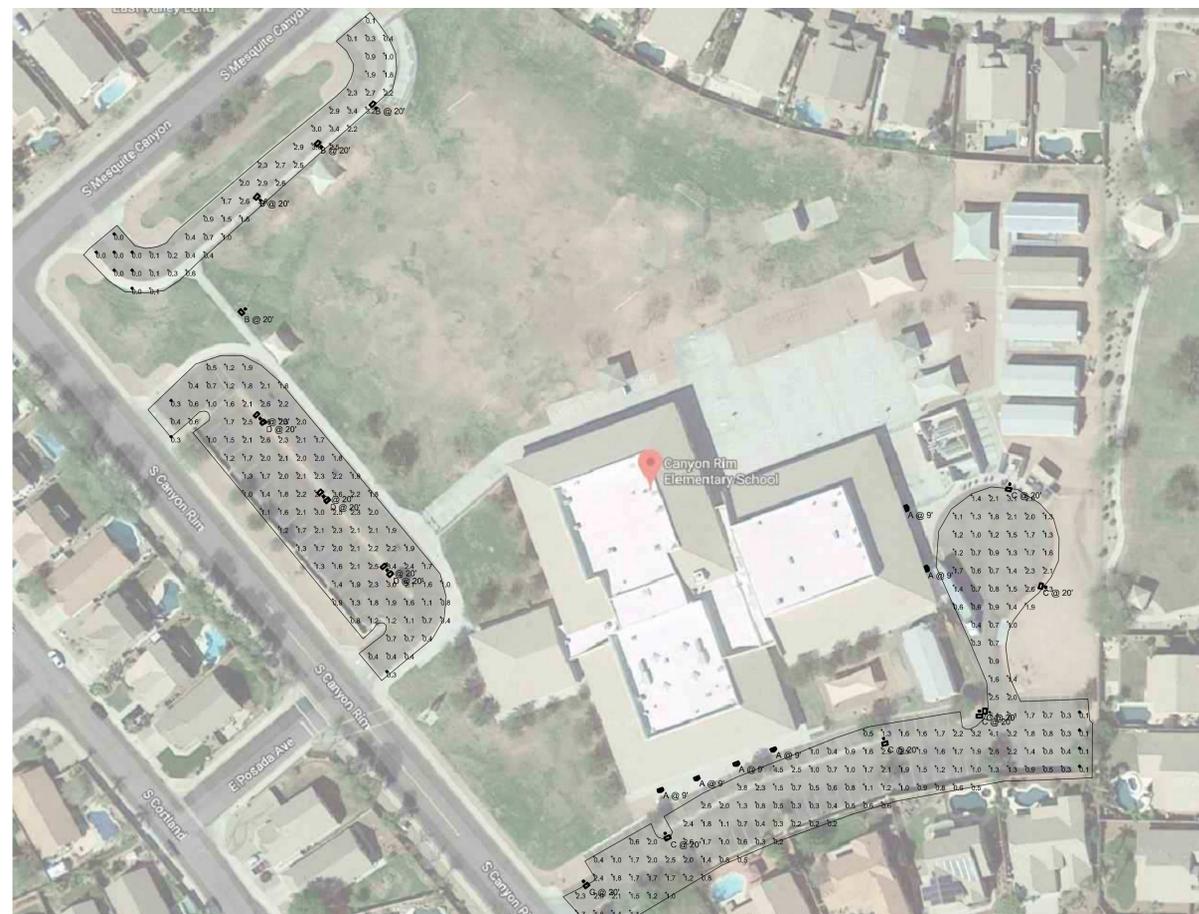


**1 ELECTRICAL LIGHTING SITE PLAN**  
1" = 60'

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	+	1.4 fc	5.4 fc	0.1 fc	54.0:1	14.0:1
Calc Zone #2	+	1.7 fc	3.8 fc	0.3 fc	12.7:1	5.7:1
Calc Zone #3	+	1.4 fc	3.8 fc	0.0 fc	N/A	N/A



**2 ELECTRICAL LIGHTING PHOTOMETRIC PLAN**  
1" = 60'

**GENERAL NOTES**

- SEE LIGHT FIXTURE SCHEDULE ON SHEET E3 FOR MORE INFORMATION.
- SEE DETAIL 1 ON SHEET E3 FOR PREFERRED LIGHT POLE BASE STANDARD.

**OPTIMIZE<sup>LED</sup>**  
Lighting Engineering Design  
842 EAST ISABELLA AVE.  
MESA, AZ, 85204  
602-699-6224  
PROJECT: ECS180001  
EOR: BRETT LORENZEN  
PE#: 53437

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**KEYED NOTES**

- CONTRACTOR SHALL EXTEND EXISTING TIMECLOCK CONTROLLED LIGHTING CIRCUIT TO NEW LIGHT POLE LOCATION INDICATED. PROVIDE 3/4" SCHEDULE 40 PVC CONDUIT AND CONTINUE EXISTING WIRE SIZE.
- CONTRACTOR SHALL PROVIDE A NEW CIRCUIT TO PANEL INDICATED VIA LIGHTING CONTACTOR IN MAIN ELECTRICAL ROOM. PROVIDE 3/4" SCHEDULE 40 PVC CONDUIT AND WIRE SIZE INDICATED WITHIN PANELBOARD SCHEDULE ON SHEET E4.

**GPS SITE LIGHTING  
CANYON RIM SCHOOL**

**REVISIONS:**


DATE: 05/16/18 ISSUED FOR: PERMIT/CONSTRUCTION

**SHEET NAME**  
ELECTRICAL  
LIGHTING SITE PLAN  
AND PHOTOMETRICS

**SHEET NUMBER**  
**E2**

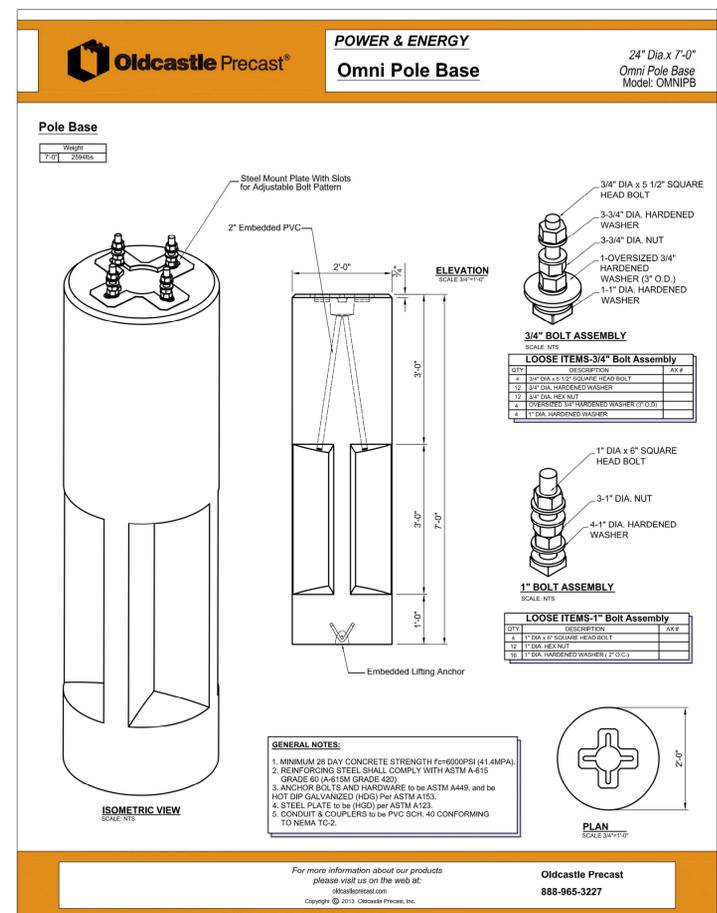
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TYPE	LOCATION	DESCRIPTION	BASIS OF DESIGN MANUFACTURER, MODEL	MOUNTING	LIGHT ENGINE			DRIVER		
					TYPE QTY	TEMP CRI	LUMENS EM LUMENS	TYPE	VOLTAGE	WATTS
A	BUILDING MOUNTED EXTERIOR	DIE CAST ALUMINUM EXTERIOR LED FIXTURE 20 LED'S @ 1000mA TYPE 3 MEDIUM SPREAD OPTICS	ACUITY - LITHONIA TWH-LED-20C-1000-40K-T3M-MVOLT-DDBXD	EXISTING FIXTURE REPLACEMENT AT 9' AFF.	LED 1	4000K 70 CRI	6983	STANDARD ELECTRONIC DRIVER	MVOLT	72
B	BUS PICKUP/DROPOFF	DIE CAST ALUMINUM EXTERIOR LED FIXTURE PERFORMANCE LEVEL 4 TYPE 3 MEDIUM SPREAD OPTICS	ACUITY - LITHONIA DSX0-LED-P4-40K-T3M-MVOLT-SPA-DDBXD	NEW FIXTURE ON EXISTING POLE MOUNT AT APPROXIMATELY 20' AFF	LED 1	4000K 70 CRI	10256	STANDARD ELECTRONIC DRIVER	MVOLT	92
C	EMPLOYEE/MISITOR PARKING	DIE CAST ALUMINUM EXTERIOR LED FIXTURE PERFORMANCE LEVEL 4 TYPE 4 MEDIUM OPTICS	ACUITY - LITHONIA DSX0-LED-P4-40K-T4M-MVOLT-SPA-DDBXD	NEW FIXTURE ON NEW 20' POLE WITH NEW LIGHT STANDARD INSTALL. PREMANUFACTURED LIGHT BASE PER DETAIL 1 ON SHEET E3	LED 1	4000K 70 CRI	10335	STANDARD ELECTRONIC DRIVER	MVOLT	92
D	PARENT PICKUP/DROPOFF	DIE CAST ALUMINUM EXTERIOR LED FIXTURE PERFORMANCE LEVEL 4 TYPE 5 WIDE OPTICS	ACUITY - LITHONIA DSX0-LED-P4-40K-T5W-MVOLT-SPA-DDBXD	EXISTING FIXTURE HEAD REPLACEMENT ON EXISTING POLE MOUNT AT APPROXIMATELY 20' AFF	LED 1	4000K 70 CRI	21778	STANDARD ELECTRONIC DRIVER	MVOLT	92
F	EMPLOYEE/MISITOR CORNER	DIE CAST ALUMINUM EXTERIOR LED FIXTURE PERFORMANCE LEVEL 4 TYPE 4 MEDIUM OPTICS	ACUITY - LITHONIA DSX0-LED-P4-40K-T4M-MVOLT-SPA-DDBXD	NEW FIXTURE ON NEW 20' POLE WITH NEW LIGHT STANDARD MOUNT AT APPROXIMATELY 20' AFF	LED 1	4000K 70 CRI	21778	STANDARD ELECTRONIC DRIVER	MVOLT	92

**GENERAL NOTES:**  
A. BASIS-OF-DESIGN AND ALTERNATE SPECIFICATIONS MAY BE PRICED AND SUPPLIED BY THE APPROVED REGIONAL VENDOR.  
B. VERIFY QUANTITIES, MODEL NUMBERS AND DESCRIPTIONS WITH MANUFACTURER PRIOR TO PLACING ORDER.  
C. VERIFY FINISH AND COLOR PRIOR TO PLACING ORDER.  
D. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBERS ONLY. FIRST READ THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS IN CONJUNCTION WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURES LISTED ARE THE BASIS FOR THE DESIGN.  
E. CONTRACTOR SHALL PROVIDE ALL LIGHT FIXTURES UNLESS NOTED OTHERWISE.



**1 POLE BASE DETAIL**  
N.T.S.

DRAWN: D5L  
CHECKED: D5L  
NUMBER: HEC 180004

**GPS SITE LIGHTING**  
**CANYON RIM SCHOOL**

**REVISIONS:**

NO.	DATE	DESCRIPTION

DATE: 05/16/18  
ISSUED FOR: PERMIT/CONSTRUCTION

**SHEET NAME**  
ELECTRICAL  
LIGHTING SCHEDULES  
AND DETAILS

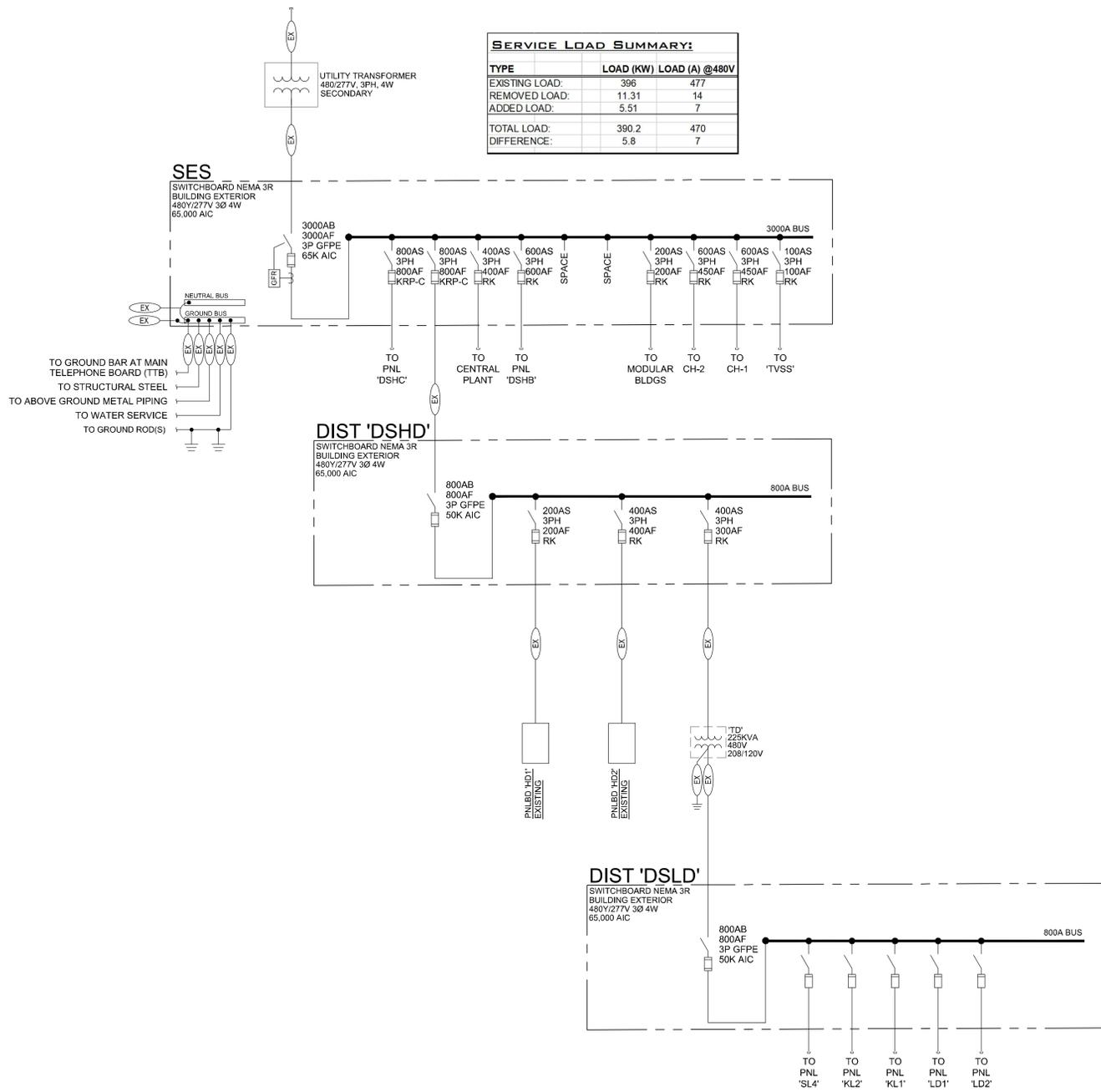
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PANELBOARD: HD1 (EXISTING)										EQUIPMENT GROUND BUS			
BUS AMPS: 225A										AIC RATING: 14000 FULLY RATED			
MAIN SIZE/TYP: MLO													
VOLTS/PHASE: 480Y/277V, 3PH, 4W													
SECTION 1													
CKT NO.	DESCRIPTION	VOLT/AMPS/PHASE			WIRE NO.	BKR AMP	P	BKR WIRE NO.	VOLT/AMPS/PHASE			DESCRIPTION	CKT NO.
		A	B	C					A	B	C		
EX 1	LIGHTING MP D103	3,000			EX	20	1	1	20	EX		2	EX
EX 3	LIGHTING MP D103		3,000		EX	20	1	1	20	EX		4	EX
EX 5	LIGHTING MP D103			3,000	EX	20	1	1	20	EX	1,300	6	EX
EX 7	LIGHTING MP D103	3,000			EX	20	1	1	20	EX		8	EX
EX 9	LIGHTING MP D103		3,000		EX	20	1	1	20	EX		10	EX
EX 11	SPARE					20	1	1	20			12	
EX 13	LIGHTING FOOD D123	3,150			EX	20	1	1	20	EX		14	EX
EX 15	LIGHTING D112, 119		3,550		EX	20	1	1	20	EX		16	EX
EX 17	LIGHTING D110, 111			3,800	EX	20	1	1	20	EX		18	EX
EX 19	LIGHTING D124, 133	3,800			EX	20	1	1	20	EX	11,080	20	EX
EX 21	LIGHTING D135, 136		2,150		EX	20	1	3	80	EX	11,080	22	EX
EX 23	LIGHTING D137			3,150	EX	20	1	1	20	EX	11,080	24	EX
25	SPACE					1	1	1	20			26	
27	SPACE					1	1	1	20	8	460	28	
29	SPACE					1	1	1	20	8	644	30	NL
31	SPACE					1	1	1	20	8	552	32	NL
33	SPACE					1	1	1	20	8	276	34	NL
35	SPACE					1	1	1	20	8	184	36	NL
37	WATER HEATER EH-3	10,000			EX	50	3	1	20	8	1,372	38	NL
39			10,000					1	20	8	1,341	40	NL
41				10,000				1	20	8	1,144	42	NL
SUBTOTAL		22,950	21,700	19,950				13,004	14,457	16,952			
TOTAL PHASE A - VA		35,954											
AMPS		130											
TOTAL PHASE B - VA		36,157											
AMPS		131											
TOTAL PHASE C - VA		36,902											
AMPS		133											
TOTAL PNLBD - VA		109,013										110,506	
AMPS		131										133	
PANELBOARD NOTES													
EX EXISTING TO REMAIN													
NL EXISTING CIRCUIT WITH NEWLOAD													

Panel	Circuit	Description	Length	Voltage	Phase	Load (VA/Ph)	Wire Size	% VD
HD1	30	SOUTHEAST POLES	525	277	1	644	8	0.6
HD1	32	DUAL-HEAD WEST POLES	495	277	1	1372	8	1.3
HD1	34	NORTHWEST BUS POLES	650	277	1	1341	8	1.7
HD1	36	WALKWAY POLES	540	277	1	1144	8	1.2
HD1	28	CHILD DROP OFF POLES	150	277	1	1144	8	0.4

**1 ONE-LINE DIAGRAM**  
N.T.S.



**FEEDER LEGEND**

EX EXISTING FEEDER TO REMAIN

**OPTIMIZED**  
Lighting Engineering Design  
842 EAST ISABELLA AVE.  
MESA, AZ, 85204  
602-699-6224  
PROJECT: ECS180001  
EOR: BRETT LORENZEN  
PE#: 63437

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DRAWN: D5L  
CHECKED: D5L  
NUMBER: HEC 180004

**GPS SITE LIGHTING**  
**CANYON RIM SCHOOL**

REVISIONS:

DATE: 05/16/18  
ISSUED FOR: PERMIT/CONSTRUCTION

**SHEET NAME**  
ELECTRICAL  
ONE-LINE DIAGRAM AND  
CALCULATIONS

**SHEET NUMBER**

**E4**

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