

PANEL MD		VOLTS	PHASE 3 WIRES 4			NCP 800	
		42,000 AIC					
CRC NO.	POLES & AMPS	LOAD SERVED	PHASE LOAD VA			LOAD SERVED	CRC NO. / POLES & AMPS
			A	B	C		
1	3/200	PANEL "LP-1"	7000			RTU#1-1	2 / 3/80
3			7000	7000			4
5			7000	7000			6
7	3/200	PANEL "LP-2"	7000			RTU#1-2	8 / 3/80
9			7000	7000			10
11			7000	7000			12
13	3/200	PANEL "KP"	7000			RTU#1-3	14 / 3/80
15			7000	7000			16
17			7000	7000			18
19	3/150	ELEVATOR	8000			RTU#2-1	20 / 3/60
21			2000	8000			22
23			2000	2000			24
25	3/60	RTU#2-5	2500			RTU#2-2	26 / 3/60
27			5000	2500			28
29			5000	5000			30
31	3/125	PANEL "LP-3"	5000			RTU#2-3	32 / 3/60
33			5000				34
35			5000				36
37	3/100	SPARE	5000			RTU#2-4	38 / 3/60
39			5000				40
41			5000				42
TOTAL			69500	69500	69500		
TOTAL CONNECTED LOAD		208500		DEMAND LINE AMPS		580	
DEMAND LOAD		208500					

LOAD CALCULATIONS

LOAD : RADHA KRISHNA TEMPLE
 120 / 208 VOLTS, 3 PHASE, 4 WIRE, 60 HERTZ

PROJECT: RADHA KRISHNA TEMPLE
 LOCATION: ALLEN, TEXAS

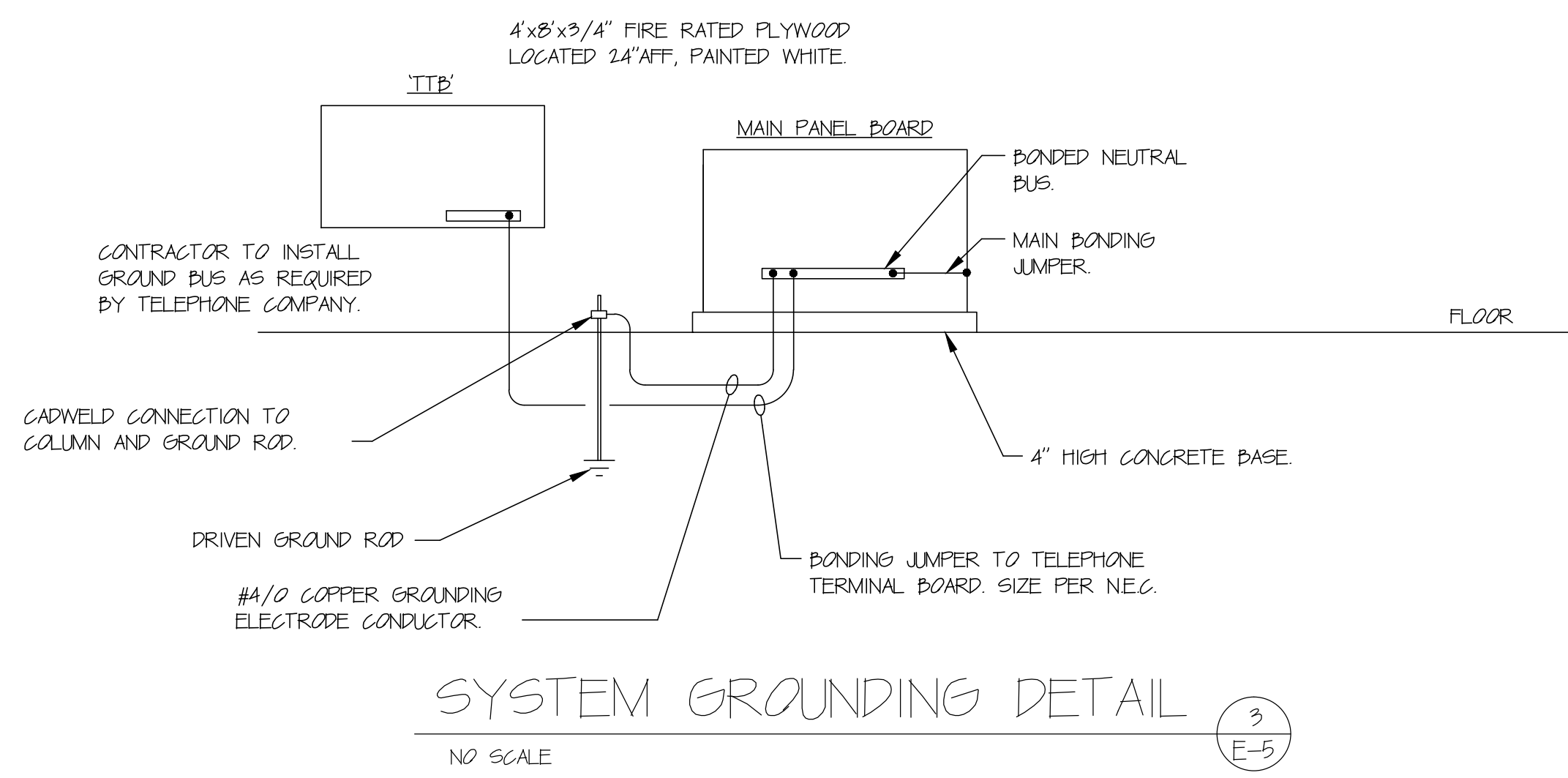
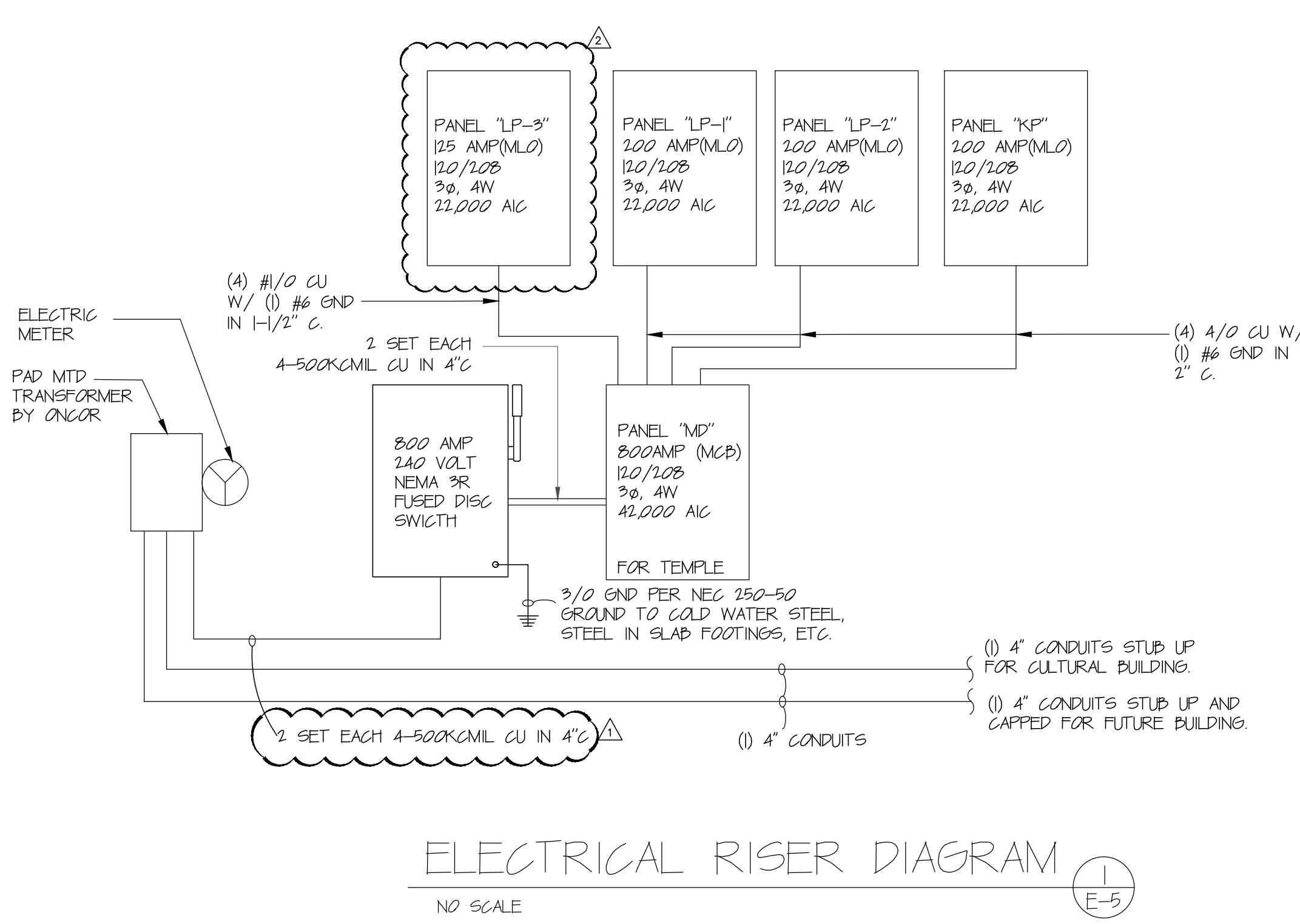
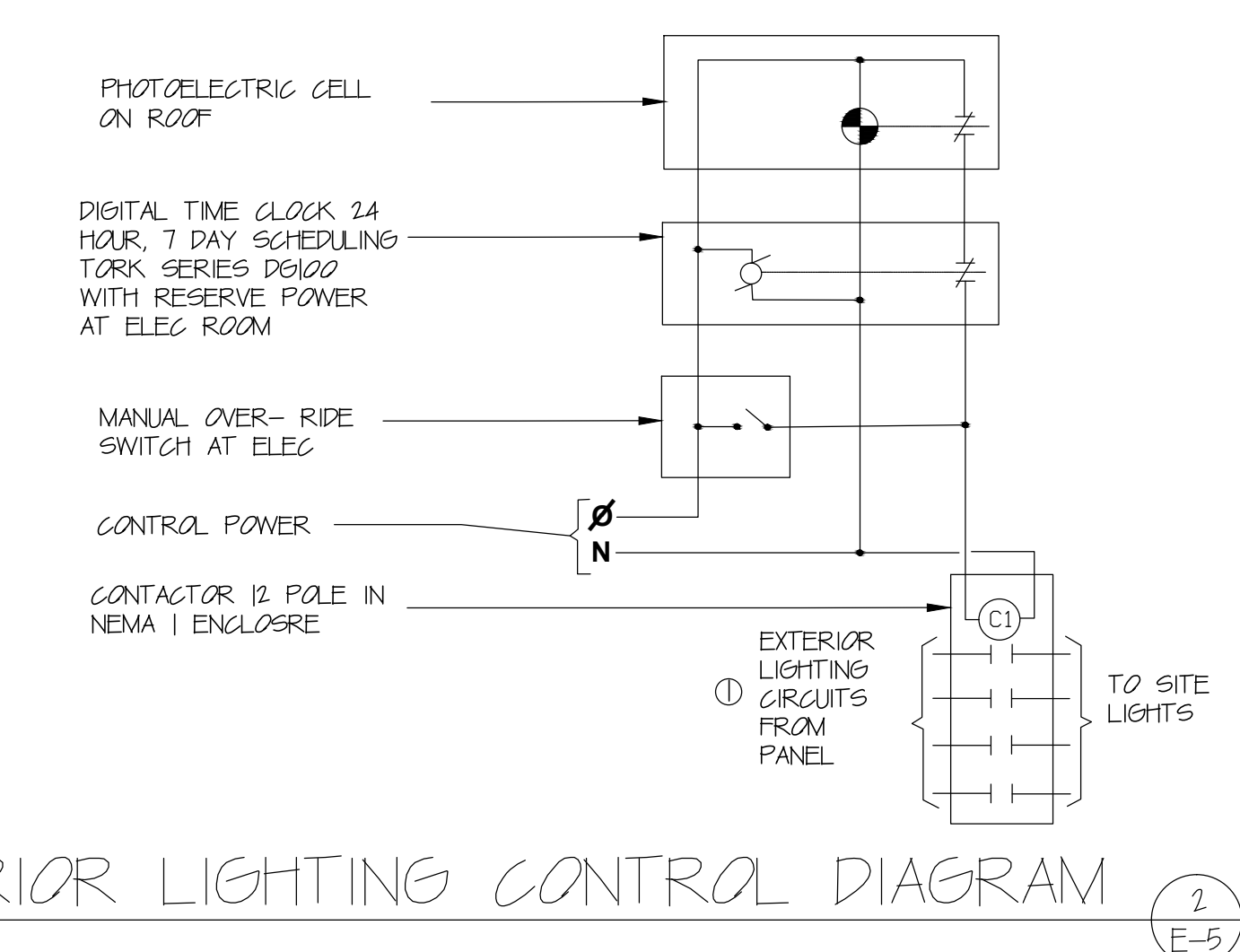
DATE: _____
 BY: M. WAHEED

ITEM	CONNECTED VA	DEMAND FACTOR	DEMAND	
			VA	AMPS
LIGHTING	14,000	125	17,500	
HVAC	105,000	100	105,000	
GENERAL OUTLET	9,000	10	9,000	
ELEVATOR	25,000	100	25,000	
KITCHEN EQUIPMENT	20,000	0.6	12,000	
MISC.	35,000	10	35,000	
TOTAL			209,500	

TOTAL DEMAND LOAD = 209,500 KVA
 TOTAL DEMAND AMPS = 581 AMPS
 SWITCHBOARD MINIMUM: 581 x 1.25 = 726 AMPS

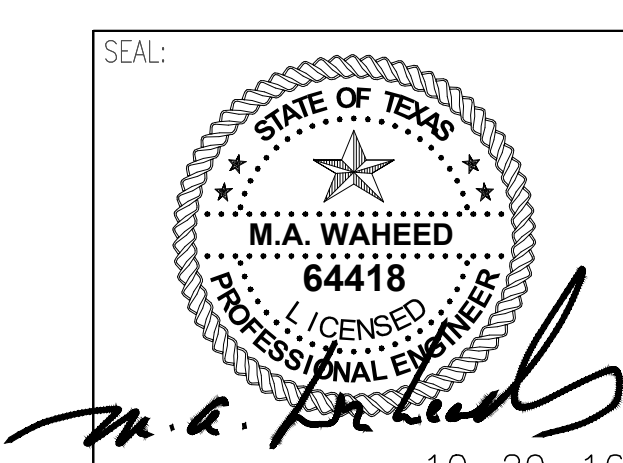
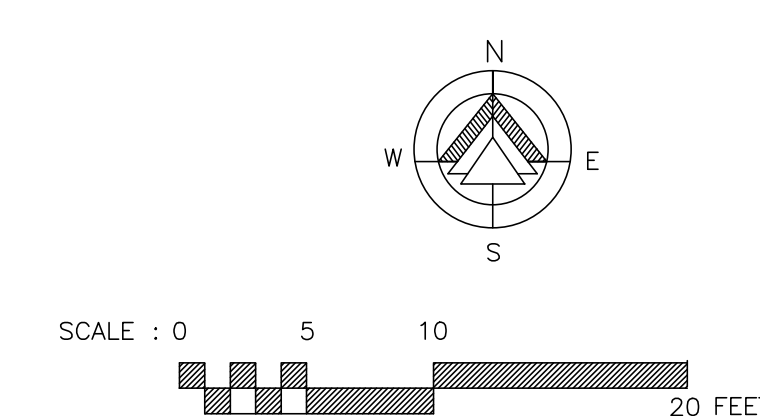
REMARKS:
 USE MINIMUM 800 AMP SWITCH BOARD

- ELECTRICAL SPECIFICATIONS:**
- SCOPE OF WORK: FURNISH AND INSTALL ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY TO COMPLETE INSTALLATION FOR ELECTRICAL POWER AND LIGHTING SERVICE WITHIN THE AREA DESCRIBED ON THE DRAWINGS. ALL WORKS SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND APPLICABLE ORDINANCES, REGULATIONS, AND CODES OF THE CITY, ORDINANCE, AND THOSE OF STATE OF TEXAS.
 - FEES AND PERMITS: THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND FEES WHICH ARE REQUIRED FOR THE WORK UNDER THIS SECTION OF THE SPECIFICATIONS.
 - GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE FULLY GUARANTEED FOR THE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK. DURING THIS PERIOD ALL PARTS FOUND TO BE DEFECTIVE SHALL BE REPLACED WITHOUT COST OF THE OWNER.
 - UTILITIES: ELECTRICAL POWER AND TELEPHONE SERVICES SHALL BE EXTENDED TO POINTS OF SERVICE CONNECTIONS AT THE APPROXIMATE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE INSTALLATION OF THESE SERVICES WITH THE UTILITY COMPANIES. VERIFY POINTS OF CONNECTION, PAY ALL ASSOCIATED CONNECTION FEES.
 - GROUNDING: ALL ELECTRICAL EQUIPMENT INSTALLED ON THIS PROJECT SHALL BE PROPERLY GROUNDED IN STRICT ACCORDANCE WITH SECTION 250 OF THE NEC.
 - RACEWAYS AND FITTINGS: ALL WIRING, EXCEPT AS OTHERWISE NOTED SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT WITHIN THE BUILDING SHALL BE GALVANIZED ELECTRICAL METALLIC TUBING (EMT). CONNECTIONS TO EQUIPMENT MAY BE MADE WITH FLEXIBLE METALLIC CONDUIT AS ALLOWED BY CODE. WHEREVER FLEXIBLE CONDUIT IS USED IN PANTRY OR OUTDOOR LOCATIONS IT SHALL BE RATED LIQUID TIGHT AND SHEATHED WITH A VINYL COVER. FITTINGS SHALL BE LIQUID TIGHT. RACEWAYS INSTALLED IN CONCRETE OR BURIED BELOW GRADE, AND SERVICE ENTRANCE CONDUIT SHALL BE FABRICATED FROM RIGID GALVANIZED STEEL CONDUIT. UNDERGROUND CONDUIT MAY BE FABRICATED FROM UPVC. ALL APPROVED PLASTIC CONDUIT, INSTALLED WITHOUT CONCRETE ENCASEMENT WHEN ALLOWED BY CODE. ALL CONDUIT AND FITTINGS SHALL BE APPROVED AND ALL LABELS, AND SHALL BE INSTALLED AS REQUIRED BY CODE.
 - WIRING: ALL CONDUCTORS, EXCEPT WHERE OTHERWISE NOTED SHALL BE COPPER AS REQUIRED BY NEC. INSULATION SHALL BE COLORING CODED TYPE THW. ALL WIRE SIZES SHALL BE SIZED AS INDICATED AND WHERE NO SIZES ARE SPECIFIED INSTALL #2. ALL CONTROL WIRING SHALL BE #14 SIZE.
 - FULL WIRES: FULL WIRE SHALL BE FURNISHED AND INSTALLED IN ALL EMPTY CONDUITS AND SHALL 50 POUND TEST NYLON CORD. LABEL EACH TERMINATION.
 - OUTLET BOXES AND COVERS: ALL OUTLET BOXES INSIDE THE BUILDING SHALL BE GALVANIZED, FRESSED STEEL TYPE, EXCEPT WHERE OTHERWISE REQUIRED. INSTALL SECTIONAL TYPE BOXES IN GYPSUM WALLS AND MASONRY TYPE BOXES IN MASONRY WALLS. ALL JUNCTION BOXES AND FULL BOXES SHALL BE EQUIPPED WITH BLACK COVERS. ALL FLUSH MOUNTED BOXES LOCATED INSIDE THE BUILDING SHALL BE EQUIPPED WITH AN IVORY COLORED PLASTIC COVER PLATE UNLESS OTHERWISE NOTED. WALL PLATE IN ROOMS WITH WOOD PANELING SHALL BE STAINED TO MATCH THE COLOR OF THE WALL OF THE WALL. BOXES FOR ALUMINUM AND SHALL HAVE THREADED CONDUIT ENTRANCES, WATERPROOF TYPE, AND ADJUSTABLE POLISHED BRASS COVER PLATE.
 - WIRING DEVICES: SWITCHES SHALL BE ARROW-HART #1091-9L-1 AS REQUIRED, OR EQUAL BY HUBBELL, PASS & SEYMOUR, SIERRA OR BRYANT. RECEPTACLES SHALL BE ARROW-HART #548-1 OR EQUAL BY SWITCH MANUFACTURER. ALL ACCESSIBLE RECEPTACLES IN RESTROOMS, JANITOR CLOSETS, KITCHENS, OR OUTDOOR RECEPTACLES SHALL BE GFI TYPE OR PROTECTED BY GFI CIRCUIT BREAKERS.
 - TELEPHONE AND COMPUTER CONDUIT SYSTEM: FURNISH AND INSTALL AN EMPTY 3/4 INCH CONDUIT FROM EACH TELEPHONE AND COMPUTER WALL OUTLET TO 12" ABOVE THE CEILING. COORDINATE THE TELEPHONE SYSTEM INSTALLATION WITH THE TELEPHONE COMPANY.
 - PANELBOARDS: PANELBOARDS SHALL BE OF THE CIRCUIT BREAKER TYPE WITH TIN PLATED ALUMINUM BUSING SIZED AS SHOWN ON THE PLAN AS MANUFACTURED BY GENERAL ELECTRIC OR SQUARE D. ALL PANELBOARDS SHALL USE BUILT-IN TYPE CIRCUIT BREAKERS FOR AIR CONDITIONING EQUIPMENT SHALL BE HACR TYPE APPROVED MANUFACTURERS: GENERAL ELECTRIC OR SQUARE D.
 - SAFETY SWITCHES: SAFETY SWITCHES SHALL CONSIST OF A BOX HINGED LOCKING COVER, AND CIRCUIT PROTECTOR DEVICES, AND SHALL BE MANUFACTURED IN ACCORDANCE WITH NEMA STANDARDS AND SHALL BEAR APPLICABLE ALL LABEL. SWITCHES SHALL BE FUSED OR NON-FUSED, WITH AMPERAGE RATING AND NUMBER OF POLES AS SCHEDULED. APPROVED MANUFACTURERS: GENERAL ELECTRIC OR SQUARE D.



NOTE ON GROUNDING AND BONDING.
 ART 250.94(4)
 THE INTERSYSTEM BONDING TERMINATION SHALL BE MOUNTED ON THE BOTTOM OF THE ENCLOSURE USING NUT/BOLT AND LOCK WASHER. TECH SCREWS ARE PROHIBITED.

KEY NOTE:
 1 ALL EXTERIOR LIGHTS SHALL BE CONTROLLED BY PHOTOCELL/TIME CLOCK/MANUAL OVERRIDE SWITCH. REFER TO EXTERIOR LIGHTING CONTROL DIAGRAM.



CONSULTANT: WAHEED CONSULTING MECHANICAL-ELECTRICAL-PLUMBING SYSTEM DESIGNS Registration No. F-6336	ELECTRICAL RISER AND PANEL SCHEUDLE CONSTRUCTION DOCUMENT PHASE RADHA KRISHNA TEMPLE ALLEN TEXAS
rev Δ 10-09-2016 ADDED SPARE PANEL rev Δ 11-05-2015 CITY COMMENTS date 10-05-2015 RELEASE FOR CONSTRUCTION scale AS NOTED drawn by CADD-NV	SHASHI D. PATEL AIA NCARB ARCHITECTS AND PLANNERS 442 EAST END AVE. STE-B. PITTSBURGH PA 15221
TEL (817) 793 2010, FAX: (972) 442 4063 420 PARKSIDE ST. MURPHY, TX, 75094 E-mail: waheedmep@yahoo.com	dwg. 07162013 no. E-5