

**PANEL: "A" (EXISTING)** VOLTAGE: 240/120 MAINS: 200 AMP AIC: 10,000  
 SKIRTS: NONE FEED: TOP MAIN BREAKER: 200A-2P MOUNTING: SURFACE

DESCRIPTION	BREAKER	LOAD (VA)	CCT NO.	LOAD (VA)		CCT NO.	LOAD (VA)	BREAKER	DESCRIPTION
				#A	#B				
EXISTING	20A-1P	1			2		20A-1P	EXISTING	
EXISTING	20A-1P	3			4		20A-1P	EXISTING	
EXISTING	20A-1P	5			6		20A-1P	EXISTING	
EXISTING	20A-1P	7			8		20A-1P	EXISTING	
EXISTING	20A-1P	9			10		20A-1P	EXISTING	
EXISTING	20A-1P	11			12		20A-1P	EXISTING	
EXISTING	20A-1P	13			14		20A-1P	EXISTING	
EXISTING	20A-1P	15			16		20A-1P	EXISTING	
EXISTING	30A	17			18		20A-1P	EXISTING	
EXISTING	2P	19			20		20A-1P	EXISTING	
DRYER	30A	21			22		20A-1P	EXISTING	
EXISTING	20A	23			24		20A-1P	EXISTING	
RANGE	2P	25			26		20A-1P	EXISTING	
EXISTING	20A-1P	27			28		20A-1P	EXISTING	
EXISTING	20A-1P	29			30		20A-1P	EXISTING	
EXISTING	20A-1P	31			32		20A-1P	EXISTING	
EXISTING	20A-1P	33			34		20A-1P	EXISTING	
EXISTING	20A-1P	35			36		20A-1P	EXISTING	
EXISTING	20A-1P	37			38		20A-1P	EXISTING	
ELECTRIC HEATER	20A	39			40		100A	EXISTING PANEL "B"	
EXISTING	2P	41			42		2P	EXISTING PANEL "B"	

CONNECTED KVA: \_\_\_\_\_ ESTIMATED DEMAND KVA: \_\_\_\_\_ TOTAL VA \_\_\_\_\_

**PANEL: "B" (EXISTING)** VOLTAGE: 240/120 MAINS: 100 AMP AIC: 10,000  
 SKIRTS: NONE FEED: BOTTOM MAIN BREAKER: 100A-2P MOUNTING: SURFACE

DESCRIPTION	BREAKER	LOAD (VA)	CCT NO.	LOAD (VA)		CCT NO.	LOAD (VA)	BREAKER	DESCRIPTION
				#A	#B				
EXISTING LIGHTING	20A-1P	1			2		20A-1P	EXISTING LIGHTING	
EXISTING LIGHTING	20A-1P	3			4		20A-1P	EXISTING LIGHTING	
EXISTING LIGHTING	20A-1P	5			6		20A-1P	EXISTING LIGHTING	
EXISTING LIGHTING	20A-1P	7			8		20A-1P	EXISTING LIGHTING	
EXISTING LIGHTING	20A-1P	9			10		20A-1P	EXISTING LIGHTING	
RECEPTACLE	20A-1P	11			12		20A-1P	EXISTING LIGHTING	
PROVISION	1-POLE	13			14		1-POLE	PROVISION	
PROVISION	1-POLE	15			16		1-POLE	PROVISION	
PROVISION	1-POLE	17			18		1-POLE	PROVISION	
PROVISION	1-POLE	19			20		1-POLE	PROVISION	
PROVISION	1-POLE	21			22		60A	NEW PANEL "C" (14)	
PROVISION	1-POLE	23			24		2-POLE		

CONNECTED KVA: \_\_\_\_\_ ESTIMATED DEMAND KVA: \_\_\_\_\_ TOTAL VA \_\_\_\_\_

NOTE: UPDATED CIRCUIT DIRECTORY PER NEC 408.4

NOTE: LOAD CONSISTS OF 55 LUMINAIRES AT 100 KVA

**NEW PANEL: "C" (NEMA 3R ENCLOSURE LOCKABLE)** VOLTAGE: 240/120 MAINS: 100 AMP AIC: 10,000  
 SKIRTS: NONE FEED: BOTTOM MAIN BREAKER: 60A-2P MOUNTING: SURFACE

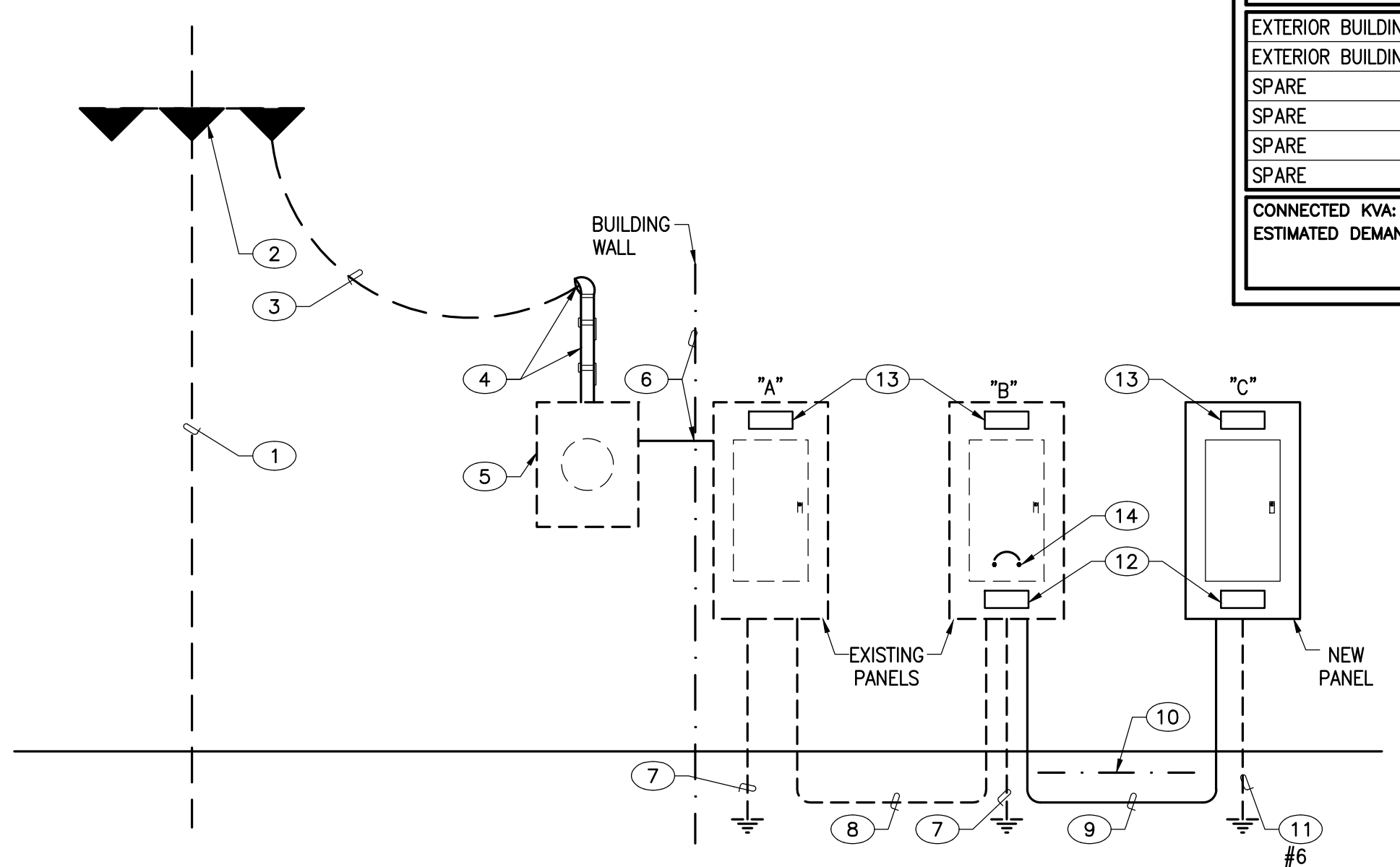
DESCRIPTION	BREAKER	LOAD (VA)	CCT NO.	LOAD (VA)		CCT NO.	LOAD (VA)	BREAKER	DESCRIPTION
				#A	#B				
EXTERIOR BUILDING LIGHTING	20A-1P	600	1	1860	2	1080	20A-1P	RECP.T. EXTERIOR BUILDING LIGHTING	
EXTERIOR BUILDING LIGHTING	20A-1P	900	3	1860	4	960	20A-1P	RECP.T. EXTERIOR BUILDING LIGHTING	
SPARE	20A-1P	5			6		1-POLE	PROVISION	
SPARE	20A-1P	7			8		1-POLE	PROVISION	
SPARE	20A-1P	9			10		1-POLE	PROVISION	
SPARE	20A-1P	11			12		1-POLE	PROVISION	

CONNECTED KVA: 3.52 ESTIMATED DEMAND KVA: \_\_\_\_\_

1860 1860 TOTAL VA

1860 / 120 = 16 AMPS

- KEYED NOTES**
- EXISTING PUBLIC SERVICE COMPANY OF NEW MEXICO (PNM) RISER POLE.
  - EXISTING 3-25KVA NETWORK/POLE MOUNTED PNM TRANSFORMERS; 2 TRANSFORMERS TAPPED FOR 240/120, SINGLE PHASE, 3 WIRE AERIAL SERVICE.
  - EXISTING PNM AERIAL FEEDER.
  - EXISTING RISER TO REMAIN.
  - EXISTING PNM METERING TO REMAIN.
  - EXISTING FEEDER THRU WALL DIRECTLY INTO EXISTING PANEL "A" (LESS THAN 4 FT.)
  - EXISTING SERVICE GROUNDING ELECTRODE SYSTEM TO REMAIN.
  - EXISTING 100AMP, 240/120 VOLT, 3 WIRE+GRND UNDERGROUND FEEDER TO REMAIN.
  - PROVIDE NEW (3) #6 THHN AND (1) #8 GROUND/COPPER CONDUCTORS IN 1-1/4" CONDUIT (OVERSIZED) AT 18" BURY MINIMUM.
  - PROVIDE CONTINUOUS MAGNETIC MARKING TAPE AT 12" BURY IN TRENCH.
  - PROVIDE SERVICE GROUNDING ELECTRODE PER NEC 250.32.
  - PROVIDE MARKING/IDENTIFICATION PER NEC 408.4(B) AND UPDATE CIRCUIT DIRECTORY PER 408.4(A).
  - PROVIDE MARKING/IDENTIFICATION OF Isc PER NEC 110.24.
  - PROVIDE 60AMP/2 POLE BREAKER AND CONNECT NEW PANEL "C" FEEDER.
  - EXISTING PANEL "A".
  - APPROXIMATE PANEL "B" LOCATION.
  - NEW PANEL "C" LOCATION.
  - EXISTING BUILDING LUMINAIRES TO REMAIN.
  - RELOCATED EXISTING LUMINAIRES ALONG WITH BRANCH CIRCUIT AND CONTROLS.
  - PROVIDE PHOTO-CELL CONTROLLER FOR CONTROL OF LUMINAIRES ON BRANCH CIRCUIT INDICATED.
  - PROVIDE 20 AMP/120 VOLT WEATHERPROOF/GFCI DUPLEX RECEPTACLE, UP 24" ABOVE FINISH GRADE.
  - PROVIDE SPST/120 VOLT, THERMAL DISCONNECT SWITCH IN NEMA 3R/LOCKABLE ENCLOSURE. SWITCH SHALL CONTROL DUPLEX RECEPTACLES ON RESPECTIVE BUILDING; INSTALL SWITCH UP 48" ABOVE FINISH GRADE.
  - CONTRACTOR SHALL COORDINATE WITH PROJECT OWNER AND MATCH NEW LUMINAIRES WITH EXISTING SITE LUMINAIRES (EXISTING LUMINAIRES ARE CFL TYPE LAMPS). INSTALL LUMINAIRES AT SAME BUILDING HEIGHT AS EXISTING.



**INTERNATIONAL ENERGY CONSERVATION CODE (2009 ED)**

EXTERIOR LIGHTING 505.6  
 LIGHTING ZONE 2 = 600VA

BASIC ALLOWANCE/TABLE 505.6) = 600VA  
 UNCOVERED PARKING AREAS

ALLOWANCE = 0.6 VA/SQ. FT.  
 23,400 SQ. FT. @ 0.6VA = 1,404VA  
 50 DOORS @ 20VA/LN. FT. = 3,000VA  
 62 DOORS @ 20VA/LN. FT. = 7,440VA  
 62 DOORS @ 20VA x 6FT/DOOR = 7,440VA  
 TOTAL ALLOWANCE = 12,440VA  
 CONNECTED VOLT AMPERE (VA) = 3,520VA

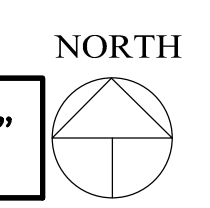
CODE COMPLIANT

**REVISED PARTIAL POWER RISER DIAGRAM**

- NOT TO SCALE
- LOAD ANALYSIS:
- EXISTING PANEL "A" IS LESS THAN 24 KVA (100 AMP) DEMAND WHICH INCLUDES PANEL "B" DEMAND OF 5.5 KVA (23 AMP) FOR EXTERIOR LIGHTING ONLY.
  - NEW PANEL "C" CONNECTED LOAD IS 3.5 KVA (15 AMP).
  - EXISTING AND NEW LOADS ON PANELS "B AND C" ARE EXTERIOR LIGHTING.
  - ALL THE STORAGE UNITS ARE VOID OF LIGHTING AND POWER EQUIPMENT.

**ELECTRICAL PLANS**

SCALE: 1/16"=1'-0"



REV.	DATE	DESCRIPTION	INT.

06 DECEMBER 2014

DATE

**eng3group** llc

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 REGISTERED PROFESSIONAL ENGINEER

06 DECEMBER 2014

**PARTIAL ELECTRICAL UTILITY PLAN & SCHEDULES**

SHEET NO. E-001  
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