

SCOPE OF WORK
PURCHASE

||EQUIPMENT ONLY||

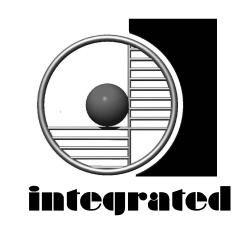
CITY SCHOOL
DISTRICT
1300 BAKER STREET
BAKERSFIELD, CA 93309

Project Name:
CENTRAL PLANT
REPLACEMENT

BAKERSFIELD

WAYSIDE
ELEMENTARY
SCHOOL
1000 MING AVENUE

1000 MING AVENUE BAKERSFIELD, CA 93307



designs
by SOMAM, Inc.

ARCHITECTURE ENGINEERING INTERIOR DESIGN

6011 N. FRESNO STREET, SUITE 130 FRESNO CALIFORNIA 93710 P:(559) 436-0881 F:(559) 436-0887 E: design@somam.com integrateddesigns.com

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Sheet Title:

DSA APP# 03-122531

EQUIPMENT BID PACKAGE

PLAN

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E1.00

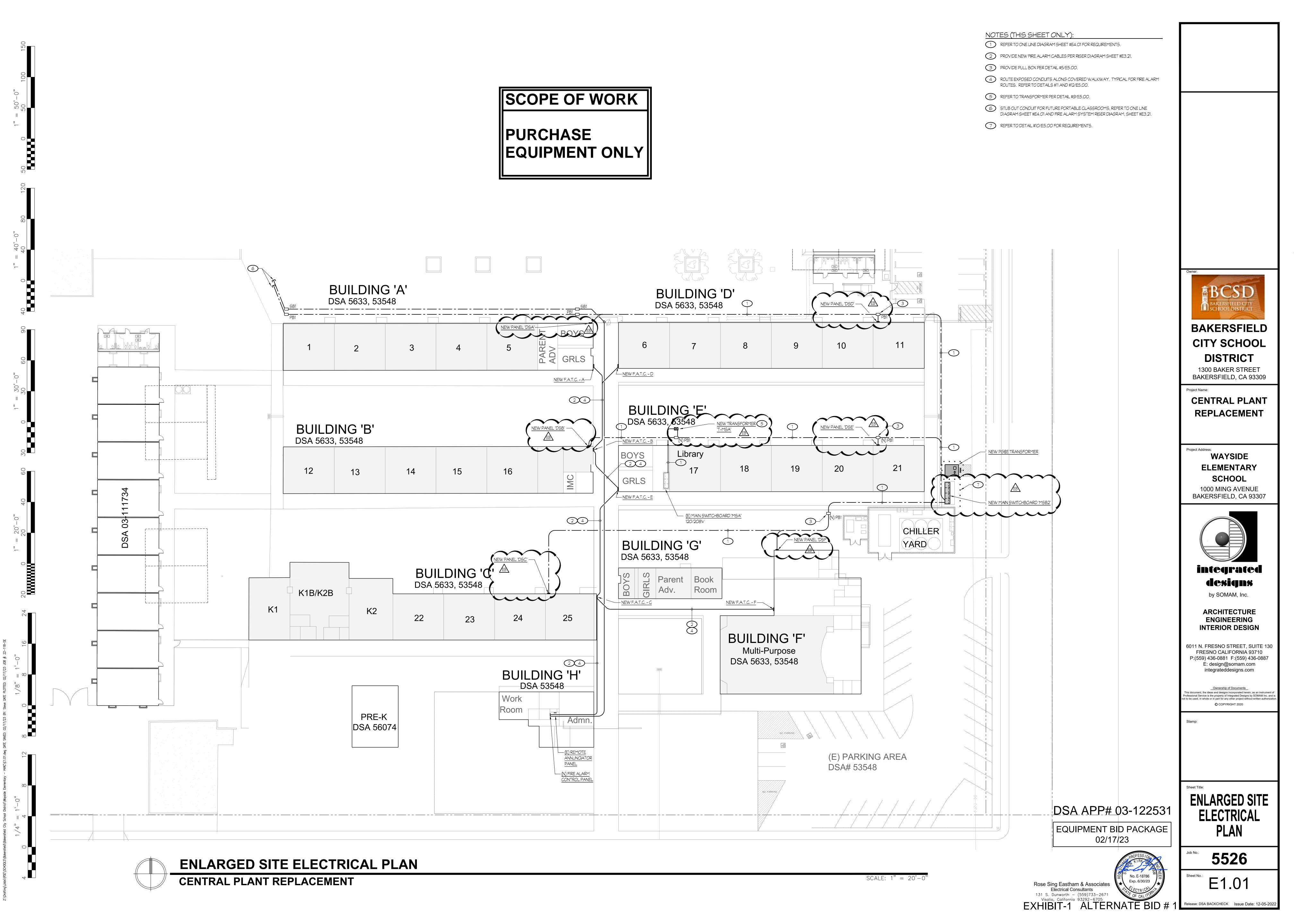
CENTRAL PLANT REPLACEMENT

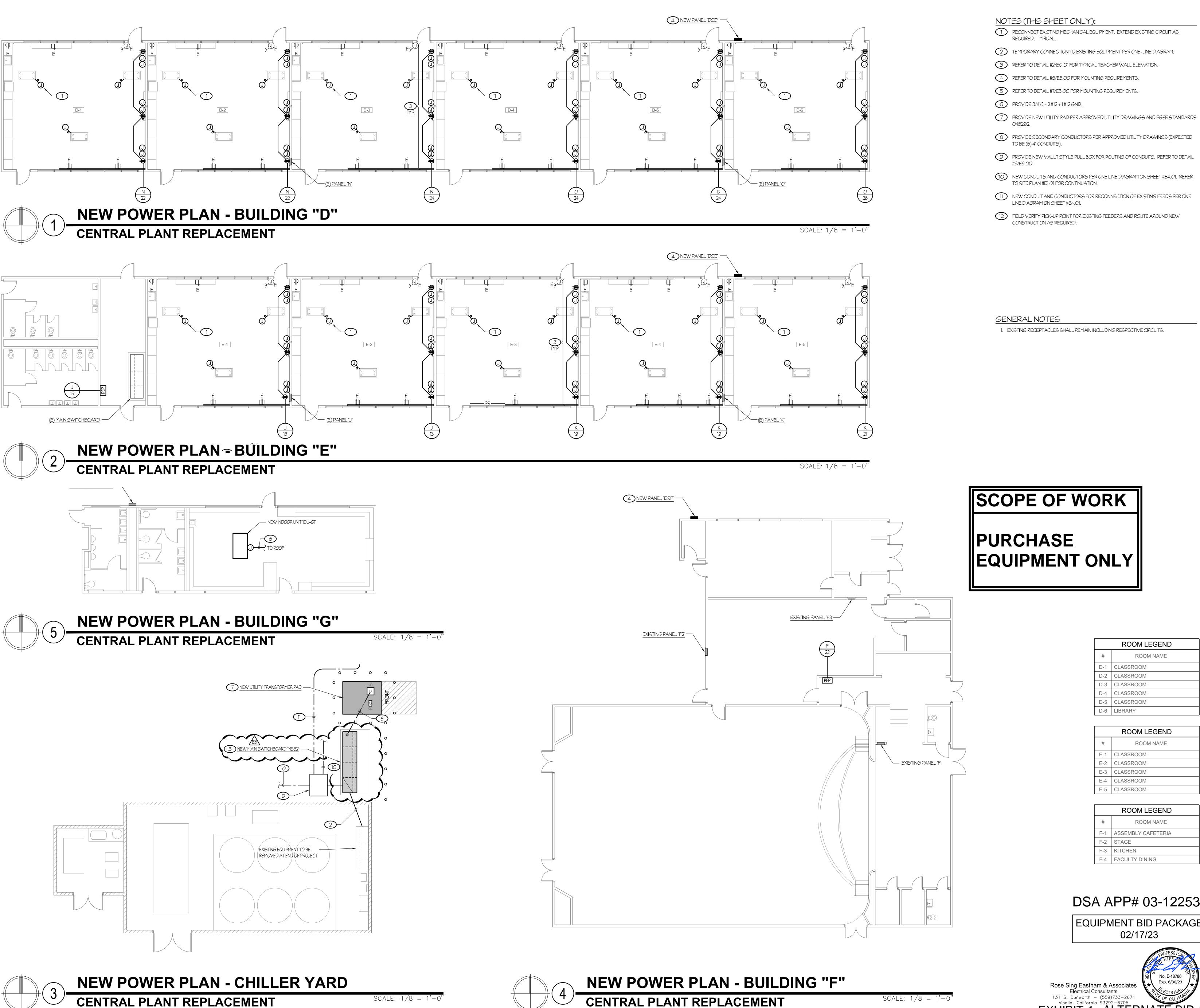
Rose Sing Eastham & Associates
Electrical Consultants

131 S. Dunworth - (559)733-2671
Visalia, California 93292-6705

EXHIBIT-1 ALTERNATE BID # 1

02/17/23





NOTES (THIS SHEET ONLY):

- 1 RECONNECT EXISTING MECHANICAL EQUIPMENT. EXTEND EXISTING CIRCUIT AS REQUIRED. TYPICAL.
- 2 TEMPORARY CONNECTION TO EXISTING EQUIPMENT PER ONE-LINE DIAGRAM.
- 3 REFER TO DETAIL #2/EO.01 FOR TYPICAL TEACHER WALL ELEVATION.
- 5 REFER TO DETAIL #7/E5.00 FOR MOUNTING REQUIREMENTS.

- 8 PROVIDE SECONDARY CONDUCTORS PER APPROVED UTILITY DRAWINGS (EXPECTED TO BE (6) 4" CONDUITS).
- 9 PROVIDE NEW VAULT STYLE PULL BOX FOR ROUTING OF CONDUITS. REFER TO DETAIL
- NEW CONDUITS AND CONDUCTORS PER ONE LINE DIAGRAM ON SHEET #E4.01. REFER TO SITE PLAN #E1.01 FOR CONTINUATION.
- 11) NEW CONDUIT AND CONDUCTORS FOR RECONNECTION OF EXISTING FEEDS PER ONE LINE DIAGRAM ON SHEET #E4.01.
- 12) FIELD VERIFY PICK-UP POINT FOR EXISTING FEEDERS AND ROUTE AROUND NEW CONSTRUCTION AS REQUIRED.

1. EXISTING RECEPTACLES SHALL REMAIN INCLUDING RESPECTIVE CIRCUITS.



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NEW POWER PLANS - BLDGS D, E & CHILLER YARD

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E2.11

||PURCHASE || EQUIPMENT ONLY ||

> D-3 CLASSROOM D-4 CLASSROOM D-5 CLASSROOM D-6 LIBRARY **ROOM LEGEND ROOM NAME** E-1 CLASSROOM E-2 CLASSROOM

ROOM LEGEND

D-1 CLASSROOM

D-2 CLASSROOM

ROOM NAME

E-3 CLASSROOM E-4 CLASSROOM E-5 CLASSROOM

ROOM LEGEND F-1 ASSEMBLY CAFETERIA F-2 STAGE F-3 KITCHEN F-4 FACULTY DINING

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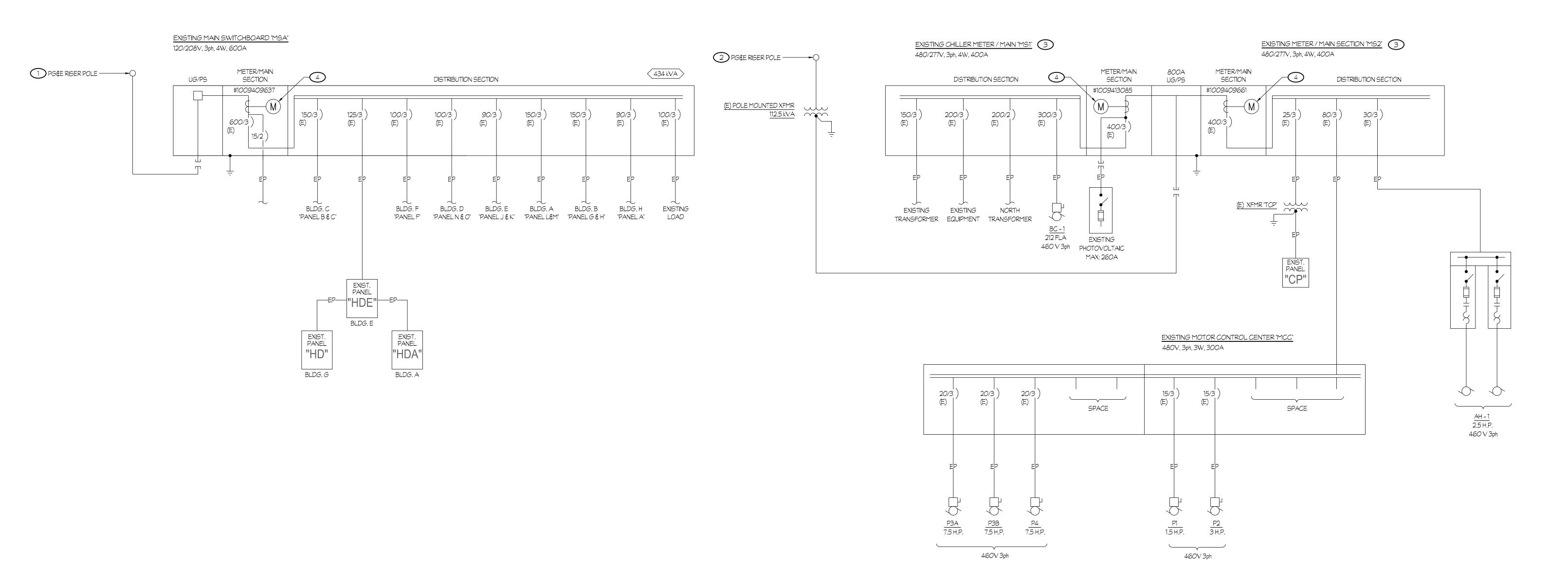
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EXHIBIT-1 ALTERNATE BID # 1

SCOPE OF WORK PURCHASE ||EQUIPMENT ONLY| NOTES (THIS SHEET ONLY):

- EXISTING UTILITY FEED SHALL BE DISCONNECTED. PROVIDE NEW CONNECTION FROM NEW XFMR 'TMSA' TO FEED EXISTING BOARD 'MSA', AS SHOWN ON SHEET E4.01.
- 2 EXISTING UTILITY FEED SHALL BE DISCONNECTED. PROVIDE NEW CONNECTION FROM NEW BOARD 'MSB2' TO FEED EXISTING BOARD 'MSB' DURING CONSTRUCTION, AS SHOWN ON SHEET E4.01.
- 3 EXISTING CHILLER EQUIPMENT SHALL REMAIN IN SERVICE DURING CONSTRUCTION ACTIVITIES. EQUIPMENT SHALL BE DISCONNECTED AND REMOVED AT THE END OF NEW CONSTRUCTION.
- RETURN UTILITY METER EQUIPMENT TO UTILITY COMPANY AND PROVIDE CONNECTION TO POWER DISTRIBUTION BOARDS.
- 5 —— EP— DENOTES EXISTING FEEDER AND/OR 'SPARE' CONDUIT(S) SHALL REMAIN, UNLESS OTHERWISE NOTED.

EXISTING MAIN SWITCHBOARD "MSB" (3) 480/277V, 3ph, 4W, 800A



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E4.00

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ONE LINE

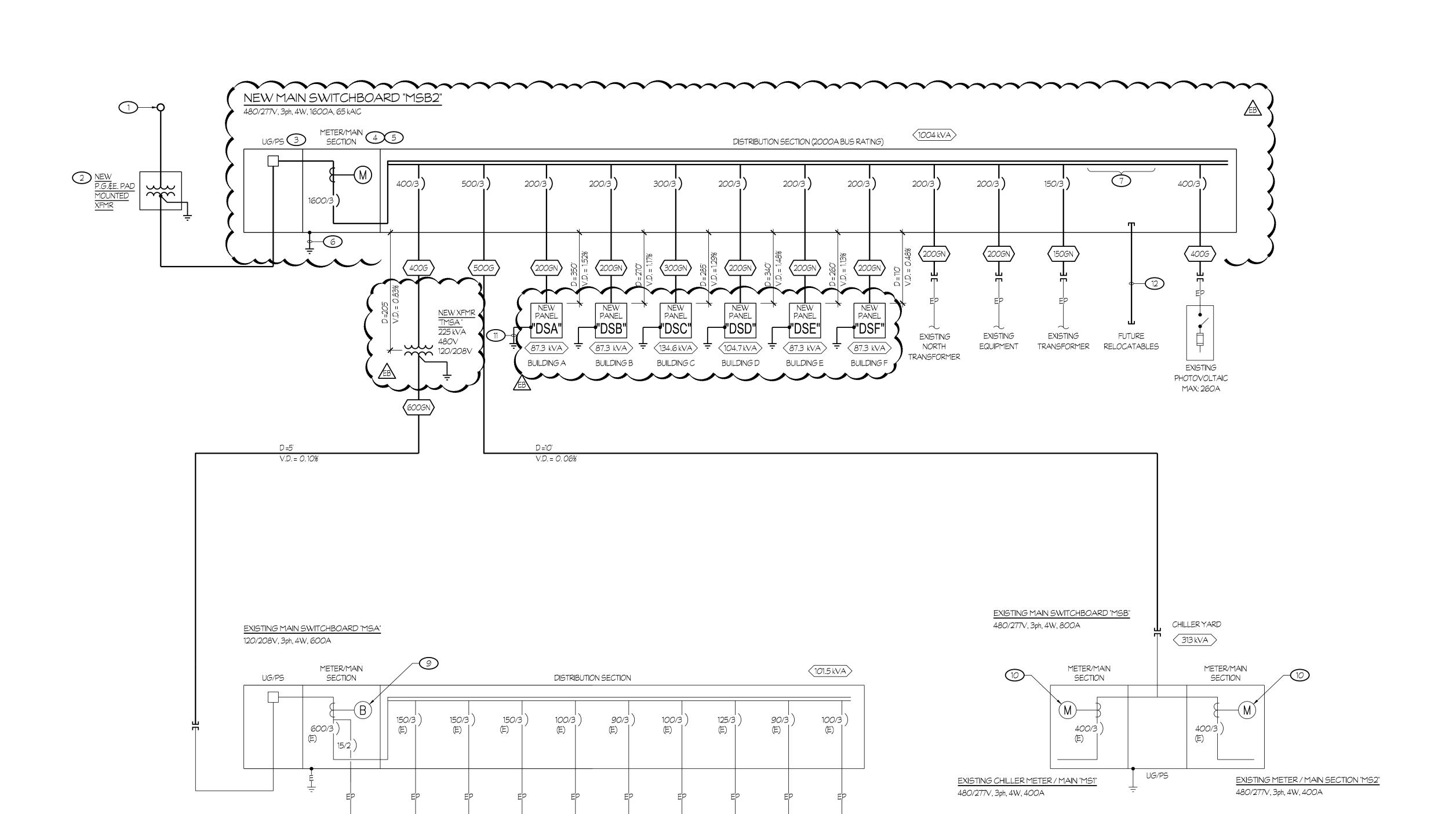
DIAGRAM

- DEMO

ONE LINE DIAGRAM - DEMO

CENTRAL PLANT REPLACEMENT

<u>NEW MAIN SWBD "MSB" LOAD CA</u>	LCULATION:
MAXIMUM DEMAND PER P.G. & E. RECORDS FOR MAIN SWBD "MSA" (METER 1009409637) FOR MAIN SWBD "MSB1" (METER 1009413085) FOR MAIN SWBD "MSB2" (METER 1009409661)	
·	
PLUS DEMAND FACTOR PER C.E.C. 220.35	SUB-TOTAL 415.3 kVA
NEW "CONNECTED" LOAD BEING ADDED	588.3 kVA
H.V.A.C. x 125% 588	.3 kVA
	SUB-TOTAL
FUTURE CLASSROOM BUILDING	150 kVA TOTAL 1154 kVA
AT 480/277V 3ph 4W	1388 AMPS
THEREFORE, THE EXISTING/NEW 1600 AMP MAIN	SWITCHBOARD IS SUFFICIENT.



BLDG.B BLDG.C BLDG.D BLDG.E

"PANELL&M" "PANELG&H" "PANELB&C" "PANELN&O" "PANELJ&K" "PANELF" "PANELHDE"

BLDG. F

NOTES (THIS SHEET ONLY):

1 EXISTING P.G. &E. POWER POLE. VERIFY EXACT LOCATION AND RISER QUADRANT WITH P.G. &E PRIOR TO ROUGH-IN.

PROVIDE A 106" x 90" CONCRETE PAD (STYLE IIE) AND GROUNDING FOR P.G. LE. PAD MOUNTED TRANSFORMER PER P.G. LE. REQUIREMENTS.

3 PROVIDE LANDING LUGS PER P.G. LE. REQUIREMENTS.

4 PROVIDE METERING FACILITIES PER P.G. LE. REQUIREMENTS.

MAIN CIRCUIT BREAKER SHALL BE 100% RATED ELECTRONIC TYPE, EQUIPPED WITH LONG-TIME, SHORT-TIME, INSTANTANEOUS-OFF TYPE AND GROUND FAULT TYPE CONFIGURATIONS. MAIN CIRCUIT BREAKER SHALL ALSO BE EQUIPPED WITH A TRIP INDICATOR AND LOCAL CURRENT METER. SQUARE D #RK SERIES OR EQUAL.

6 1 #3/0 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #15/E5.00.

7 PROVIDE WITH SPACE AND MOUNTING HARDWARE FOR MINIMUM (4) 400A FRAMES.

8 — EP — DENOTES EXISTING FEEDER AND/OR 'SPARE' CONDUIT(S) SHALL REMAIN, UNLESS OTHERWISE NOTED.

9 COORDINATE WITH P.G. &E. TO REMOVE METER SOCKET AND PROVIDE BLANK METER SOCKET COVER.

(10) RETURN UTILITY METER EQUIPMENT TO UTILITY COMPANY AND PROVIDE CONNECTION TO POWER DISTRIBUTION BOARDS.

1 #2 TO GROUNDING ELECTRODE SYSTEM PER DETAIL #16/E5.00.

(2) 3" CONDUITS FOR FUTURE USE.

NEW FEEDER SCHEDULE: (ALL UNDERGROUND CONDUCTORS, OF A 480/277V POWER SYSTEM, SHALL BE TYPE CU-XHHW-2. ALL OTHER CONDUCTORS, INCLUDING THE EQUIPMENT GROUNDING CONDUCTOR, SHALL BE CU-THWN-2 FOR #8 AWG OR LARGER AND CU-THWN FOR #10 AWG OR SMALLER).

(150GN) 11/2"C - 4 #1 + 1 #6 GND. 200GN 21/2°C - 4 #4/0 + 1 #4 GND.

300GN 3"C - 4 #350 kcmil + 1 #2 GND.

 $\langle 400G \rangle$ 3°C - 3 #500 + 1 #1/0 GND. (2) 3"C - 4 #3/O + 1 #2 GND EACH. (600GN) (2) 3 1/2"C - 4 #350kcmil + 1 #1 GND EACH.

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WAYSIDE ELEMENTARY SCHOOL 1000 MING AVENUE

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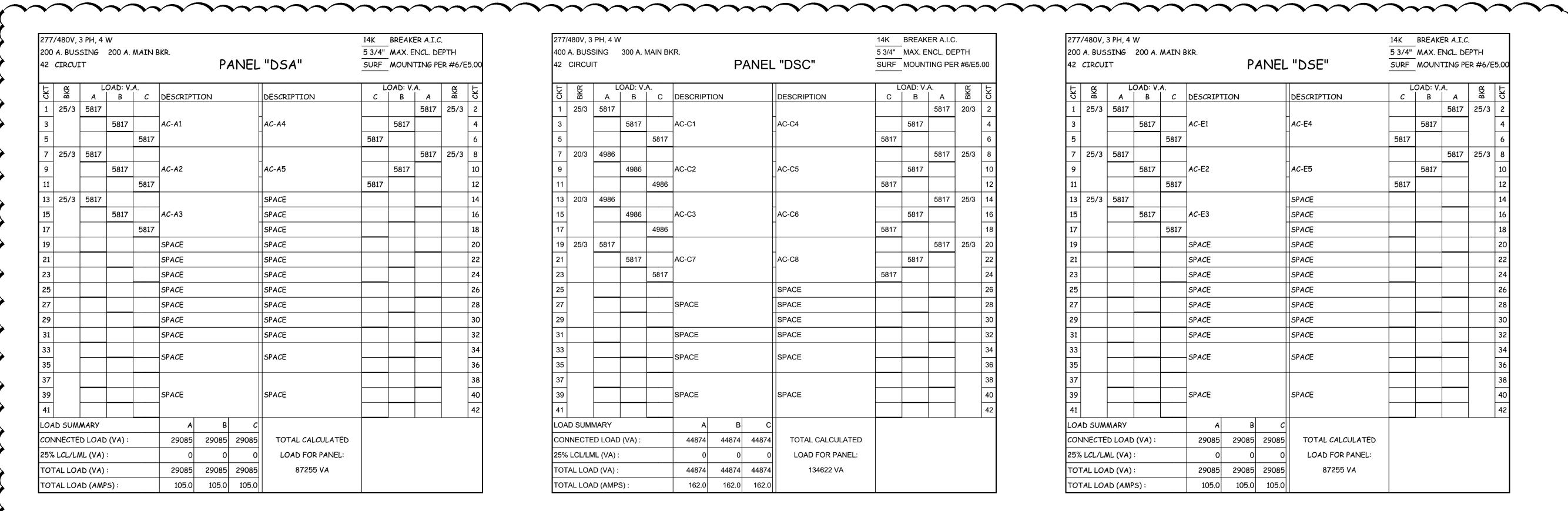
EXHIBIT-1 ALTERNATE BID # 1

ONE LINE

DIAGRAM

ONE LINE DIAGRAM

CENTRAL PLANT REPLACEMENT



		PH, 4 W			(D				14K	_	ER A.I.C		
	A. BUSS CIRCUI		300 A. I	MAIN BI	KR.	D	Λ NI⊏I	_ "DSC"	5 3/4" SURF				
+2	CIRCUI	'				Γ.	AINEL	_ D3C	JUNE	- IVIOON	IING FE	N #0/E3	.00
CKT	LOAD: V.A.								1	OAD: V.		BKR	Į.
1	 25/3	A 5817	В	С	DESCRIPT	ION		DESCRIPTION	С	В	A 5817	20/3	2
3	23/3	3017	5817		_ AC-C1			AC-C4		5817	5817	20/3	4
5			3017	5817	-			-	5817	3017			6
7	20/3	4986		3017					3617		5817	25/3	8
9	20/3	4300	4986		AC-C2			AC-C5		5817	3017	25/5	10
11			+300	4986				-/10-00	5817	3017			12
13	20/3	4986		4000					3017		5817	25/3	14
15	20/0	4000	4986		AC-C3			AC-C6		5817	0017	20/0	10
17			4000	4986	-			H	5817	0017			18
19	25/3	5817		1000					0017		5817	25/3	20
21	20/0	0017	5817		AC-C7			_ AC-C8		5817	0017	20/0	2:
23				5817		H		-	5817	-			24
25								SPACE					26
27					SPACE			SPACE					28
29					_			SPACE					30
31					SPACE			SPACE					32
33													34
35					SPACE			SPACE					30
37													38
39					SPACE			SPACE					40
41													42
LOA	D SUMI	MARY			А	В	С			_	l	I	
CON	CONNECTED LOAD (VA):				44874	44874	44874	TOTAL CALCULATED					
25%	LCL/LM	1L (VA) :		ı	0	0	0	LOAD FOR PANEL:					
тот	AL LOA	D (VA) :			44874	44874	44874	134622 VA					
тот	AL LOA	D (AMPS	3):	1	162.0	162.0	162.0						

42	CIRCUI	T				P	ANEL	. "DSE"	SURF	MOUN'	TING PE	R #6/E	5.0
CKT	BKR	L(OAD: V.	A. <i>C</i>	DESCRIPT	ION		DESCRIPTION	C	OAD: V.	A. A	BKR	CKT
1	25/3	5817									5817	25/3	2
3			5817		AC-E1			AC-E4		5817			4
5				5817	1			-	5817				6
7	25/3	5817									5817	25/3	8
9			5817		AC-E2			AC-E5		5817			10
11				5817					5817				12
13	25/3	5817						SPACE					14
15			5817		AC-E3			SPACE					16
17				5817				SPACE					18
19					SPACE			SPACE					20
21					SPACE			SPACE					2
23					SPACE			SPACE					2
25					SPACE			SPACE					2
27					SPACE			SPACE					2
29					SPACE			SPACE					3
31					SPACE			SPACE					3
33					SPACE			SPACE					34
35					017102			017102					30
37													3
39					SPACE			SPACE					4
41													4
	D SUM				Α	В	С						
CON	NECTE	D LOAD	(VA):		29085	29085	29085	TOTAL CALCULATED					
25%	LCL/LA	ΛL (VA)	:		0	0	0	LOAD FOR PANEL:					
ТОТ	TAL LOA	ND (VA)	:		29085	29085	29085	87255 VA					
TO	TAL LOA	ND (AMP	S):		105.0	105.0	105.0						

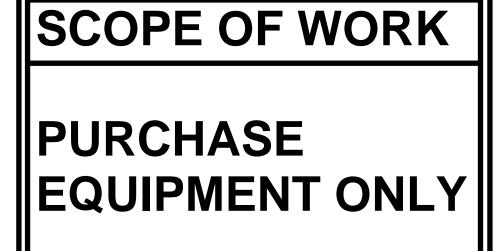
14K BREAKER A.I.C.

277/480V, 3 PH, 4 W

	/480V,		W 200 A.	44 ATN 1	מעט				14K	_	ER A.I.C					
	CIRCUI		200 A.	WATINE	okk.	P	ANEL	. "DSB"	5 3/4" MAX. ENCL. DEPTH SURF MOUNTING PER #6/E5							
		1	045.1/	4	1			- I		040:1/	A		Ι.			
СКТ	BKR	A	OAD: V B	A. <u>C</u>	DESCRIPT	ION		DESCRIPTION	C	OAD: V. B	A. A	BKR	CKT			
1	25/3	5817									5817	25/3	2			
3			5817		AC-B1			AC-B4		5817			4			
5				5817					5817				6			
7	25/3	5817									5817	25/3	8			
9			5817		AC-B2			AC-B5		5817			10			
11				5817					5817				1			
13	25/3	5817						SPACE					14			
15			5817		AC-B3			SPACE					1			
17				5817			•	SPACE					1			
19					SPACE			SPACE					2			
21				,	SPACE			SPACE					2			
23					SPACE			SPACE					2			
25					SPACE			SPACE					2			
27					SPACE			SPACE					2			
29				,	SPACE			SPACE					3			
31					SPACE			SPACE					3			
33					CDACE			CDACE					3			
35				,	SPACE		SPACE						3			
37													3			
39				,	SPACE			SPACE					4			
41]								4			
LOA	D SUM	MARY	•		Α	В	С				•	•				
CON	NECTE	D LOAD	(VA):		29085 29085 29085			TOTAL CALCULATED								
25%	LCL/LA	AL (VA)	:	,	0	0	0	LOAD FOR PANEL:								
TOT	TAL LOA	D (VA)	:		29085	29085	29085	87255 VA								
TOT	TAL LOA	D (AMP	'S) :		105.0	105.0	105.0									

		3 PH, 4 ' STNG	W 200 A.	MATNI	SKD				14K 5 3/4"	-	ER A.I.C :NCL. DE	
	CIRCUI		200 71.	77(7(2)	ZKIN.	P	ANEL	"DSD"		-	TING PE	
CKT	BKR		OAD: V.							OAD: V.	1	BKR.
		A 5017	В	С	DESCRIPT	ION		DESCRIPTION	С	В	A = 0.1.7	25/
1	25/3	5817	F017	,	AC-D1					F017	5817	25,
3			5817	E017	AC-DI			- AC-D4 -	F017	5817		
5	05./0	5047		5817					5817		E047	0.5
7	25/3	5817					ŀ				5817	25
9			5817		AC-D2			AC-D5		5817		
11				5817					5817			
13	25/3	5817			_			_			5817	25,
15			5817		AC-D3			AC-D6		5817		
17				5817					5817			
19					SPACE			SPACE				
21					SPACE			SPACE				
23					SPACE			SPACE				
25					SPACE			SPACE				
27					SPACE			SPACE				
29					SPACE			SPACE				
31					SPACE			SPACE				
33					CD 4 CF			CD 4 dE				
35					SPACE			SPACE				
37												
39					SPACE			SPACE				
41					1							
LOA	D SUM	MARY	1		Α	В	С			d	1	<u> </u>
CON	INECTE	D LOAD	(VA):	,	34902	34902	34902	TOTAL CALCULATED				
25%	LCL/LA	ΛL (VA)	:	,	0	0	0	LOAD FOR PANEL:				
TOT	AL LOA	ND (VA)	:	1	34902	34902	34902	104706 VA				
37 39					126.0	126.0	126.0					

		3 PH, 4 ' SING		MAIN E	3KR.				14K 5 3/4"	BREAK MAX. E	ER A.I.C INCL. DE		
	CIRCUI					P	ANEL	. "DSF"		MOUN.			5.00
CKT	BKR	L(OAD: V. B		DESCRIPT	TON		DESCRIPTION	C	OAD: V.	A. A	BKR	CKT
1	30/3	6925			525511211						6925	30/3	2
3			6925		AC-F1			AC-F4		6925			4
5				6925	-		-	-	6925				6
7	30/3	6925		·							6925	30/3	8
9			6925		AC-F2			AC-F5		6925			10
11				6925	1				6925				12
13	30/3	6925		·				SPACE					14
15			6925	,	AC-F3			SPACE					16
17				6925				SPACE					18
19					SPACE			SPACE					20
21					SPACE	SPACE		SPACE					22
23					SPACE			SPACE					24
25					SPACE			SPACE					26
27					SPACE			SPACE					28
29					SPACE			SPACE					30
31					SPACE			SPACE					32
33					SPACE			SPACE					34
35					13.7.32								36
37													38
39					SPACE			SPACE					40
41													42
LOA	ND SUM	MARY		,	Α	В	С						
CON	NECTE	D LOAD	(VA):		34625	34625	34625	TOTAL CALCULATED					
25%	LCL/LA	ΛL (VA)	:		0	0	0	LOAD FOR PANEL:					
TOT	TAL LOA	ND (VA)	:		34625	34625	34625	103875 VA					
TOT	TAL LOA	AD (AMP	'S) :		125.0	125.0	125.0						



EB



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CENTRAL PLANT REPLACEMENT

Project Name:

WAYSIDE ELEMENTARY SCHOOL 1000 MING AVENUE BAKERSFIELD, CA 93307

integrated designs

> by SOMAM, Inc. ARCHITECTURE

ENGINEERING INTERIOR DESIGN 6011 N. FRESNO STREET, SUITE 130

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PANEL SCHEDULES

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