


**OVERHEAD
SERVICE ENTRANCE CONDUCTORS
GENERAL NOTES**

1. THE SERVICE ENTRANCE CONDUCTOR IS THE CONDUCTOR THAT BEGINS AT THE SERVICE DISCONNECT, RUNS THRU THE METER BASE OR C.T. ENCLOSURE AND SERVICE ENTRANCE CONDUIT, AND EXITS THE WEATHERHEAD. THE CUSTOMER IS REQUIRED TO FURNISH AND INSTALL ALL SERVICE ENTRANCE CONDUCTORS.
2. FOR THIS TYPE OF SERVICE CITY UTILITIES WILL FURNISH AND THE CUSTOMER WILL INSTALL CLEVIS BRACKETS AS ATTACHMENT POINTS FOR CITY UTILITIES SERVICE DROP CONDUCTORS.
3. THE CUSTOMERS SERVICE ENTRANCE CONDUCTORS SHALL EXTEND OUT OF THE WEATHERHEAD A **MINIMUM** OF 36" PAST THE POINT WHERE CITY UTILITIES SERVICE DROP CONDUCTORS WILL ATTACH TO THE BUILDING.
4. REDUCED NEUTRALS ARE NOT ALLOWED AS SERVICE ENTRANCE CONDUCTORS ON CITY UTILITIES SYSTEM.
5. CITY UTILITIES AMPACITIES FOR SERVICE ENTRANCE CONDUCTORS AND CONFIGURATIONS ARE TAKEN FROM 2017 NEC TABLE 310.15(B)(16) (75° C).
6. ALUMINUM CONDUCTOR INSULATION SHALL BE MARKED AS "AA8000".
7. IF THE SERVICE RISER EXTENDS THRU THE ROOF OR IS INTENDED TO SUPPORT THE SERVICE DROP CONDUCTOR, IT SHALL BE A MINIMUM OF 2" RIGID OR IMC GALVANIZED CONDUIT.
8. CABLE ASSEMBLIES, SUCH AS SERVICE ENTRANCE CABLE, SHALL NOT BE ALLOWED.
9. WHEN SERVICE ENTRANCE CONDUCTORS ARE INSTALLED AS PARALLEL RUNS, CONDUCTORS SHALL BE A MINIMUM OF 1/0 AWG AND ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH 2017 NEC ARTICLE 310.1H.
10. WHEN INSTALLING TWO RUNS OF TRIPLEX OR QUADRAPLEX CONDUCTORS, CONNECT THE TRANSFORMER LEADS TO THE SERVICE DROP CONDUCTORS USING CONNECTORS AS DETAILED IN ITEM #5 ON SHEET #2 OF SO-GN4.
11. ONLY 2 PHASE CONDUCTORS USED FOR 120/208 VOLT SINGLE PHASE SERVICE.
12. THE INSULATED GROUNDED "NEUTRAL" CONDUCTOR LARGER THAN 6 AWG SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING MEANS:
 - (1) BY A CONTINUOUS WHITE OR GRAY OUTER FINISH.
 - (2) BY THREE CONTINUOUS WHITE STRIPES ALONG ITS ENTIRE LENGTH ON OTHER THAN GREEN INSULATION.
 - (3) AT THE TIME OF INSTALLATION, BY A DISTINCTIVE WHITE OR GRAY MARKING AT ITS TERMINATIONS. THIS MARKING SHALL ENCIRCLE THE CONDUCTOR OR INSULATION. 2017 NEC ARTICLE 200.6A.
13. ON A 4-WIRE, 120/240 VOLT, DELTA-CONNECTED SERVICE WHERE THE MIDPOINT OF ONE PHASE WINDING IS GROUNDED, THE SERVICE CONDUCTOR HAVING THE HIGHER PHASE VOLTAGE TO GROUND "WILD LEG" SHALL BE DURABLY AND PERMANENTLY MARKED BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH TERMINATION OR JUNCTION POINT. 2017 NEC ARTICLE 230.56

	<i>GENERAL NOTES</i>	ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
		DRAWN BY: W.BROOKS	OVERHEAD SERVICE ENTRANCE CONDUCTORS GENERAL NOTES		
		REV BY: K.DENTON			
		FILE: SO-GN11			
		APPROVED: 10/29/14	REVISED: 02/16/18	SHEET OF 1 OF 4	STD. NO. SO - GN1

RESIDENTIAL SERVICE ENTRANCE CONDUCTORS
100-800 AMPS
SINGLE PHASE

SO - GN1

COPPER CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
100 AMP	#3	100 A	3	1"
125 AMP	#1	130 A	3	1 1/4"
150 AMP	#1/0	150 A	3	1 1/2"
200 AMP	#3/0	200 A	3	2"
320-400 AMP	#3/0	200 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP	500 MCM	380 A		3"
600 AMP	350 MCM	310 A	2 SETS OF 3	EACH SET IN 2 1/2"
600 AMP	#3/0	200 A	3 SETS OF 3	EACH SET IN 2"
800 AMP	500 MCM	380 A	2 SETS OF 3	3"
800 AMP	#3/0	200 A	4 SETS OF 3	EACH SET IN 2"

ALUMINUM CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
100 AMP	#1	100 A	3	1 1/4"
125 AMP	#2/0	135 A	3	1 1/2"
150 AMP	#3/0	155 A	3	1 1/2"
200 AMP	250 MCM	205 A	3	2"
320-400 AMP	250 MCM	205 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP	750 MCM	385 A	3	3"
600 AMP	500 MCM	310 A	2 SETS OF 3	EACH SET IN 2 1/2"
600 AMP	250 MCM	205 A	3 SETS OF 3	EACH SET IN 2"
800 AMP	750 MCM	385 A	2 SETS OF 3	EACH SET IN 3"
800 AMP	400 MCM	270 A	3 SETS OF 3	EACH SET IN 2 1/2"

△	<i>GENERAL NOTES</i>		ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
			DRAWN BY: G.GUEVARA REV BY: K.DENTON FILE: SO-GN12 APPROVED: 10/29/14	OVERHEAD SERVICE ENTRANCE CONDUCTORS RESIDENTIAL SERVICES 100-800 AMPS SINGLE PHASE REVISED: 02/16/18	SHEET OF 2 OF 4	STD. NO. SO - GN1

COMMERCIAL SERVICE ENTRANCE CONDUCTORS
100-800 AMPS
SINGLE & THREE PHASE

SO - GN1

COPPER CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REOD	
100 AMP--1 PH	#3	100 A	3	1"
100 AMP--3 PH	#3	100 A	4	1 1/4"
125 AMP--1 PH	#1	130 A	3	1 1/4"
125 AMP--3 PH	#1	130 A	4	1 1/2"
150 AMP--1 PH	#1/0	150 A	3	1 1/2"
150 AMP--3 PH	#1/0	150 A	4	2"
200 AMP--1 PH	#3/0	200 A	3	2"
200 AMP--3 PH	#3/0	200 A	4	2 1/2"
320-400 AMP--1 PH	#3/0	200 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP--1 PH	500 MCM	380 A	3	3"
320-400 AMP--3 PH	#3/0	200 A	2 SETS OF 4	EACH SET IN 2"
320-400 AMP--3 PH	500 MCM	380 A	4	3 1/2"
600 AMP--1 PH	350 MCM	310 A	2 SETS OF 3	EACH SET IN 2 1/2"
600 AMP--1 PH	#3/0	200 A	3 SETS OF 3	EACH SET IN 2"
600 AMP--3 PH	350 MCM	310 A	2 SETS OF 4	EACH SET IN 3"
600 AMP--3 PH	#3/0	200 A	3 SETS OF 4	EACH SET IN 2"
800 AMP--1 PH	500 MCM	380 A	2 SETS OF 3	EACH SET IN 3"
800 AMP--1 PH	#3/0	200 A	4 SETS OF 3	EACH SET IN 2"
800 AMP--3 PH	500 MCM	380 A	2 SETS OF 4	EACH SET IN 3 1/2"
800 AMP--3 PH	#3/0	200 A	4 SETS OF 4	EACH SET IN 2"

ALUMINUM CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REOD	
100 AMP--1 PH	#1	100 A	3	1 1/4"
100 AMP--3 PH	#1	100 A	4	1 1/2"
125 AMP--1 PH	#2/0	135 A	3	1 1/2"
125 AMP--3 PH	#2/0	135 A	4	2"
150 AMP--1 PH	#3/0	155 A	3	1 1/2"
150 AMP--3 PH	#3/0	155 A	4	2"
200 AMP--1 PH	250 MCM	205 A	3	2"
200 AMP--3 PH	250 MCM	205 A	4	2 1/2"
320-400 AMP--1 PH	250 MCM	205 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP--1 PH	750 MCM	385 A	3	3"
320-400 AMP--3 PH	250 MCM	205 A	2 SETS OF 4	EACH SET IN 2 1/2"
320-400 AMP--3 PH	750 MCM	385 A	4	3 1/2"
600 AMP--1 PH	500 MCM	310 A	2 SETS OF 3	EACH SET IN 2 1/2"
600 AMP--1 PH	250 MCM	205 A	3 SETS OF 3	EACH SET IN 2"
600 AMP--3 PH	500 MCM	310 A	2 SETS OF 4	EACH SET IN 3"
600 AMP--3 PH	250 MCM	205 A	3 SETS OF 4	EACH SET IN 2 1/2"
800 AMP--1 PH	750 MCM	385 A	2 SETS OF 3	EACH SET IN 3"
800 AMP--1 PH	400 MCM	270 A	3 SETS OF 3	EACH SET IN 2 1/2"
800 AMP--3 PH	750 MCM	385 A	2 SETS OF 4	EACH SET IN 3 1/2"
800 AMP--3 PH	400 MCM	270 A	3 SETS OF 4	EACH SET IN 3"

△ **GENERAL NOTES**

ELECTRIC SERVICE STANDARD			
CITY UTILITIES OF SPRINGFIELD MO.			
DRAWN BY: G.GUEVARA	OVERHEAD SERVICE ENTRANCE CONDUCTORS COMMERCIAL SERVICES 100-800 AMPS SINGLE & THREE PHASE		
REV BY: K.DENTON			
FILE: SO-GN13			
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COMMERCIAL SERVICE ENTRANCE CONDUCTORS

SO - GN1

**1000-1200 AMPS
SINGLE & THREE PHASE**

COPPER CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
1000 AMP--1 PH	400 MCM	335 A	3 SETS OF 3	EACH SET IN 2 1/2"
1000 AMP--1 PH	250 MCM	255 A	4 SETS OF 3	EACH SET IN 2"
1000 AMP--1 PH	#3/0	200 A	5 SETS OF 3	EACH SET IN 2"
1000 AMP--3 PH	400 MCM	335 A	3 SETS OF 4	EACH SET IN 3"
1000 AMP--3 PH	250 MCM	255 A	4 SETS OF 4	EACH SET IN 2 1/2"
1000 AMP--3 PH	#3/0	200 A	5 SETS OF 4	EACH SET IN 2"
1200 AMP--1 PH	600 MCM	420 A	3 SETS OF 3	EACH SET IN 3"
1200 AMP--1 PH	350 MCM	310 A	4 SETS OF 3	EACH SET IN 2 1/2"
1200 AMP--1 PH	#3/0	200 A	6 SETS OF 3	EACH SET IN 2"
1200 AMP--3 PH	600 MCM	420 A	3 SETS OF 4	EACH SET IN 3 1/2"
1200 AMP--3 PH	350 MCM	310 A	4 SETS OF 4	EACH SET IN 3"
1200 AMP--3 PH	#3/0	200 A	6 SETS OF 4	EACH SET IN 2"

ALUMINUM CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
1000 AMP--1 PH	600 MCM	340 A	3 SETS OF 3	EACH SET IN 3"
1000 AMP--1 PH	350 MCM	250 A	4 SETS OF 3	EACH SET IN 2 1/2"
1000 AMP--1 PH	250 MCM	205 A	5 SETS OF 3	EACH SET IN 2"
1000 AMP--3 PH	600 MCM	340 A	3 SETS OF 4	EACH SET IN 3 1/2"
1000 AMP--3 PH	350 MCM	250 A	4 SETS OF 4	EACH SET IN 3"
1000 AMP--3 PH	250 MCM	205 A	5 SETS OF 4	EACH SET IN 2 1/2"
1200 AMP--1 PH	1000 MCM	445 A	3 SETS OF 3	EACH SET IN 3 1/2"
1200 AMP--1 PH	500 MCM	310 A	4 SETS OF 3	EACH SET IN 2 1/2"
1200 AMP--1 PH	250 MCM	205 A	6 SETS OF 3	EACH SET IN 2"
1200 AMP--3 PH	1000 MCM	445 A	3 SETS OF 4	EACH SET IN 4"
1200 AMP--3 PH	500 MCM	310 A	4 SETS OF 4	EACH SET IN 3"
1200 AMP--3 PH	250 MCM	205 A	6 SETS OF 4	EACH SET IN 2 1/2"

△	<i>GENERAL NOTES</i>		ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
			DRAWN BY: G.GUEVARA REV BY: W.BROOKS FILE: SO-GN14 APPROVED: 08/07/07	OVERHEAD SERVICE ENTRANCE CONDUCTORS COMMERCIAL SERVICES 1000 & 1200 AMPS SINGLE & THREE PHASE REVISED: 10/29/14	SHEET OF 4 OF 4	STD. NO. SO - GN1