

PANEL SCHEDULE
120/208V, 3 PHASE, 4-WIRE, 400 AMP MAIN C.B.

PANEL 'MDP'

LOAD SERVED	C.B.			AMPS / PHASE			C.B.	LOAD SERVED
	TRIP	POLE	POLE	A	B	C		
AH-1	45	2	35.7	1	2	18.2	35	HP-1
AH-2	45	2	35.7	3	4	18.2	-	-
AH-3	45	2	35.7	7	8	18.2	35	HP-2
SPARE	20	1	-	9	10	18.2	-	HP-3
SPARE	20	1	-	13	14	18.2	35	-
DSSH-1/CU-1	20	1	-	15	16	18.2	-	-
SPARE	20	1	-	12.8	17	18.2	20	TANK WATER HEATER
SPARE	20	1	-	19	20	14.4	-	-
SPARE	20	1	-	21	22	14.4	-	-
SPARE	20	1	-	23	24	-	20	-
SPARE	20	1	-	25	26	39.1	100	PANEL - LA
SPARE	20	1	-	27	28	50.4	-	-
SPACE	20	1	-	29	30	42.5	-	-
SPACE	-	-	-	31	32	34.5	100	PANEL - LB
SPACE	-	-	-	33	34	27.0	-	-
SPACE	-	-	-	35	36	24.0	-	-
SPACE	-	-	-	37	38	0.1	30	TVSS
SPACE	-	-	-	39	40	0.1	-	-
SPACE	-	-	-	41	42	0.1	-	-

NOTES:
1. BASED ON SQUARE D TYPE NQOD
2. USE HACR-TYPE CIRCUIT BREAKERS FOR HVAC EQUIPMENT
3. SEE SHORT CIRCUIT CALCULATION FOR FAULT CURRENT RATING DISCLAIMER.

TOTAL CONNECTED LOAD: 75.9 KVA @ 208V, 3-Ø = 210.9 AMPS

CONNECTED AMPS: A 211.7, B 215.5, C 205.4

PANEL SCHEDULE
120/208V, 3 PHASE, 4-WIRE, 100 AMP MAIN LUGS

PANEL 'LA'

LOAD SERVED	C.B.			AMPS / PHASE			C.B.	LOAD SERVED
	TRIP	POLE	POLE	A	B	C		
LGT - STACKS/SEATING AREA	20	1	7.0	1	2	3.8	20	LGT - CIRC. DESK
LGT - STACKS/SEATING AREA	20	1	7.0	3	4	3.8	20	LGT - MEETING RM (TABLE)
LGT - STACKS/SEATING AREA	20	1	7.0	5	6	7.5	20	LGT - MEETING RM (PERIMETER)
LGT - EXTERIOR BUILDING	20	1	10.0	7	8	4.8	20	LGT - STACKS/SEATING AREA
LGT - CIRC DESK, OFFICE, LOUNGE, ECT	20	1	13.0	9	10	8.1	20	LGT - MEN'S TOILET
LGT - LOBBY, MEETING RM	20	1	9.4	11	12	8.1	20	LGT - WOMEN'S TOILET
TIME CLOCK	20	1	3.0	13	14	1.5	20	RCPT - LOUNGE (COUNTER)
RCPT - EXTERIOR & MECH RM	20	1	3.0	15	16	1.5	20	RCPT - LOUNGE (COUNTER)
RCPT - LIB STORAGE & LOUNGE	20	1	4.5	17	18	3.0	20	RCPT - EXTERIOR ENTRANCE
RCPT - WOMEN & UNISEX TOILETS	20	1	3.0	19	20	6.0	20	RCPT - JAN CLST & MEETING (COUNTER)
RCPT - WATER COOLER	20	1	6.0	21	22	8.0	20	RCPT - LOUNGE (I/C REFRIG)
RCPT - MEN & UNISEX TOILETS	20	1	3.0	23	24	-	20	SPARE
SPARE	20	1	-	25	26	-	20	SPARE
SPARE	20	1	-	27	28	-	20	SPARE
SPARE	20	1	-	29	30	-	20	SPARE

NOTES:
1. BASED ON SQUARE D TYPE NQOD
2. USE HACR-TYPE CIRCUIT BREAKERS FOR HVAC EQUIPMENT
3. SEE SHORT CIRCUIT CALCULATION FOR FAULT CURRENT RATING DISCLAIMER.

TOTAL CONNECTED LOAD: 15.8 KVA @ 208V, 3-Ø = 44.0 AMPS

CONNECTED AMPS: A 39.1, B 50.4, C 42.5

PANEL SCHEDULE
120/208V, 3 PHASE, 4-WIRE, 100 AMP MAIN LUGS

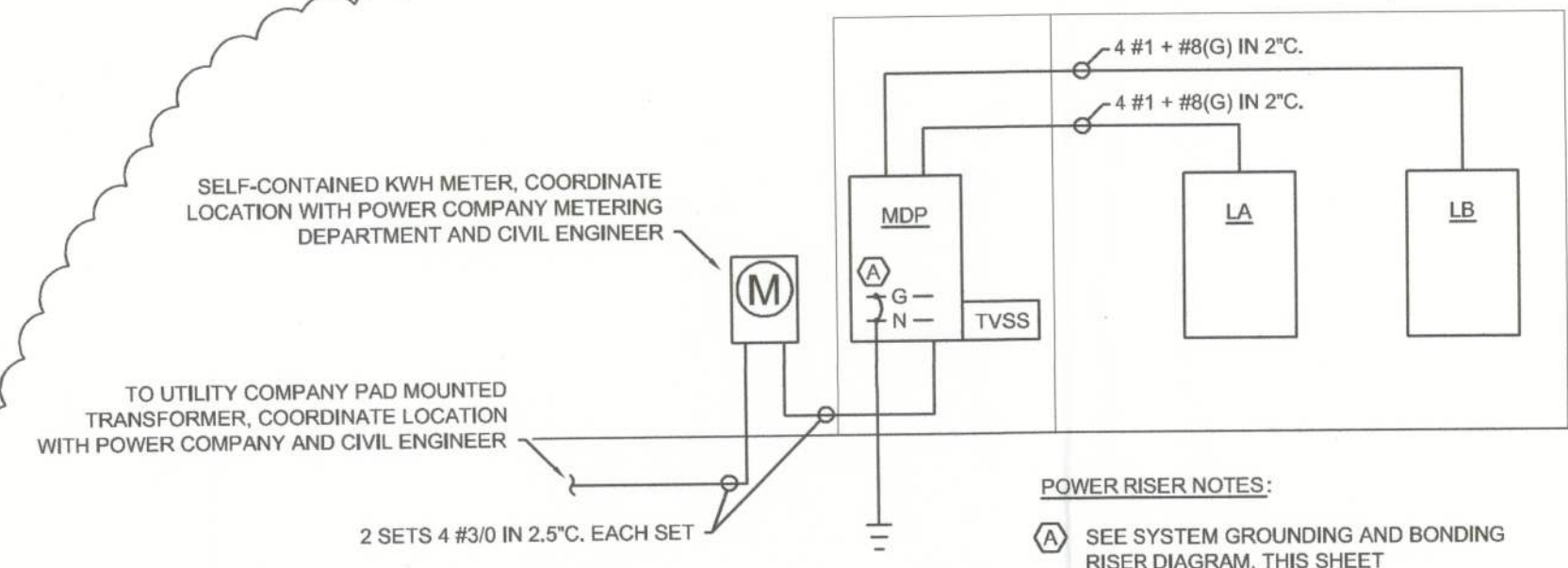
PANEL 'LB'

LOAD SERVED	C.B.			AMPS / PHASE			C.B.	LOAD SERVED
	TRIP	POLE	POLE	A	B	C		
RCPT - TELECOMM BACKBD.	20	1	6.0	1	2	7.5	20	RCPT - CIRC. DESK
RCPT - TELECOMM BACKBD.	20	1	6.0	3	4	7.5	20	RCPT - OFFICE
RCPT - TUTOR RM	20	1	6.0	5	6	7.5	20	RCPT - WORK RM
RCPT - RM 101 (MINI - CAFE)	20	1	4.5	7	8	3.0	20	RCPT - RM 101 - COMPUTER FLOOR
RCPT - RM 101 FLOOR OUTLETS - SEATING	20	1	3.0	9	10	3.0	20	RCPT - RM 101 - COMPUTER FLOOR
RCPT - RM 101 - COMPUTER AREA	20	1	4.5	11	12	3.0	20	RCPT - RM 101 - CHILDRENS FLOOR
RCPT - RM 101 - COMPUTER FLOOR	20	1	3.0	13	14	3.0	20	RCPT - MEETING RM
RCPT - RM 101 - COMPUTER FLOOR	20	1	3.0	15	16	3.0	20	RCPT - MEETING (FLOOR)
RCPT - RM 101 - COMPUTER FLOOR	20	1	3.0	17	18	3.0	20	RCPT - MEETING (FLOOR)
RCPT - MEETING RM	20	1	6.0	19	20	6.0	20	RCPT-TELECOMM BACKBD.
RCPT - SECURITY TURNSTILES	20	1	3.0	21	22	-	20	SPARE
SPARE	20	1	-	23	24	-	20	SPARE
SPARE	20	1	-	25	26	-	20	SPARE
SPARE	20	1	-	27	28	-	20	SPARE
SPARE	20	1	-	29	30	-	20	SPARE

NOTES:
1. BASED ON SQUARE D TYPE NQOD
2. USE HACR-TYPE CIRCUIT BREAKERS FOR HVAC EQUIPMENT
3. SEE SHORT CIRCUIT CALCULATION FOR FAULT CURRENT RATING DISCLAIMER.

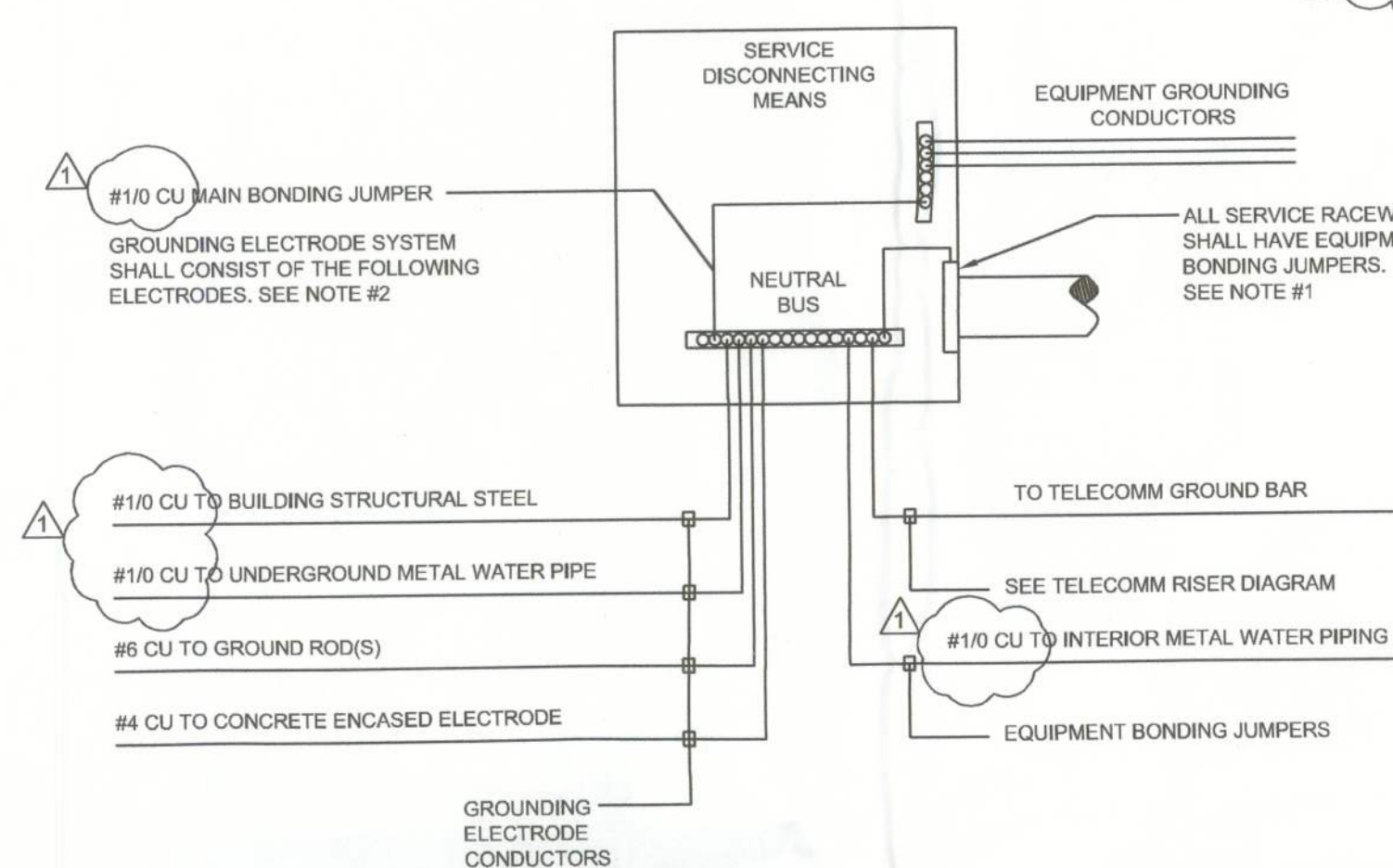
TOTAL CONNECTED LOAD: 11.5 KVA @ 208V, 3-Ø = 32.0 AMPS

CONNECTED AMPS: A 40.5, B 28.5, C 27.0



POWER RISER DIAGRAM

SCALE: NTS



SYSTEM GROUNDING & BONDING RISER DIAGRAM NOTES:

- ALL FERROUS METALLIC CONDUITS, GUTTERS, ETC. CONTAINING SERVICE CONDUCTORS SHALL BE EFFECTIVELY BONDED TOGETHER PER NEC 250.92. STANDARD LOCKNUTS OR BUSHINGS SHALL NOT BE THE SOLE MEANS FOR BONDING.
- ALL FERROUS METALLIC CONDUITS CONTAINING GROUNDING ELECTRODE CONDUCTORS SHALL BE BONDED TO THE ELECTRODE CONDUCTOR AT BOTH ENDS.
- GROUNDING ELECTRODES MAY BE INTERCONNECTED AS PERMITTED BY THE NEC ARTICLE 250, GROUNDING ELECTRODE CONDUCTORS DO NOT HAVE TO BE HOMERUN TO THE SERVICE ENTRANCE GROUNDING BUS.
- ALL ASPECTS OF THE GROUNDING AND BONDING SYSTEM SHALL COMPLY WITH NEC ARTICLES 250, 800, 810, 820, AND 830. THIS INCLUDES BUT NOT LIMITED TO CONDUCTOR SIZING, METHODS OF ATTACHMENT AND INSTALLATION REQUIREMENTS.

SYSTEM GROUNDING & BONDING RISER DIAGRAM

SCALE: NTS

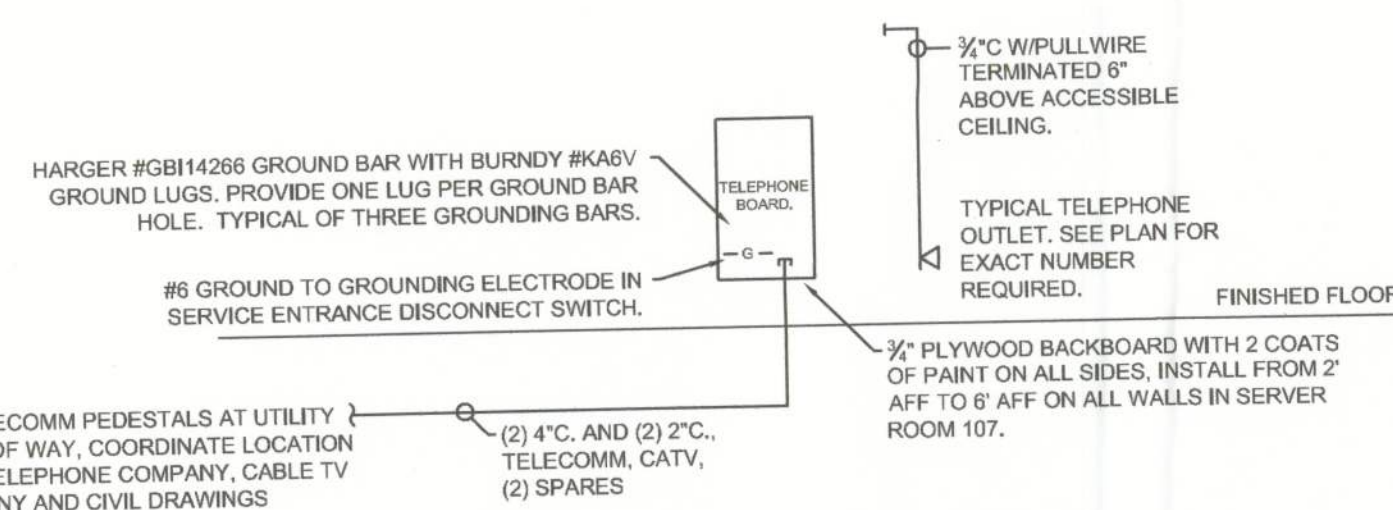
SHORT CIRCUIT CALCULATION

SHORT CIRCUIT CALCULATIONS ARE BASED ON A 125KVA OIL FILLED TRANSFORMER WITH A 1.4% IMPEDANCE AND AN INSIGNIFICANT MOTOR LOAD. THE MAXIMUM SHORT CIRCUIT AVAILABLE FROM THE PRIMARY WAS CONSIDERED TO BE UNLIMITED. ASSUME SECONDARY CONDUCTOR LENGTH FROM TRANSFORMER TAPS TO MAIN CIRCUIT BREAKER TO BE MINIMUM 50'. IF ANY VALUES ARE DIFFERENT THAN ASSUMED CONSULT WITH ENGINEER FOR GEAR FAULT CURRENT RATING.

$$SC \text{ TRANSFORMER} = \frac{125,000 \text{ VA}}{208V \times 1.732 \times 0.014} = 24,782 \text{ A}$$

SERVICE LOAD CALCULATION

CLASSIFICATION	Business (5065 Sq.Ft.)		
LOAD:	CONNECTED (VA)	FACTOR	DEMAND (VA)
Lighting:	15,740	100%	15,740
Devices:	16,620	10+50%	13,310
HVAC:	43,469	100%	43,469
Misc.:	3,000	0.85	2,550
Total:	75,069 VA = 14.8 VA / Sq. Ft.		
Demand Amps: (208 volt, 3 phase)	208 A		
Future Buildout 3,000 Sq. Ft. @ 14.8VA / Sq. Ft.:	44,400 VA		
Future Demand Amps: (208 volt, 3 phase)	123 A		
Total Demand Amps: (208 volt, 3 phase)	331 A		
Min. Service Size:	400 A, 3Ø		



TELECOMM RISER DIAGRAM

SCALE: NTS

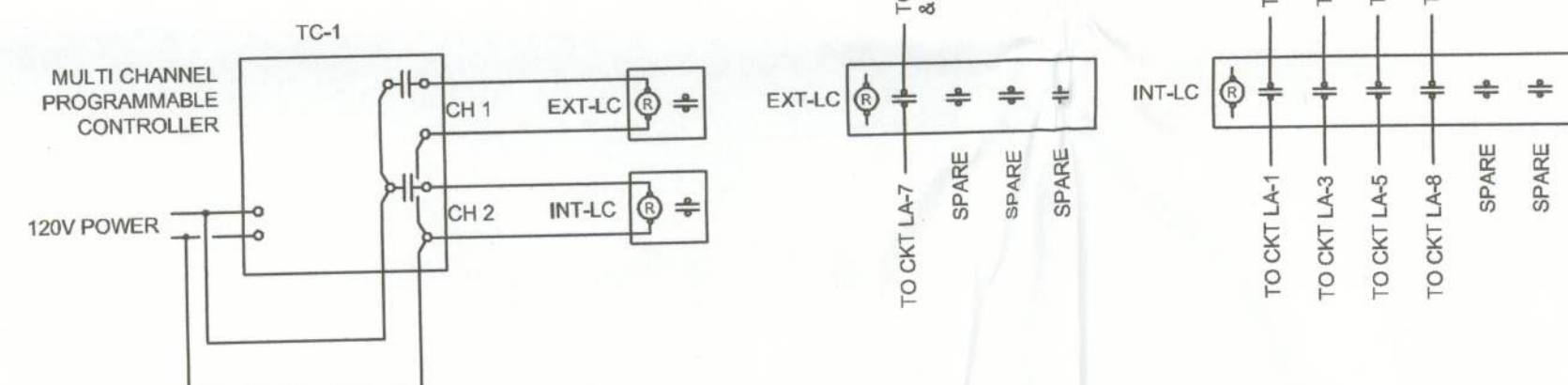
TELECOMM EQUIPMENT

THE FOLLOWING EQUIPMENT, DEVICES, CABLES, ETC. ARE TO BE PROVIDED AND INSTALLED AS PART OF THE BASE BID PRICE. TERMINATIONS AT THE TELECOMM RACK IN THE SERVER ROOM SHALL BE BY OTHERS.

- INSTALL (4) CAT5e CABLES AT ALL TELECOMM OUTLET LOCATIONS. TWO SHALL BE TERMINATED WITH TWO LEFT AS SPARES. CABLES SHALL BE CLEARLY TAGGED AND LABELED AT BOTH ENDS.
- WALL MOUNTED DEVICES SHALL UTILIZE DOUBLE GANG PLASTER RINGS OF PROPER DEPTH TO MATCH FINISH.
- FACE PLATES SHALL BE PANDUIT 'CFPE4E1'.
- JACK MODULES SHALL BE PANDUIT 'CJ5E88TGE1'. INSTALL ON FACE PLATE AN IDENTIFYING LABEL AT EACH JACK MODULE.
- ADAPTER PLATES SHALL BE PANDUIT 'MWB4E1'.
- BLANK INSERTS SHALL BE PANDUIT 'CMBE1-K'.
- INSTALL 2" BRIDLE RINGS TO BE INSTALLED IN THE BOTTOM OF THE ROOF TRUSSES AT A MAXIMUM 48" SPACING, CADDY #BRT32WS

ANY QUESTIONS, DISCREPANCIES, ETC. SHALL BE DIRECTED TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATIONS. CONTACT ART BUTLER, COLUMBIA COUNTY FACILITIES DIRECTOR, 356-758-1024.

LIGHTING CONTROL DIAGRAM



LIGHTING CONTROL SCHEDULE

TIMECLOCK	CHANNEL	CONTACTOR	PROPOSED SCHEDULE "ON"
TC-1	1	EXT-LC	DUSK-1:00AM 7-DAY (CONSULT WITH LIBRARY PERSONNEL)
TC-1	2	INT-LC	7:00AM-9:00PM 7-DAY (CONSULT WITH LIBRARY PERSONNEL)

SPECIFICATIONS

TIME CLOCK (TC-1): ELECTRONIC WITH MANUAL OVERRIDE, 15 AMP, 120V CONTACTS, 100 HOUR BATTERY CARRY-OVER, AND 365 DAY PROGRAMMING. THE UNIT SHALL BE TWO CHANNEL WITH INTEGRAL ASTRONOMIC FUNCTION AND MOUNTED IN A NEMA 1 ENCLOSURE, INTERMATIC #ET70215CR, OR EQUIVALENT.

GENERAL PURPOSE LIGHTING CONTACTORS (EXT-LC & INT-LC): ELECTRICALLY HELD WITH 30 AMP BALLAST LIGHTING RATING, 4 POLE MINIMUM, SILVER CADMIUM OXIDE DOUBLE BREAK CONTACTS, FIELD CONVERTIBLE WITH NO AND NC INDICATION, IN NEMA 1 ENCLOSURE, SQUARE D CLASS 8903 TYPE LGxx.

LIGHTING CONTROL DETAIL

SCALE: NTS