

LOAD CALC
PANEL P1

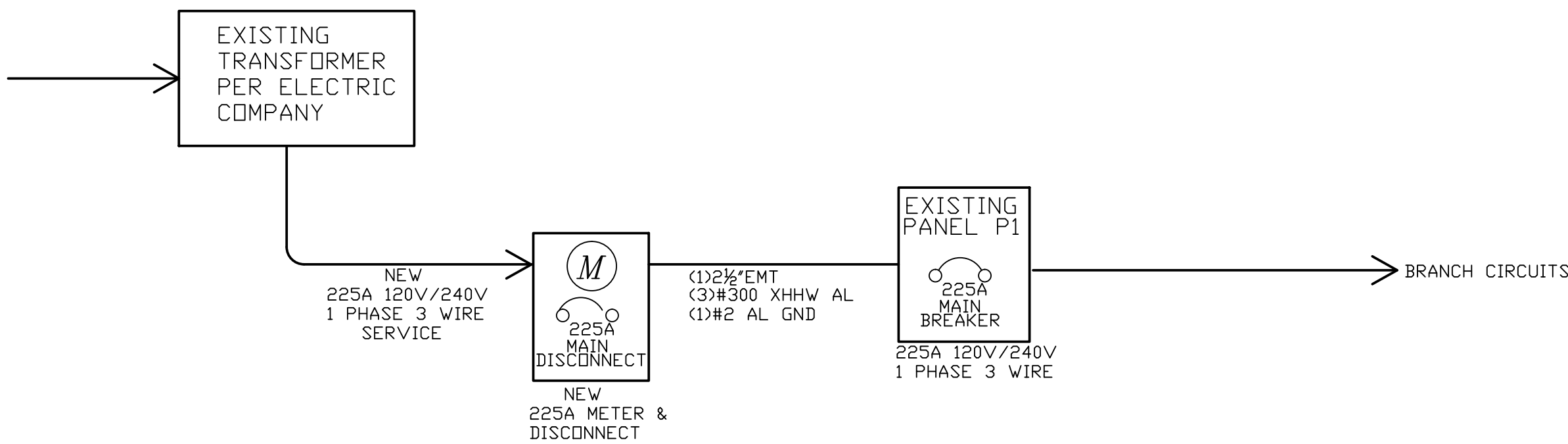
LOAD CALCULATIONS FOR "PANEL P1" BASED ON THE 2017 NEC			
	L1	L2	NEC 220.61(A) NEUTRAL
CALCULATED LOAD (NEC 215.5)	19,980 VA	19,980 VA	19,980 VA
CALCULATED LOAD WITH DEMAND FACTORS (NEC 215.5)			
GENERAL LOAD	0 VA	0 VA	0 VA
RECEPTACLE LOAD (NEC TABLE 220.44)			
1ST 10,000W	2,340 VA	2,340 VA	2,340 VA
CONTINUOUS LOAD (NEC 215.2)	15,000 VA	15,000 VA	15,000 VA
PLUS 25%	3,750 VA	3,750 VA	
0% (NEUTRAL) NEC 215.2(A) EX NO. 2			0 VA
MOTOR LOAD (NEC 430.24)	2,640 VA	2,640 VA	2,640 VA
PLUS 25% OF LARGEST MOTOR	240 VA	240 VA	240 VA
KITCHEN LOADS (NEC 220.56)			
L1 (0 X 1) =	0 VA		0 VA
L2 (0 X 1) =		0 VA	
TOTAL BALANCED LOAD (1-PHASE)	23,970 VA	23,970 VA	
TOTAL UNBALANCED LOAD (1-PHASE)	0 VA	0 VA	
NEUTRAL LOAD			20,220 VA
LINE AMPS BALANCED (1-PHASE)	199.8 A	199.8 A	
LINE AMPS UNBALANCED (1-PHASE)	0.0 A	0.0 A	
TOTALS	199.8 A	199.8 A	168.5 A
ADJUSTMENT FACTOR	0.0 A	0.0 A	0.0 A
TOTAL DESIGN LOAD	199.8 A	199.8 A	168.5 A
VOLTAGE DROP CALCULATIONS			
Single Phase	(2 X 100' L X 0.0707 R X 199.8 A ÷ 1,000) = 2.8 VD		
Voltage Drop %	(2.8 VD ÷ 240 V X 100) = 1.2 % VD		

PANEL SCHEDULE
PANEL P1

225A PANEL 120V/240V 1 PHASE 3 WIRE 225A MAIN BREAKER (1)2½"EMT (3)½300 XHHW AL (1)½2 AL GND										AIC 12 kVA	
#	BKR	CIRCUIT DESCRIPTION		I	VA		VA	I		CIRCUIT DESCRIPTION	BKR #
1	20A-1P	GENERAL LIGHTING		C	1,500	L1	1,500	C		GENERAL LIGHTING	20A-1P 2
3	20A-1P	GENERAL LIGHTING		C	1,500	L2	1,500	C		GENERAL LIGHTING	20A-1P 4
5	20A-1P	GENERAL LIGHTING		C	1,500	L1	1,500	C		GENERAL LIGHTING	20A-1P 6
7	20A-1P	GENERAL LIGHTING		C	1,500	L2	1,500	C		GENERAL LIGHTING	20A-1P 8
9	20A-1P	GENERAL LIGHTING		C	1,500	L1	1,500	C		GENERAL LIGHTING	20A-1P 10
11	20A-1P	GENERAL LIGHTING		C	1,500	L2	1,500	C		GENERAL LIGHTING	20A-1P 12
13	20A-1P	GENERAL LIGHTING		C	1,500	L1	1,500	C		GENERAL LIGHTING	20A-1P 14
15	20A-1P	GENERAL LIGHTING		C	1,500	L2	1,500	C		GENERAL LIGHTING	20A-1P 16
17				G		L1		G			18
19				G		L2		G			20
21	20A-1P	EXTERIOR LIGHTING		C	1,500	L1	540	D		CEILING RECEPTACLES	20A-1P 22
23	20A-1P	EXTERIOR LIGHTING		C	1,500	L2	540	D		CEILING RECEPTACLES	20A-1P 24
25	20A-1P	EXTERIOR LIGHTING		C	1,500	L1	540	D		CEILING RECEPTACLES	20A-1P 26
27	20A-1P	EXTERIOR LIGHTING		C	1,500	L2	540	D		CEILING RECEPTACLES	20A-1P 28
29				G		L1	540	D		CEILING RECEPTACLES	20A-1P 30
31				G		L2	540	D		CEILING RECEPTACLES	20A-1P 32
33	20A-1P	WALL RECEPTACLES		D	360	L1		G			34
35	20A-1P	WALL RECEPTACLES		D	360	L2		G			36
37	20A-1P	WALL RECEPTACLES		D	360	L1	960	M		EXHAUST FAN	20A-2P 38
39	20A-1P	WALL RECEPTACLES		D	360	L2	960	M	XXX	XXX	40
41				G		L1	960	M		EXHAUST FAN	20A-2P 42
43				G		L2	960	M	XXX	XXX	44
45	20A-1P	OVERHEAD DOOR		M	720	L1		G			46
47	20A-1P	OVERHEAD DOOR		M	720	L2		G			48



11/30/2018



ONE LINE DIAGRAM

ELECTRICAL PLANS FOR
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ROUTT COUNTY, CO

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