

ATTENTION: These documents are provided for informational purposes. They provide standard configurations, general requirements, and guidelines for trenching and standard customer interconnections for APS customers. These documents do not address every possible situation. It is the responsibility of the customer to ensure that the documents provided here are the most current version. APS reserves the rights to require modifications based on site specific or system conditions.



ARIZONA PUBLIC SERVICE COMPANY
T&D CONSTRUCTION STANDARDS

BY	LDR.	MGR.	DATE	REV.
MLM	M. CAM	J.M. HORMELL	10/2020	11

**SUBSTRUCTURES
JUNCTION BOX
LIGHT DUTY PLASTIC
FOR SECONDARY AND SERVICE**

COVER

**8655
THRU
8657**

TABLE 1	
CODE	JUNCTION BARS
A	THREE-POSITION MOLDS
B	FIVE-POSITION MOLDS
C	EIGHT-POSITION MOLDS
D	TWO-POSITION GEL PACKS
N	NO CONNECTORS

8655. __ __

SEE NOTE 10 AND 11
SMALL BOX

8656. __ __

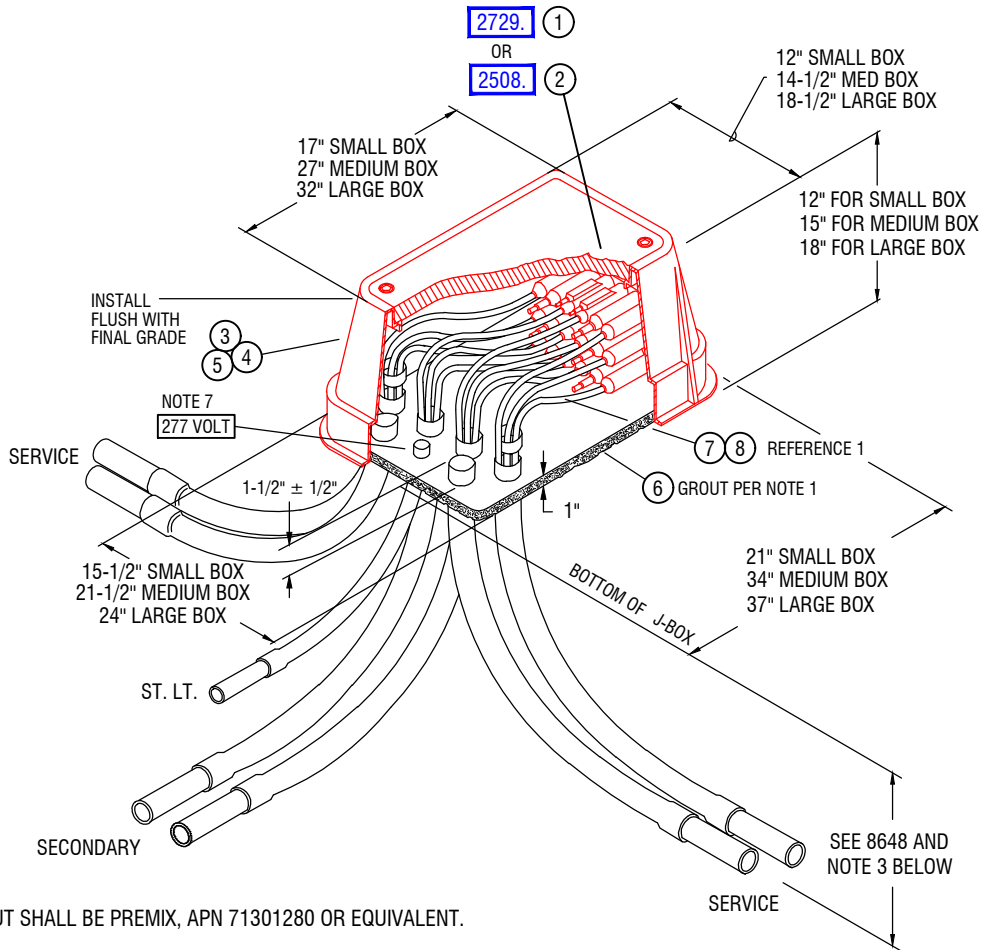
SEE NOTE 10 AND 12
MEDIUM BOX

8657. __ __

SEE NOTE 13
LARGE BOX

IF APPLICABLE
G = APS GROUT PROVIDED

JUNCTION BAR CODE SEE TABLE 1



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).



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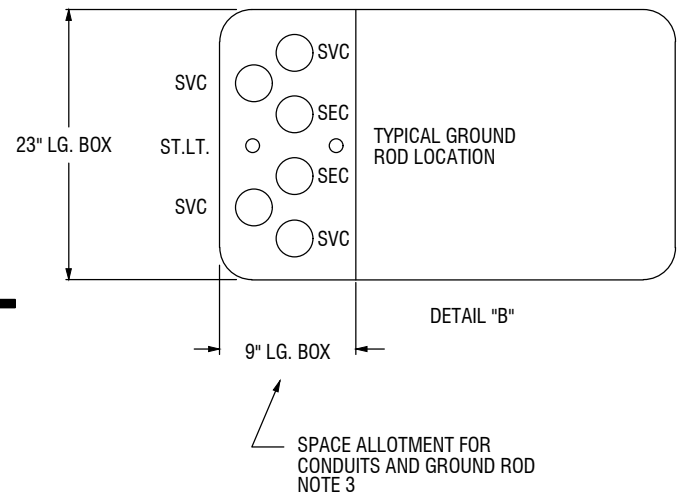
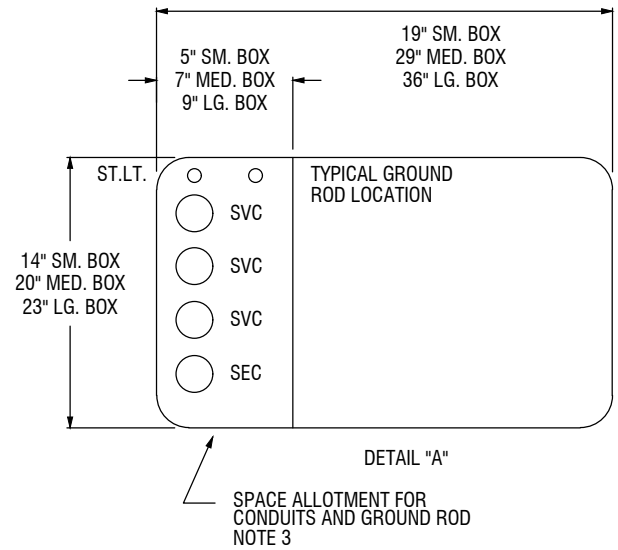
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**SUBSTRUCTURES
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SH 1 OF 2

**8655
THRU
8657**

9. CONDUIT SWEEPS SHALL BE 90 DEGREES.
10. GEL PACK CONNECTORS ARE PREFERRED FOR ALL TWO POSITION APPLICATIONS FOR CABLE SIZES #1/0 AL AND SMALLER.
11. THE SMALL JUNCTION BOX (8655) IS SUITABLE FOR USE WITH THE THREE POSITION JUNCTION BARS. CONDUIT POSITIONS ENTERING THE JUNCTION BOX SHALL BE LIMITED TO THREE (INCLUDES ST LT CONDUIT) OR LESS. USE THE MEDIUM OR LARGER JUNCTION BOX FOR #4/0 AL AND LARGER CABLE. THIS BOX IS RECOMMENDED FOR SECONDARY/SERVICE CABLE #1/0 AL AND SMALLER. FOR STREET LIGHT CIRCUITS WHERE THE JUNCTION BOX MUST BE INSTALLED IN THE SIDEWALK, 8663 IS THE PREFERRED BOX.
12. THE MEDIUM JUNCTION BOX (8656) IS SUITABLE FOR USE WITH THE THREE OR FIVE POSITION JUNCTION BARS. CONDUIT POSITIONS ENTERING THE JUNCTION BOX SHALL BE LIMITED TO FIVE (INCLUDES ST LT CONDUIT) OR LESS. THIS BOX IS RECOMMENDED FOR SECONDARY/SERVICE CABLE #4/0 AL AND SMALLER.
13. THE LARGE JUNCTION BOX (8657) IS SUITABLE FOR USE WITH THE FIVE OR EIGHT POSITION JUNCTION BARS. WHEN MORE THAN FIVE (INCLUDES ST LT CONDUIT) CONDUIT POSITIONS WILL BE ENTERING THE J-BOX, THE LARGE JUNCTION BOX IS PREFERABLE. THIS BOX IS RECOMMENDED FOR SECONDARY/SERVICE CABLE 500 KCMIL AL AND SMALLER.
14. THESE JUNCTION BOXES SHALL NOT BE INSTALLED IN A VEHICULAR TRAFFIC AREA.
15. AN ELECTRONIC MARKER IS PROVIDED WITH THE J-BOX. THE MARKER IS SCREWED INTO THE J-BOX LID.
16. THIS SPEC WILL NOT AUTOMATICALLY SUPPLY GROUT FROM APS. THE LETTER "G" MUST BE PLACED AT THE END OF THE CODE FOR THE GROUT TO BE SUPPLIED BY APS AND TO BE ORDERED ON THE BILL OF MATERIALS.
17. SEE 1226 FOR CABLE MARKER INSTALLATION DETAILS. ←
18. MINIMUM BENDING RADIUS FOR CABLE IS SPECIFIED IN SPEC 6210. ←



CODE	8655	8656	8657	MATERIAL LIST ←	
ITEM	QTY	QTY	QTY	DESCRIPTION	CU / APN
1	1	1	1	ASSY BAR JUNCTION	2729.
2	1	-	-	ASSY GEL PACK 1/0	2508.
3	1	-	-	BOX JUNCTION 10"X15"X12"	33100960
4	-	1	-	BOX JUNCTION 14"X24"X15"	33100990
5	-	-	1	BOX JUNCTION 17"X30"X18"	33100993
6	1	1	1	CONCRETE PRE-MIX 25#	71301280
7	1	-	-	RING, PVC SEC SERVICE ID	72202162
8	1	-	-	TIE CABLE MAX 2 IN OD	00103864