELDING SHALL USE E-70 ELECTRODES AND SHALL CONFORM TO ANSI/A.W.S. D1.1.
5. POLE AND ARM SHALL BE POWDER COATED PER CITY SPECIFICATIONS.



C RAINTIGHT CAP DETAIL



B HUB DETAIL

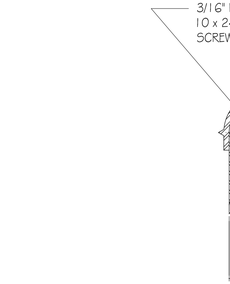


HAND HOLE DETAIL

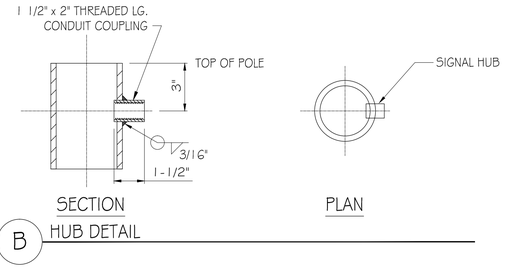
PLAN

A BASE DETAIL

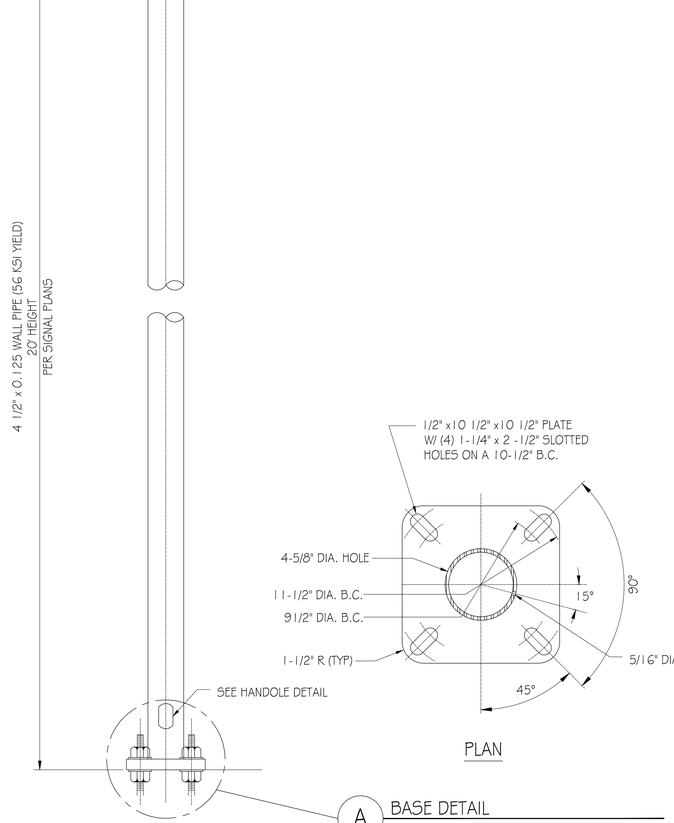
15' "A" POLE ASSEMBLY

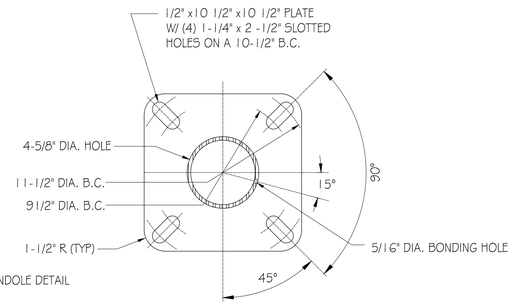


C RAINTIGHT CAP DETAIL



B HUB DETAIL

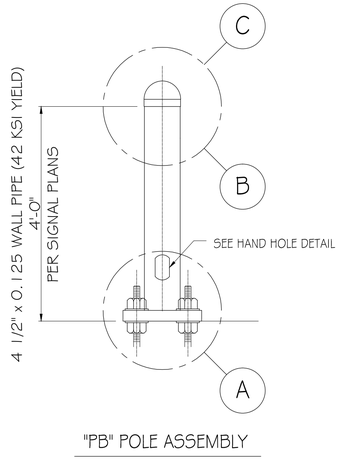




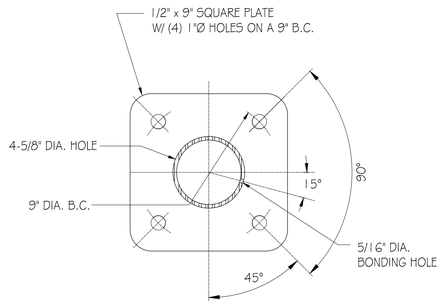
PLAN

A BASE DETAIL

20' "A" POLE ASSEMBLY



"PB" POLE ASSEMBLY



PLAN

A "PB" POLE BASE DETAIL

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

A POLE
AND PB POLE

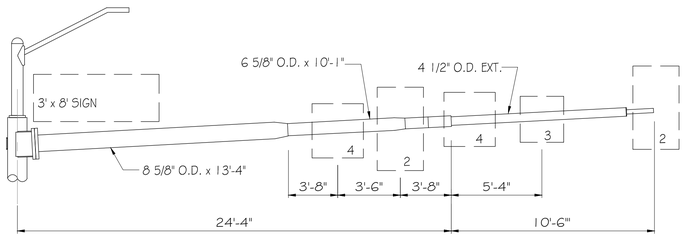
PDP File Number 10164 | TS 1-5

TRAFFIC SIGNAL ENGINEER | 10-31-2014

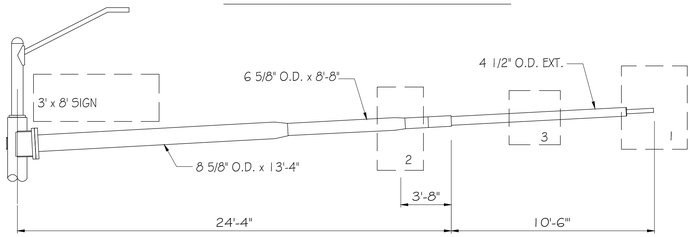
Glenn L. Hunt III, Registered Engineer, 52229, Date Signed 10-31-2014, ARIZONA, U.S.A., Expires 6/30/2015

PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 6	19

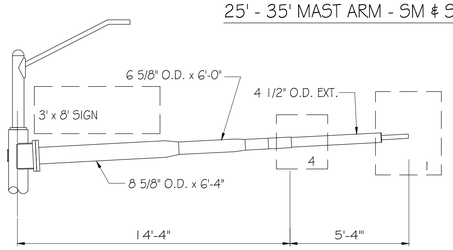
PROJECT #:



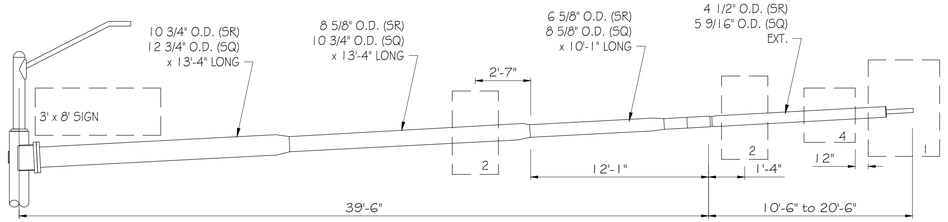
25' - 35' MAST ARM - SM & SR POLE



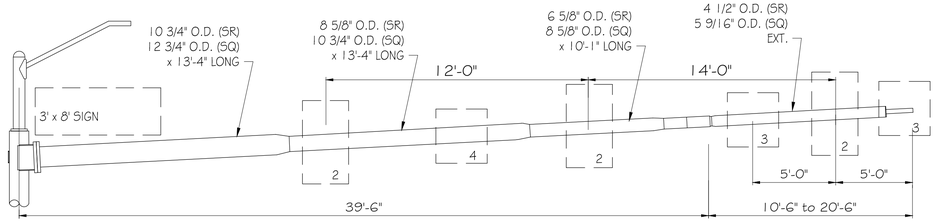
25' - 35' MAST ARM - SM & SR POLE



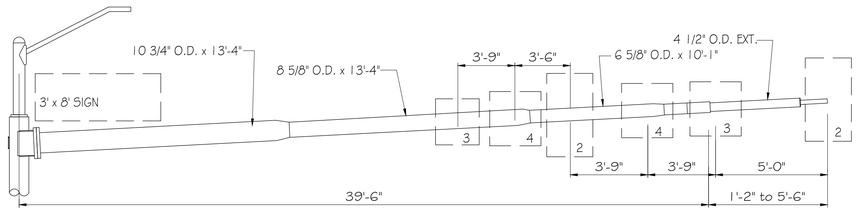
15' - 20' MAST ARM - SM & SR POLE



50' (SR), 55' (SQ), & 60' (SQ) MAST ARM



50' (SR), 55' (SQ), & 60' (SQ) MAST ARM



40' - 45' MAST ARM - SR POLE

4 1/2" O.D. EXT.	
CONTROLLER CABINET	WEIGHT
PAD MOUNT CABINET	325 POUNDS
POLE MOUNT CABINET	190 POUNDS

"A" POLE	
	WEIGHT
POLE ONLY	90 POUNDS

"SM" POLE AND MAST ARM EXTENTION WEIGHTS	
	WEIGHT
POLE ONLY	710 POUNDS
MAST ARM - 25 FT TO 35 FT	
MAST ARM - 15 FT TO 20 FT	225 POUNDS

"R" POLE AND MAST ARM EXTENTION WEIGHTS	
	WEIGHT
POLE ONLY	850 POUNDS
40 FT MAST ARM EXTENTION	
5 FT MAST ARM EXTENTION	30 POUNDS
	120 POUNDS
	175 POUNDS

	WEIGHT
POLE ONLY	850 POUNDS
MAST ARM	

"SR" POLE AND MAST ARM EXTENTION WEIGHTS	
	WEIGHT
POLE ONLY	1050 POUNDS
MAST ARM - 45 FT	

"SQ" POLE AND MAST ARM EXTENTION WEIGHTS	
	WEIGHT
POLE ONLY	1050 POUNDS
MAST ARM - 55 FT	

	WEIGHT
LUMINAIRE RISER 5FT	40 POUNDS
LUMINAIRE ARM 8FT	
LUMINAIRE FIXTURE N/A	20 POUNDS

	WEIGHT
3' X 8' SMART SIGN WITH HARDWARE	225 POUNDS

		WEIGHT
DOG HOUSE		60 POUNDS
5 SECTION		
3 SECTION		5 POUNDS

		WEIGHT
		195 POUNDS
		500 POUNDS

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR:	DES:	CK:	DATE:

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. FOR DETAILS OF "Q" AND "R" POLES AND MAST ARMS, SEE ARIZONA DOT (ADOT) TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS.

ATTACHMENTS

1 - 42" x 58" x 90# SIGNAL
2 - 24" x 54" x 40# SIGNAL
3 - 30" x 30" x 100# BLANK OUT SIGN
4 -36" x 36" x 15# SIGN

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

Registered Engineer
52229
Glen L. Hunt III
Date Signed
ARIZONA, U.S.A.
Expires 6/30/2017

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

LOADS FOR
POLES, MAST ARMS
SIGNAL EQUIPMENT

PDP File Number: 10164 | TS 1-6

TRAFFIC SIGNAL ENGINEER | 10-31-2014

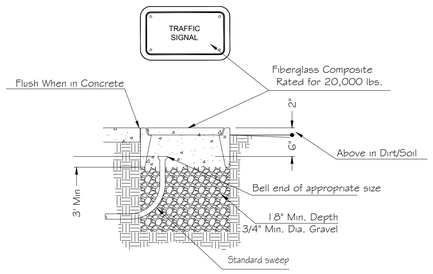
PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 7	19

PROJECT #:

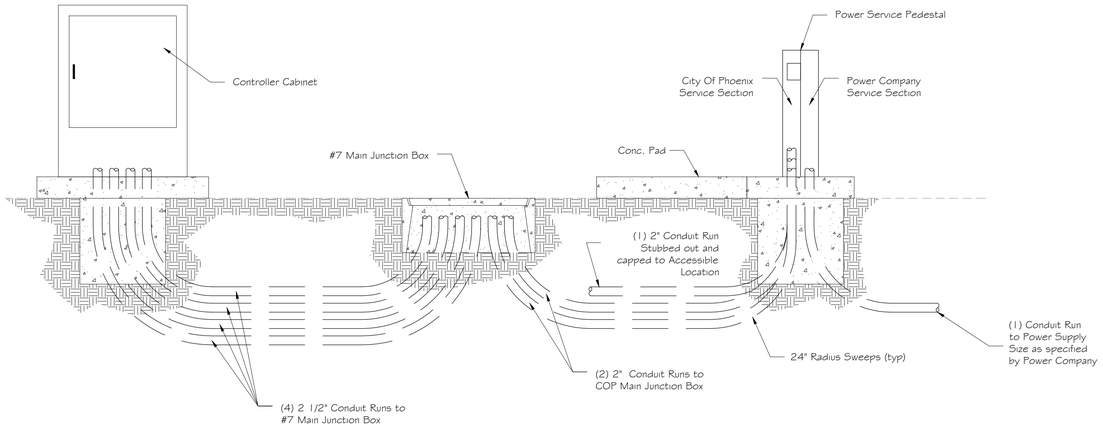
F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS:



JUNCTION BOX DETAIL

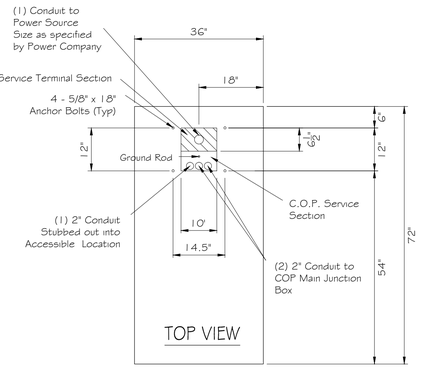


CONTROLLER CABINET POWER CONDUIT RUN

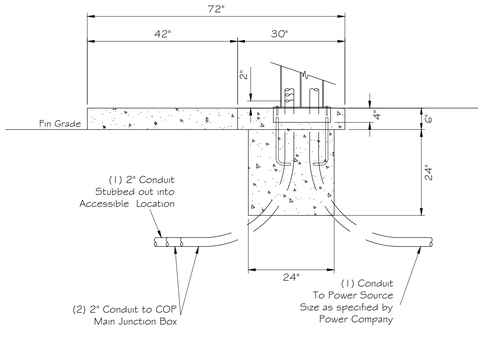
JUNCTION BOX:

1 All Junction Box Lids shall be imprinted to say "TRAFFIC SIGNALS" and be a fiberglass composite rated for 20,000 lbs. and supplied with bolt lock downs. A minimum depth of eighteen (18) inches of three quarter (3/4) inch rock shall be installed under each Junction Box.

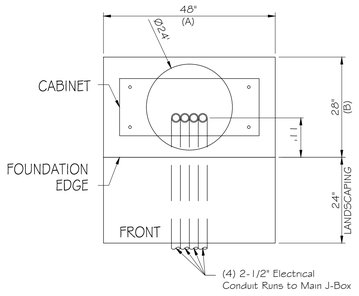
2 All Conduit shall be installed between twentyfour (24) inches and forty (40) inches below finished grade, in straight lines, Junction Box to Junction Box or Junction Box to Pole Base, with one (1) 90° sweep on each end as specified in the plans. All Conduit entering Junction Boxes shall be vertical with the top of the Conduit six (6) inches below the bottom of the Junction Box cover. Conduit in all Foundations shall be located as close as possible to the center of the Foundation.



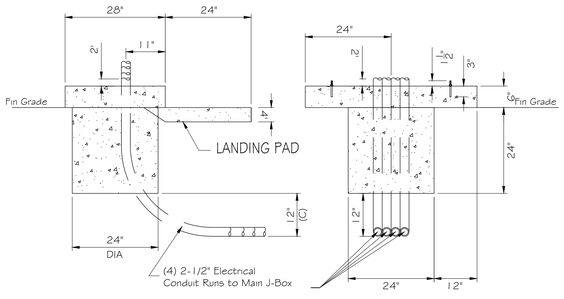
POWER PEDESTAL BASE



SIDE VIEW



FRONT VIEW



CONTROLLER CABINET FOUNDATION DETAIL

CONTROLLER CABINET FOUNDATION DIMENSION SCHEDULE			
CONTROLLER TYPE	FOUNDATION LENGTH "A"	FOUNDATION WIDTH "B"	CONDUIT SWEEP "C"
8 PHASE	48"	28"	24"

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TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SIGNAL STANDARD DETAILS

JUNCTION BOXES
FOUNDATIONS FOR CONTROLLER AND POWER SERVICE PEDESTAL

BRUCE E. LITTLETON
Date Signed 8-1-2014
ARIZONA, U.S.A.
EXPIRES: 06-30-2015

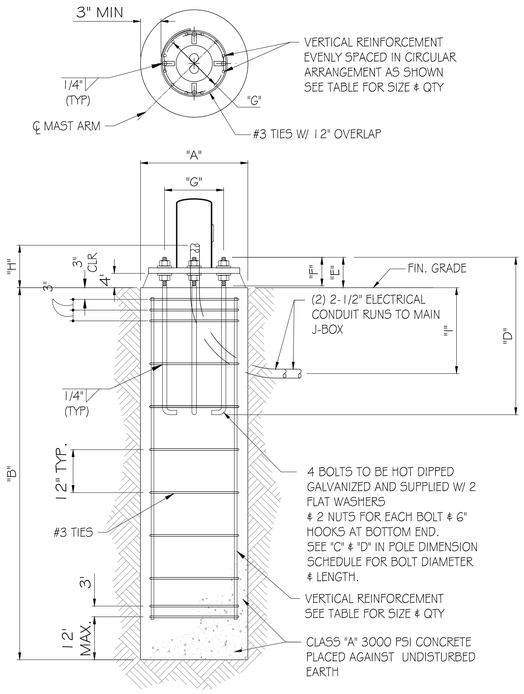
PDP File Number 10164 | TS 2-1

TRAFFIC SERVICES DEPUTY DIRECTOR | 8-1-2014

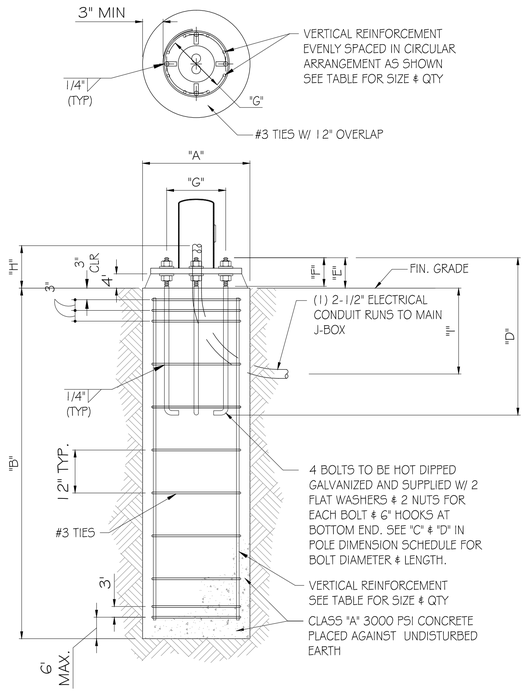
PROJECT #:

DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 8	19

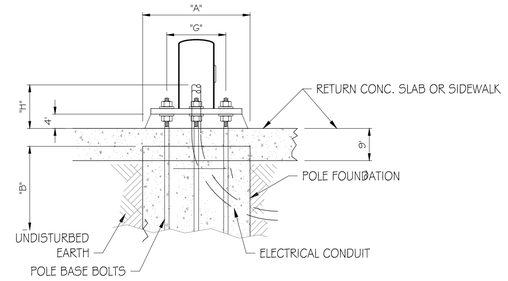
PROJECT #:



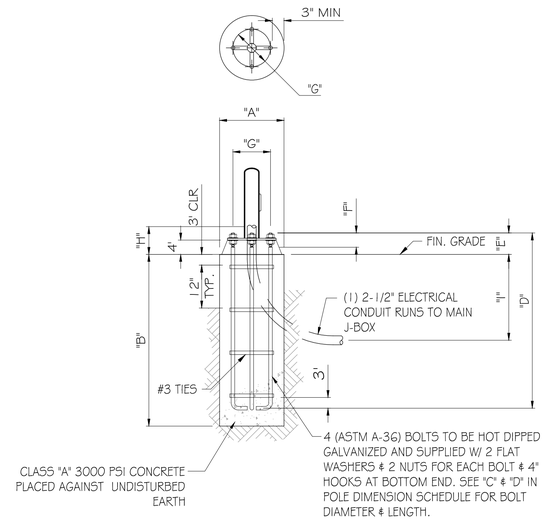
FOUNDATION, ANCHOR BOLT &
REBAR CAGE DETAIL FOR SQ, SR, SM, & LM POLES



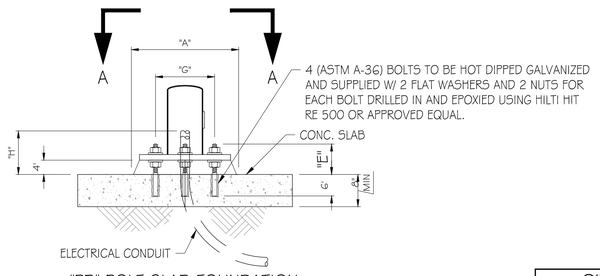
FOUNDATION, ANCHOR BOLT &
REBAR CAGE DETAIL FOR "A" POLES



TYPICAL POLE FOUNDATION
LOCATED WITHIN SIDEWALK SLAB



FOUNDATION &
ANCHOR BOLT CAGE DETAIL FOR "PB" POLES



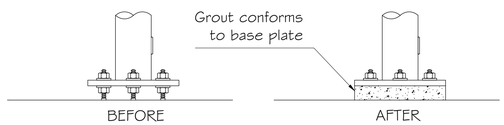
"PB" POLE SLAB FOUNDATION
LOCATED ON SIDEWALK SLAB

POLE FOUNDATION DIMENSION SCHEDULE

FOUNDATION POLE TYPE	POLE DETAIL (ft.)		LUMINAIRE ADAPTABLE	FOUNDATION DETAIL (in.)		VERT. REINFORCEMENT		BOLT DETAIL (in.)							✳ CONDUIT DETAIL		
	POLE HEIGHT	MAST ARM LENGTH		'A' WIDTH	'B' DEPTH	REBAR QUANTITY	REBAR SIZE	ASTM MATERIAL GRADE	"C" DIAMETER	"D" LENGTH OVERALL	"E" PROJECTION	"F" THREAD	"G" BOLT CIRCLE		"H" CLEAR	"I" MIN. DEPTH	CONDUIT QUANTITY
TYPE 'SQ'	20	55-60	YES	36	156	12	#6	F1554-55	2	66	8½	10	19		12	24	2
				30	186	10	#6										
TYPE 'SR'	20	15-50	YES	36	138	12	#6	F1554-55	2	66	8½	10	18		12	24	2
				30	168	10	#6										
TYPE 'SM'	20	15-35	YES	36	120	12	#6	F1554-55	1½	54	8½	8	16½		12	24	2
				30	132	10	#6										
TYPE "LM"	20	N/A	YES	36	84	12	#6	F1554-55	1⅛	44	7	6	12 1/2		12	24	2
				24	96	8	#5										
TYPE 'A'	15, 20	N/A	N/A	18	72	8	#5	F1554-36	1	36	6	4	10½		12	24	1
TYPE "PB"	4	N/A	N/A	18	36**	N/A	N/A	F1554-36	¾	30	6	4	9		12	24	1

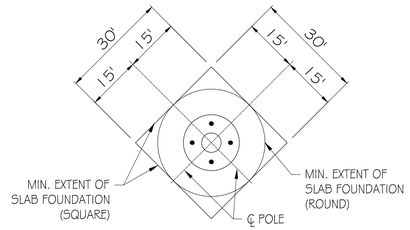
✳CONDUIT SHALL ENTER 24" MINIMUM DEPTH, VERTICALLY, THROUGH THE BOTTOM OF THE FOUNDATION

**UNLESS INSTALLED ON SLAB FOUNDATION PER DETAIL ON THIS SHEET



Grout material per City of Phoenix specifications

GROUT DETAIL



SECTION A-A

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: | DES: | CK: | DATE:

FOUNDATION GENERAL NOTES:

1. FOUNDATION ELEVATIONS MUST BE WITHIN 1/4" OF FINISHED SIDEWALK GRADE.
2. ALL FOUNDATION CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH Fc= 3000 PSI AT 28 DAYS. CONCRETE MIX SHALL BE DESIGNED BY AN APPROVED LABORATORY. CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.45. ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 318. "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION. CEMENT SHALL BE TYPE I/II, CONFORMING TO ASTM C-150. ALL AGGREGATE USED IN THE CONCRETE SHALL CONFORM TO ASTM C-33. MAXIMUM AGGREGATE SIZE TO BE 1 1/2". SLUMP 4" - 6"
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615. VERTICAL BARS SHALL BE GRADE 60, AND TIES OR STIRRUPS SHALL BE A MINIMUM OF GRADE 40. THE PLACEMENT OF ALL REINFORCEMENT SHALL CONFORM TO ACI 315, "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", LATEST EDITION
4. A 25' COIL OF #4 AWG STRANDED BARE COPPER GROUNDING ELECTRODE SHALL BE INSTALLED AT THE BASE OF SIGNAL POLE FOUNDATIONS AND EXTEND CENTERED, 2' ABOVE TOP OF FOUNDATION. CONDUCTOR SHALL BE INSTALLED 6" BELOW FOUNDATION AND COVERED WITH 6" OF SOIL PRIOR TO CONCRETE PLACEMENT.

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TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

POLE FOUNDATIONS

Registered Engineer — 52229 — Glen L. Hunt III — Date Signed — ARIZONA, U.S.A. — Expires 6/30/2017

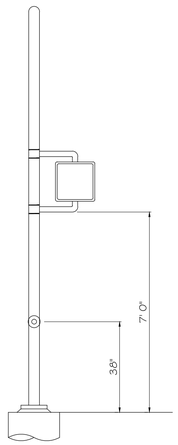
PDP File Number: 10164 | TS 2-2

TRAFFIC SIGNAL ENGINEER | 11-21-2014

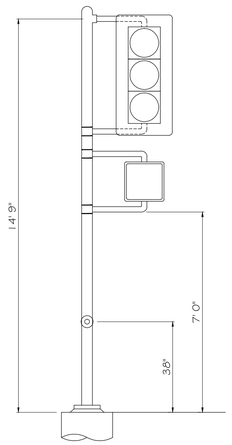
PROJECT #:

DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 9	19

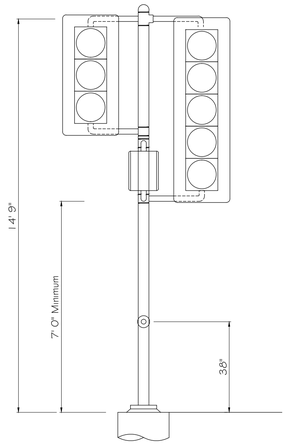
PROJECT #:



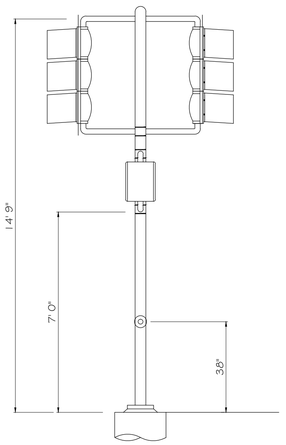
TYPE A POLE
PED SIGNAL



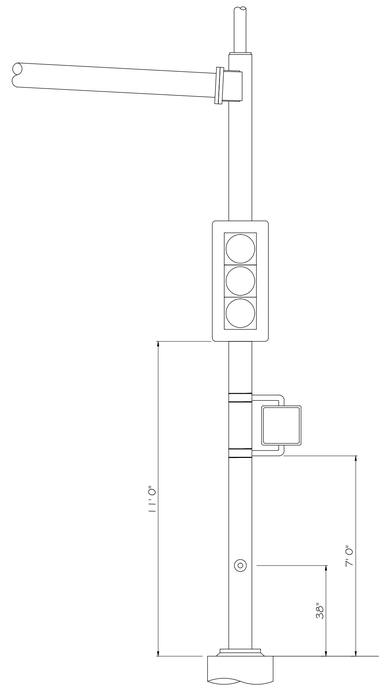
TYPE A POLE
12" VEHICLE SIGNAL AND PED SIGNAL



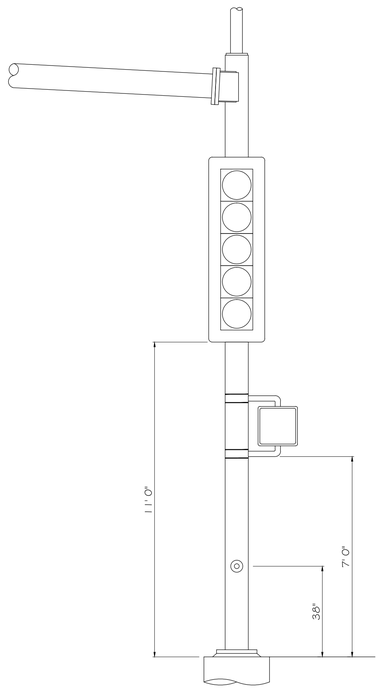
TYPE A POLE
12" 5 SECTION VEHICLE SIGNAL
AND PED SIGNAL



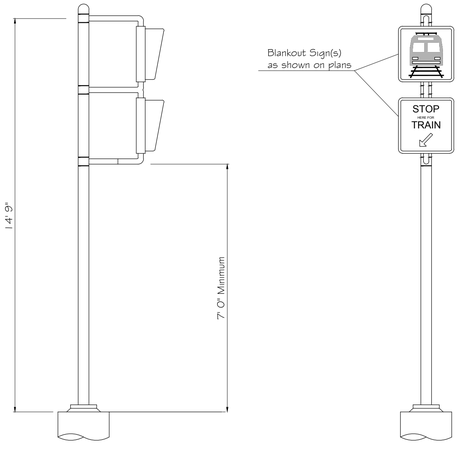
TYPE A POLE
12" BACK TO BACK VEHICLE SIGNAL
AND PED SIGNAL



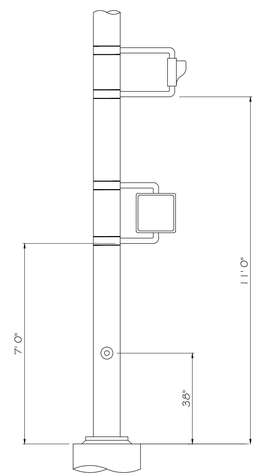
TYPE SM OR SR POLE
12" VEHICLE SIGNAL HEAD
AND PED SIGNAL



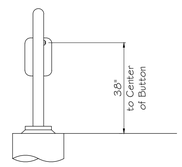
TYPE SM OR SR POLE
12" 5 SECTION VEHICLE SIGNAL HEAD
AND PED SIGNAL



TYPE A POLE
WITH BLANKOUT SIGNS



OCS POLE WITH
LRT SIGNAL, PEDESTRIAN SIGNAL
PUSHBUTTON AND SIGNS



TYPE A POLE
PEDESTRIAN PUSH BUTTON POLE

NOTES

1. Height measurement for Pedestrian Pushbutton is from finished grade to center of pushbutton, regardless of pushbutton style.
2. Height measurement for other Traffic Signal Devices are minimums. Up to a plus 6" will be acceptable.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS:

PROJECT #:

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TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SIGNAL STANDARD DETAILS

MOUNTING DETAILS
SIDE MOUNT SIGNAL EQUIPMENT

PDP File Number 10164 | TS 3-1

TRAFFIC SERVICES DEPUTY DIRECTOR | 8-1-2014

BRUCE E. LITTLETON
Date Signed 8-1-2014
ARIZONA, U.S.A.
EXPIRES: 06-30-2015

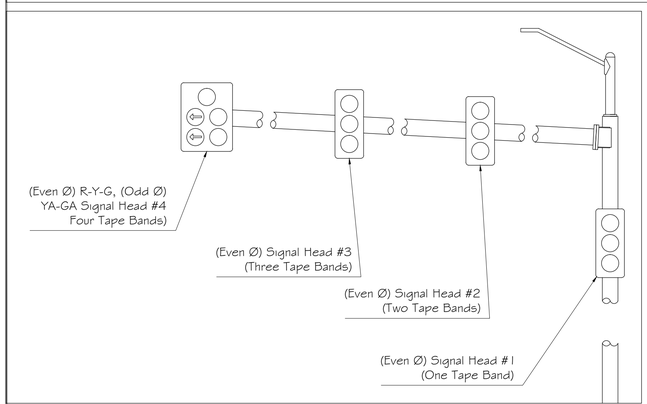
PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 10	19

TRAFFIC SIGNAL COLOR CODE TABLE

SIGNAL INDICATION	PHASE / DIRECTION	INSIDE/OUTSIDE BUNDLE COLOR	42 CONDUCTOR CABLE	20 CONDUCTOR CABLE
		OUTSIDE BUNDLE ORANGE		
Red Yellow Green	Eastbound	Outside Outside Outside	Red Orange Green	Red Orange Green
Red Yellow Green	Northbound	Outside Outside Outside	Red/Black Orange/Black Green/Black	Red/Black Orange/Black Green/Black
L/T Red Arrow L/T Yellow Arrow L/T Green Arrow	Eastbound to Northbound	Outside Outside Outside	Red/White Orange/Red Green/White	Red/White Orange/Red Green/White
L/T Red Arrow L/T Yellow Arrow L/T Green Arrow	Northbound to Westbound	Outside Outside Outside	Red/Green Orange/Green Blue/Red	Red/Green Black/Red Blue/Red
Walk Don't Walk	East/West North Leg	Outside Outside	Blue Black	Blue Black
Walk Don't Walk	North/South East Leg	Outside Outside	Blue/White Black/White	Blue/White Black/White
Ped Push Button	East/West North Leg	Outside	White/Black	White/Black
Ped Push Button	North/South East Leg	Outside	White/Red	White/Red
Ped Common	All	Outside	White	White
Spare		Outside	Blue/Black	Blue/Black
Spare		Outside	Black/Red	
		INSIDE BUNDLE BLUE		
Red Yellow Green	Westbound	Inside Inside Inside	Red Orange Green	Red Orange Green
Red Yellow Green	Southbound	Inside Inside Inside	Red/Black Orange/Black Green/Black	Red/Black Orange/Black Green/Black
L/T Red Arrow L/T Yellow Arrow L/T Green Arrow	Westbound to Southbound	Inside Inside Inside	Red/White Orange/Red Green/White	Red/White Orange/Red Green/White
L/T Red Arrow L/T Yellow Arrow L/T Green Arrow	Southbound to Eastbound	Inside Inside Inside	Red/Green Orange/Green Blue/Red	Red/Green Black/Red Blue/Red
Walk Don't Walk	East/West South Leg	Inside Inside	Blue Black	Blue Black
Walk Don't Walk	North/South West Leg	Inside Inside	Blue/White Black/White	Blue/White Black/White
Ped Push Button	East/West North Leg	Inside	White/Black	White/Black
Ped Push Button	North/South East Leg	Inside	White/Red	White/Red
Ped Common	All	Inside	White	White
Spare		Inside	Blue/Black	Blue/Black
Spare		Inside	Black/Red	

OUTSIDE BUNDLE MARKED WITH ORANGE TAPE

INSIDE BUNDLE MARKED WITH BLUE TAPE



TYPE F SIGNAL HEADS INSIDE & SIDEMOUNT

5 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Spare
2	White	Vehicle Common
3	Red	Red
4	Green	Green
5	Orange	Yellow

OUTSIDE MAST ARM AND TYPE Q HEADS

7 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Yellow Arrow
2	White	Vehicle Common
3	Red	Red
4	Green	Green
5	Orange	Yellow
6	Blue	Green Arrow
7	White/Black	Spare

ILLUMINATED STREET SIGN

3 CONDUCTOR CABLE

NO.	BASIC COLOR	FUNCTION
1	Black	Load
2*	White	Ground
3	Red	Load

* NOTE: White Conductor is stripped bare and connected to pole and field grounded for Illuminated Street Sign

LUMINAIRE

3 CONDUCTOR CABLE

NO.	BASIC COLOR	FUNCTION
1	Black	Load
2*	White	Ground
3	Red	Load

* NOTE: White Conductor is stripped bare and connected to pole and field grounded for Luminaire

LRT SIGNAL

5 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Spare
2	White	Neutral
3	Red	LRT Horizontal
4	Green	LRT Vertical
5	Orange	Spare

LRT SIGNAL DOUBLE TRAIN

7 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Spare
2	White	Neutral
3	Red	LRT Horizontal (Red)
4	Green	LRT Vertical (Green)
5	Orange	Spare
6	Blue	Spare
7	White/Black	Spare

PEDESTRIAN HEAD

3 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Walk
2	White	Pedestnan Common
3	Red	Don't Walk

BLANK OUT SIGN

5 CONDUCTOR CABLE

NO.	COLOR	FUNCTION
1	Black	BO Sign
2	White	Neutral
3	Red	BO Sign *
4	Orange	Spare
5	Green	Spare

* Where second function is required

COMMUNICATION RADIO

3 CONDUCTOR CABLE

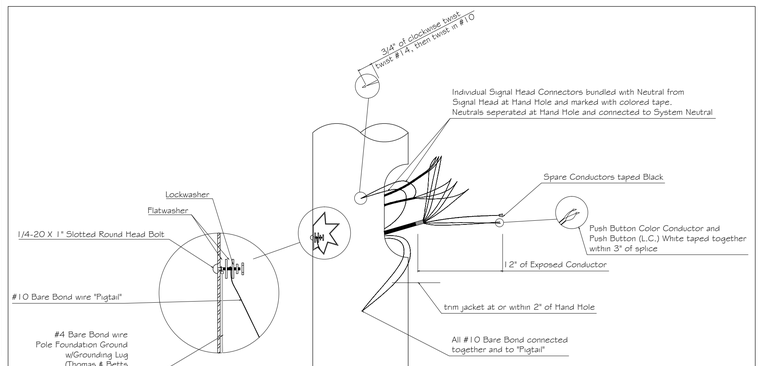
NO.	BASIC COLOR	FUNCTION
1	Black	Load
2*	White	Ground
3	Red	Load

* NOTE: White Conductor is stripped bare and connected to pole and field grounded for Communication Radio

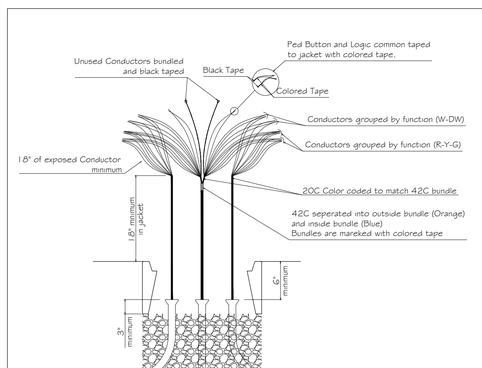
PUSH BUTTON

3 CONDUCTOR CABLE

NO.	BASIC COLOR	PUSH BUTTON STATION
1	Black	Push Button
2	White	Push Button Common
3	Red	Spare



WIRING DETAILS FOR TRAFFIC SIGNAL CONDUCTORS IN POLE HANDHOLE



TYPICAL CONDUCTOR DETAILS IN JUNCTION BOX

GENERAL NOTES

1 All IMSA Cable shall be pulled continuous (no splicing) from the Terminal Compartment in each Signal Head or Push Button Station to the Hand Hole at the base of Pole

2 Cable shall be utilized as follows:
3 Conductor - All Push Button Stations Luminaires, Illuminated Street Signs, Pedestnan Heads
5 Conductor - All 3 Section, 4 Section Signal Heads, HAWK Signal Heads
7 Conductor - All outside Mast Arm and Type Q Signal Heads

3 Orange (North or East) or blue (South or West) Tape shall be applied six (6) inches above PVC bell end on IMSA Cable Jacket in Junction Box

4 All Cable shall be tagged in the Hand Hole with orange (North or East) or blue (South or West) tape as follows;

MAST ARM VEHICLE INDICATIONS		
HEAD	CONDUCTORS	TAPE(S)
On Pole	5	1
First on Mast Arm	5	2
Next Outside	5	3
Next Outside	5	4
End of Mast Arm	7	5*

* Band Number corresponds to Head Number

5 IMSA Cables for Pedestnan Heads shall be identified in Hand Hole using Brown tape in addition to color of phase.

6 IMSA Cable for Luminaires shall be run continuous to Junction Box and identified with one (1) band of purple tape

8 IMSA Cable for Illuminated Street Signs shall be run continuous to Junction Box and identified with two (2) bands of purple tape

9 IMSA Cables for Communication Radio shall be pulled continuous to Junction Box and shall be connected to Luminaire circuit and identified with three (3) bands of purple tape.

10 CAT 5e Cable shall be pulled continuous from Wireless Radio to inside the Controller Cabinet.

11 CCTV Cable and Video Detection Cable shall be pulled continuous from the device to inside the Controller Cabinet.

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS

PROJECT #:

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

WIRE CODE TABLES
PULL BOX/POLE HAND HOLE WIRING

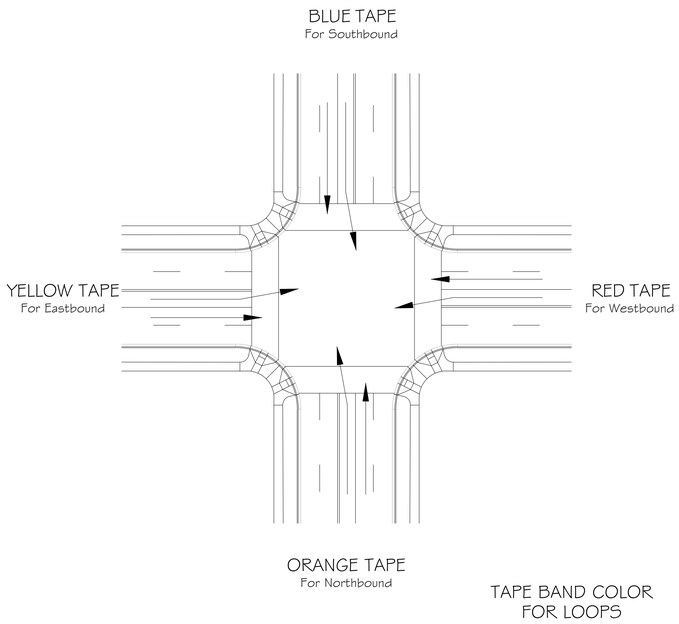
BRUCE E. LITTLETON — 8-1-2014 — EXPIRES: 06-30-2016

PDP File Number 10164 | TS 4-1

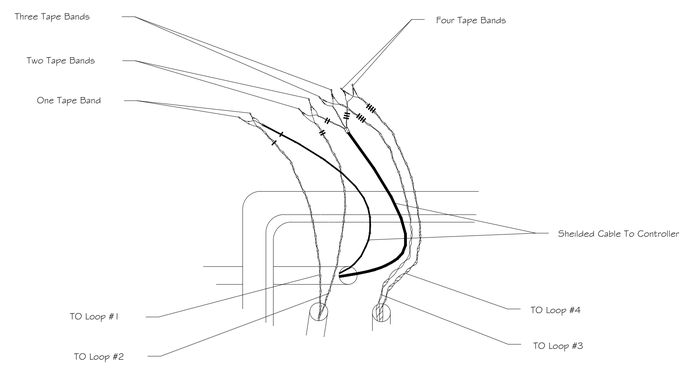
TRAFFIC SERVICES DEPUTY DIRECTOR — 8-1-2014

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

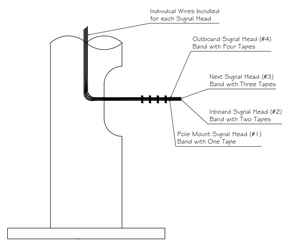
PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 11	19



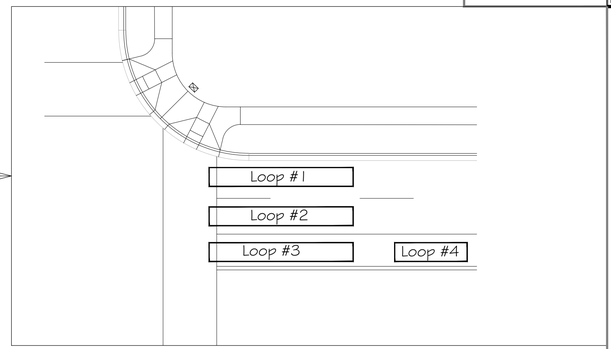
TAPE BAND COLOR
FOR LOOPS

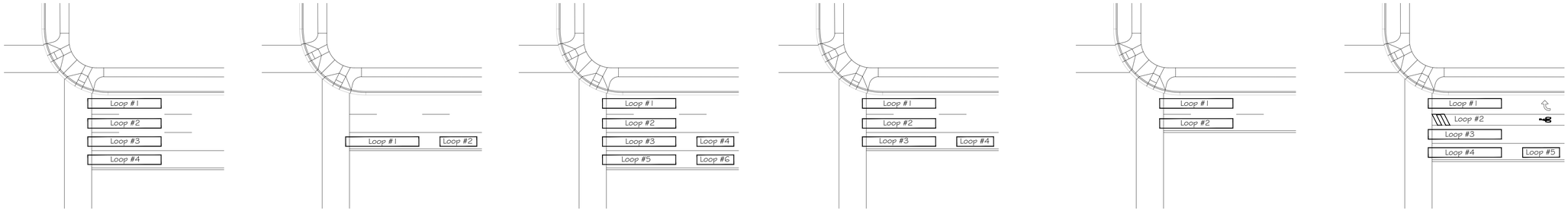


TAPE BAND
IN JUNCTION BOX



WIRING DETAIL IN POLE HANDHOLE





LOOP NUMBERING SCHEME

1 - Loop numbering begins with the right most internal loop numbered #1
2 - Loops are numbered sequentially in the lane, then to the adjacent lane
3 - Numbering starts over with each approach
4 - See approved plans for loop locations

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

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TRAFFIC SIGNAL DETAILS:

PROJECT #:

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SIGNAL STANDARD DETAILS

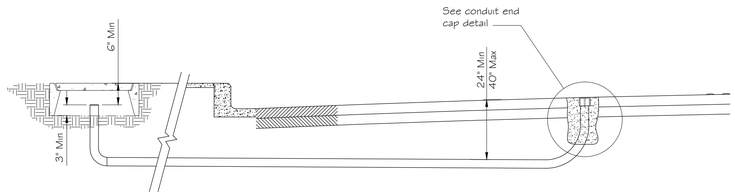
COLOR CODING/BANDING SCHEME
LOOP NUMBERING

PDP File Number 10164 | TS 4-2

TRAFFIC SERVICES DEPUTY DIRECTOR | 8-1-2014

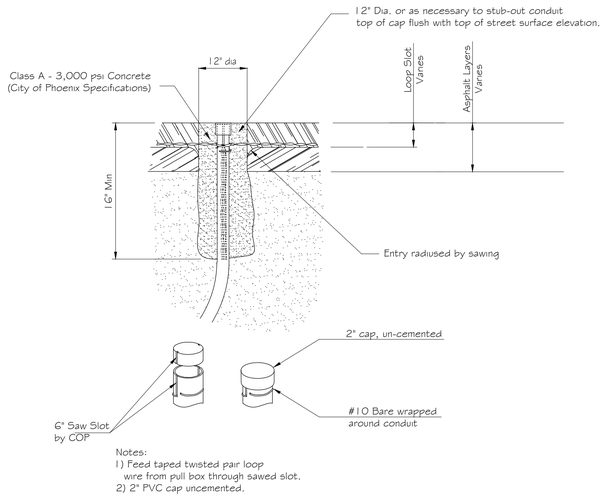
BRUCE E. LITTLETON
Date Signed 8-1-2014
ARIZONA, U.S.A.
EXPIRES: 06-30-2015

PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 12	19



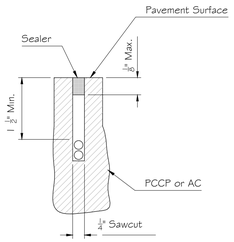
SECTION VIEW

LOOP TO JUNCTION BOX DETAIL

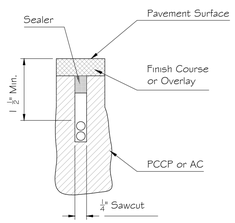


Notes:
1) Feed taped twisted pair loop wire from pull box through sawed slot.
2) 2" PVC cap uncemented.

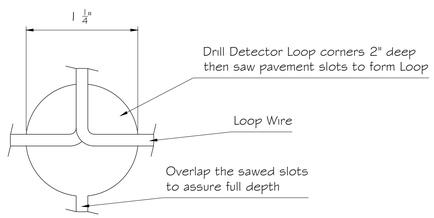
CONDUIT END CAP DETAIL



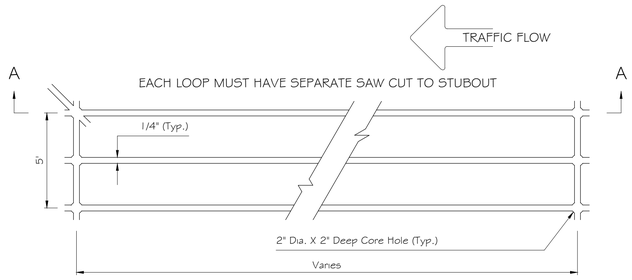
DETAIL 1



DETAIL 2

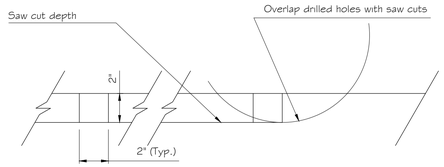


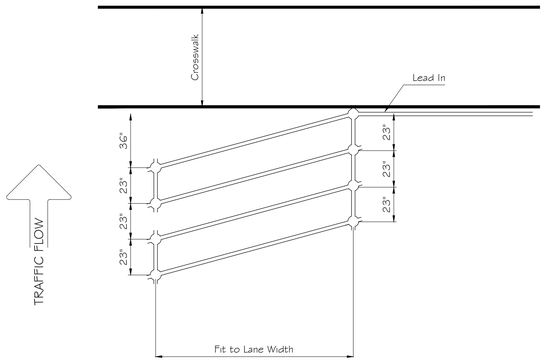
DRILLING DETAIL



QUADRUPOLE DETECTOR LOOP SAW CUT DETAIL

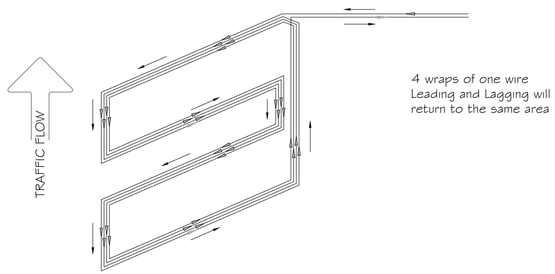
SECTION A-A





BICYCLE DETECTOR LOOP SAW CUT DETAIL

QUADRUPOLE DETECTOR LOOP CONDUCTOR PLACEMENT



BICYCLE DETECTOR LOOP CONDUCTOR PLACEMENT

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS:

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TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT
TRAFFIC SIGNAL STANDARD DETAILS

DETECTION LOOPS

BRUCE E. LITTLETON — 8-1-2014 — EXPIRES: 06-30-2015

PDP File Number 10164 — TS 5-1

TRAFFIC SERVICES DEPUTY DIRECTOR — 8-1-2014

PROJECT #:

DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 13	19

GENERAL NOTES

1 All IMSA Cable shall be pulled continuous (no splicing) from the Terminal Compartment in each Signal Head or Push Button Station to the Hand Hole at the base of Pole

2 Cable shall be utilized as follows:
- 3 Conductor - All Push Button Stations Luminaires, Illuminated Street Signs, Pedestrian Heads
- 5 Conductor - All 3 Section, 4 Section Signal Heads, HAWK Signal Heads
- 7 Conductor - All outside Mast Arm and Type Q Signal Heads

3 Orange (North or East) or blue (South or West) Tape shall be applied six (6) inches above PVC bell end on IMSA Cable Jacket in Junction Box

4 All Cable shall be tagged in the Hand Hole with orange (North or East) or blue (South or West) tape as follows;

MAST ARM VEHICLE INDICATIONS		
HEAD	CONDUCTORS	TAPE(S)
On Pole	5	1
First on Mast Arm	5	2
Next Outside	5	3
Next Outside	5	4
End of Mast Arm	7	5*

* Band Number corresponds to Head Number

5 IMSA Cables for Pedestrian Heads shall be identified in Hand Hole using Brown tape in addition to color of phase.

6 IMSA Cable for Luminaires shall be run continuous to Junction Box and identified with one (1) band of purple tape

8 IMSA Cable for Illuminated Street Signs shall be run continuous to Junction Box and identified with two (2) bands of purple tape

9 IMSA Cables for Communication Radio shall be pulled continuous to Junction Box and shall be connected to Luminare circuit and identified with three (3) bands of purple tape.

10 CAT 5e Cable shall be pulled continuous from Wireless Radio to inside the Controller Cabinet.

11 CCTV Cable and Video Detection Cable shall be pulled continuous from the device to inside the Controller Cabinet.

HAWK SIGNAL HEAD

5 CONDUCTOR CABLE

NO.	COLOR	FUNCTION
1	Black	Right Red Signal
2	White	
3	Red	Left Red Signal
4	Green	
5	Orange	Yellow

COMMUNICATION RADIO

3 CONDUCTOR CABLE

NO.	BASIC COLOR	FUNCTION
1	Black	Load
2*	White	Ground
3	Red	Load

* NOTE: White Conductor is stripped bare and connected to pole and field grounded for Communication Radio

LUMINAIRE

3 CONDUCTOR CABLE

NO.	BASIC COLOR	FUNCTION
1	Black	Load
2*	White	Ground
3	Red	Load

* NOTE: White Conductor is stripped bare and connected to pole and field grounded for Luminaire

20 CONDUCTOR HAWK ONLY

INSULATION COLOR	SIGNAL INTERVAL
Red Black	Right Red Signal
Red	Left Red Signal
Orange	Yellow
Blue	Walk
Black	Don't Walk
White Black	Push Button
White	Push Button Common

PUSH BUTTON

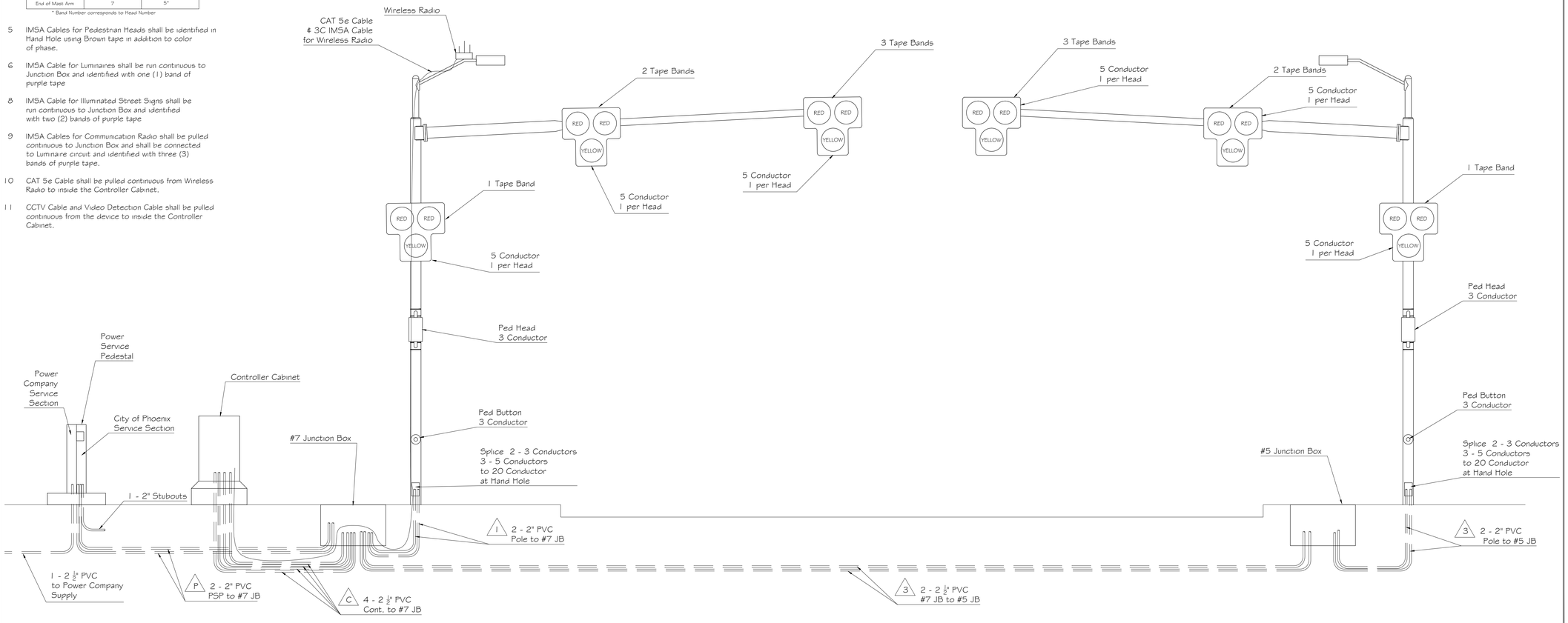
3 CONDUCTOR CABLE

NO.	BASIC COLOR	PUSH BUTTON STATION
1	Black	Push Button
2	White	Push Button Common
3	Red	Spare

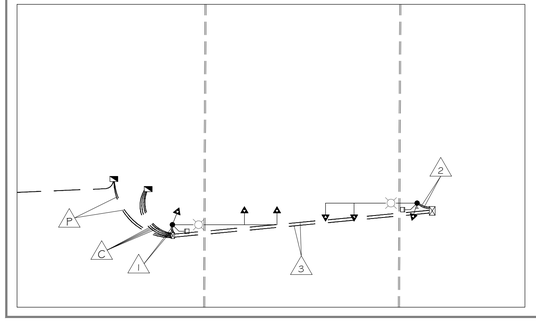
PEDESTRIAN HEAD

3 CONDUCTOR CABLE

NO.	BASIC COLOR	SIGNAL INTERVAL
1	Black	Walk
2	White	Pedestnan Common
3	Red	Don't Walk



High Intensity Activated CrossWalK (HAWK) Schematic



C Controller to #7 Junction Box

CONDUIT 1	CONDUIT 2	CONDUIT 3	CONDUIT 4
#10 Bare Copper #10 AWG White 5C IMSA Cable 20C IMSA Cable	#10 Bare Copper ITS Cable	#10 Bare Copper #8 AWG Black #8 AWG White #8 AWG Green	Detectable Mule Tape

P #7 Junction Box to Power Service Pedestal

CONDUIT 1	CONDUIT 2
#10 Bare Copper #8 AWG Black #8 AWG White #8 AWG Green 5C IMSA Cable	Detectible Mule Tape

1 #7 Junction Box to Mast Arm Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 20C IMSA Cable	#10 Bare Copper ITS Cable

2 #5 Junction Box to Mast Arm Pole

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 20C IMSA Cable	Detectible Mule Tape

3 Junction Box to Junction Box

CONDUIT 1	CONDUIT 2
#10 Bare Copper #10 AWG White 5C IMSA Cable 20C IMSA Cable	Detectible Mule Tape

BRUCE E. LITTLETON
No. 35580
REGISTERED PROFESSIONAL ENGINEER
ARIZONA, U.S.A.
EXPIRES: 06-30-2015

F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.			

DR: DES: CK: DATE:

TRAFFIC SIGNAL DETAILS;

PROJECT #:

"PER CITY OF PHOENIX CITY CODE CHAPTER 2, SECTION 2-28, THESE PLANS ARE FOR OFFICIAL USE ONLY & MAY NOT BE SHARED WITH OTHERS EXCEPT AS REQUIRED TO FULFILL THE OBLIGATIONS OF YOUR CONTRACT WITH THE CITY OF PHOENIX."

TRAFFIC SIGNAL DETAILS

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

CITY OF PHOENIX, ARIZONA
STREET TRANSPORTATION DEPARTMENT

TRAFFIC SIGNAL STANDARD DETAILS

HAWK
PEDESTRIAN CROSSING BEACON

PDP File Number 10164 | TS 6-1

TRAFFIC SERVICES DEPUTY DIRECTOR | 8-1-2014

PROJECT #:				
DR:	DES:	CK:	SHEET NO:	TOTAL SHEETS
DATE:	DATE:	DATE:		
SCALE:		QS. #:	T.S.- 14	19

PROJECT NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 5TH EDITION, 2009.
2. PIPE SHALL HAVE MINIMUM YIELD STRENGTH SPECIFIED.
3. ALL OTHER STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 36 KSI.
4. WELDING SHALL BE WITH E-70 LOW HYDROGEN RODS AND SHALL CONFORM TO AWS D1.1 LATEST EDITION).
5. AFTER FABRICATION THE POLE SHALL BE SANDBLASTED TO REMOVE ALL LOOSE SCALE, RUST, CORROSION PRODUCTS, GREASE, DIRT AND OTHER FOREIGN PRODUCTS. CLEAN POLE TO A MINIMUM OF "COMMERCIAL GRADE" SSPC SP-6.
6. AFTER SANDBLASTING, THE POLE SHALL BE POWDER COATED. APPLY POLYESTER POWDER ELECTROSTATICALLY AND CURED TO A MINIMUM 2.5 MIL. THICKNESS TO MATCH EXISTING POLE.
7. RELOCATE SIGNAL MAST ARM AND LUMINAIRE ARM TO MATCH EXISTING FIXTURE ELEVATIONS
8. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4"-20 SS MACHINE SCREWS.
9. 'SR' POLE CAN ONLY SUPPORT UP TO A 55' SIGNAL MAST ARM.
10. ORIENTATION ANGLES FOR POLE FABRICATION ONLY. 0° POSITION REFERS TO LUMINAIRE ARM ORIENTATION. ORIENTATION ANGLES ARE NOT RF ANTENNA AZIMUTHS.

MAST ARM STAGE PIPE DIAMETER			
PRIMARY MAST ARM LENGTH	COLUMN A	COLUMN B	COLUMN C
15'	8 5/8" O.D. X 0.156 X 6'-4" (42 KSI)	6 5/8" O.D. X 0.156 X 6'-0" (42 KSI)	
25'	8 5/8" O.D. X 0.188 X 13'-4" (56 KSI)	6 5/8" O.D. X 0.156 X 8'-8" (56 KSI)	
40'	10 3/4" O.D. X 0.250 X 13'-4" (46 KSI)	8 5/8" O.D. X 0.250 X 13'-4" (46 KSI)	6 5/8" O.D. X 0.250 X 10'-1" (52 KSI)

COMM. EQUIPMENT:

C Elevation (AFG)	(Qty)	Description
		Small Cell Panel Antenna

REMOVABLE RAINTIGHT CAP W/ SET SCREWS
2'-6"
(2) PORTS AT 0°, 180°
(2) PORTS AT 90°, 270°
1'-0"
(2) PORTS AT 0°, 180°
1'-0"
5'-6"
32'-0"
12 3/4" O.D.X 0.312 PIPE (42 KSI YIELD)
STD. 8' x 3' LUMINAIRE ARM SCH 40 PIPE - 2 3/8" O.D.
(GRADE 5) 1/2" - 13 X 1" HEX HEAD, MACHINE BOLT, PLATED
CT 2 SIMPLEX FITTING OR EQUAL
3/16"
1 1/2" x 2" THREADED LG. CONDUIT COUPLING @ 270°
3/16"
SIGNAL HUB DET. C
SIGNAL HUB (OPP SIDE)
19'
"SR" POLE ASSEMBLY

J-HOOK GRIP HOIST
3/16"
1/4"
2"
1/4"X2" PLATE
PLAN

3/16"
4"
6-1/2"
SECTION

J ANTENNA PORT DETAIL

6"

3/16"
BACK-UP RING 1/8" x 1"

F REDUCER DETAIL

EXTENSION END DETAIL G

H TENON DETAIL

SEE TABLE COLUMN "A"
SEE TABLE COLUMN "B"
SEE TABLE COLUMN "C"
39'-6" MAX.
ALL EXTENSIONS

3/8"
1-3/4" x 15" SQUARE PLATE, SUPPLY (4) 1 1/4"Ø X 3 3/4" A325 BOLTS
4" x 6 1/2" HAND HOLE REINFORCED SAME AS SECTION X-X
1/2"
1/2"
40'-50' ONLY
GUSSETS 40'-50' ONLY
3/8" THICK PLATE
1/4"
1/4"
3/8"
1 3/4" X 15" SQ PLATE
1/4"
1/4"
5"
5"
40'-50' ONLY
D MAST ARM BOX ASSEMBLY

7 3/4"
15"
8 1/2"
SIDE PLATES (2)

3/8" THICK PLATE
6 3/8" R
7 3/4"
15"
TOP PLATE

3/8" THICK PLATE
6 3/8" R
8 1/2"
15"
BOTTOM PLATE

(4) 1 1/4" (ASTM A325) TAPPED HOLES
15 1/2" B. C.
1 3/4" X 15" SQ PLATE
WIREWAY 4" X 6" HOLE ALL EDGES 1/8" R
CONNECTION PLATE

15 1/2" B.C.
4 - 1 3/8" HOLES
1/8" X 15" SQUARE PLATE
M.A. BLANK OUT PLATE

15 1/2" B. C.
25° 25°
7" DIA. HOLE
1/4"
1/4"
1 3/4" x 15" SQ PLATE
(6) 1/2" GUSSETS @ 25 DEGREES (40'-50' ONLY)
(4) 1 3/8" HOLES
MAST ARM BRACKET
(FOR 40' ONLY)

(2) 1/4"-20 TAPPED HOLES IN POLE FOR HAND HOLE COVER (TYP)
1/4" PLATE TABS
6 1/2"
3/8" REINFORCING RING
4"
HAND HOLE ELEVATION B
11'-0"
3/4"
1 1/4"
DEBUR EDGES TYPICAL
5/16"
5/16"
1/2"
9"
FLAT HAND HOLE COVER (NOT SHOWN) HAND HOLE COVER SHALL BE SECURED BY 1/4" S.S. MACHINE SCREWS T & B
3/16"
POLE GROUND SHALL BE 5/16" DIA. - HOLE LOCATED AS SHOWN.
SECTION X-X
A POLE BASE DETAIL

(6) 2"Ø HOLES ON AN 18"Ø B.C.
12-7/8" DIA. HOLE
2" x 23"Ø ROUND PLATE
0°
PLAN

(2) 2-1/2" ELECTRICAL CONDUIT RUNS TO MAIN J-BOX (COP) TERM. AT BASE PLATE
(1) 4" PVC CONDUIT (COMM) TERM. AT 3'
I CONDUIT PLAN (AT FOUNDATION)

HAND HOLE
(1) 4" METAL CONDUIT (COMM) FROM TOP OF BOTTOM PORT TO BASE OF MAST ARM PORT DEBUR AT ENDS
1" TAB AT TOP & BOTTOM, TACK WELD TO PIPE INTERIOR
I CONDUIT PLAN (3' TO 19')

12"
12"
10"
1/8"
1/2" HHMD
5/8" HOLE
3"x5 1/2" H.H.
TACK WELD
1/2" N.C. NUT
5/16" x 5/16" NOTCH
1/4" - 20 x 2" SOCKET CAP SCREW
1/4" / 6"
6 5/8" O.D. MAST ARM 5.563" O.D. x .258 x 24" LONG
5" O.D. x .188 x 12" LONG SLEEVE
16 GA. x 1 1/2" x 5" SHIMS (TACK WELDED)

1/4" WASHER (O.D. TO FIT)
14"
2"
1/4"
REMOVABLE RAINTIGHT CAP W/ SET SCREWS FIT OVER THRU HOLES
1/2" DIA. THRU HOLES
TENON (TYP) 2" SCH. 40 PIPE INSIDE GROUND SMOOTH FOR WIRE PROTECTION

2 1/8"
1/2"
8" GUSSETS
3/8" CHAMFER

11'-0"
4 1/2" O.D. x .125 (56 KSI YIELD)
10'-6" EXTENSION
(FOR 35' & 50' MAST ARMS)
G
H

6'-0"
4 1/2" O.D. X .125 (42 KSI YIELD)
5'-6" EXTENSION
(FOR 20' 30' & 45' MAST ARMS)
G
H

12 1/2"
4 1/2" O.D. x .125 (42 KSI YIELD)
0'-14" EXTENSION
(FOR 15', 25' & 40' MAST ARMS)
G
H

verizon wireless
126 W. GEMINI DR.
TEMPE, AZ 85283

ISE Incorporated
Structural Engineers
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Phoenix, Arizona 85076
PHONE: 602-403-8614
www.ise-inc.biz

ISE JOB #: 8344

VZW PHO 1stST MONROE-SC
CITY OF PHOENIX
'SR' COMMUNICATIONS SIGNAL POLE
POLE DETAILS

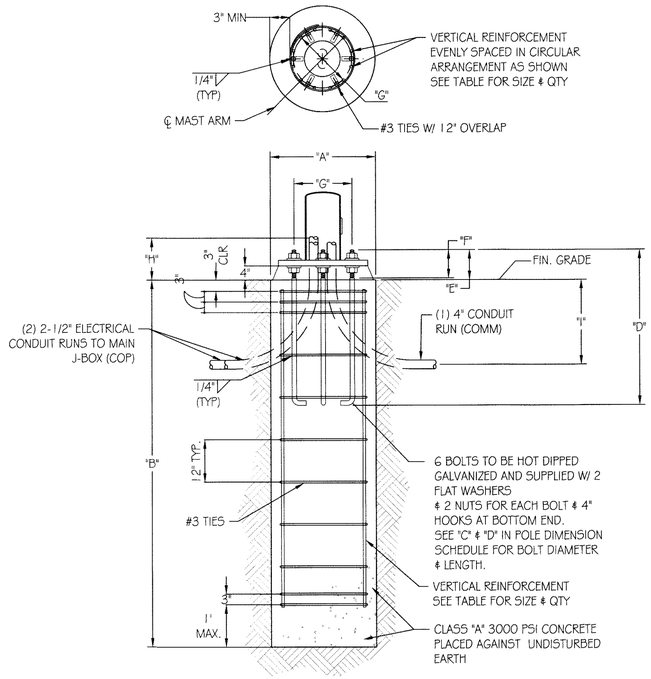
S.W.C. OF 1ST ST. & MONROE ST
PHOENIX, AZ 85004

Approved for use

REGISTERED PROFESSIONAL ENGINEER (Structural)
ARIZONA T.E. NO. 52229
Glen L. Hunt III
Date Signed 9/25/2014
ARIZONA, U.S.A.
Expires 6/30/2015

PROGRESS LOG			
1	9/25/14	CORRECTED ARM BOX HEIGHT	GH
0	8/8/14	ISSUED TO CLIENT	JH

SHEET NUMBER: S1
PROGRESS: 1
DRAWING DATE: September 25, 2014



FOUNDATION, ANCHOR BOLT & REBAR CAGE DETAIL

POLE FOUNDATION DIMENSION SCHEDULE

FOUNDATION POLE TYPE	POLE DETAIL (ft.)		FOUNDATION DETAIL (in.)		VERT. REINFORCEMENT		BOLT DETAIL (in.)						✳ CONDUIT DETAIL		
	POLE HEIGHT	MAST ARM LENGTH	'A' WIDTH	'B' DEPTH	REBAR QUANTITY	REBAR SIZE	ASTM MATERIAL GRADE	"C" DIAMETER	"D" LENGTH OVERALL	"E" PROJECTION	"F" THREAD	"G" BOLT CIRCLE	"H" CLEAR	"I" MIN. DEPTH	CONDUIT QUANTITY
'SR' COMM POLE	32	15-50	36	138	12	#6	F1554-55	1-3/4	66	8½	10	18	12	24	2 C.O.P. 1 COMM
			30	168	10	#6									

✳ CONDUIT SHALL ENTER 24" MINIMUM DEPTH, VERTICALLY, THROUGH THE BOTTOM OF THE FOUNDATION

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VZW PHO 1stST MONROE-SC
CITY OF PHOENIX
'SR' COMM SIGNAL POLE
FOUNDATION DETAILS

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PHOENIX, AZ 85004

Approved for use

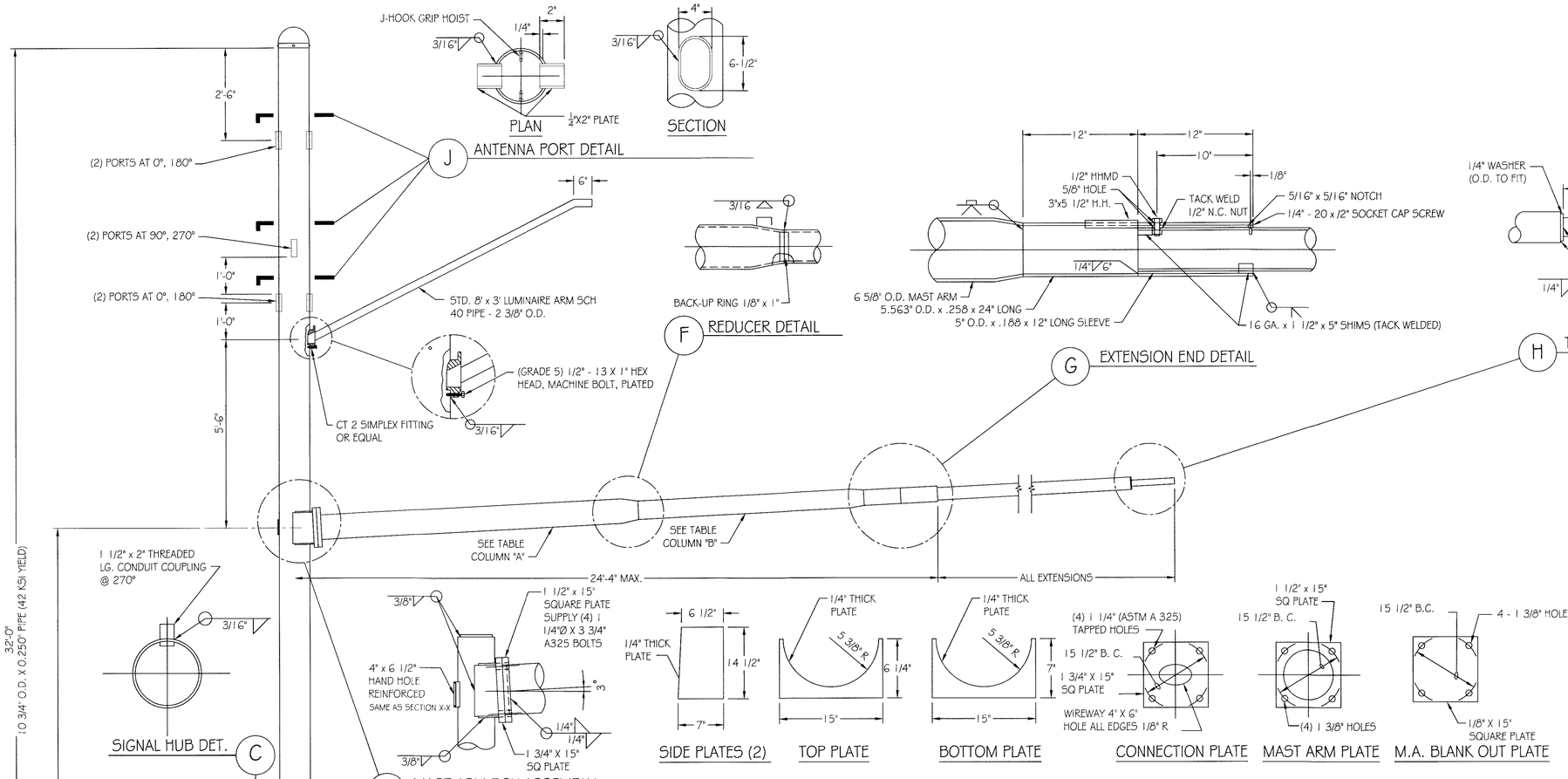
Registered Professional Engineer (Structural)
CERTIFICATE NO. 52229
Glen L. Hunt III
Date Signed 10/17/14
ARIZONA, U.S.A.
Expires 6/30/2017

PROGRESS LOG

1	9/25/14	CORRECTED ARM BOX HEIGHT	GH
0	8/9/14	ISSUED TO CLIENT	JH

SHEET NUMBER	PROGRESS
S2	1

DRAWING DATE
September 25, 2014



MAST ARM STAGE PIPE DIAMETER		
PRIMARY MAST ARM LENGTH	COLUMN A	COLUMN B
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25'	8 5/8" O.D. X 0.188 X 13'-4" (56 KSI)	6 5/8" O.D. X 0.156 X 8'-8" (56 KSI)

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8. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4" 20 SS MACHINE SCREWS.
9. 'SM' POLE CAN ONLY SUPPORT UP TO A 35' SIGNAL MAST ARM.
10. ORIENTATION ANGLES FOR POLE FABRICATION ONLY. 0° POSITION REFERS TO LUMINAIRE ARM ORIENTATION. ORIENTATION ANGLES ARE NOT RF ANTENNA AZIMUTHS.

COMM. EQUIPMENT:

℄ Elevation (AFG)	(Qty)	Description
28'-6"	(2)	Small Cell Panel Antenna

verizon wireless
126 W. GEMINI DR.
TEMPE, AZ 85283

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Phoenix, Arizona 85076
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ISE JOB #: 8344

VZW PHO 1stST MONROE-SC
CITY OF PHOENIX
'SM' COMM SIGNAL POLE
POLE DETAILS

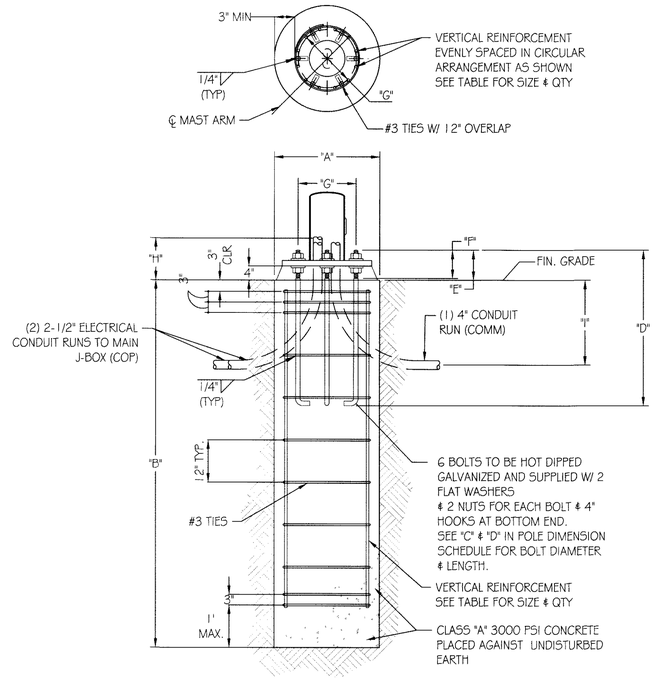
S.W.C. OF 1ST ST. & MONROE ST
PHOENIX, AZ 85004

Approved for use
Glen L. Hunt III
Date Signed 10/17/14
CERTIFICATE NO. 52228
ARIZONA, U.S.A.
Expires 6/30/2015

PROGRESS LOG			
0	8/6/14	ISSUED TO CLIENT	JH

SHEET NUMBER	PROGRESS
S1	0

DRAWING DATE
October 17, 2014



FOUNDATION, ANCHOR BOLT & REBAR CAGE DETAIL

POLE FOUNDATION DIMENSION SCHEDULE

FOUNDATION POLE TYPE	POLE DETAIL (ft.)		FOUNDATION DETAIL (in.)		VERT. REINFORCEMENT		BOLT DETAIL (in.)						✳ CONDUIT DETAIL		
	POLE HEIGHT	MAST ARM LENGTH	'A' WIDTH	'B' DEPTH	REBAR QUANTITY	REBAR SIZE	ASTM MATERIAL GRADE	"C" DIAMETER	"D" LENGTH OVERALL	"E" PROJECTION	"F" THREAD	"G" BOLT CIRCLE	"H" CLEAR	"I" MIN. DEPTH	CONDUIT QUANTITY
COMM POLE	32	15-35	36	120	12	#6	F1554-55	1½	54	8½	8	16½	12	24	2 C.O.P. 1 COMM
			30	132	10	#6									

✳ CONDUIT SHALL ENTER 24" MINIMUM DEPTH, VERTICALLY, THROUGH THE BOTTOM OF THE FOUNDATION

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VZW PHO 1stST MONROE-SC
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'SM' COMM SIGNAL POLE
FOUNDATION DETAILS

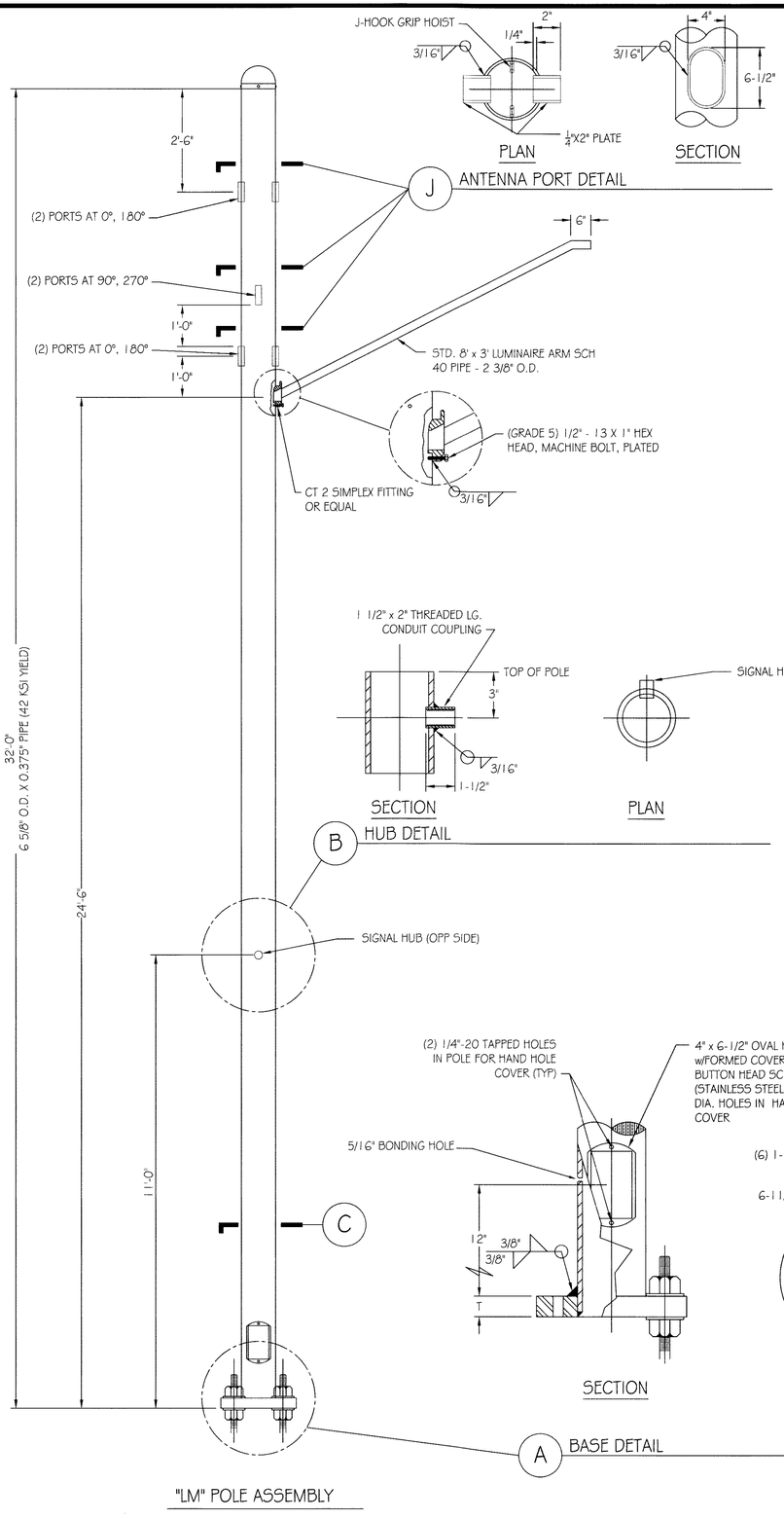
S.W.C. OF 1ST ST. & MONROE ST
PHOENIX, AZ 85004

Approved for use

PROGRESS LOG

0	8/6/14	ISSUED TO CLIENT	JH

SHEET NUMBER: S2
PROGRESS: 0
DRAWING DATE: October 17, 2014



PROJECT NOTES:

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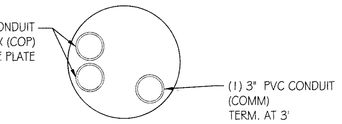
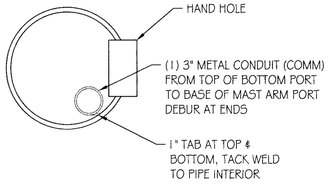
7. RELOCATE LUMINAIRE ARM, SIGNAL HEADS, AND STREET SIGNS TO MATCH EXISTING FIXTURE ELEVATIONS.
8. INCLUDE ALL HANDHOLE COVERS W/ 2 EA. 1/4"-20 SS MACHINE SCREWS.
9. ORIENTATION ANGLES FOR POLE FABRICATION ONLY. 0° POSITION REFERS TO LUMINAIRE ARM ORIENTATION. ORIENTATION ANGLES ARE NOT RF ANTENNA AZIMUTHS.

COMM. EQUIPMENT:

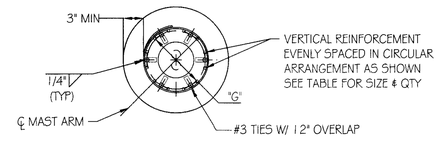
C Elevation (AFG)	(Qty)	Description
29'-0"	(2)	Small Cell Panel Antenna

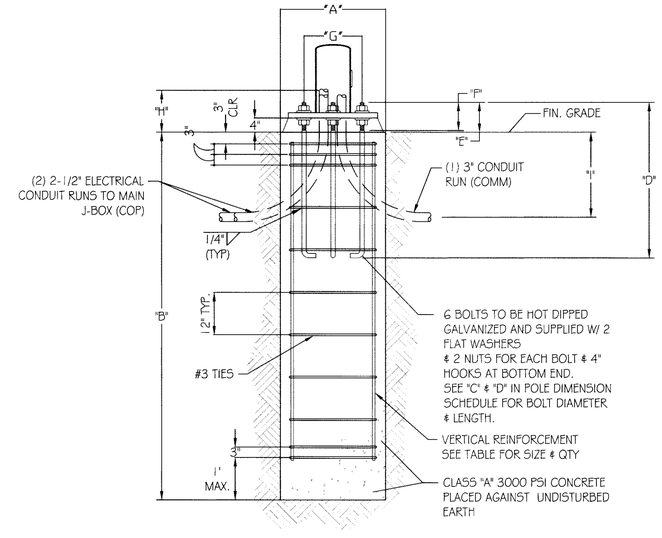


I CONDUIT PLAN (AT FOUNDATION)



I CONDUIT PLAN (3' TO 11')





FOUNDATION, ANCHOR BOLT & REBAR CAGE DETAIL

POLE FOUNDATION DIMENSION SCHEDULE

FOUNDATION POLE TYPE	POLE DETAIL (ft.)		FOUNDATION DETAIL (in.)		VERT. REINFORCEMENT		BOLT DETAIL (in.)						✳ CONDUIT DETAIL		
	POLE HEIGHT	MAST ARM LENGTH	'A' WIDTH	'B' DEPTH	REBAR QUANTITY,	REBAR SIZE	ASTM MATERIAL GRADE	"C" DIAMETER	"D" LENGTH OVERALL	"E" PROJECTION	"F" THREAD	"G" BOLT CIRCLE	"H" CLEAR	"I" MIN. DEPTH	CONDUIT QUANTITY
TYPE "LM"	32	N/A	36	96	12	#6	F1554-55	1-1/4	44	7	6	10 1/2	12	24	2 COP 1 COMM
			24	108	8	#5									

✳ CONDUIT SHALL ENTER 24" MINIMUM DEPTH, VERTICALLY, THROUGH THE BOTTOM OF THE FOUNDATION

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VZW PHO 1stST MONROE-SC
CITY OF PHOENIX
'LM' COMM SIGNAL POLE
POLE & FOUNDATION DETAILS

S.W.C. OF 1ST ST. & MONROE ST
PHOENIX, AZ 85004

Registered Professional Engineer (Retired)
ARIZONA U.S.A.
52229
Glen L. Hunt III
Date Signed 10/17/14
Expires 6/30/2017

PROGRESS LOG

0	9/18/14	ISSUED TO CLIENT	JH

SHEET NUMBER: S1
PROGRESS: 0
DRAWING DATE: October 17, 2014