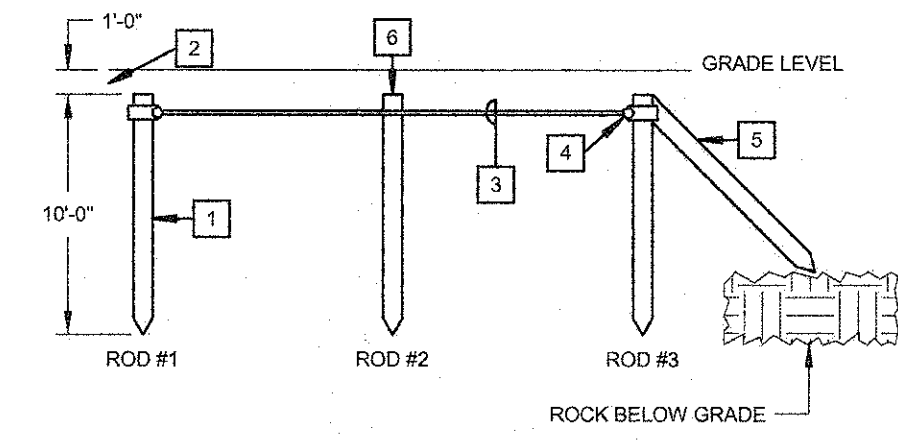


Jeffrey A. Huettnermeyer
PE-2001018755

GENERAL NOTES:

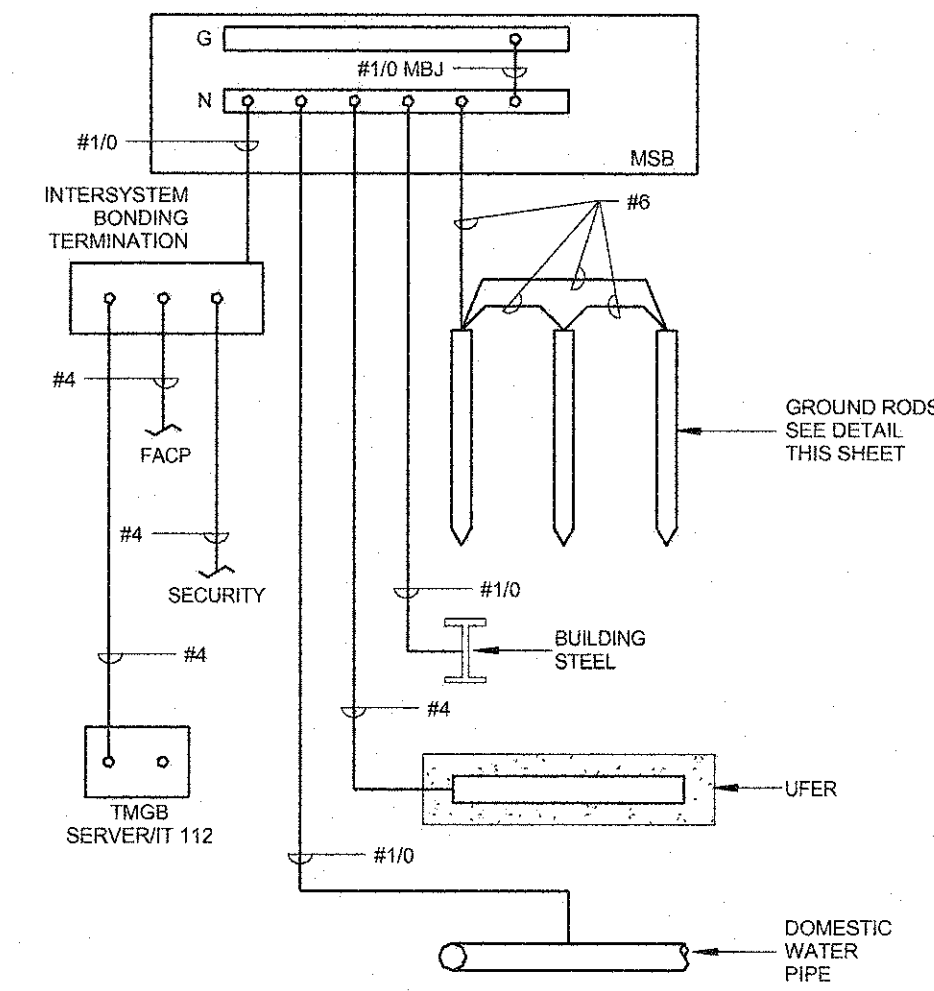
- REFER TO SHEET E01 FOR SYMBOLS, ABBREVIATIONS AND GENERAL CONSTRUCTION NOTES.
- PROVIDE EQUIPMENT GROUNDING CONDUCTOR IN ALL FEEDERS, SIZED IN ACCORDANCE WITH NEC ARTICLE 250.122, SEE SPECIFICATIONS.
- OVERSIZED FEEDERS HAVE BEEN SIZED TO LIMIT VOLTAGE DROP. PROVIDE PROPER LUGS OR PIGTAIL ADAPTERS. FUSES FOR SPECIFIC MECHANICAL EQUIPMENT HAVE BEEN PROVIDED TO LIMIT AVAILABLE FAULT CURRENT AT THE EQUIPMENT.
- AIC RATINGS INDICATED ARE THE MINIMUM PERMISSIBLE TO MAINTAIN A FULLY RATED SYSTEM.



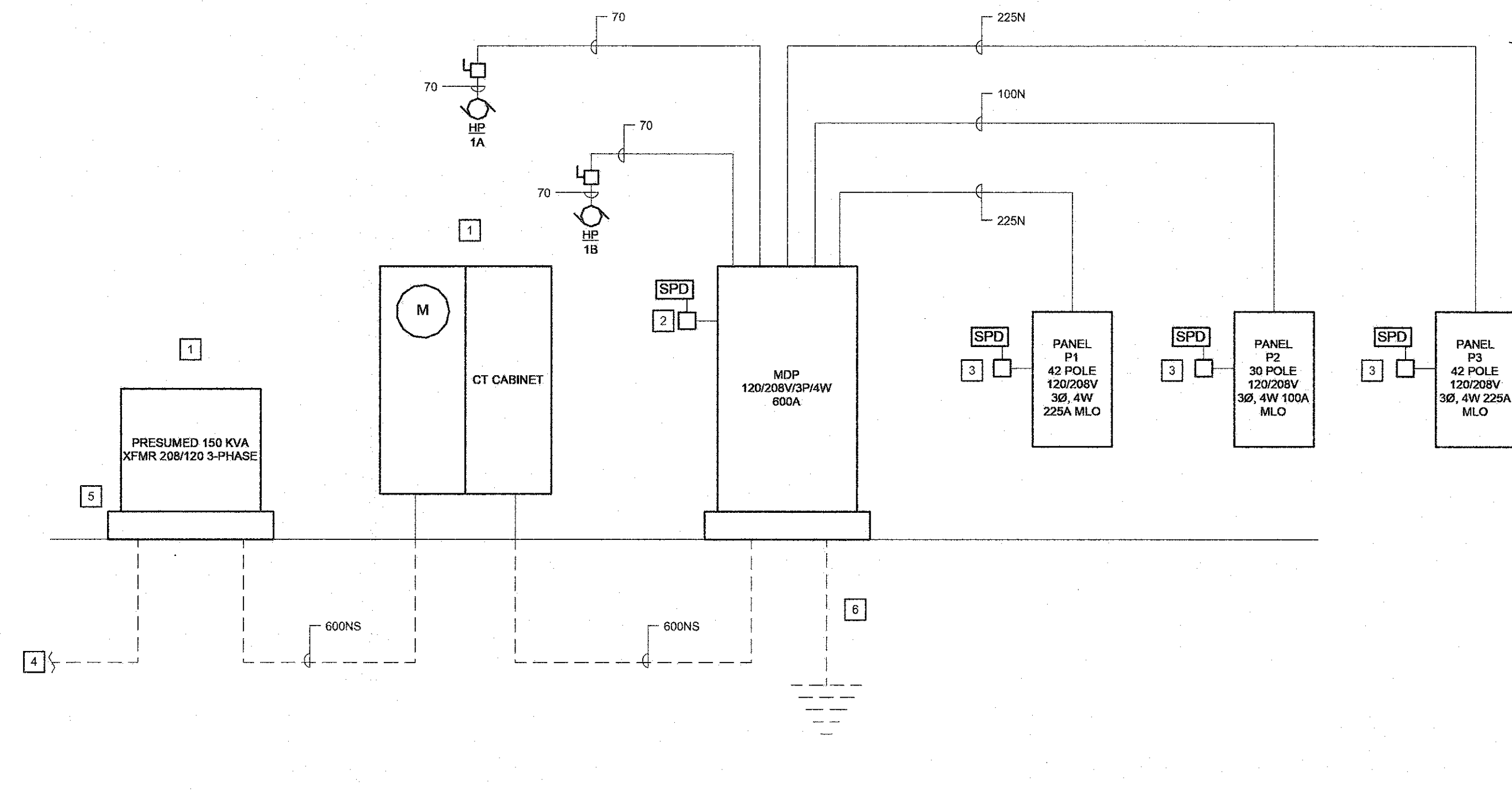
KEYED NOTES:

- 3/4" x 10' COPPER CLAD STEEL GROUND ROD.
- 1" COVER MINIMUM TO TOP OF ROD.
- #6 BARE COPPER CONDUCTOR TYPICAL FOR THREE ROD SYSTEM.
- EXOTHERMIC WELDED ELECTRODE CONNECTION - TYPICAL.
- IF ROCK IS ENCOUNTERED, GROUND RODS SHALL BE PERMITTED TO BE DRIVEN AT AN OPPOSING 45° ANGLE FROM EACH OTHER.
- NOTE 10' MINIMUM HORIZONTAL SPACING BETWEEN GROUND RODS IN A TRIANGULAR CONFIGURATION.

THREE GROUND ROD ELECTRODE DETAIL
NOT TO SCALE



GROUND SYSTEM RISER
NOT TO SCALE



ELECTRICAL ONE LINE DIAGRAM
NOT TO SCALE

ELECTRICAL SERVICE RESPONSIBILITY SCHEDULE		
DESCRIPTION	FURNISHED BY	INSTALLED BY
PRIMARY CONDUIT - NOTE 5	EC	EC
PRIMARY CONDUCTORS & TERMINATIONS	UTIL	UTIL
UTILITY TRANSFORMER CONCRETE PAD - NOTE 1	EC	EC
UTILITY TRANSFORMER	UTIL	UTIL
ALL SERVICE TRANSFORMER GROUND RODS NOTE 1	UTIL	UTIL
CTS/PITS - NOTE 4	UTIL	UTIL
SECONDARY CONDUIT (FROM X-FMR TO DISC) NOTE 2	EC	EC
SECONDARY CONDUCTOR (FROM X-FMR TO DISC) NOTE 1	EC	EC
SECONDARY CONDUCTOR TERMINATION @ DISC.	EC	EC
SECONDARY CONDUCTOR TERMINATION @ TRANSFORMER	UTIL	UTIL
SECONDARY CONDUCTOR LUGS (AT TRANSFORMER)	UTIL	UTIL
SECONDARY CONDUCTOR LUGS (AT DISC)	EC	EC
METER - NOTE 3	UTIL	UTIL
METER SOCKET/WIRING/INSTALLATION	EC	EC

EC - ELECTRICAL CONTRACTOR
GC - GENERAL CONTRACTOR
UTIL - UTILITY CO.

UTILITY COMPANY: AMEREN
CONTACT NAME: BRODY ASH
TEL: 573-681-7528
EMAIL: bash@ameren.com

ELECTRICAL SERVICE RESPONSIBILITY SCHEDULE NOTES:

- THE ELC SHALL INSTALL THE ELECTRICAL SERVICE IN CONFORMANCE WITH ALL GOVERNING RULES AND REGULATIONS - CITY, LOCAL UTILITY CO., ETC. THE EC SHALL CONFORM WITH THE UTILITY CO.'S SERVICE REQUIREMENTS. REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO TRANSFORMER PAD LOCATION, SERVICE TRANSFORMER GROUNDS, REQUIRED INSPECTIONS, SECONDARY CONDUCTOR LENGTH LEFT AT SERVICE TRANSFORMER, CLEARANCES, ETC.
- SECONDARY CONDUITS SHALL BE PER THE ONE LINE DIAGRAM.
- UTILITY COMPANY WILL FURNISH THE METER, METER CONDUCTORS AND MAKE ALL TERMINATIONS COORDINATE EXACT REQUIREMENTS WITH THE UTILITY COMPANY. PROVIDE GROUNDING CONDUCTOR PER UTILITY REQUIREMENTS.
- UTILITY COMPANY WILL PROVIDE THE CTS/PITS. EC SHALL PROVIDE THE ENCLOSURE, METER SOCKETS AND CONDUITS.
- INSTALL PULL ROPE IN EMPTY CONDUIT(S).

ELECTRICAL KEYED NOTES:

- TRANSFORMER, METER, CTS AND METER CABLING BY AMEREN.
- SURGE PROTECTION DEVICE AT MDP, PROVIDE 60A/3P CIRCUIT BREAKER. SEE SPEC SECTION FOR MORE INFORMATION.
- SURGE PROTECTION DEVICE AT PANEL, PROVIDE 30A/3P CIRCUIT BREAKER. SEE SPEC SECTION FOR MORE INFORMATION.
- PRIMARY CONDUIT BY EC, 4" PVC SCHEDULE 40, OR AS REQUIRED BY UTILITY. FEEDERS BY UTILITY.
- PROVIDE TRANSFORMER PAD PER DETAIL ON SHEET E06.
- SYSTEM GROUND, PROVIDE PER DETAILS ON THIS SHEET.

FEEDER SCHEDULE

PLAN MARK	OVERCURRENT PROTECTION	AMPERAGE	FEEDER SIZE (COPPER, U.N.O.)
20	20A	20A	3 #12 & 1 #12G, 3/4"C.
20N	20A	20A	4 #12 & 1 #12G, 3/4"C.
30	25A, 30A	30A	3 #10 & 1 #10G, 3/4"C.
30N	25A, 30A	30A	4 #10 & 1 #10G, 3/4"C.
40	35A, 40A	40A	3 #8 & 1 #10G, 3/4"C.
40N	35A, 40A	40A	4 #8 & 1 #10G, 3/4"C.
50	45A, 50A	55A	3 #6 & 1 #10G, 3/4"C.
50N	45A, 50A	55A	4 #6 & 1 #10G, 1"C.
70	60A, 70A	70A	3 #4 & 1 #6G, 1-1/4"C.
70N	60A, 70A	70A	4 #4 & 1 #6G, 1-1/4"C.
100	80A, 90A, 100A	100A	3 #3 & 1 #6G, 1-1/4"C.
100N	80A, 90A, 100A	100A	4 #3 & 1 #6G, 1-1/4"C.
110	110A	115A	3 #2, 1 #6G, 1-1/4"C.
110N	110A	115A	4 #2, 1 #6G, 1-1/4"C.
125	125A	130A	3 #1 & 1 #6G, 1-1/2"C.
125N	125A	130A	4 #1 & 1 #6G, 1-1/2"C.
150	150A	150A	3 #1/0 & 1 #6G, 1-1/2"C.
150N	150A	150A	4 #1/0 & 1 #6G, 2"C.
175	175A	175A	3 #3/0 & 1 #6G, 2"C.
175N	175A	175A	4 #3/0 & 1 #6G, 2"C.
200	200A	200A	3 #3/0 & 1 #6G, 2"C.
200N	200A	200A	4 #3/0 & 1 #6G, 2-1/2"C.
225	225A	230A	3 #4/0 & 1 #4G, 2"C.
225N	225A	230A	4 #4/0 & 1 #4G, 2-1/2"C.
250	250A	255A	3-250 kcmil & 1 #4G, 2-1/2"C.
250N	250A	255A	4-250 kcmil & 1 #4G, 3"C.
300	300A	310A	3-350 kcmil & 1 #4G, 3"C.
300N	300A	310A	4-350 kcmil & 1 #4G, 3"C.
350	350A	380A	3-500 kcmil & 1 #3G, 3"C.
350N	350A	380A	4-500 kcmil & 1 #3G, 3-1/2"C.
400	400A	400A	TWO SETS OF [3 #3/0 & 1 #3G, 2"C.]
400N	400A	400A	TWO SETS OF [4 #3/0 & 1 #3G, 2"C.]
420	400A	420A	3-600 kcmil & 1 #3G, 4"C.
420N	400A	420A	4-600 kcmil & 1 #3G, 4"C.
450	450A	460A	TWO SETS OF [3 #4/0, 1 #2G, 2"C.]
450N	450A	460A	TWO SETS OF [4 #4/0, 1 #2G, 2"C.]
500	500A	510A	TWO SETS OF [3-250 kcmil & 1 #2G, 2-1/2"C.]
500N	500A	510A	TWO SETS OF [4-250 kcmil & 1 #2G, 3"C.]
600	600A	620A	TWO SETS OF [3-350 kcmil & 1 #1G, 3"C.]
600N	600A	620A	TWO SETS OF [4-350 kcmil & 1 #1G, 3"C.]
700	700A	760A	TWO SETS OF [3-500 kcmil & 1 #1/0G, 3"C.]
700N	700A	760A	TWO SETS OF [4-500 kcmil & 1 #1/0G, 3"C.]
800	800A	840A	TWO SETS OF [3-800 kcmil & 1 #1/0G, 4"C.]
800N	800A	840A	TWO SETS OF [4-800 kcmil & 1 #1/0G, 4"C.]
1000	1000A	1140A	THREE SETS OF [3-500 kcmil & 1 #2/0G, 3-1/2"C.]
1000N	1000A	1140A	THREE SETS OF [4-500 kcmil & 1 #2/0G, 3-1/2"C.]
1200	1200A	1240A	FOUR SETS OF [3-350 kcmil & 1 #3/0G, 3"C.]
1200N	1200A	1240A	FOUR SETS OF [4-350 kcmil & 1 #3/0G, 3"C.]
1600	1600A	1680A	FOUR SETS OF [3-600 kcmil & 1 #4/0G, 4"C.]
1600N	1600A	1680A	FOUR SETS OF [4-600 kcmil & 1 #4/0G, 4"C.]
2000	2000A	2280A	SIX SETS OF [3-500 kcmil & 1-250 kcmil G, 3-1/2"C.]
2000N	2000A	2280A	SIX SETS OF [4-500 kcmil & 1-250 kcmil G, 4"C.]
2500	2500A	2660A	SEVEN SETS OF [3-500 kcmil & 1-350 kcmil G, 4"C.]
2500N	2500A	2660A	SEVEN SETS OF [4-500 kcmil & 1-350 kcmil G, 4"C.]
3000	3000A	3040A	EIGHT SETS OF [3-500 kcmil & 1-400 kcmil G, 4"C.]
3000N	3000A	3040A	EIGHT SETS OF [4-500 kcmil & 1-400 kcmil G, 4"C.]
4000	4000A	4180A	TEN SETS OF [3-600 kcmil & 1-500 kcmil G, 4"C.]
4000N	4000A	4180A	TEN SETS OF [4-600 kcmil & 1-500 kcmil G, 4"C.]

FEEDER SCHEDULE NOTES:
1. AN 'S' FOLLOWING A FEEDER SIZE INDICATES A SERVICE FEEDER; GROUND CONDUCTORS MAY BE OMITTED FROM THESE SERVICE FEEDERS.
2. ALL FIRE PUMP FEEDERS FROM A SERVICE TRANSFORMER SHALL BE PROVIDED WITH A NEUTRAL.

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ELECTRICAL ONE LINE DIAGRAM

MISSOURI SOYBEAN INNOVATION CENTER
NEW OFFICE BUILDING
734 S. COUNTRY CLUB DRIVE
JEFFERSON CITY, MISSOURI

PROJECT NO. 1613
DATE: Sept. 12, 2018

E0.3

2017349 - BID/PERMIT SET - 09-12-18