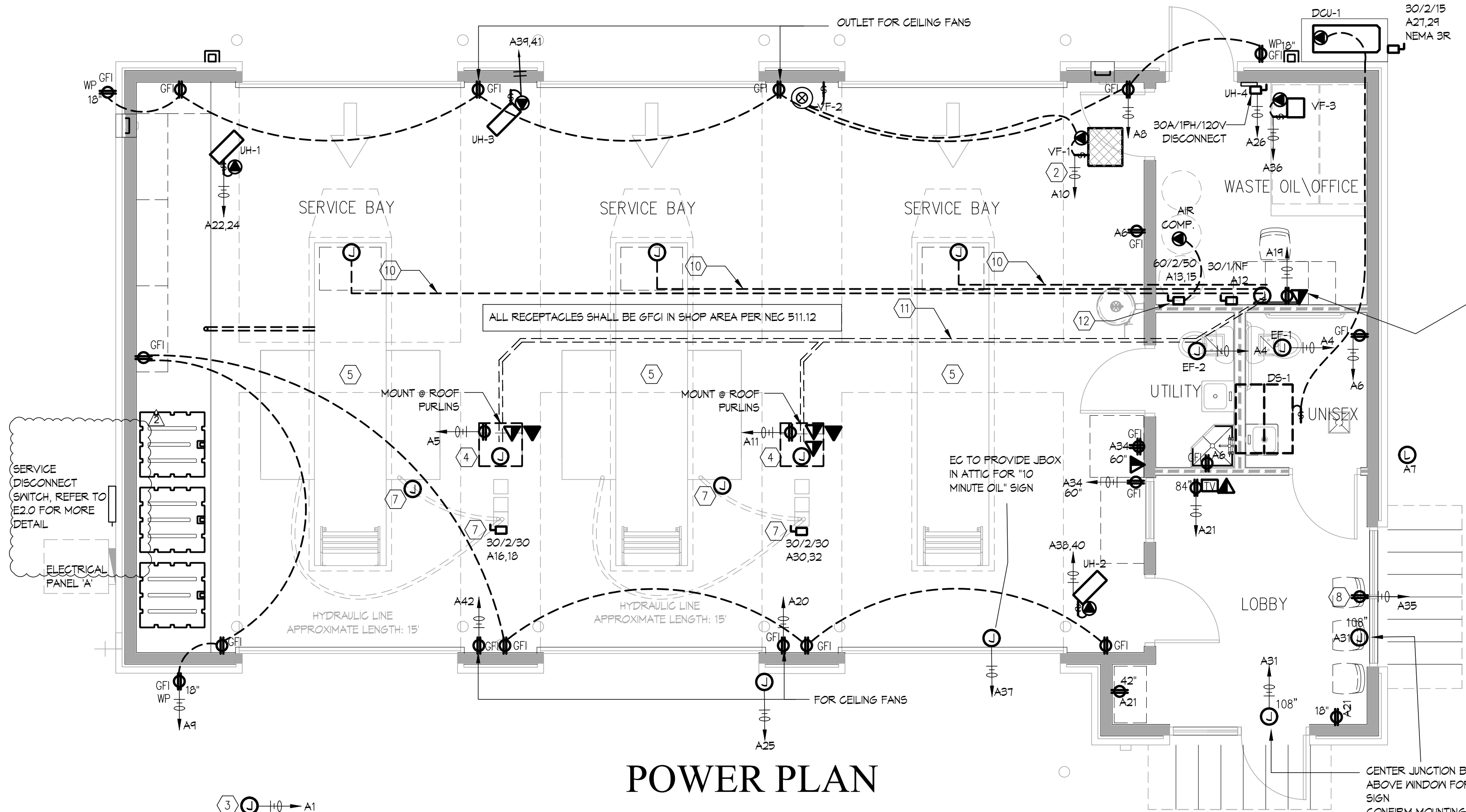


LIGHTING PLAN

1/4" = 1'0"



POWER PLAN

ELECTRICAL NOTES FOR SERVICE BAYS

BUILDING IS CONSIDERED A MINOR REPAIR GARAGE PER NEC ARTICLE 511.2 FLAMMABLE LIQUIDS HAVING A FLASH POINT BELOW 100°F SUCH AS GASOLINE, OR GASEOUS FUELS SUCH AS NATURAL GAS OR HYDROGEN, WILL NOT BE DISPENSED OR TRANSFERRED, ACCORDING TO NEC ARTICLE 511.3(D) THE FOLLOWING LOCATIONS IN THE SERVICE AREAS SHALL BE CONSIDERED CLASS 1 DIVISION 2 LOCATIONS:

1. FLOOR AREAS UP TO A LEVEL OF 18" ABOVE THE PITS & EXTENDING A DISTANCE 3' HORIZONTALLY FROM THE EDGE OF ANY PIT.
2. PIT AREAS UP TO THE FLOOR LEVEL.

NOTE: CEILING AREAS ARE UNCLASSIFIED SINCE LIGHTER THAN AIR GASES (SUCH AS NATURAL GAS & HYDROGEN) WILL NOT BE TRANSFERRED.

ALL ELECTRICAL WORK IN THESE CLASSIFIED AREAS SHALL CONFORM TO ARTICLE 511 FOR CLASS 1 DIVISION 2 LOCATIONS. PROVIDE SEALS IN CONDUIT & CABLE SYSTEMS PER ARTICLE 501 IN CLASSIFIED AREAS.

NOTE: OFFICE, WASTE OIL AND RESTROOM AREAS ARE UNCLASSIFIED SINCE WALLS ARE USED TO EFFECTIVELY CUT OFF/ SEPARATE THESE ROOMS FROM AREAS WHERE FLAMMABLE VAPORS ARE LIKELY TO BE RELEASED AND THESE AREAS ARE TYPICALLY OUTSIDE THE 3' HORIZONTAL DISTANCE FROM PIT EDGE.

NOTE:
ALL SWITCHES ARE MOUNTED AT 48" A.F.F.
UNLESS NOTED OTHERWISE

GENERAL LIGHTING LEGEND

A	LED STRIPLIGHT FIXTURE LITHONIA LIGHTING:ZLN - 48" 5000LM 40K LITHONIA LIGHTING:ZLN - 96" 10000LM 40K
B	6" RECESSED DOWN-LIGHT WHITE LITHONIA LED6
C	LITHONIA: ELM2-LED-M
EF-1/ EF-2	BATHROOM EXHAUST - 50 CFM GREENHECK - SP-B10
E	EXIT SIGN - 3.8W LITHONIA - EGB6 LED M6 WITH BATTERY BACKUP. CONFIRM MOUNTING HEIGHT ON SITE. CENTER ABOVE OPENING V.N.O.
F	OUTDOOR LED WALLPACK MET SAFETY RATED - 9.10W - 3000K MIS LIGHTING: MLS-LMNG-1-N-B-T3-C REFER TO ARCHITECTURAL DRAWINGS FOR HEIGHT
J	LED LINEAR VAPOR LIGHT FIXTURE SHATTER PROOF, LIGHTIDE LED L48-5000LM 40K
XR	LITHONIA: ELMRYN REMOTE EMERGENCY EGRESS LIGHT FIXTURE

ELECTRICAL NOTES

1. THE CONTRACTOR PROVIDE ALL ELECTRICAL WORK IN ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES, APPLICABLE REGULATIONS AND ORDINANCES.
2. ALL WORK SHALL BE DONE IN A NEAT, PROFESSIONAL MANNER, BY COMPETENT, LICENSED TRADESMEN.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR PAYING FOR ALL PERMITS AND OBTAINING ALL APPROVALS FROM THE AUTHORITY HAVING JURISDICTION.
4. CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM, AS DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS AND ANY OTHER MEANS BY THE OWNER'S REPRESENTATIVE.
5. ALL MATERIALS USED UNDER THIS CONTRACT TO BE NEW, UL LISTED AND LABELED AND IN GOOD WORKING ORDER.
6. ALL BUILDING WIRING REQUIRED FOR THIS PROJECT TO BE BASED ON SOFT DRAWN COPPER, CONDUCTIVITY OF NOT LESS THAN THAT OF 99% PURE COPPER, THIN, 600 VOLT INSULATION, #12 MINIMUM, #12 WIRE MAY BE SOLID AND COLOR CODED AS REQUIRED BY NATIONAL ELECTRICAL CODE. ALL WIRING #10 OR LARGER SHALL BE STRANDED TYPE WITH COLORED TAPE USED AT ALL BOXES TO IDENTIFY EACH PHASE AND CIRCUIT.
7. ALL CONDUIT INSTALLED INDOORS SHALL BE EMT, 1/2" MINIMUM UNLESS WITHIN CLASSIFIED LOCATIONS. ALL CONDUIT INSTALLED UNDERGROUND AND IN SLAB SHALL BE HOT DIPPED RIGID GALVANIZED STEEL. ALL CONDUIT INSTALLED TO EXPOSURE OUTDOORS SHALL BE UNDERGROUND AND IN SLAB SHALL BE HOT DIPPED RIGID GALVANIZED STEEL.
8. CONTRACTOR SHALL PROVIDE FEEDER SERVICE FROM THE TENANT'S POWER LOAD CENTER TO THE MAIN DISCONNECT, METER AND EXISTING WIRING OR WEATHERHEAD. VERIFY EXISTING CONDITIONS ON SITE. REFER TO ONE LINE DIAGRAM.
9. CONTRACTOR SHALL PROVIDE A NEAT TYPE WRITTEN SCHEDULE OF EQUIPMENT LOADED ON EACH CIRCUIT. ALL LIGHTS SHALL BE LOGICALLY SWITCHED WITH WALL TOGGLE SWITCHES, UNLESS NOTED OTHERWISE.
10. PROVIDE COPPER EQUIPMENT GROUND WIRE TO ALL RECEPTACLES AND ALL DIRECT CONNECTED EQUIPMENT. PROVIDE AN EQUIPMENT GROUND WIRE IN ALL BRANCH CIRCUIT FEEDERS AND SUB-FEEDERS AS SHOWN, BUT IN NO CASE IT BE SMALLER THAN REQUIRED BY CODE.
11. COORDINATE ALL POWER, DATA AND TELEPHONE SERVICE REQUIREMENTS WITH THE LOCAL POWER AND TELEPHONE COMPANIES.
12. PROVIDE 3/4" EMPTY CONDUIT WITH PULL WIRE FOR ALL TELEPHONE, COMPUTER AND DATA LINES AS INDICATED ON THE DRAWINGS. PROVIDE OUTLET BOXES FOR ALL TELEPHONE OUTLETS COMPLETE WITH CONDUIT AND PULL WIRES TO AN ACCESSIBLE LOCATION.
13. MOUNT ALL RECEPTACLES AND POWER OUTLETS AT 18" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED IN COUNTERS AND PONY WALLS.
14. MOUNT ALL TELEPHONE, DATA AND MODEM OUTLETS AT 18" ABOVE FINISHED FLOOR, UNLESS NOTED OTHERWISE. PROVIDE CONDUIT AND WALL BOX WITH PULL WIRE AT AN ACCESSIBLE LOCATION ABOVE CEILING THAT ARE NOT ACCESSIBLE.
15. PROVIDE A GROUND FAULT PROTECTED, WEATHERPROOF DUPLEX RECEPTACLE AS REQUIRED BY THE LOCAL, STATE OR NATIONAL CODES, ADJACENT TO EACH AIR COOLED CONDENSER AND/OR ROOF TOP UNIT.
16. ALL ELECTRICAL HOME RUNS SHALL BE INSTALLED AS TIGHT TO THE UNDERSIDE OF STRUCTURE AS POSSIBLE AND THROUGH THE STRUCTURAL ROOF BEAMS AND JOISTS.
17. ALL BORING, SLAB SAW CUTTING OR INTERRUPTION OF ELECTRICAL SERVICE TO THE BUILDING SHALL BE DONE AFTER HOURS, WITH PRIOR ARRANGEMENT OF THE LANDLORD.
18. CONTRACTOR SHALL PROVIDE TEMPORARY POWER TO OR USE OUTLETS LOCATED IN THE TENANT SPACE. NO TAMPERING IS PERMITTED WITH ANY ADJACENT TENANT SPACES.
19. ALL BREAKERS IN PANEL BOARDS SHALL BE 20A SPARES, UNLESS NOTED OTHERWISE.

NOTE:
ALL EXTERIOR LIGHTS TO BE CONTROL BY TIME CLOCK AND PHOTOCELL.

PROVIDE JUNCTION BOX BEHIND FASCIA FOR BUILDING SIGN. FIELD COORDINATE FINAL SIGN LOCATION WITH ARCHITECTURAL ELEVATIONS & SIGN VENDOR. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO BUILDING SIGN. (TYPICAL 3 PLACES)

PROVIDE JUNCTION BOX UNDER SINK FOR INSTANTANEOUS WATER HEATER.

KEYED NOTES:

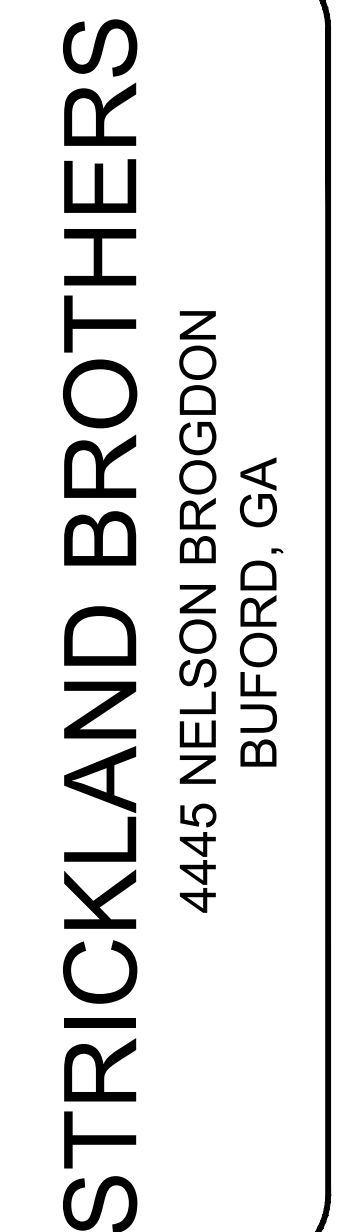
- (1) LUMINAIRE SHALL BE CONNECTED TO UNSWITCHED PORTION OF CIRCUIT FOR NIGHT LIGHT OPERATION.
- (2) PROVIDE 2-CIRCUIT, 1-DAY ASTRONOMICAL DIGITAL TIME-CLOCK (INTERMATIC ET8000 SERIES) FOR CONTROL OF VF-1/VF-2 AND MONUMENT SIGN. PROGRAM ONE CIRCUIT TO TURN OFF WHEN BUILDING IS OCCUPIED UNTIL ONE HOUR AFTER BUILDING IS UNOCCUPIED. PROGRAM OTHER CIRCUIT TO CONTROL MONUMENT SIGN PER OWNER'S DIRECTION.
- (3) COORDINATE CONNECTION REQUIREMENTS FOR MONUMENT LIGHT AND LOCATION WITH EQUIPMENT PROVIDED. COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS.
- (4) FOR COMPUTER PEDESTAL EQUIPMENT, CENTERED BETWEEN PITS. PROVIDE (2) FS BOXES ON 3/4" GRC CONDUITS STUBBED UP 6" ABOVE FLOOR. PROVIDE GFCI QUAD RECEPTACLE IN ONE BOX AND COVERPLATE WITH GROMMETED OPENING FOR DATA WIRING IN THE OTHER BOX. COORDINATE LOCATION AND EXACT REQUIREMENTS WITH OWNER AND WITH THE EQUIPMENT PROVIDED.
- (5) PIT IS MECHANICALLY VENTILATED BY FAN VF-2 PER NEC 511.3(C), RESULTING IN UNCLASSIFIED DESIGNATION.
- (6) NOT USED.
- (7) EC SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS AND CONNECTIONS FOR THE LIFTS WITH LIFT INSTALLER.
- (8) PROVIDE CEILING-MOUNTED SHOW WINDOW RECEPTACLE.
- (9) EC TO PROVIDE 3/4" CONDUIT & PULL STRING TO EACH SIDE OF PITS FOR INSTALLATION OF PIT WELL LIGHTING. LOCATION & CONFIGURATION TO BE CONFIRMED PRIOR TO CONSTRUCTION.
- (10) EC TO PROVIDE 3/4" CONDUIT & PULL STRING FOR CAT6 CABLE FOR CAMERAS IN EACH PIT. CONFIRM LOCATION & CONFIGURATION PRIOR TO CONSTRUCTION.
- (11) GC TO PROVIDE UNDER SLAB CONDUITS FOR CAT6 LOW VOLTAGE CABLING. COORDINATE EXACT LOCATION OF JUNCTION BOXES WITH OWNER PRIOR TO ROUGH-IN.
- (12) GC TO PROVIDE AND INSTALL SHUT-OFF LEVER, COORDINATE WITH DEVEON ON ELECTRICAL REQUIREMENT FOR AIR COMPRESSOR AND MAKING CONNECTION. REFER TO GC INFORMATION PROVIDED BY OWNER. CONTACT DEVEON EQUIPMENT AT 811-313-5862

EQUIPMENT SCHEDULE

CALLOUT	SYMBOL	NEMA	VOLTS	AMPS	KVA	HP	CIRCUIT
AIR COMPRESSOR			208V 2P 2W	57.5	7.8		A-19,15
DQU-1			208V 2P 2W	6.88	1.43		A-27,24
DS-1			208V 2P 2W	0.22	0.05		
EF-1 / EF-2			120V 1P 2W	0.19	0.02		A-4
VF-3			120V 1P 2W	0.2	0.02		A-36
LIFT			208V 2P 3W	11	5.2	1.5 HP	A-16,19
LIFT			208V 2P 3W	11	5.2	1.5 HP	A-30,32
MONUMENT SIGN			120V 1P 2W	10	1.2		A-1
UH-1			240V 1P 2W	42	10		A-22,24
UH-2			240V 1P 2W	42	10		A-38,40
UH-3			240V 1P 2W	42	10		A-34,41
VF-1			120V 1P 2W	4.4	0.55	1/8 HP	A-10
VF-2			120V 1P 2W	0.51	0.06		A-10
WH-1			120V 1P 2W	13.75	1.65		A-12
UH-4			120V 1P 2W	12.5	1.5		A-26

ELECTRICAL LEGEND

- ELECTRICAL DUPLEX
OUTLET HEIGHT AS NOTED
- ELECTRICAL DUPLEX OUTLET - 6FT
HEIGHT AS NOTED
- ELECTRICAL QUAD OUTLET - FLOOR
LOCATION AS DIMENSIONED
- JUNCTION BOX
HEIGHT AS NOTED
- THERMOSTAT
HEIGHT AS NOTED
- DATA LINE/COMM OUTLET
HEIGHT AS NOTED
- TELEPHONE OUTLET
HEIGHT AS NOTED
- ALARM PANEL
HEIGHT AS NOTED
- TELEVISION CABLE
OUTLET HEIGHT AS NOTED
- CENTRAL LIGHTING CONTROL
PANEL HEIGHT AS NOTED
- CEILING FAN LOCATION AS
DIMENSIONED
- CEILING MOUNTED SMOKE
DETECTOR HARD WIRED &
INTERCONNECTED WITH BATTERY
BACKUP
- CEILING MOUNTED LIGHT FIXTURE - FLUSH
LOCATION AS DIMENSIONED
- SUSPENDED DECORATIVE LIGHT FIXTURE
OWNER SUPPLIED - CONTRACTOR
INSTALLED
- WALL MOUNTED DECORATIVE
FIXTURE LOCATION AS DIMENSIONED
- CEILING MOUNTED WALL WASH - FLUSH
LOCATION AS DIMENSIONED
- WALL MOUNTED LIGHT
SWITCH HEIGHT AS NOTED
- WALL MOUNTED LIGHT
DIMMER HEIGHT AS NOTED
- HOSE BIB
HEIGHT AS NOTED
- GAS LINE SHUTOFF VALVE LOCATION TO
BE COORDINATED ON SITE. HEIGHT AS
NOTED
- SWITCH MTD. OCCUPANCY MOTION SENSOR
WITH AUTOMATIC SHUTOFF TO TURN LIGHTS
OFF WITHIN 30 MINUTES OF OCCUPANTS
LEAVING SPACE.
- CEILING MTD. OCCUPANCY MOTION SENSOR
WITH AUTOMATIC SHUTOFF TO TURN LIGHTS
OFF WITHIN 30 MINUTES OF OCCUPANTS
LEAVING SPACE.
- CIRCUIT NUMBER
(2)1/2 THIN-CU IN 1/2" CONDUIT
(1)HOT, (1)NEUTRAL, (1)UNSWITCHED
- FUSED DISCONNECT SWITCH w/
30A SIZE, 2POLE, 25A FUSES



Revisions:
REVISION 1 / 03-06-2023 / CITY COMMENTS
REVISION 2 / 03-21-2023 / CITY COMMENTS

File Name: 22236
Project No: 22236
Date: 02/10/23
Drawn By:
Checked By:

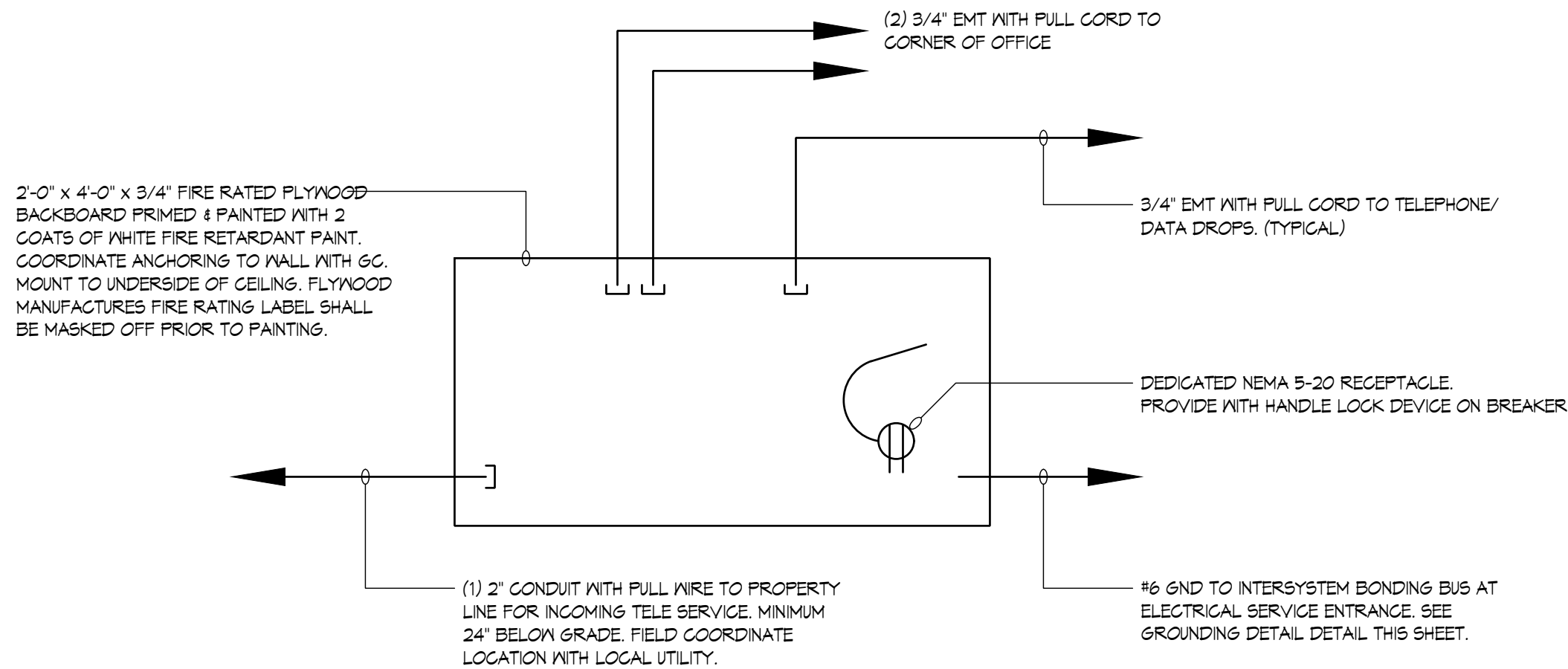
SHEET
E1.0
ELECTRICAL
PLANS

PANEL A SCHEDULE																													
SYSTEM VOLTAGE 240/120V 1Ø-3Ø										MAINS 400A MCB										MOUNTING SURFACE NEMA 3R									
LOAD DESCRIPTION	COND SIZE	WIRE SIZE	POLE	LOAD (KVA)								CKT.	BKR.	BKR.	CKT.	LOAD (KVA)								POLE	WIRE SIZE	COND SIZE	LOAD DESCRIPTION		
				LTG	REC	MTR	A/C	HTG	KIT	MISC	PHASE					PHASE	MISC	KIT	HTG	A/C	MTR	REC	LTG						
SITE LTG/MONUMENT SIGN(TC)	2"	Ø	1	1.6								1	20A	20A	2									0.7	1	12	1/2"	LIGHTING - SERVICE BAYS	
LIGHTING - SERVICE FITS	1/2"	12	1		0.3							3	20A	20A	4									0.5	1	12	1/2"	LIGHTING - SUPPORT/EF-1	
REC. - IG WORK #3 (GFI)	1/2"	12	1		0.4							5	20A	20A	6									0.54	1	12	1/2"	REC. - SERVICE/RR (GFI)	
IRRIGATION CONTROL	1/2"	12	1							1.2		7	20A	20A	8									0.8	1	12	1/2"	REC. - SERVICE/RR (GFI)	
REC. - SERVICE (GFI)	1/2"	12	1		1.0							9	20A	20A	10									0.6	1	12	1/2"	VF-1, VF-2	
REC. - WORK #1 (GFI)	1/2"	12	1		1.2							11	20A	20A	12			1.7							2	12	1/2"	NH-1	
AIR COMPRESSOR	1/2"	Ø	2			3.9						13	50A	20A	14													SPARE	
						3.9						15	30A	16			2.6								2	10	3/4"	LIFT	
SPARE	1/2"	12	1									17	20A	18			2.6												
TELE BOARD (LO) (GFI)	1/2"	12	1		0.4							19	20A	20A	20									0.2	1	12	1/2"	RECEPTACLE (GFI)	
LOBBY REC	1/2"	12	1		0.7							21	20A	60A	22					5.04					2	6	3/4"	UH-1	
LIGHTING - EXTERIOR (TC)	1/2"	12	1	0.2								23	20A	24					5.04										
BLDG SIGNAGE (TC)	1/2"	12	1							1.2		25	20A	26					1.5						1	12	1/2"	UH-4	
DCU-1 / DS-1	1/2"	12	2							1.0		27	15A	28														SPARE	
										1.0		29	30A	30			2.6								2	10	3/4"	LIFT	
REC. - "OPEN" SIGN (TC)	1/2"	12	1		0.4							31	20A	32			2.6												
SPARE	1/2"	12	1									33	20A	34										0.2	1	12	1/2"	RECEPTACLE (GFI)	
LIGHTING - SHOW WINDOW	1/2"	12	1		0.2							35	20A	20A	36										1	12	1/2"	VF-3	
OIL CHANGE SIGN (TC)	1/2"	12	1		0.2							37	20A	60A	38					5.04					2	6	3/4"	UH-2	
UH-3	3/4"	6	2							5.04		39	60A	40					5.04										
										5.04		41	20A	42										0.2	1	12	1/2"	RECEPTACLE (GFI)	
LIGHTING (KVA)				3.0	1.8	4.8	10.4			10.1	2.4						13.1	23.2		0.8	1.7	1.2							
RECEPTACLES (KVA)				6.5																									
MOTORS (KVA)				11.2																									
A/C (KVA)				0.0																									
HEATING (KVA)				33.6																									
KITCHEN (KVA)				0.0																									
MISCELLANEOUS (KVA)				15.5																									
										CONNECTED LOAD (KVA)										DEMAND LOAD (KVA)									
																				69.5									
																				70.5									
										CONNECTED LOAD (AMPS)										290A									
																				294A									

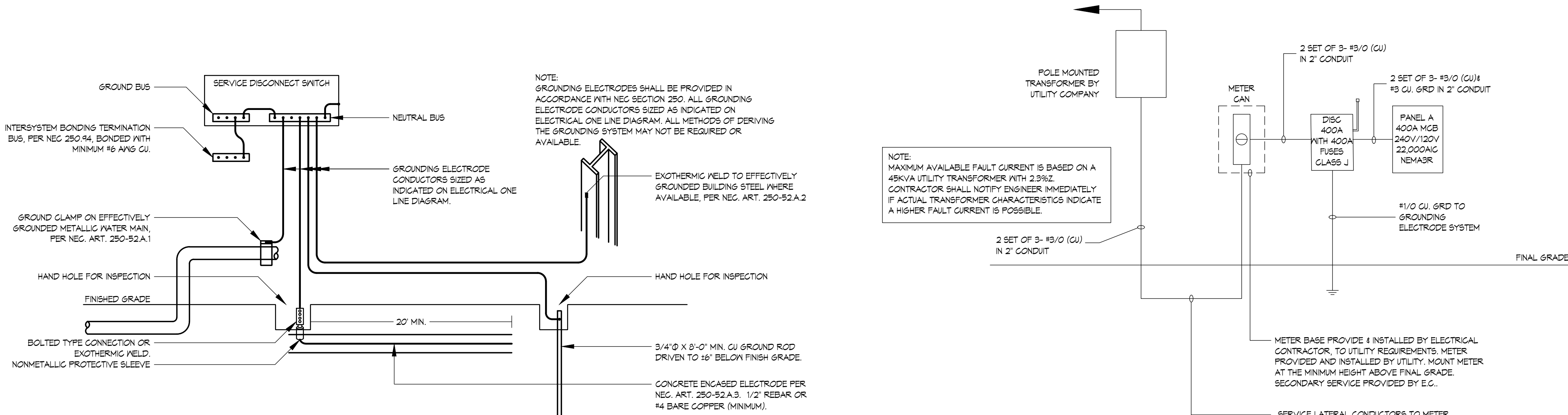
NOTE: 1. SUBSCRIPTS: TC/PC - CONTROL VIA TIME CLOCK AND PHOTOCCELL BY E.G., GFI - PROVIDE GFI TYPE CIRCUIT BREAKER, I.G. - PROVIDE ISOLATED GROUND

A DEMAND CALCULATION									
SINGLE PHASE POWER									
1. LIGHTING	3	KVA	x	125	%	=	3.75	KVA	
2. RECEPTACLE	6.5	KVA	x	100	%	=	6.5	KVA	
1ST REMAIN	0	KVA	x	50	%	=	0	KVA	
3. MOTORS	11.2	KVA	x	100	%	=	11.2	KVA	
4. A/C	0	KVA	x	100	%	=	0	KVA	
5. HEATING	33.6	KVA	x	100	%	=	33.6	KVA	
6. FUTURE	-	KVA	x	100	%	=	-	KVA	
7. MISCELLANEOUS	15.5	KVA	x	100	%	=	15.5	KVA	
TOTAL	294	AMPS					10.55	KVA	

ELECTRICAL PANEL SCHEDULE



TELEPHONE RISER DIAGRAM



GROUNDING DETAIL

ELECTRICAL SPECIFICATIONS

GENERAL:

PROVIDE NEMA 1 ENCLOSURES FOR INTERIOR LOCATIONS AND NEMA 3R ENCLOSURES FOR EXTERIOR LOCATIONS UNLESS NOTED OTHERWISE.

CONDUITS:

CONDUITS WITHIN CLASSIFIED AREAS SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.

ALL CONDUIT SHALL BE 1/2" MINIMUM SIZE AND ZINC-COATED EMT, EXCEPT IN WET, DAMP, OR WASHDOWN AREAS WHERE ZINC-COATED RIGID STEEL (GRG) OR INTERMEDIATE METALLIC CONDUIT (MC) SHALL BE USED. EMT FITTINGS SHALL BE HEXAGONAL, GALVANIZED, STEEL GLAND, COMPRESSION TYPES.

EMT CONNECTORS SHALL HAVE INSULATED THROATS. INSULATING THROATS SHALL BE MANUFACTURED WITH THE CONNECTORS. USE OF INSULATING SLEEVES IS NOT ALLOWED. ALL GRG OR MC CONDUITS ENTERING ENCLOSURES SHALL BE TERMINATED WITH DOUBLE LOCKNUTS AND A FIBER BUSHING OR BOND BUSHING (WHERE NEC REQUIRED).

FLEXIBLE CONDUIT CONNECTORS SHALL BE T & B NYLON INSULATED "TITE-BITE."

LIQUID-TIGHT FLEXIBLE CONDUIT SHALL BE USED FOR FINAL EQUIPMENT CONNECTIONS, AND IN DAMP LOCATIONS.

SECURE CONDUITS USING MANUFACTURED STRAPS. TIE WIRE IS NOT ALLOWED.

EXCEPT FOR MECHANICAL AREAS, ALL CONDUIT SHALL BE INSTALLED CONCEALED WHEREVER POSSIBLE. CONDUITS SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE INSTALLED IN GROUPS. WHERE INSTALLED AT THE ROOF OR CEILING, GROUPINGS SHALL BE SINGLE DEPTH AND INSTALLED TIGHT AGAINST THE STRUCTURE. FOR MULTIPLE DEPTH GROUPINGS AND OTHER SITUATIONS, A TRAPEZE ARRANGEMENT USING APPROPRIATE CHANNELS SUSPENDED FROM THE STRUCTURE USING THREADED RODS OF SUFFICIENT SUPPORTING STRENGTH WILL BE PERMITTED. ALL CONDUITS SHALL BE KEPT A MINIMUM OF (SIX) 6 INCHES AWAY FROM PARALLEL RUNS OF STEAM OR HOT WATER PIPES AND FLUES.

THE CONTRACTOR MAY, AT HIS OPTION, USE TYPE MC CABLE ONLY IN CONCEALED LOCATIONS AS PERMITTED BY OWNER AND THE AUTHORITY HAVING JURISDICTION. TYPE MC CABLE SHALL NOT BE USED IN ANY EXPOSED LOCATIONS.

THE CONTRACTOR SHALL PROVIDE ACCESS DOORS IN WALLS AND CEILINGS FOR ACCESS TO PULL BOXES, ACCESSORIES, ETC., UNDER THE ELECTRICAL CONTRACT WHERE REQUIRED. DOORS SHALL BE SIZED AS REQUIRED (MINIMUM 16" X 16") WITH A FINISH TO MATCH THAT OF THE ROOM IN WHICH IT IS INSTALLED. THE ARCHITECT SHALL APPROVE FINISH OF THE ACCESS DOORS.

ALL UNDERGROUND METALLIC CONDUITS SHALL BE THOROUGHLY COATED WITH TWO COATS OF ASPHALTUM OR BITUMASTIC PAINT. CONDUITS INSTALLED UNDERGROUND ON THE EXTERIOR OF THE BUILDING SHALL BE BURIED 3'-6" MINIMUM UNDER ROADWAYS AND PARKING AREAS, AND BURIED 2'-6" IN OTHER AREAS.

THE CONTRACTOR MAY, AT HIS OPTION, USE RIGID NONMETALLIC CONDUIT ONLY FOR THE SECONDARY UNDERGROUND SERVICE, THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH CIRCUITS AND TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE CONCRETE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING. ALL PVC SHALL BE SCHEDULE 40 (UNLESS NOTED OTHERWISE) POLYVINYL CHLORIDE U.L. LISTED FOR USE WITH 75 DEGREE C CONDUCTORS. INSTALLATION SHALL BE IN ACCORDANCE WITH NEC ARTICLE 352, ALL CODES, THE UTILITY COMPANY REGULATIONS, AND THE MANUFACTURER'S INSTRUCTIONS.

ALL PVC COMPONENTS OF THE PVC CONDUIT SYSTEM SHALL BE FURNISHED FROM THE SAME MANUFACTURER AND USED SPECIFICALLY FOR THEIR INTENDED PURPOSE. ALL FIELD BENDS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ACCREDITED TESTING LABORATORY REQUIREMENTS. PVC THAT HAS BEEN HEATED WITH A TORCH SHALL BE REPLACED. USE SCHEDULE 80 PVC 90 DEGREE ELBOWS IN LIEU OF ALL SCHEDULE 40 PVC 90 DEGREE ELBOWS EXCEPT FOR CONDUITS 1" AND SMALLER. PVC SHALL NOT PENETRATE SLAB ON GRADE FOR ANY REASON; USE GRG CONDUIT FOR ALL PENETRATIONS.

PROVIDE 100-POUND TEST, NYLON PULL CORDS IN ALL EMPTY CONDUITS.

ALL OUTLET BOXES SHALL BE GALVANIZED STEEL EXCEPT THAT CAST BOXES WITH GASKETED COVERS SHALL BE REQUIRED IN ALL INTERIOR WET AREAS AND ON THE EXTERIOR OF THE BUILDING. OUTLET BOXES SHALL BE NO LESS THAN 4" SQUARE BY 1-1/2" DEEP. MULTIGANG BOXES SHALL BE OF SINGLE PIECE CONSTRUCTION.

PULL BOXES SHALL BE CONSTRUCTED OF THE CODE GAUGE GALVANIZED SHEET METAL AND SHALL COMPLY WITH NEC ARTICLE 314. SEAMS SHALL HAVE A CONTINUOUS WELD.

6C TO INSTALL CONDUIT AND ELECTRICAL DEDICATED LINE PER TENANT'S SIGNAGE PLAN INCLUDING MONUMENT/POLE SIGN.

6C TO PROVIDE COVER PLATE FOR ALL DATA RECEPTACLES AND 3' CAT6 PATCH CORD

WIRING:

CONDUCTORS SHALL BE COPPER, THN OR THHN/THWN, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES. CONTROL CIRCUIT CONDUCTORS MAY BE #14 AWG, SOLID, TYPE THN. ALL 240/120 VAC CONDUCTORS SHALL BE COLOR-CODED: BLACK, RED, WHITE, AND GREEN FOR PHASES A, B, NEUTRAL, AND GROUND RESPECTIVELY.

ALL CONDUCTORS AND CABLES SHALL BE INSTALLED IN RACEWAYS EXCEPT AS OTHERWISE SPECIFIED HEREIN.

THE CONTRACTOR MAY, AT HIS OPTION, USE TYPE MC CABLE ONLY IN CONCEALED LOCATIONS AS PERMITTED BY THE OWNER AND AUTHORITY HAVING JURISDICTION. TYPE MC CABLE SHALL NOT BE USED IN ANY EXPOSED LOCATIONS.

ELECTRICAL CONDUCTORS SHALL BE TESTED FOR CONTINUITY AND GROUNDS BEFORE BEING ENERGIZED. ALL FAULTY CONDUCTORS SHALL BE REPLACED. SERVICE ENTRANCE CONDUCTORS SHALL BE MESSEGE TESTED AND THE RESULTS SUBMITTED TO THE ARCHITECT FOR APPROVAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULLY COORDINATING WITH THE OTHER TRADES TO DETERMINE THE POWER REQUIREMENTS AND CONNECTION POINTS FOR EQUIPMENT FURNISHED BY OTHERS. HE SHALL PROVIDE ELECTRICAL POWER TO EACH PIECE OF EQUIPMENT BASED UPON THE MANUFACTURER'S WIRING DIAGRAMS AND UNIT MOUNTED NAMEPLATES.

THE CONDUIT AND NEUTRAL CONDUCTORS OF THE ELECTRICAL SYSTEM AND ALL ELECTRICAL EQUIPMENT SHALL BE GROUNDED. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR WITH EVERY CIRCUIT AND IN EVERY CONDUIT. THE CONDUIT SYSTEM AND NEUTRAL CONDUCTORS SHALL BE BONDED TOGETHER ONLY AT THE SERVICE ENTRANCE EQUIPMENT. GROUNDING AT THE SERVICE ENTRANCE SHALL BE IN ACCORDANCE WITH NEC ARTICLE 250. NO CONDUIT SHALL CONTAIN MORE THAN THREE PHASE CONDUCTORS. DERATING OF CONDUCTORS WILL NOT BE ALLOWED.

DEVICES:

ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE, GRAY IN COLOR. SWITCHES SHALL BE QUIET OPERATING TYPES RATED 20A-120/277 VAC.

RECEPTACLES SHALL BE NEMA 5-20R TYPES UNLESS OTHERWISE NOTED. SPECIAL PURPOSE RECEPTACLES SHALL BE HEAVY DUTY, SPECIFICATION GRADE TYPES. THE CONTRACTOR SHALL COORDINATE EACH DEVICE FOR THE CIRCUIT AND EQUIPMENT TO WHICH IT WILL BE CONNECTED. PROVIDE THE PROPER DEVICE BASED UPON THE ACTUAL EQUIPMENT SUPPLIED TO THE PROJECT.

PROVIDE A SINGLE MULTI-GANG OUTLET BOX AND DEVICE PLATE FOR ALL GROUP MOUNTED WIRING DEVICES. PROVIDE FULL HEIGHT AND DEPTH BARRIERS IN OUTLET BOXES WHERE POWER AND COMMUNICATION CONDUCTORS WOULD BE MIXED.

ALL COVERPLATES IN AREAS WHICH ARE FINISHED SHALL BE NYLON AND SHALL MATCH THE COLOR OF THE WIRING DEVICES. COVERPLATES IN UNFINISHED MECHANICAL AND ELECTRICAL AREAS MAY BE GALVANIZED STEEL TYPES WITH BEVELED EDGES.

POWER EQUIPMENT:

PANELBOARDS SHALL BE LIGHTING AND APPLIANCE TYPE. DEAD-FRONT SAFETY TYPE. ALL CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT-ON, AUTOMATIC THERMAL MAGNETIC TYPE, CALIBRATED FOR 40°C OR AMBIENT COMPENSATING. CABINETS SHALL BE A NOMINAL 22 INCHES WIDE. PANELBOARD SHALL HAVE FULL HEIGHT, COPPER BUSING. PANELBOARD DIRECTORIES SHALL BE TYPED.

SAFETY SWITCHES SHALL BE HEAVY DUTY, QUICK-MAKE, QUICK-BREAK, TYPES OF THE SIZE AND FUSE AMPLACITY AS DENOTED ON THE DRAWINGS. PROVIDE GROUND BUS, SOLID NEUTRAL (WHEN REQUIRED), GLASS RK-5 DUAL ELEMENT, TIME DELAY FUSES, AND NEMA RATED ENCLOSURE.

MANUAL MOTOR STARTERS SHALL BE MOTOR SENTINEL TYPE WITH PROPERLY SIZED OVERLOAD HEATERS AND DISCONNECT SWITCH (TOSSELE TYPE) MOUNTED IN A NEMA RATED ENCLOSURE.

LUMINAIRES

ALL LUMINAIRES SHALL BE PROVIDED COMPLETE WITH LAMPS, ALL NECESSARY ACCESSORIES, AND AS SCHEDULED ON THE DRAWINGS. LUMINAIRES AS SCHEDULED ESTABLISH A STANDARD OF QUALITY AND APPEARANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING CONSTRUCTION DETAILS SUCH AS LUMINAIRE TRIM AND CEILING CONSTRUCTION.

CEILING MOUNTED OR SUSPENDED LUMINAIRES SHALL BE SUPPORTED BY A METHOD RATED AT LEAST FIVE TIMES THE LUMINAIRE WEIGHT. THE METHOD SHALL ALSO COMPLY WITH ARTICLES 314.27, 410.15, AND 410.16, AS APPROPRIATE, OF THE NEC.

OTHER REQUIREMENTS:

PROVIDE ENGRAVED, PHENOLIC NAMEPLATES, WHITE LETTERS ON BLACK BACKGROUND (208/120 VAC) FOR EACH PANELBOARD AND DISCONNECT SWITCH. NAMEPLATES SHALL BE PERMANENTLY ATTACHED TO THE EQUIPMENT USING RIVETS.

PROVIDE FUSES FOR ALL EQUIPMENT REQUIRING FUSES AND LAMPS FOR EVERY LUMINAIRE.

PROVIDE A SYSTEM OF EMPTY CONDUIT, OUTLETS, POWER SOURCES, AND PHYSICAL SPACE TO ALLOW THE INSTALLATION OF A PRIVATE "INTERCONNECT" TELEPHONE/DATA SYSTEM. PROVISION OF THE TELEPHONE EQUIPMENT AND CABLE IS NOT PART OF THIS CONTRACT; HOWEVER, THE INSTALLATION OF CABLES AND INSTRUMENTS WILL COINCIDE WITH THIS WORK. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE SYSTEM INSTALLER TO INSURE THE SYSTEM'S INSTALLATION IS NOT HINDERED OR DEGRADED.

THE CONTRACTOR SHALL PROVIDE ANY MISCELLANEOUS METAL OR WOOD SUPPORTS, FASTENERS, MOUNTS, HANGERS, SIDE BRACES, ETC., WHICH MAY BE REQUIRED TO SECURELY ANCHOR AND SUPPORT ELECTRICAL EQUIPMENT FURNISHED UNDER HIS CONTRACT.

ALL POWER EQUIPMENT SHALL BE EATON, ABB, SIEMENS, OR SCHNEIDER. ALL LUMINAIRES SHALL BE AS SPECIFIED. ALL WIRING DEVICES SHALL BE EATON, HUBBELL, OR LEGRAND. ALL WIRE SHALL BE ANACONDA, CAROL, SOUTHWIRE, OR EQUAL. ALL NEW CONDUIT SHALL BE REPUBLIC OR EQUAL.

THE MANUFACTURER OF POWER EQUIPMENT SHALL PROVIDE ARC FLASH VALUES FOR EACH PANELBOARD.

PANELBOARDS SHALL BE LABELED TO IDENTIFY THE AVAILABLE FAULT CURRENT AT THE PANEL AND THE ARC FLASH HAZARD AT THE PANEL IN ACCORDANCE WITH NEC REQUIREMENTS.

THE WORD "PROVIDE" WHEN USED ON ANY ELECTRICAL DRAWING, SHALL BE DEFIN



Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Driveway	+	3.5 fc	14.0 fc	0.0 fc	N/A	N/A
Parking	+	3.1 fc	5.1 fc	1.7 fc	3.0:1	1.8:1
Perimeter	+	0.2 fc	1.6 fc	0.0 fc	N/A	N/A

1 LIGHTING VENDOR TO PROVIDE FLUTED GREEN POLES IN COMPLIANCE WITH MALL OF GEORGIA AT SPECIFIED HEIGHT. COORDINATE WITH NLS LIGHTING FOR RECOMMENDED OPTIONS.

NLS
LIGHTING

RSFP

Round Straight Fluted Pole

Height

10' - 20'

Pole Shaft

Shall be Round Straight Aluminum 6063 Alloy Extrusion. Poles have ground lug welded inside hand hole opposite side of the Pole Extrusion. Pole shaft is welded to base plate on top and bottom of base plate.

Base Plate

Manufactured from aluminum. The Base Plate is 3/4" thick for poles 10 to 20 feet.

Anchor Bolts

All anchor bolts are hot dipped galvanized steel and come with two galvanized nuts and washers per bolt. Minimum yield strength 50,000 psi. Anchor bolts are not included for Custom Bolt Circle.

Base Cover

All Base covers are fabricated two-piece 6063 aluminum and powder coated to match the pole. Square base cover comes standard, Round base cover optional.

Hand-Hole

A reinforced hand-hole is 12" on center from the base plate and is constructed of 3"x5" rectangular aluminum tubing which is welded to pole shaft for added strength. The hand-hole covers are provided with internal bridge support and powder coated to match pole finish.

Pole Cap

All poles come with a removable polymer pole cap installed. All pole caps are black finish.

Finish

All poles are treated with sand blast media for a near white finish, powder blasted with 100 psi prior to powder coat application. Poles are pre-treated then electrostatically applied polyester powder coat with a 3 to 5 mil thickness for maximum adherence.

Marine Grade Finish

All poles are washed through a 5-stage cleaning system with a deionized rinse, a 3 to 5 mils zinc rich durable polyester primer powder coat, followed by a 3 to 5 mils super durable polyester powder coat finish.

Anodized Under Powder

Anodized Under Powder (AUP) poles are dipped in a 3 step process for a clear anodized finish inside and outside of the pole. The final stage is electrostatically applied polyester powder coat with a 3 to 5 mil thickness for maximum adherence.

Vibration Damper

The Vibration Damper is factory installed. The Vibration Damper consists of a rugged galvanized chain coated with heavy duty polyester tubing that is factory secured at the bottom 2-3rds of the pole and field secured by contractor at the base during installation.

REV 02.13.22

**Anchor Bolts are NOT Included with Custom Bolt Circle.
 DO NOT pour concrete referencing this drawing. Consult Factory.

**All wind loading calculations are based on sustained wind force plus an additional 1.3 gust.*

The diagram illustrates five different mounting configurations for the lighting fixture. Each configuration shows the fixture's footprint and the arrangement of anchor bolts.

- Single (SGL):** A single fixture with one anchor bolt.
- Double (D-90):** Two fixtures mounted side-by-side, each with one anchor bolt.
- Double (D-180):** Two fixtures mounted back-to-back, each with one anchor bolt.
- Triple (T-90):** Three fixtures arranged in a T-shape, each with one anchor bolt.
- Quad (Q0):** Four fixtures arranged in a square pattern, each with one anchor bolt.

 The text 'MOUNTING CONFIGURATION' is displayed in large, bold, black letters on the left side of the diagram area.

LEGEND

- 11.5 MPH
- 12.0 MPH
- 12.5 MPH
- 13.0 MPH
- 13.5 MPH
- 14.0 MPH
- 14.5 MPH
- 15.0 MPH
- 15.5 MPH
- 16.0 MPH
- 16.5 MPH
- 17.0 MPH
- 17.5 MPH
- 18.0 MPH
- 18.5 MPH
- SPECIAL WIND REGION

FIG. 3.8-1b - 700-Year MRI Basic Wind Speed, mph (ASHTO LRFD/LTS-1)

1) All wind load calculations are based on sustained wind force plus and additional 1.3 gust
 2) Wind Map is to be used as a reference only. Please coordinate with local agencies for further review.
 3) Wind Map values are based on a 50 year mean recurrence. These values do not account for severe conditions, such as hurricanes, tornadoes, etc...
 4) For review of poles with additional configurations (arms, banners, shorter/longer pole lengths, etc.), please contact factory.

Base Cover

Optional Round Base Cover

Base Detail

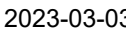
12" Base Detail

9" Base Detail

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OPTICAL CONFIGURATIONS

Rotatable Optics (RO) and Rotated (RL). Rotated (RL) Left options available. Optics field and factory rotatable.

(OPP)

NP-1 / 16L

NP-1 / 32L

NP-1 / 48L

NP-1 / 64L

NP-2 / 60L

NP-2 / 96L

NP-2 / 112L

NP-2 / 128L

* OPTIC PLATE PAINTED TO MATCH FIXTURE FINISH (OPP) - Optic Plate standard clear anodized, Grade 2. When (OPP) specified, Optic Plate finish will match fixture finish.

LUMENS

PART NUMBER	16	32	48	64	60	96	112	128	16	32	48	64	60	96	112	128	16	32	48	64	60	96	112	128	16	32	48	64	60	96	112	128																																																																																																																																																																																																																																													
NP-16L-35-200	1944	108	101-210	2295	117	P-35-100-0	1153	63	00-100-0	2106	117	P-35-100-1	1155	62	00-100-0	2187	118	P-35-100-2	1214	118	P-35-100-3	1214	118	P-35-100-4	1214	118	P-35-100-5	1214	118	P-35-100-6	1214	118	P-35-100-7	1214	118	P-35-100-8	1214	118	P-35-100-9	1214	118	P-35-100-10	1214	118	P-35-100-11	1214	118	P-35-100-12	1214	118	P-35-100-13	1214	118	P-35-100-14	1214	118	P-35-100-15	1214	118	P-35-100-16	1214	118	P-35-100-17	1214	118	P-35-100-18	1214	118	P-35-100-19	1214	118	P-35-100-20	1214	118	P-35-100-21	1214	118	P-35-100-22	1214	118	P-35-100-23	1214	118	P-35-100-24	1214	118	P-35-100-25	1214	118	P-35-100-26	1214	118	P-35-100-27	1214	118	P-35-100-28	1214	118	P-35-100-29	1214	118	P-35-100-30	1214	118	P-35-100-31	1214	118	P-35-100-32	1214	118	P-35-100-33	1214	118	P-35-100-34	1214	118	P-35-100-35	1214	118	P-35-100-36	1214	118	P-35-100-37	1214	118	P-35-100-38	1214	118	P-35-100-39	1214	118	P-35-100-40	1214	118	P-35-100-41	1214	118	P-35-100-42	1214	118	P-35-100-43	1214	118	P-35-100-44	1214	118	P-35-100-45	1214	118	P-35-100-46	1214	118	P-35-100-47	1214	118	P-35-100-48	1214	118	P-35-100-49	1214	118	P-35-100-50	1214	118	P-35-100-51	1214	118	P-35-100-52	1214	118	P-35-100-53	1214	118	P-35-100-54	1214	118	P-35-100-55	1214	118	P-35-100-56	1214	118	P-35-100-57	1214	118	P-35-100-58	1214	118	P-35-100-59	1214	118	P-35-100-60	1214	118	P-35-100-61	1214	118	P-35-100-62	1214	118	P-35-100-63	1214	118	P-35-100-64	1214	118	P-35-100-65	1214	118	P-35-100-66	1214	118	P-35-100-67	1214	118	P-35-100-68	1214	118	P-35-100-69	1214	118	P-35-100-70	1214	118	P-35-100-71	1214	118	P-35-100-72	1214	118	P-35-100-73	1214	118	P-35-100-74	1214	118	P-35-100-75	1214	118	P-35-100-76	1214	118	P-35-100-77	1214	118	P-35-100-78	1214	118	P-35-100-79	1214	118	P-35-100-80	1214	118	P-35-100-81	1214	118	P-35-100-82	1214	118	P-35-100-83	1214	118	P-35-100-84	1214	118	P-35-100-85	1214	

EPA

EPa	SGL	D90	D180	T90	T120	QD
NV-1-DP	0.46	1.14	0.92	1.34	1.37	1.34
NV-1-KM	0.54	N/A	1.08	N/A	N/A	N/A
NV-1-SA	0.75	1.29	1.50	1.99	2.06	1.99
NV-2-DP	0.89	1.22	1.78	1.96	1.91	1.85
NV-2-KM	0.69	1.18	1.38	1.85	2.68	1.85
NV-2-SA	0.98	1.96	1.75	2.66	2.62	2.66

L70/L90 DATA

TEMP.	NV-1		NV-2	
	L70 (64L-1050mA)	L90 (64L-1050mA)	L70 (128L-1050mA)	L90 (128L-1050mA)
25°C	493,000	160,000	493,000	160,000

DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	T90	T120	QD
NV-1	3"	7"	3"	7"	7"	7"
NV-2	6.25"	11.25"	6.25"	11.25"	11.25"	11.25"

MOUNTING OPTIONS

DP (Direct Pole)
Standard mounting arm is extruded aluminum in lengths of 3" and 7" for NV-1 and lengths of 6.25" and 11.25" for NV-2.
**Arm lengths may vary depending on configuration*

SA (Sweep Arm)
Cast Sweep Arm includes (as standard) internal Quick-Mount Bracket.

WM (Wall Mount)
Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.

TM (Trunnion)
Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 90 degrees.
**Upward standard steel is standard*

OPTIONAL

Optional Cast Aluminum Bracket: **Quick Mount Bracket (QMB)** and **Retrofit Quick-Mount Bracket (RQMB)** designed for quick mounting to Direct Square or Round Poles. Clear mounts directly to pole for easily hung fixtures.

QMB **RQMB**

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