

DESIGN: JSG
DRAWN: JSG
APPROVED: JHP
DATE: 9/1/2015

REVISIONS		
NO.	DATE	BY

ADAMS HILL CENTER
LAKE OTIS BLVD

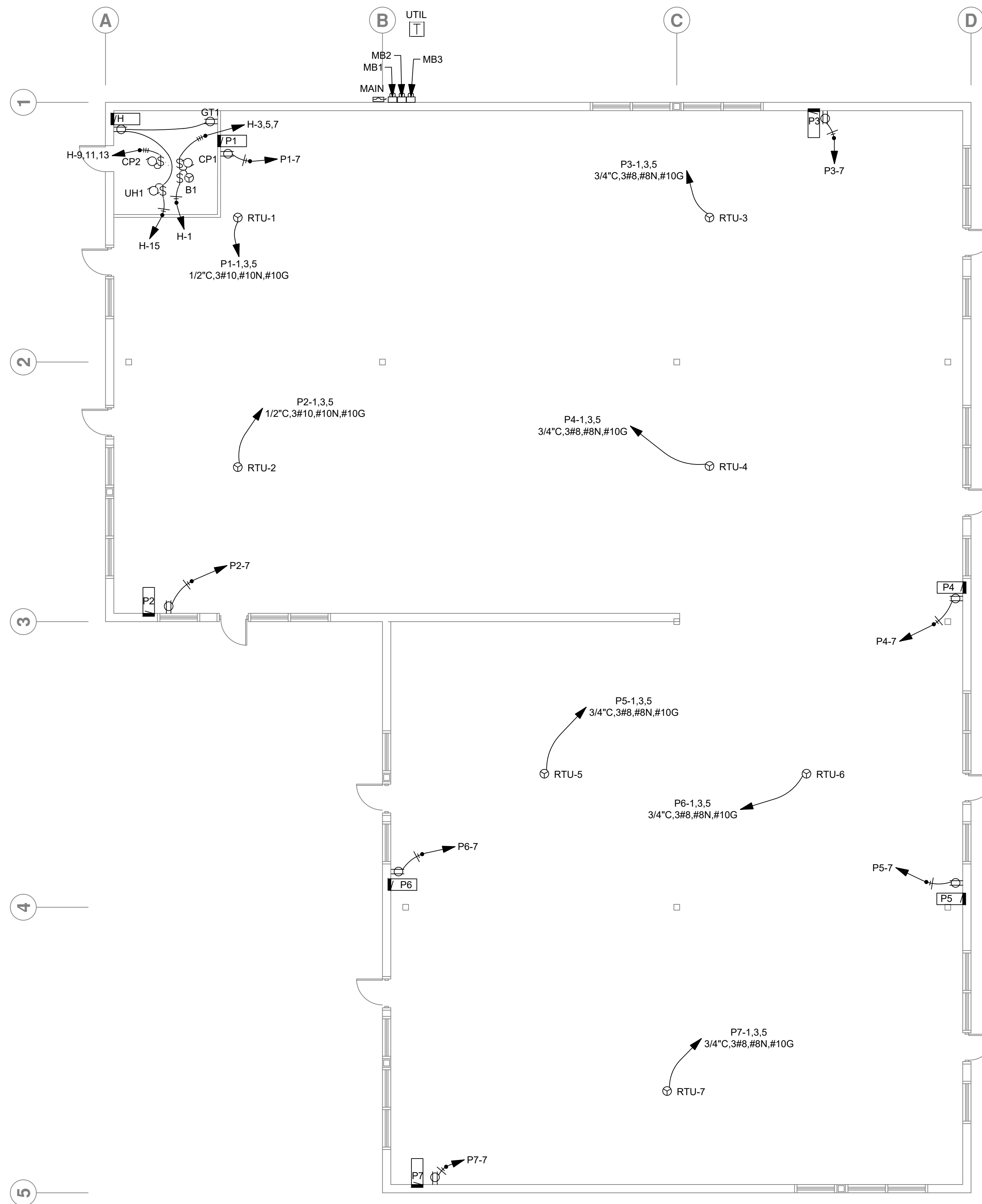
ELECTRICAL
POWER & COMMUNICATIONS

E-1

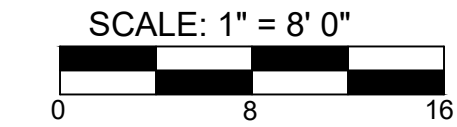
LEGEND

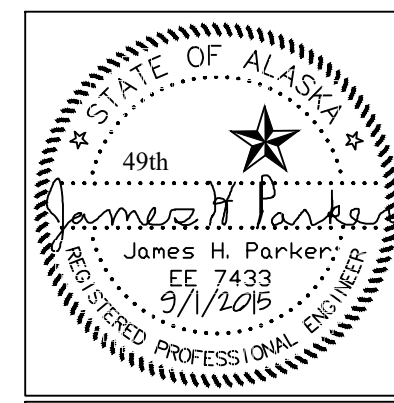
- NOT ALL SYMBOLS MAY BE USED
- (E), (D) (E) EXISTING TO REMAIN, (D) DEMOLISH
 - W.P. AS SUBSCRIPT DENOTES "WEATHERPROOF"
 - E. EMERGENCY LIGHT, CIRCUIT, PANEL
 - N.L. NIGHT LIGHT CIRCUIT, FIXTURE
 - P.C. PHOTOCELL
 - A LIGHTING FIXTURE KEY-SEE SCHEDULE
 - 100 ROOM NUMBER
 - REFER TO NOTE INDICATED
 - ELECTRICAL EQUIPMENT SCHEDULE
 - REVISION SYMBOL
 - SURFACE MTD. FIXTURE, CEILING, WALL
 - WALL MTD. FLUORESCENT FIXTURE
 - SURFACE/PENDANT MTD. FLUORESCENT FIXTURE
 - RECESSED FLUORESCENT FIXTURE
 - EMERGENCY LIGHT FIXTURE
 - BATTERY POWERED EMERGENCY LIGHTING UNIT, WALL AND CEILING
 - ARROWS INDICATE AIMING
 - EXIT SIGN, W/ARROWS AS NOTED
 - AREA LIGHT
 - JUNCTION BOX
 - 13 DUPLEX OUTLET (W/CKT #, IF SHOWN. GFCI=GROUND FAULT CIRCUIT INTERRUPT)
 - DOUBLE DUPLEX OUTLET
 - DUPLEX CONVENIENCE OUTLET, ONE SIDE SWITCHED
 - SPECIAL PURPOSE OUTLET-NEMA CONFIGURATION NOTED
 - EQUIPMENT CONNECTION
 - 240 OR 208V OUTLET
 - FLOOR OUTLET-POWER
 - POWER POLE
 - COMBO TELEPHONE/DATA OUTLET-WALL
 - COMBO TELEPHONE/DATA OUTLET-FLOOR
 - EXISTING TELEPHONE OUTLET
 - EXISTING TELEPHONE OUTLET - FLOOR
 - S SINGLE POLE SWITCH
 - S₂ DOUBLE POLE SWITCH
 - S₃ THREE-WAY SWITCH
 - S₄ FOUR-WAY SWITCH
 - S_D DIMMER CONTROL
 - S_K KEY OPERATED SWITCH
 - S_P SWITCH W/PILOT LIGHT
 - S_T THERMAL OVERLOAD SWITCH, MANUAL STARTER
 - S_a SWITCH SUBSCRIPT INDICATES SWITCHING
 - BRANCH CIRCUIT PANEL "P"
 - TERMINAL CABINET-SUBSCRIPT "T"-TELEPHONE, "S"-SIGNAL SYSTEM
 - T TRANSFORMER
 - MOTOR CONNECTION W/H.P. INDICATED
 - THERMOSTAT
 - ELECTRIC CLOCK
 - CLOCK OUTLET
 - CIRCUIT BREAKER DISCONNECT
 - MAGNETIC MOTOR STARTER
 - DISCONNECT SWITCH-UNFUSED
 - DISCONNECT SWITCH -FUSED
 - COMBINATION MOTOR STARTER-DISCONNECT
 - TELEVISION ANTENNA OUTLET
 - MICROPHONE OUTLET
 - PUSH BUTTON
 - BELL
 - BRANCH CIRCUIT-IN WALL OR CEILING
 - BRANCH CIRCUIT-IN FLOOR OR UNDERGROUND
 - BRANCH CIRCUIT-EXPOSED
 - LOW VOLTAGE CONDUCTOR
 - T TELEPHONE
 - FLEXIBLE CONDUIT
 - HOME RUN TO PANEL OR CABINET
 - CONDUIT-UP
 - CONDUIT-DOWN
 - SURFACE METAL RACEWAY
 - NUMBER OF WIRES IF OTHER THAN TWO
 - 3 HOT WIRES, 1 NEUTRAL WIRE, 1 GROUND WIRE
 - #8 WIRE SIZE IF OTHER THAN #10 OR #12

NOTES:
1. RTU'S ARE PROVIDED WITH A BREAKER AND RECEPTACLE.
2. VERIFY PANEL LOCATIONS WITH OWNER PRIOR TO ROUGH IN.



1 POWER AND COMM PLAN
SCALE: 1"=8'-0" (PRINTED ON 22" X 34" PAPER)



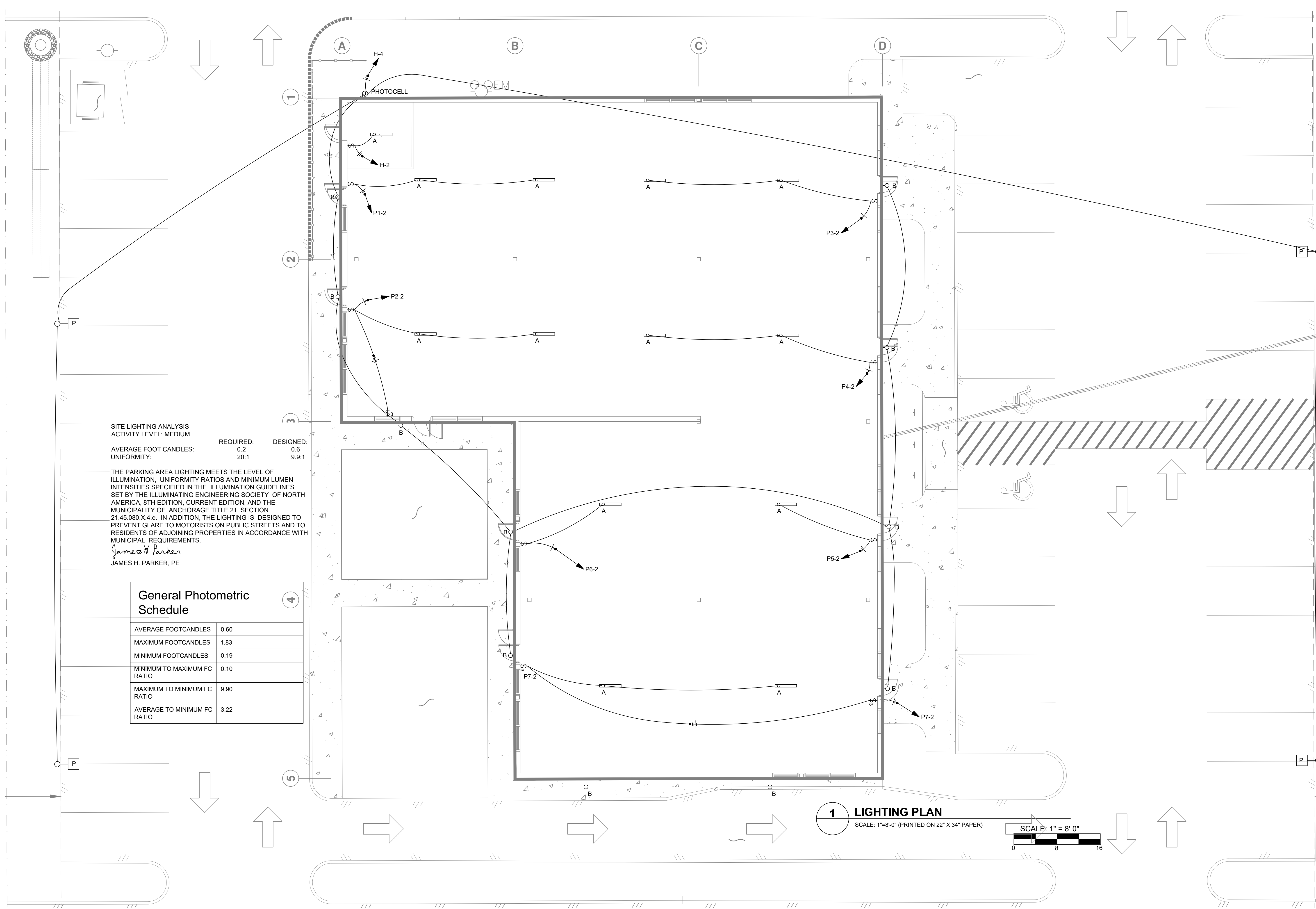


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ELECTRICAL
LIGHTING



SITE LIGHTING ANALYSIS
ACTIVITY LEVEL: MEDIUM

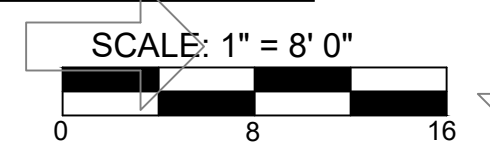
AVERAGE FOOT CANDLES: UNIFORMITY:	REQUIRED: 0.2 20:1	DESIGNED: 0.6 9.9:1
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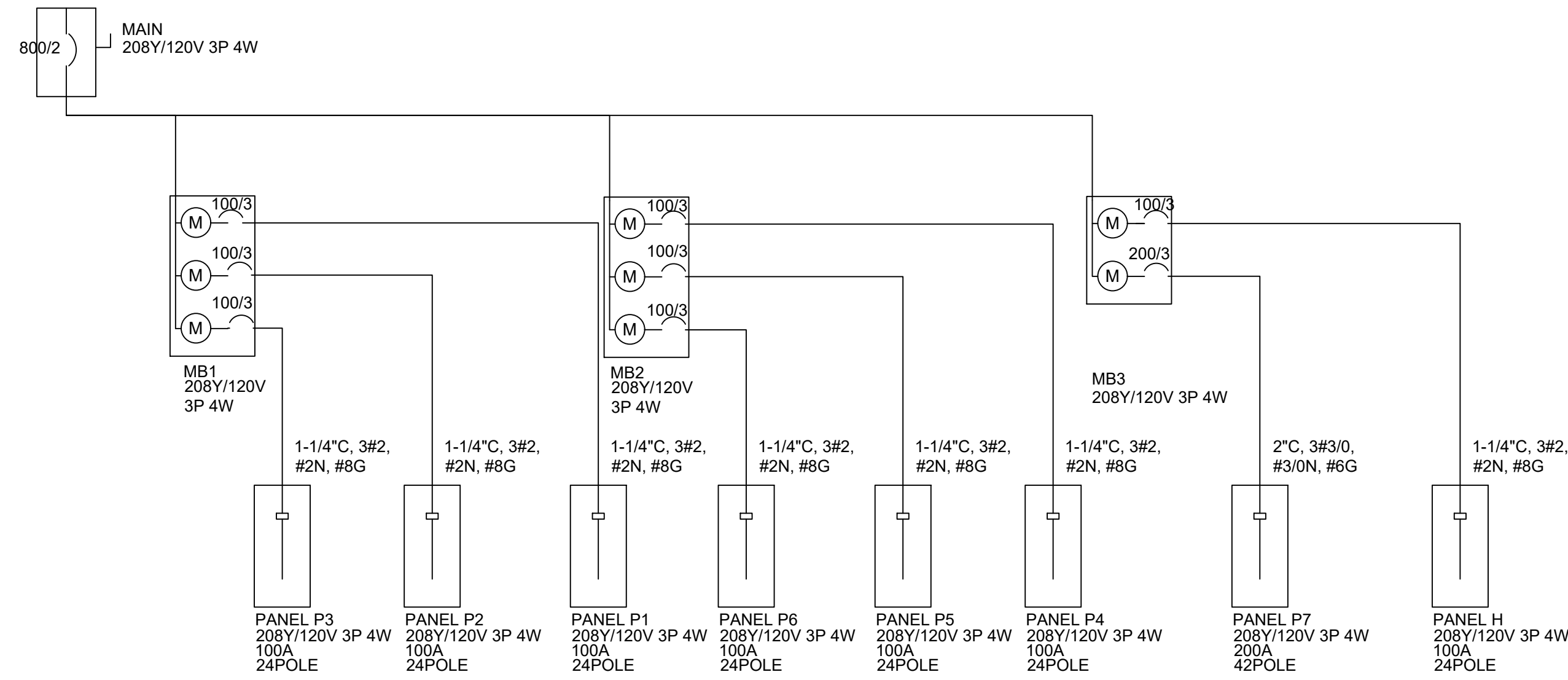
THE PARKING AREA LIGHTING MEETS THE LEVEL OF ILLUMINATION, UNIFORMITY RATIOS AND MINIMUM LUMEN INTENSITIES SPECIFIED IN THE ILLUMINATION GUIDELINES SET BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA, 8TH EDITION, CURRENT EDITION, AND THE MUNICIPALITY OF ANCHORAGE TITLE 21, SECTION 21.45.080.X.4.e. IN ADDITION, THE LIGHTING IS DESIGNED TO PREVENT GLARE TO MOTORISTS ON PUBLIC STREETS AND TO RESIDENTS OF ADJOINING PROPERTIES IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS.

James H. Parker
JAMES H. PARKER, PE

General Photometric Schedule	
AVERAGE FOOTCANDLES	0.60
MAXIMUM FOOTCANDLES	1.83
MINIMUM FOOTCANDLES	0.19
MINIMUM TO MAXIMUM FC RATIO	0.10
MAXIMUM TO MINIMUM FC RATIO	9.90
AVERAGE TO MINIMUM FC RATIO	3.22

1 LIGHTING PLAN
SCALE: 1"=8'-0" (PRINTED ON 22" X 34" PAPER)





1 ONE LINE DIAGRAM
SCALE: NONE

LUMINAIRE SCHEDULE										
CALLOUT	SYMBOL	LAMP	DESCRIPTION	BALLAST	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE 1	QUANTITY
A		(1) LED, NICHIA 757 80 CRI 4000K	LED STRIPLIGHT	ELECTRONIC	CEILING	LITHONIA ZL1N L48 5000LM MVOLT 40K L/LENS 80CRI	42.5	120V 1P 2W		13
B		(1) LED	LED WALL PACK	ELECTRONIC	WALL	COOPER LIGHTING EON 303 W1	10	120V 1P 2W		11
P		(1) LED	LED PARKING LOT	ELECTRONIC	POLE	Lithonia Lighting, DSX0 LED 20C 1000 30K T3M MVOLT HS	71.41	120V 1P 2W		4
PHOTOCELL		(1)	1800W PHOTOCELL		WALL		1	120V 1P 2W		1

CONTRACTOR TO VERIFY FIXTURE COUNT

RECEPTACLE SCHEDULE				
CALLOUT	SYMBOL	VOLTS	FEATURES	QUANTITY
Standard		120V 1P 2W	GND	9

CONTRACTOR TO VERIFY RECEPTACLE COUNT

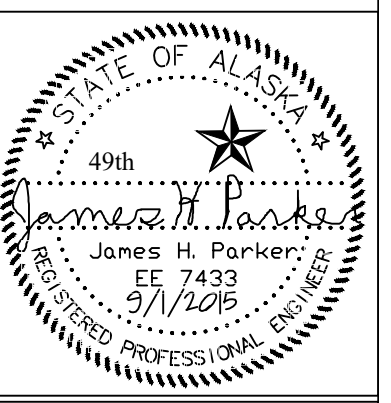
SWITCH SCHEDULE			
CALLOUT	SYMBOL	NOTE 1	QUANTITY
3 Way Switch			3
Single Pole			7

CONTRACTOR TO VERIFY SWITCH COUNT

- NOTES:
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
 - THE DRAWINGS ARE PARTLY DIAGRAMMATIC, NOT NECESSARILY SHOWING EXACT LOCATIONS UNLESS SPECIFICALLY DIMENSIONED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH OTHER TRADES TO AVOID CONFLICTS IN CONGESTED AREAS.
 - CONFORM TO ALL APPLICABLE CODES, INCLUDING NFPA 70, 2014 EDITION AND LOCAL AMENDMENTS.
 - THE CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND FEES.
 - ALL WORK PERFORMED UNDER THIS CONTRACT IS TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM ACCEPTANCE. ANY FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER DURING THE WARRANTY PERIOD.
 - ALL EQUIPMENT INSTALLED UNDER THIS PROJECT SHALL BE BRACED FOR A SEISMIC EVENT IN ACCORDANCE WITH THE 2009 INTERNATIONAL BUILDING CODE SECTION 1613.
 - ALL MATERIALS SHALL BE NEW AND UNUSED, INSTALLED PER MANUFACTURER'S DIRECTIONS AND IN THE BEST PRACTICE OF THE CRAFT.
 - USE RIGID STEEL CONDUIT WHERE UNDERGROUND OR SUBJECT TO DAMAGE. USE ELECTRICAL METALLIC TUBING OR AC/MC IN INTERIOR LOCATIONS.
 - PROVIDE TRENCH MARKING TAPE FOR ALL BURIED CONDUITS OR CABLES EXTENDING BEYOND BUILDING FOUNDATIONS.
 - FEEDERS AND BRANCH CIRCUITS: COPPER CONDUCTOR, 600 VOLT INSULATION, THN/THWN FOR HEATED AREAS, XHHW FOR NONHEATED AREAS.
 - DO NOT INSTALL THERMOPLASTIC CONDUCTORS WHEN TEMPERATURE IN WORK AREA IS BELOW 20 DEGREES F.
 - GROUND THE ELECTRICAL SERVICE SYSTEM NEUTRAL AT SERVICE ENTRANCE EQUIPMENT. PROVIDE #6 TELEPHONE SYSTEM GROUNDING CONDUCTOR AT TELEPHONE PANEL. BOND TOGETHER SYSTEM NEUTRALS. SERVICE EQUIPMENT ENCLOSURES, EXPOSED NON CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT, METAL RACEWAY SYSTEMS, RECEPTACLE GROUND CONNECTORS, AND PLUMBING SYSTEMS. GROUND RODS: COPPER ENCASED STEEL, 3/4 INCH DIAMETER, LENGTH 10 FEET. PROVIDE A GROUND WIRE IN ALL CONDUITS CONTAINING LINE VOLTAGE.
 - WALL SWITCHES FOR LIGHTING CIRCUITS: NEMA WD; 1 AC GENERAL USE SNAP SWITCH WITH TOGGLE HANDLE, RATED 20 AMPERES AND 120/277 VOLTS AC. HANDLE: IVORY PLASTIC.
 - CONVENIENCE RECEPTACLE CONFIGURATION: NEMA WD 1; TYPE 5 20 R, IVORY PLASTIC FACE. GFCI RECEPTACLES: DUPLEX CONVENIENCE RECEPTACLE WITH INTEGRAL CLASS A GROUND FAULT CURRENT INTERRUPTER U.L. NO. 493 LISTED.
 - DECORATIVE COVER PLATE: IVORY SMOOTH PLASTIC.
 - ELECTRICAL BOX LOCATIONS SHOWN ON CONTRACT DRAWINGS ARE APPROXIMATE UNLESS DIMENSIONED. VERIFY LOCATION OF SWITCHES AND OUTLETS PRIOR TO ROUGH IN. UNLESS OTHERWISE NOTED, MOUNT OUTLETS AT THE FOLLOWING HEIGHTS FROM FINISHED FLOOR TO CENTER LINE OF OUTLET:
WALL SWITCHES 3'8"
CONVENIENCE OUTLETS NON ADA: 1'2" ADA: 1'6"
WEATHERPROOF CONVENIENCE OUTLETS 2'6"
TELEPHONE OUTLETS NON ADA: 1'2" ADA: 1'6"
PUBLIC TELEPHONE OUTLET 3'8"
SPECIAL EQUIPMENT: AS NOTED ON DRAWINGS.
 - ELECTRICAL PANEL LOCATIONS SHOWN ON CONTRACT DRAWINGS ARE APPROXIMATE UNLESS DIMENSIONED. UNLESS OTHERWISE NOTED, MOUNT PANEL SO THE CENTER OF THE HANDLE OF THE TOP BREAKER IS LESS THAN THE FOLLOWING HEIGHT FROM FINISHED FLOOR:
NON ADA: 6'6" ADA: 4'0"
 - PROVIDE ELECTRICAL BOXES AS SHOWN ON DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, AND CODE COMPLIANCE.
 - USE MULTIPLE GANG BOXES WHERE MORE THAN ONE DEVICE ARE MOUNTED TOGETHER; DO NOT USE SECTIONAL BOXES.
 - INSTALL PULLWIRE OR POLYETHYLENE PULLING STRING IN EACH EMPTY TELEPHONE CONDUIT CONTAINING A BEND OR OVER 10 FT IN LENGTH.
 - METER BASE: 7 JAWS. COMPLY WITH SERVING UTILITY REQUIREMENTS. ALL COMMERCIAL SERVICES SHALL HAVE A MANUAL CIRCUIT CLOSER.
 - BRANCH CIRCUIT PANELBOARDS: NEMA PB1; PLUG ON CIRCUIT BREAKER TYPE.
 - LABELING: PROVIDE A TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD AND SWITCHBOARD. USE A PENCIL TO LABEL SPARE CIRCUIT BREAKERS. FOR PANELBOARDS, NUMBER CIRCUITS WITH ODD NUMBERS ON THE LEFT, EVEN NUMBERS ON THE RIGHT, ONE NUMBER FOR EVERY POLE. EVERY CIRCUIT SHALL HAVE A UNIQUE DESCRIPTION THAT CLEARLY IDENTIFIES THE LOAD SERVED. PROVIDE A NAME PLATE IDENTIFYING THE PANEL NAME. EVERY SWITCHBOARD AND PANEL SHALL HAVE A NAMEPLATE IDENTIFYING THE SOURCE OF POWER THAT SUPPLIES IT. PROVIDE A LABEL ON THE SERVICE ENTRANCE EQUIPMENT WITH THE MAXIMUM AVAILABLE SHORT CIRCUIT CURRENT AND DATE.
 - FUSIBLE SWITCH ASSEMBLIES AND NONFUSIBLE SWITCH ASSEMBLIES: NEMA KS 1; TYPE HD. HANDLE LOCKABLE IN OFF POSITION WITH INTERLOCK TO PREVENT OPENING IN ON POSITION.

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