

ALAMAR

ALAMAR PKWY

STREET LIGHT IMPROVEMENTS

NOTE:

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF AVONDALE CONSTRUCTION SPECIFICATIONS CURRENTLY ON FILE AND AVAILABLE AT THE CITY OF AVONDALE ENGINEERING DEPARTMENT.

DEVELOPER

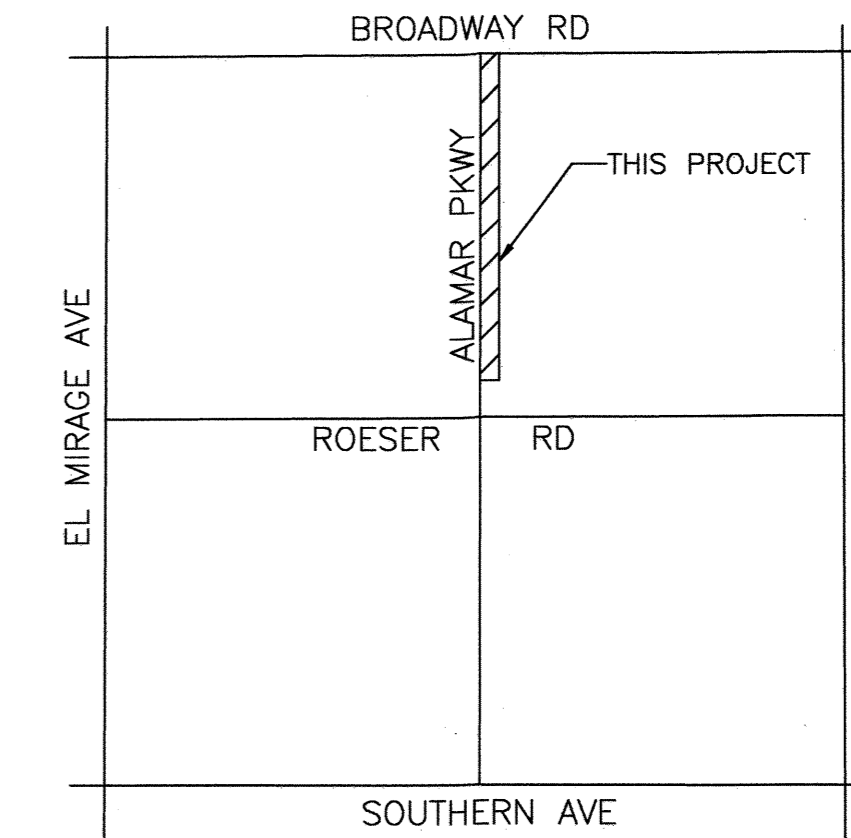
BROOKFIELD RESIDENTIAL
14646 N. KIERLAND BLVD, SUITE 165
SCOTTSDALE, AZ 85254
PHONE: (602) 903-7509
CONTACT: ROGER THEIS

ELECTRICAL ENGINEER

WRIGHT ENGINEERING CORPORATION
165 EAST CHILTON DRIVE
CHANDLER, ARIZONA 85225
PHONE: (480) 497-5829
FAX: (480) 497-5807
CONTACT: ADAM BOWERS

CIVIL ENGINEER

WOOD, PATEL & ASSOCIATES, INC
2051 WEST NORTHERN AVE, SUITE 100
PHOENIX, ARIZONA 85021
PHONE: (602) 335-8500
CONTACT: FRANK KOO, P.E.

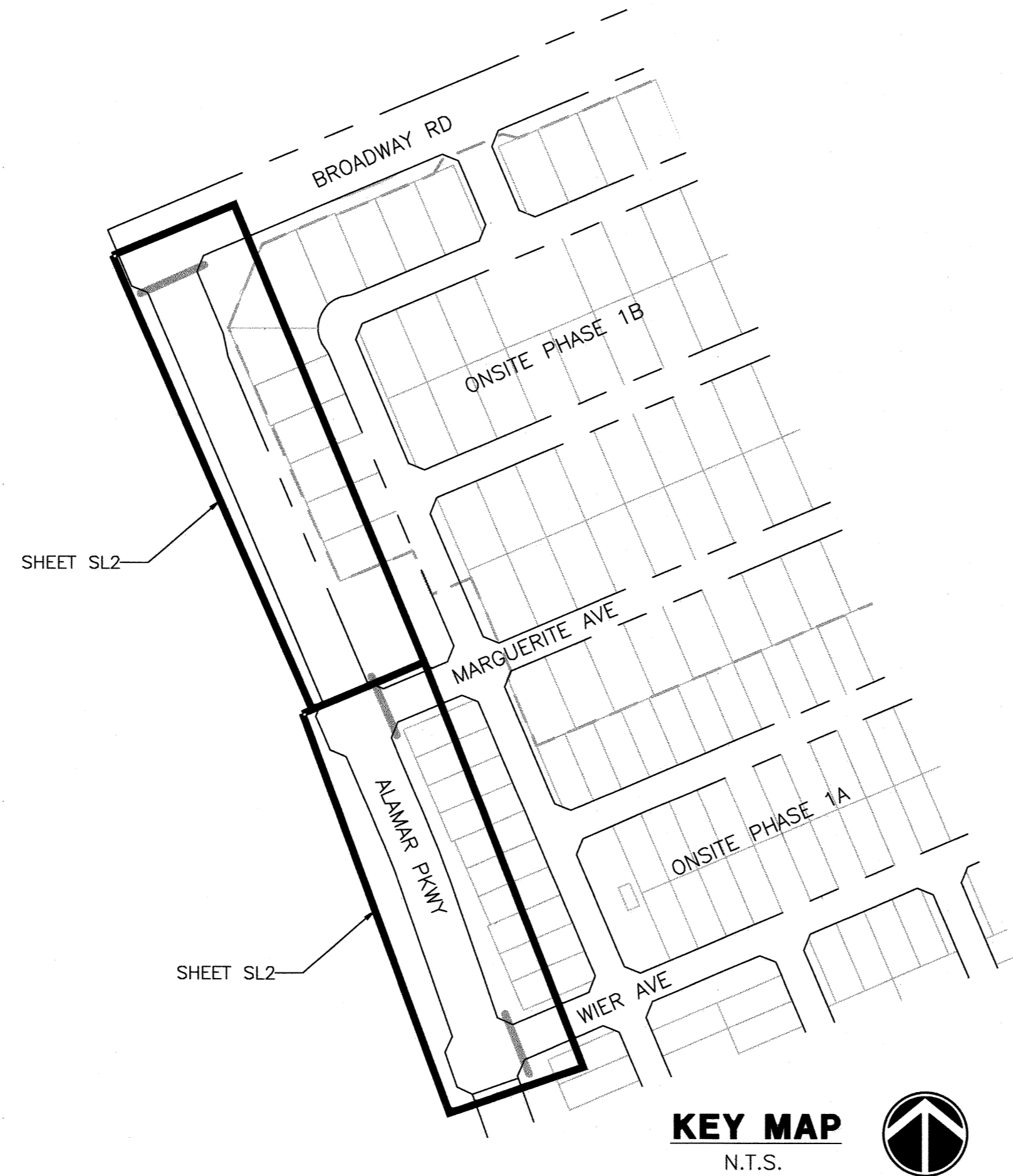


SHEET INDEX:

SHEET SL1	COVER SHEET
SHEET SL2	STREET LIGHT DESIGN
SHEET SL3	DETAIL SHEET
SHEET PH1	PHOTOMETRICS

BENCHMARK

BRASS CAP IN HAND HOLE AT MCDOWELL ROAD AND AVONDALE BOULEVARD AT THE NEC OF SECTION 1, T1N, R1W, CNR 54000-1, ELEVATION 1000.426 (NAVD 88) AS SHOWN IN BOOK 694, PAGE 38, MCR. DATE SHOT: 01/2007



KEY MAP
N.T.S.

UTILITY CONFLICT NOTIFICATION

THESE PLANS HAVE BEEN SUBMITTED TO THE FOLLOWING UTILITY COMPANIES. WHERE THE WORK TO BE DONE CONFLICTS WITH ANY OF THESE UTILITIES, THE CONFLICTS SHALL BE RESOLVED AS SPECIFIED IN THE SPECIAL NOTES AND/OR AS OTHERWISE NOTED ON THESE PLANS. CONFLICTS ARISING DURING THE COURSE OF CONSTRUCTION FROM UNFORESEEN CIRCUMSTANCES SHALL BE REPORTED TO THE INTERESTED UTILITY COMPANY AND BE RESOLVED BY THEM AND THE DESIGN ENGINEER.

SALT RIVER PROJECT POWER	CRAIG EITEL COMPANY REPRESENTATIVE	10-12-18 DATE
ARIZONA PUBLIC SERVICE	KATHY GARCIA COMPANY REPRESENTATIVE	10-12-18 DATE
CENTURYLINK	CHRIS LERTIQUE COMPANY REPRESENTATIVE	10-12-18 DATE
COX COMMUNICATIONS	LIN MORRIL COMPANY REPRESENTATIVE	10-12-18 DATE
SOUTHWEST GAS	SUE NEWSOM COMPANY REPRESENTATIVE	10-12-18 DATE
S.R.V.W.U.A.	BOB MAURER COMPANY REPRESENTATIVE	10-12-18 DATE
ROOSEVELT IRRIGATION DISTRICT	STAN ASHBY COMPANY REPRESENTATIVE	10-12-18 DATE
EL PASO NATURAL GAS	RON BROWN COMPANY REPRESENTATIVE	10-12-18 DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "AS-BUILT" MEASUREMENTS AS SHOWN OR NOTED HEREON WERE MADE BY MYSELF OR UNDER MY SUPERVISION AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SIGNATURE _____ DATE _____ REGISTRATION NUMBER _____

NAME/COMPANY:
ADDRESS:
CITY/STATE/ZIP CODE:
PHONE:

QUANTITIES LIST (STREET LIGHTS)		
TOTAL	UNIT	DESCRIPTION
15	EACH	50W LED WITH 32' MOUNTING HEIGHT

APPROVED BY:

Adam Bowers
DEVELOPMENT SERVICES AND ENGINEERING DEPARTMENT **DATE** 2-27-19

THE CITY APPROVES THESE PLANS FOR CONCEPT ONLY AND ACCEPTS NO LIABILITY FOR ERRORS OR OMISSIONS.

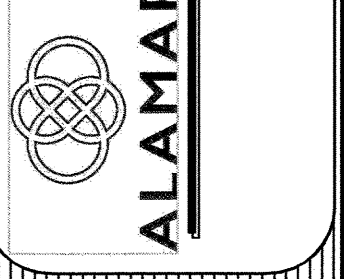
11465 W. CIVIC CENTER DR.
SUITE 120
AVONDALE, AZ 85323
PHONE: (623) 333-4200
FAX: (623) 333-0420

WRIGHT ENGINEERING
PROJECT NO:
18184
DESIGN BY: NBG
DRAWN BY: NBG
CHECKED BY: AMB

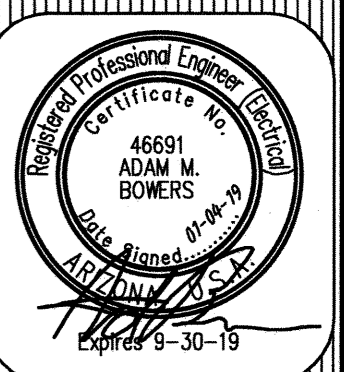
WRIGHT engineering corporation
ELECTRICAL ENGINEERING AND DESIGN
165 EAST CHILTON DRIVE • CHANDLER, ARIZONA 85225
PHONE: 480.497.5829 • FAX: 480.497.5807
www.wrightengineering.us

PROJECT: TITLE:

AVONDALE, ARIZONA
ALAMAR
ALAMAR PKWY
STREET LIGHT PLAN



NO.	DATE	SUBMITTALS/REVISIONS (DESCRIPTIONS)
1	AUG 2018	1ST SUBMITTAL
2	OCT 2018	2ND SUBMITTAL

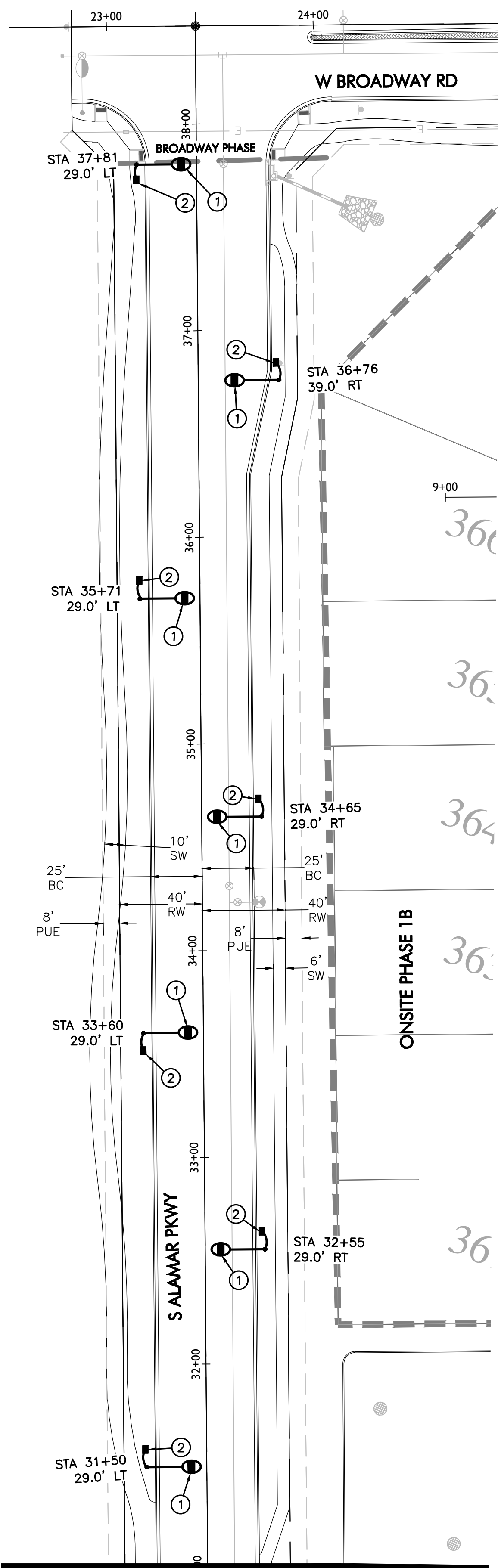


DRAWING NO:
SL1
OF 3

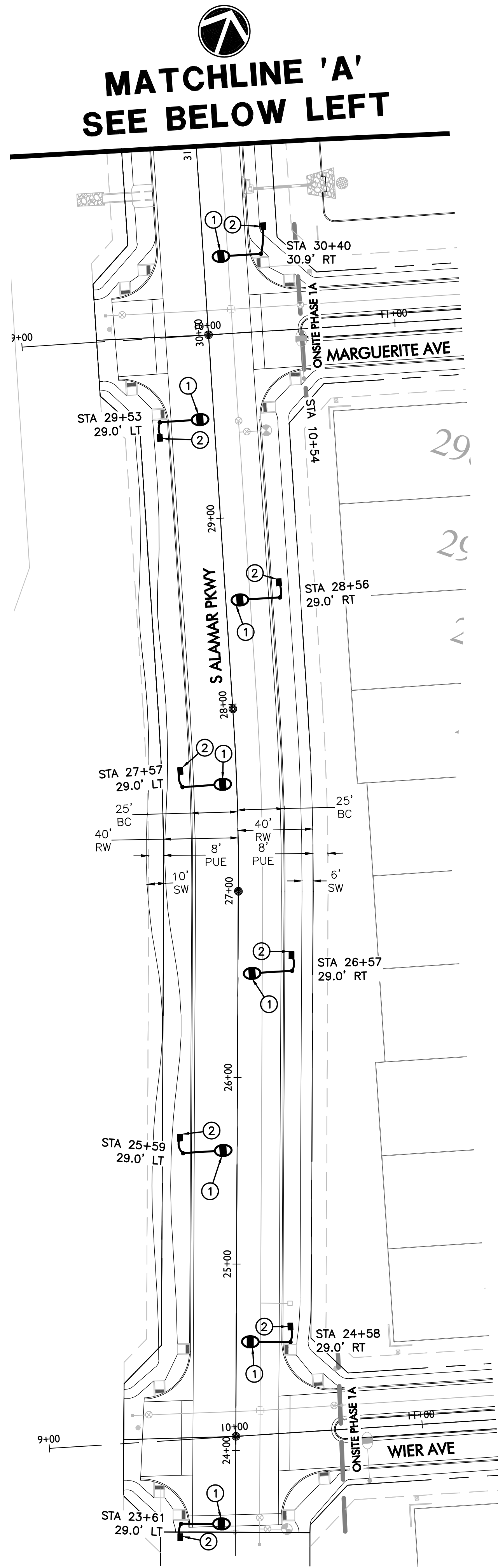
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MATCHLINE 'A'
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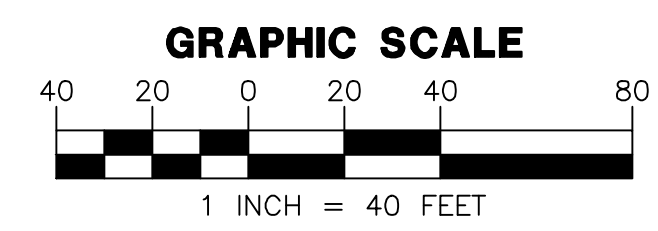
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CONSTRUCTION NOTES

- ① INSTALL (1) 50W LED, 6100 LUMEN, TYPE III, 3000K, GRAY LUMINAIRE (ACUITY CAT# ATBS/G/MVOLT/R3/3K/MP/NL/P7) WITH A 7-PRONG PECR (SEE PHOTOCELL SPECIFICATION) ON A 31'-0" DIRECT BURIED POLE (DETAIL A1786-1 & A1787), WITH A 6' MAST ARM (DETAIL A1786-2). POLE SHALL BE CENTERED PER OFFSET ON PLAN OR 18" BEHIND SIDEWALK. INSTALL 2-#12 AWG TYPE THHN/THWN CONDUCTORS WITH 1-#12 BOND IN STREET LIGHT POLE FROM BUSSMAN FUSE HOLDER IN PULL BOX TO LUMINAIRE (DETAIL A1791) DETAILS ON SHEET SL3.
- ② INSTALL PULL BOX PER UTILITY REQUIREMENTS DETAIL A1790 ON SHEET SL3. INSTALL 1" PVC SCH 40 SWEEP TO PULL BOX WITH 2-#12 AWG TYPE THHN/THWN CONDUCTORS AND 1-#12 COPPER BOND, AND 1-#6 COPPER BOND (FOR GROUNDING) FROM PULL BOX TO POLE HAND HOLE, PER UTILITY REQUIREMENTS. USE ONLY MATERIAL SUITABLE FOR TERMINATING ALUMINUM AND COPPER WIRING WHERE APPLICABLE.

LEGEND

- 50W LED COBRAHEAD WITH 32' MOUNTING HEIGHT.
- STREET LIGHT PER ADJACENT PLAN SET
- NEW STREET LIGHT CONDUIT
- PULL BOX
- FIRE HYDRANT



WRIGHT ENGINEERING
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DRAWN BY: NBG
CHECKED BY: AMB

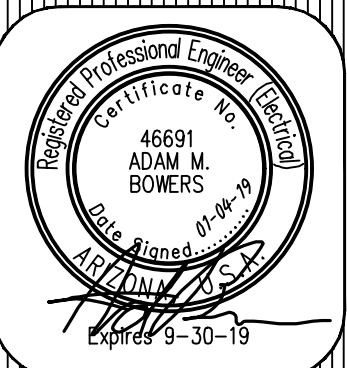
WRIGHT
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STREET LIGHT PLAN



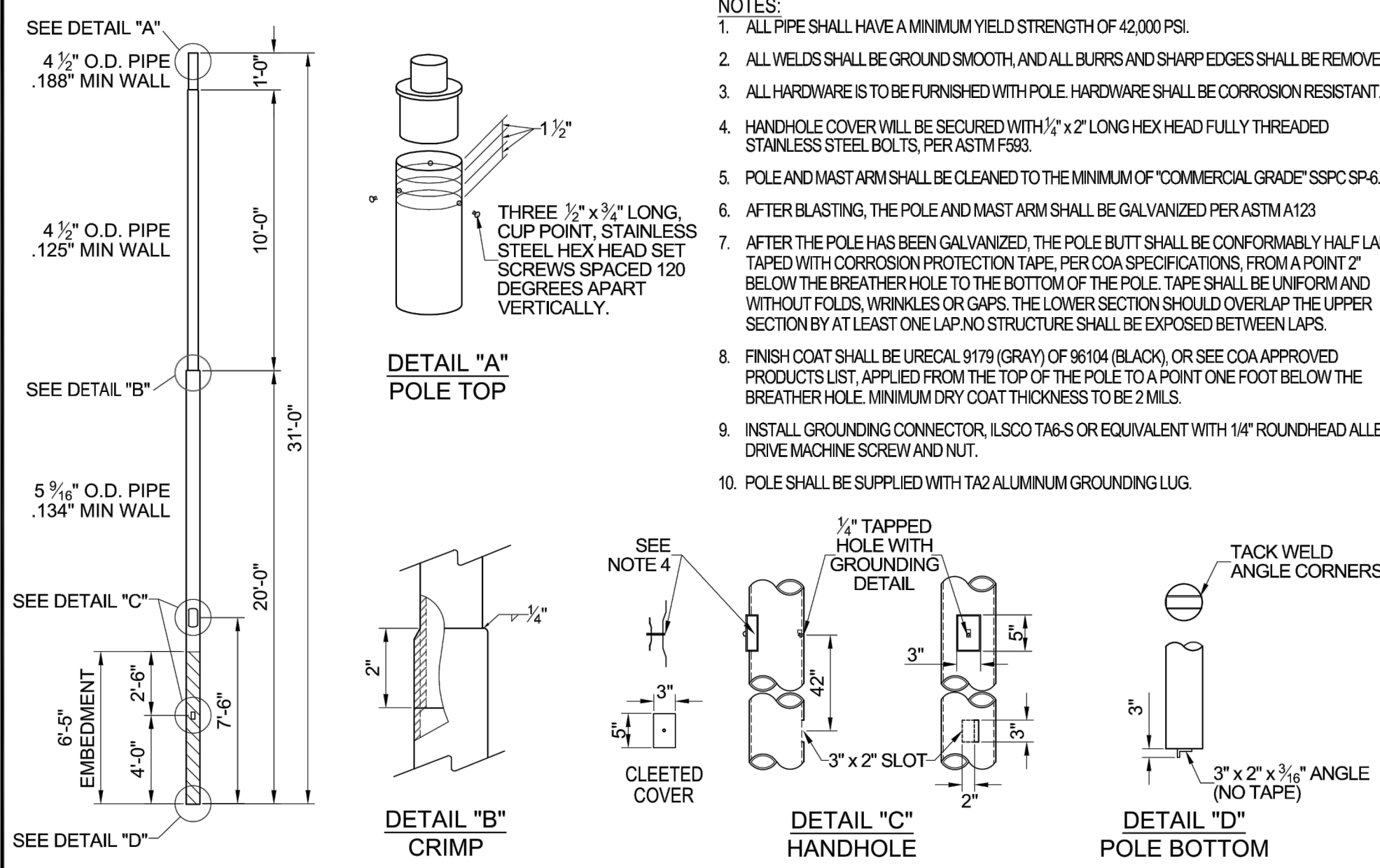
NO.	DATE	SUBMITTALS/REVISIONS (DESCRIPTIONS)
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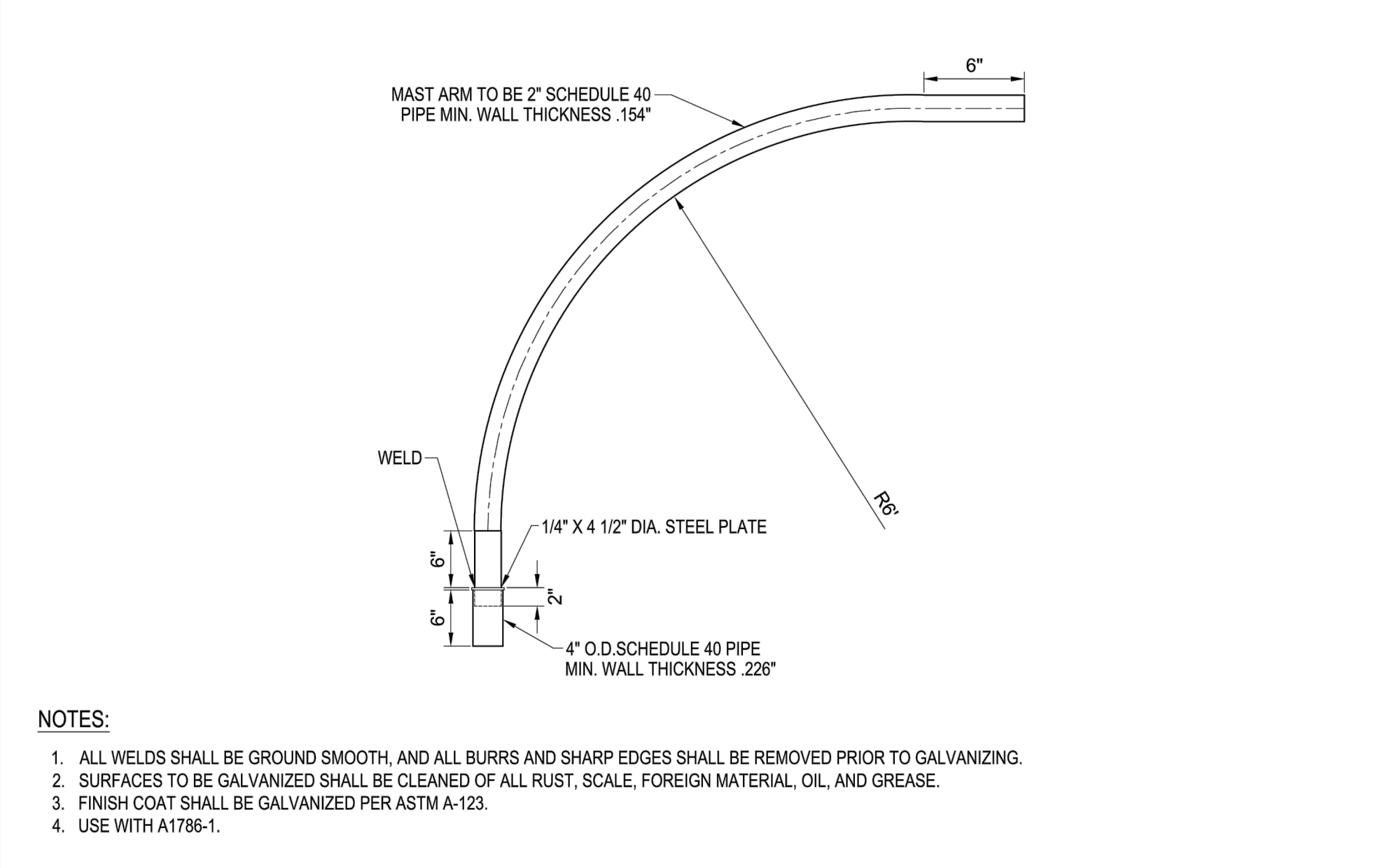
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SL2
OF 3

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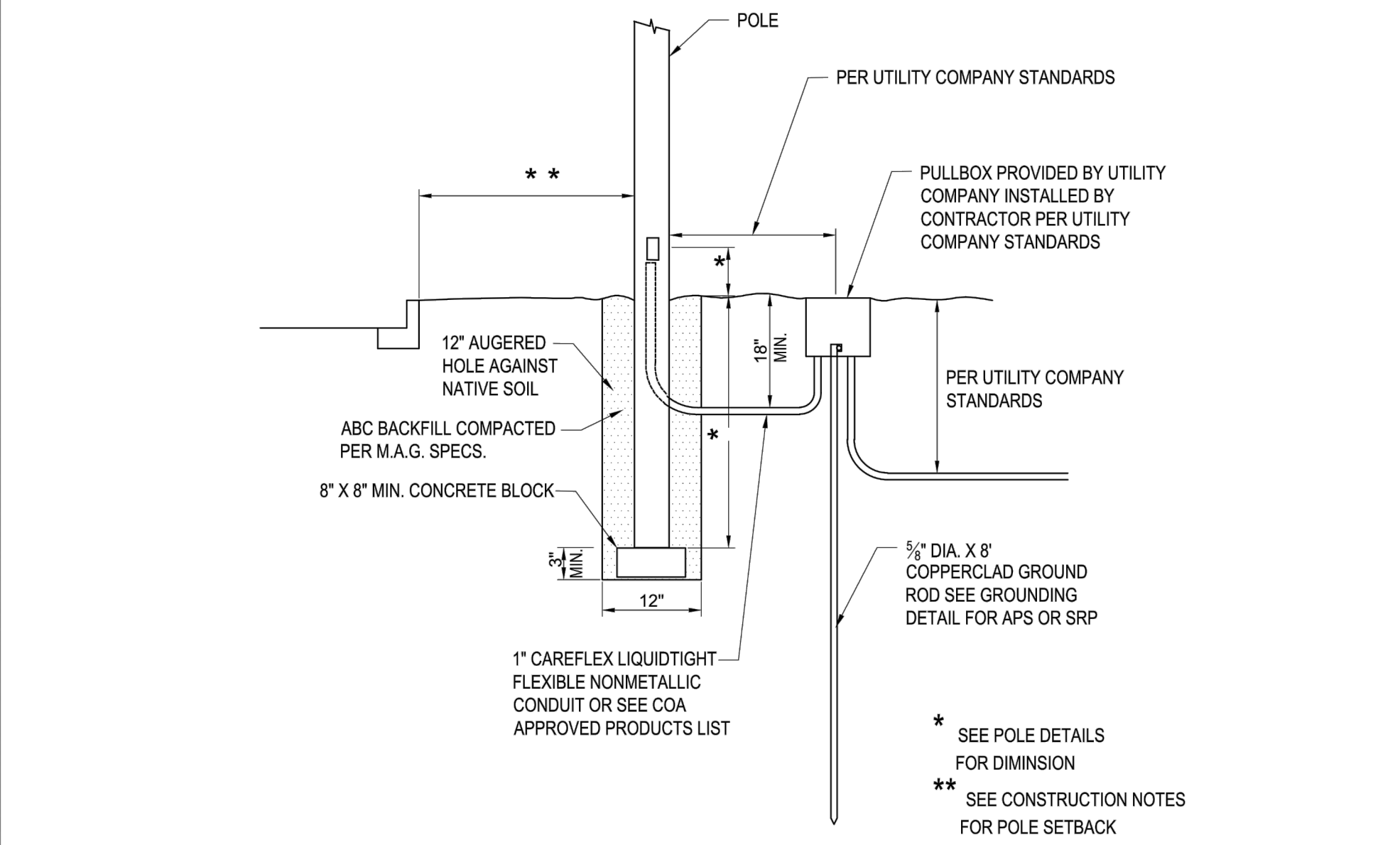
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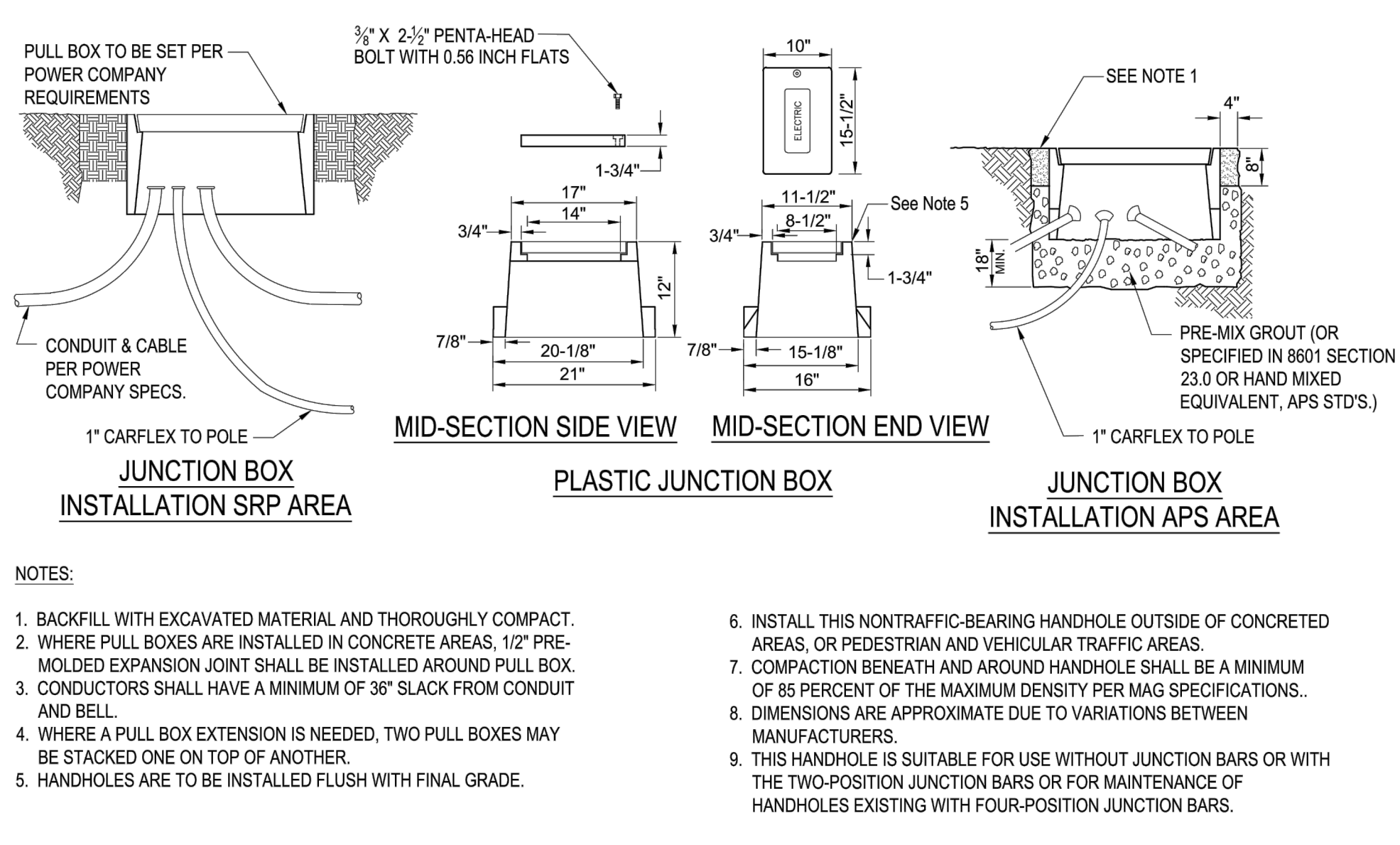
DETAIL NO. **A1786-1** **Avondale** STANDARD DETAIL **SRP STREET LIGHT POLE (31'-0")** APPROVED BY: [Signature] DATE: **8-24-16**



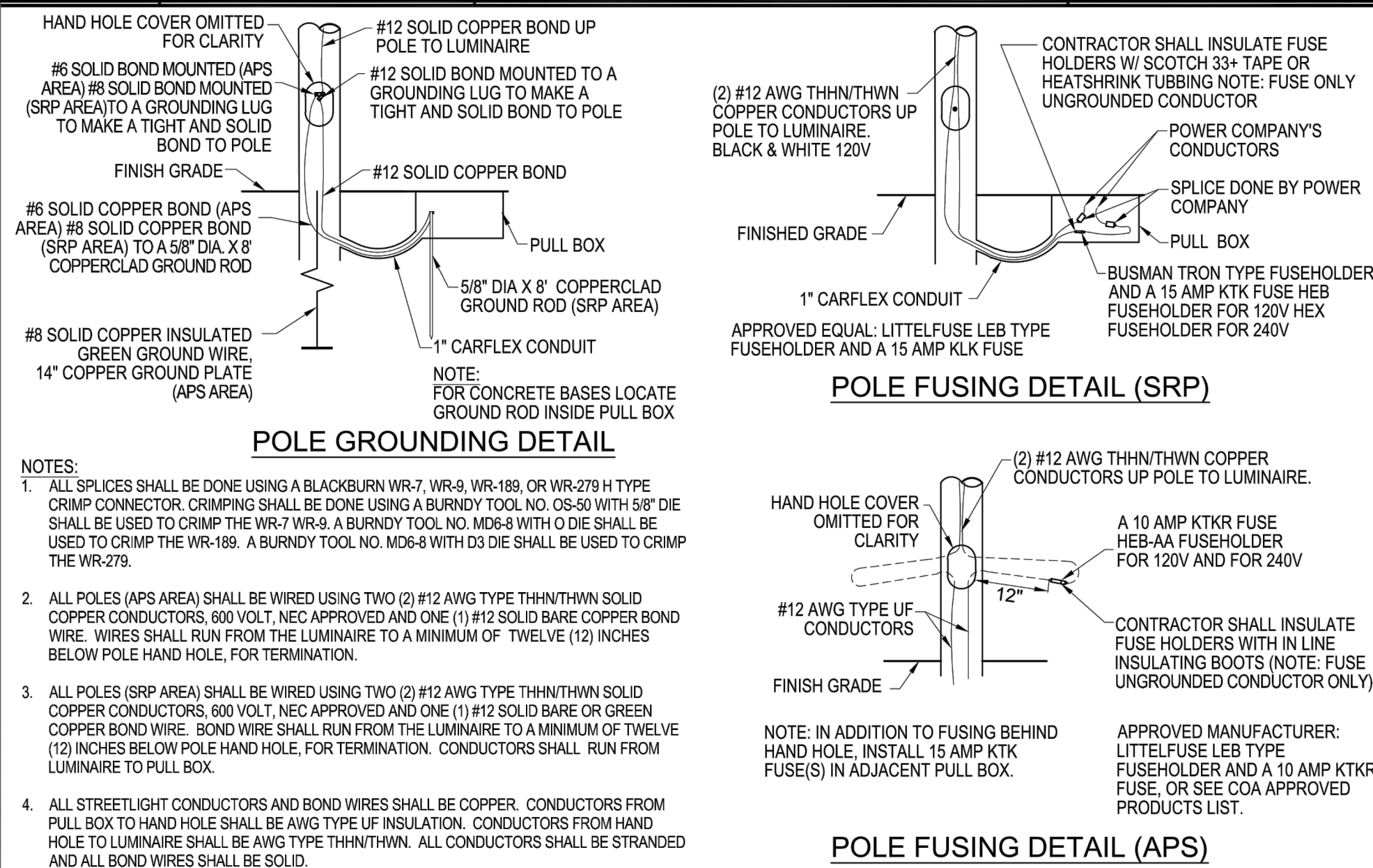
DETAIL NO. **A1786-2** **Avondale** STANDARD DETAIL **SRP STREET LIGHT MAST ARM FOR 31'-0" POLE** APPROVED BY: [Signature] DATE: **8-24-16**



DETAIL NO. **A1787** **Avondale** STANDARD DETAIL **STREET LIGHT EMBEDMENT DETAIL** APPROVED BY: [Signature] DATE: **8-24-16**



DETAIL NO. **A1790** **Avondale** STANDARD DETAIL **JUNCTION BOX DETAILS** APPROVED BY: [Signature] DATE: **8-24-16**

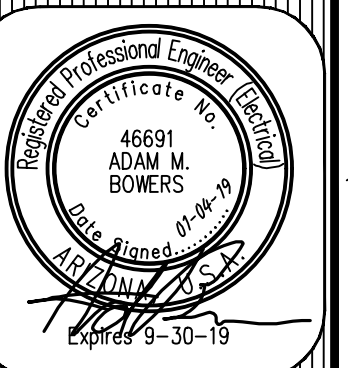


DETAIL NO. **A1791** **Avondale** STANDARD DETAIL **FUSING AND GROUNDING DETAILS** APPROVED BY: [Signature] DATE: **8-24-16**

PHOTOCELL SPECIFICATION

THE LUMINAIRE SHALL HAVE A 7-PRONG TWIST-LOCK PHOTO-ELECTRIC CONTROL RECEPTACLE (PECR) IN ACCORDANCE WITH ANSI C136.41-2013. THE DRIVER DIMMING LEADS SHALL BE WIRED TO PRONGS FOUR AND FIVE. THE PECR SHALL BE ROTATABLE UP TO 359 DEGREES. HOUSING SHALL PROVIDE 360 DEGREE STOP TO PREVENT THE INTERNAL TWISTING OF PECR WIRE ASSEMBLIES RESULTING IN POTENTIAL ELECTRICAL SHORT. THE PECR SHALL BE CONNECTED TO THE SAME VOLTAGE AS THE LUMINAIRE.

NO.	DATE	SUBMITTALS/REVISIONS (DESCRIPTIONS)
1	AUG 2018	1ST SUBMITTAL
2	OCT 2018	2ND SUBMITTAL



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LEGEND/DESIGN CRITERIA:

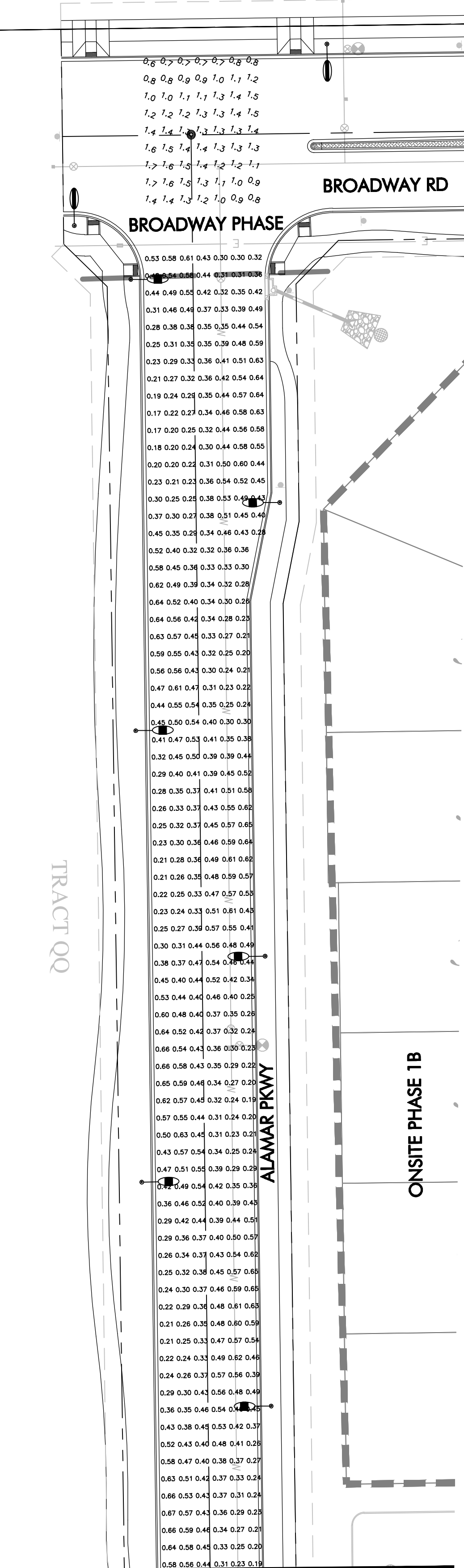
- 15700 LUMEN
8' x 8' MAST ARM
candela file 'ATBM_F_XXXXX_R3_XXXX.ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.850, watts per luminaire = 133
mounting height= 40 ft
number locations= 62, number luminaires= 62
kw all locations= 8.2
- 6100 LUMEN
6' MAST ARM
candela file 'ATBS_G_XXXXX_R3_3K (1).ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.850, watts per luminaire = 50
mounting height= 32 ft
number locations= 18, number luminaires= 18
kw all locations= 0.9
- 4700 LUMEN
6' MAST ARM
candela file 'ATBS_E_XXXXX_R2_3K (1).ies'
1 lamp(s) per luminaire, photometry is absolute
Light Loss Factor = 0.850, watts per luminaire = 40
mounting height= 32 ft
number locations= 102, number luminaires= 102
kw all locations= 4.1

INT - BROADWAY RD & ALAMAR PKWY
63 points
HORIZONTAL FOOTCANDLES
Average 1.2
Maximum 1.7
Minimum 0.6
Avg:Min 1.99
Max:Min 2.83
Coef Var 0.23

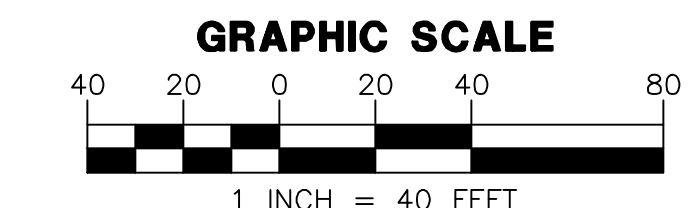
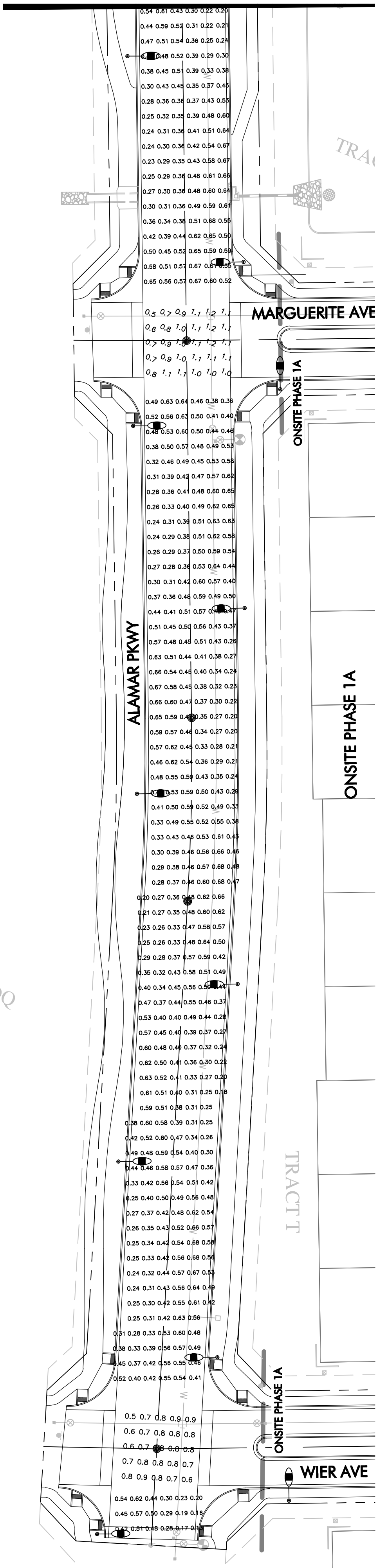
INT - MARGUERITE AVE & ALAMAR PKWY
30 points
HORIZONTAL FOOTCANDLES
Average 1.0
Maximum 1.2
Minimum 0.5
Avg:Min 1.95
Max:Min 2.40
Coef Var 0.19

ALAMAR PKWY
1005 points at z=0, sp 8ft by 8ft
ROADWAY LUMINANCE (CD/SQ METER) travel direction 293.0 DEG - CIE_surface_R3 - q0 = 0.070
Average 0.43
Maximum 0.68
Minimum 0.13
Avg:Min 3.27
Max:Min 5.23
Coef Var 0.20
UnifGrad 1.72

INT - WIER AVE & ALAMAR PKWY
25 points at z=0, sp 8ft by 8ft
HORIZONTAL FOOTCANDLES
Average 0.8
Maximum 0.9
Minimum 0.5
Avg:Min 1.50
Max:Min 1.80
Coef Var 0.13
UnifGrad 1.40



MATCHLINE 'A'
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WRIGHT
engineering corporation

ELECTRICAL ENGINEERING AND DESIGN
165 EAST CHILTON DRIVE • CHANDLER, ARIZONA 85225
PHONE 480.497.5829 • FAX 480.497.5807

PHOTOMETRIC CALCULATION SHEET. FOR INFORMATION ONLY.

	<p>PROJECT NAME: ALAMAR ALAMAR PKWY STREETLIGHTING</p> <p>WRIGHT ENG. PROJECT NO: 18184</p> <p>DESIGN BY: NBG PH-1</p>
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Expires 9-30-19

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