

PANEL 'ELS-DP'											
VOLTAGE, PHASE, WIRE AND AIC RATING:		277/480V, 3 PHASE, 4 WIRE, 35k AIC									
MOUNTING:		SURFACE MOUNT									
PHASE BUSSING AND MAINS:		225A MAINS WITH MAIN LUGS ONLY									
NEUTRAL AND GROUND BAR:		NEUTRAL 100%, AND GROUND BAR									
OTHER:											
LOAD IN KVA			DESCRIPTION			TRIP			LOAD IN KVA		
A	B	C	TRIP	CKT	DESCRIPTION	TRIP	CKT	DESCRIPTION	A	B	C
0.00	---	---	20	1	SPARE	20	2	SPARE	0.00	---	---
---	0.00	---	20	3	SPARE	20	4	SPARE	---	0.00	---
---	---	0.00	20	5	SPARE	20	6	SPARE	---	---	0.00
0.00	---	---	20	7	SPARE	20	8	SPARE	0.00	---	---
---	0.00	---	20	9	SPARE	20	10	SPARE	---	0.00	---
---	---	0.00	20	11	SPARE	20	12	SPARE	---	---	0.00
0.00	---	---	---	13	SPACE	---	14	SPACE	0.00	---	---
---	0.00	---	---	15	SPACE	---	16	SPACE	---	0.00	---
---	---	0.00	---	17	SPACE	---	18	SPACE	---	---	0.00
0.00	---	---	---	19	SPACE	---	20	SPACE	0.00	---	---
---	0.00	---	---	21	SPACE	---	22	SPACE	---	0.00	---
---	---	0.00	---	23	SPACE	---	24	SPACE	---	---	0.00
0.00	---	---	---	25	SPACE	---	26	SPACE	0.00	---	---
---	0.00	---	---	27	SPACE	---	28	SPACE	---	0.00	---
---	---	0.00	---	29	SPACE	---	30	SPACE	---	---	0.00
4.8	---	---	3P-100	31	PANEL 'ELS-6H'	3P-100	32	SPACE	0.00	---	---
---	4.23	---	ET-LSI	33	NOTE #1	ET-LSI	34	SPACE	---	0.00	---
---	---	2.91	---	35	SPACE	---	36	SPACE	---	---	0.00
0.00	---	---	---	37	SPACE	---	38	SPACE	0.00	---	---
---	0.00	---	---	39	SPACE	---	40	SPACE	---	0.00	---
---	---	0.00	---	41	SPACE	---	42	SPACE	---	---	0.00
NOTES											
#1 - PROVIDE 'MISSION CRITICAL' TYPE BREAKER PER SPEC SECTION 26 2416.											
TOTAL CONNECTED LOAD											
PHASE			A	B	C						
KVA PER PHASE			4.8	4.2	2.9						
AMPS PER PHASE			17	15	11						
TOTAL CONNECTED KVA			11.9								
DEMAND KVA / AMPS			14.9	7	18						
FEEDER AMPERAGE			225								

PANEL 'ELS-6H'											
VOLTAGE, PHASE, WIRE AND AIC RATING:		277/480V, 3 PHASE, 4 WIRE, 35k AIC									
MOUNTING:		SURFACE MOUNT									
PHASE BUSSING AND MAINS:		225A MAINS WITH MAIN LUGS ONLY									
NEUTRAL AND GROUND BAR:		NEUTRAL 100%, AND GROUND BAR									
OTHER:											
LOAD IN KVA			DESCRIPTION			TRIP			LOAD IN KVA		
A	B	C	TRIP	CKT	DESCRIPTION	TRIP	CKT	DESCRIPTION	A	B	C
1.85	---	---	20	1	LIGHTS-4TH FL	20	2	SPARE	0.00	---	---
---	0.53	---	20	3	LIGHTS-4TH FL	20	4	SPARE	---	0.00	---
---	---	1.85	20	5	LIGHTS-5TH FL	20	6	SPARE	---	---	0.00
0.53	---	---	20	7	LIGHTS-5TH FL	20	8	SPARE	0.00	---	---
---	1.85	---	20	9	LIGHTS-6TH FL	20	10	SPARE	---	0.00	---
---	---	0.53	20	11	LIGHTS-6TH FL	20	12	SPARE	---	---	0.00
0.53	---	---	20	13	LIGHTS-7TH FL	20	14	SPACE	0.00	---	---
---	1.85	---	20	15	LIGHTS-7TH FL	20	16	SPACE	---	0.00	---
---	---	0.53	20	17	LIGHTS-8TH FL	20	18	SPACE	---	---	0.00
1.85	---	---	20	19	LIGHTS-8TH FL	20	20	SPACE	0.00	---	---
---	0.00	---	20	21	SPACE	20	22	SPACE	---	0.00	---
---	---	0.00	20	23	SPACE	20	24	SPACE	---	---	0.00
0.00	---	---	20	25	SPACE	20	26	SPACE	0.00	---	---
---	0.00	---	20	27	SPACE	20	28	SPACE	---	0.00	---
---	---	0.00	20	29	SPACE	20	30	SPACE	---	---	0.00
0.00	---	---	20	31	SPACE	20	32	SPACE	0.00	---	---
---	0.00	---	20	33	SPACE	20	34	SPACE	---	0.00	---
---	---	0.00	20	35	SPACE	20	36	SPACE	---	---	0.00
0.00	---	---	20	37	SPACE	20	38	SPACE	0.00	---	---
---	0.00	---	20	39	SPACE	20	40	SPACE	---	0.00	---
---	---	0.00	20	41	SPACE	20	42	SPACE	---	---	0.00
NOTES											
TOTAL CONNECTED LOAD											
PHASE			A	B	C						
KVA PER PHASE			4.8	4.2	2.9						
AMPS PER PHASE			17	15	11						
TOTAL CONNECTED KVA			11.9								
DEMAND KVA / AMPS			14.9	7	18						
FEEDER AMPERAGE			100								

DRAWING NOTES

1- ALL FEEDER CIRCUITRY AND CONTROL WIRING SHOWN IN THE EMERGENCY SYSTEM RISERS SHALL HAVE FIRE PROTECTION ON THE CONDUIT WITH A MINIMUM FIRE RATING OF 2 HOURS. PROVIDE A UL 'XCLF', SYSTEM 'TB-B' ON ALL FEEDER CIRCUITRY CONDUIT OR AN APPROVED EQUAL SYSTEM TO PROVIDE MINIMUM 2 HOUR FIRE PROTECTION FOR THE ENTIRE LENGTH OF CONDUIT. THE CONTRACTOR SHALL ENSURE THAT THE CONDUIT IS INSTALLED IN A MANNER, AND SPACED ACCORDINGLY FROM OTHER EQUIPMENT, MATERIALS AND CONSTRUCTION, WHICH WILL ALLOW THE INSTALLATION OF THIS FIRE PROTECTION BARRIER. SEE UL DETAIL ON G302.

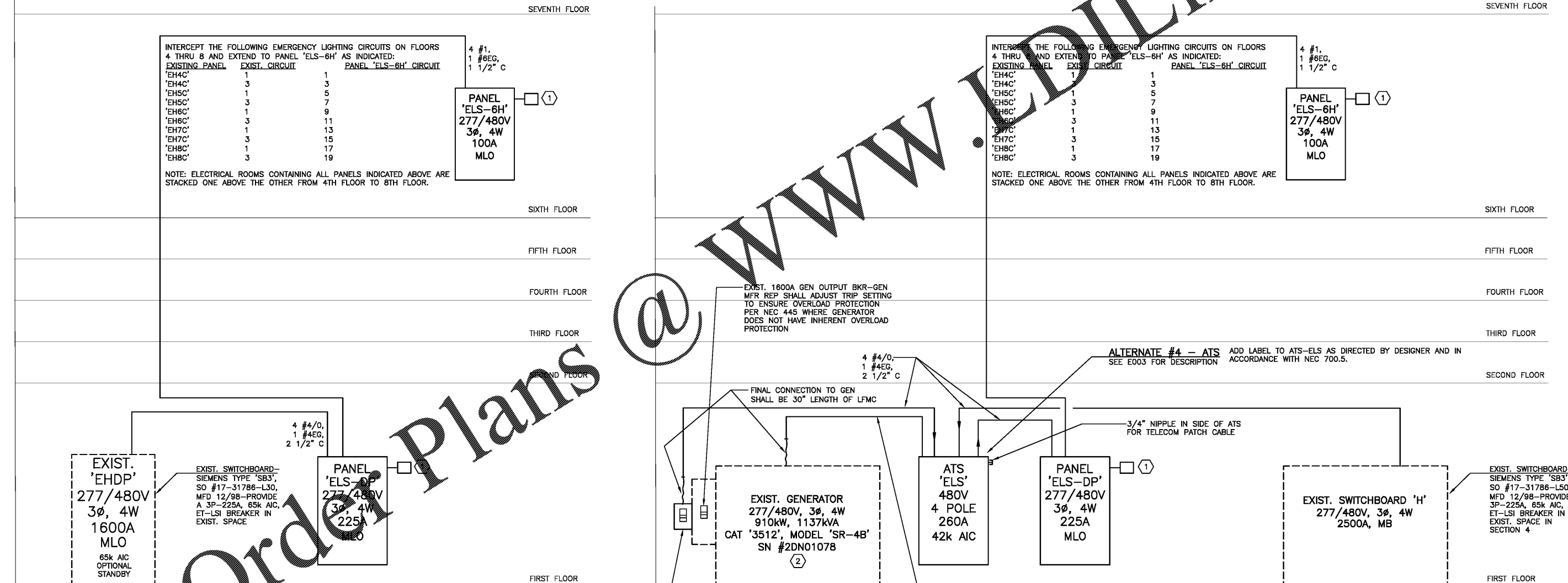
2- INSTALL FEEDER RISERS IN THE EXISTING SHAFT CHASE.

3- SELECTIVE COORDINATION OF THE EMERGENCY DISTRIBUTION SYSTEM SHALL BE COMPLETED IN ACCORDANCE WITH SPECIFICATION SECTION 26000. SELECTIVE COORDINATION STUDY AND RECOMMENDED BREAKER SETTINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.

ALTERNATE #3 - EMERGENCY POWER SYSTEM

BASE BID: PROVIDE PANELS 'ELS-DP' AND 'ELS-6H'. PROVIDE FEEDERS AS INDICATED WITH PANEL 'ELS-DP' SERVED FROM EXISTING SWITCHBOARD 'EHDP'.

ALTERNATE: PROVIDE PANELS 'ELS-DP' AND 'ELS-6H'. PROVIDE ATS 'ELS'. PROVIDE FEEDERS AS INDICATED WITH PANEL 'ELS-DP' SERVED FROM ATS 'ELS'. ATS 'ELS' SHALL BE SERVED FROM BKRS 'ELS' ON GENERATOR AND EXIST. SWITCHBOARD 'H' AS INDICATED.



KEY NOTES

1 'SPD'-277/480V, 3Ø, 4W, 80kA PER MODE-CURRENT TECHNOLOGY 'CG-080-277/480-3GY-DTS' OR APPROVED EQUAL BY LIEBERT OR T&B

2 FOR ALL WORK ASSOCIATED WITH ALTERATION/MODIFICATION OF THE EXISTING GENERATOR TO ADD SEPARATELY ENCLOSED CIRCUIT BREAKER ELS REQUIRE A THIRD-PARTY NATIONALLY RECOGNIZED TESTING LABORATORY TO FIELD EVALUATE AND CERTIFY TO APPLICABLE STANDARDS AND CODES (NEC ART 110.3(C)). THE THIRD PARTY NRTL AGENCY SHALL BE AMONGST THOSE ACCREDITED BY THE NCBC (NORTH CAROLINA BUILDING CODE COUNCIL) TO LABEL ELECTRICAL & MECHANICAL EQUIPMENT.

ALTERNATE #3 - BASE BID

1 ELECTRICAL RISER - EMERGENCY SYSTEM

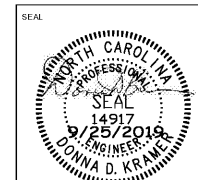
E304 NOT TO SCALE

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ALTERNATE #3 - ALTERNATE



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ISSUE DATE: 9/25/2019
JOB NO: 10761-00
DWG NO: E304

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SCALE (IN): NOT TO SCALE

REVISION: 10/18/19 PER SCO COMMENTS

BID SET