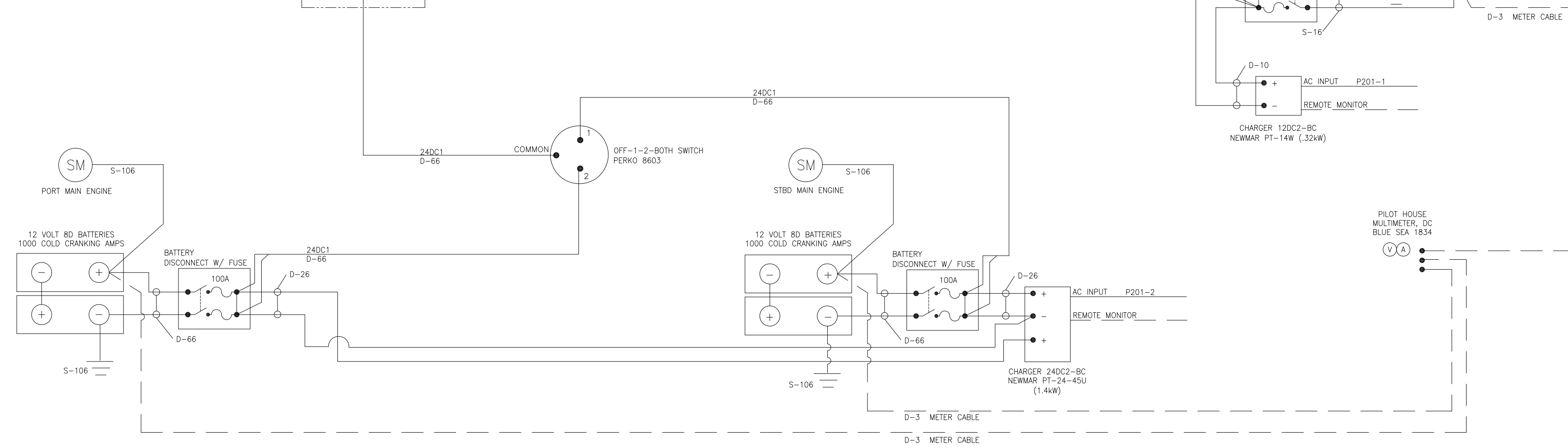
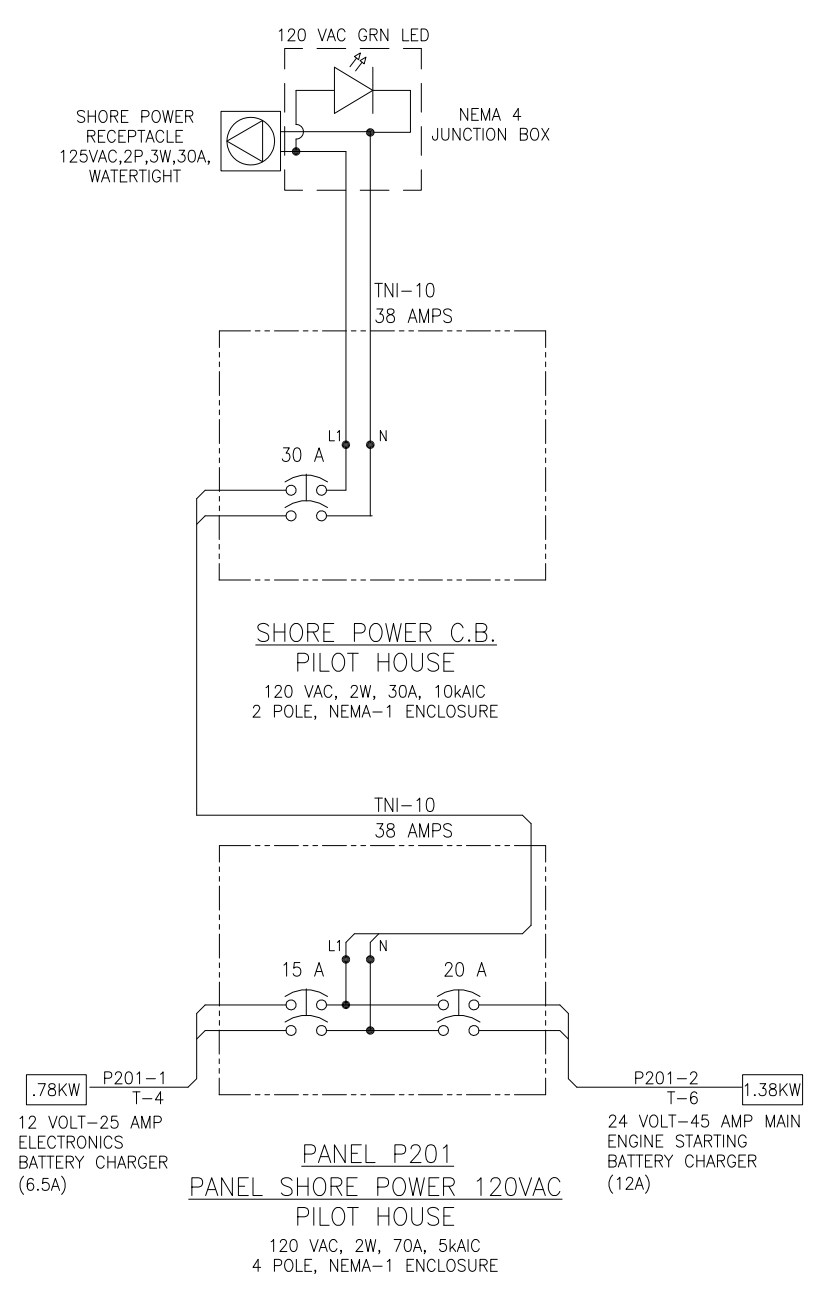
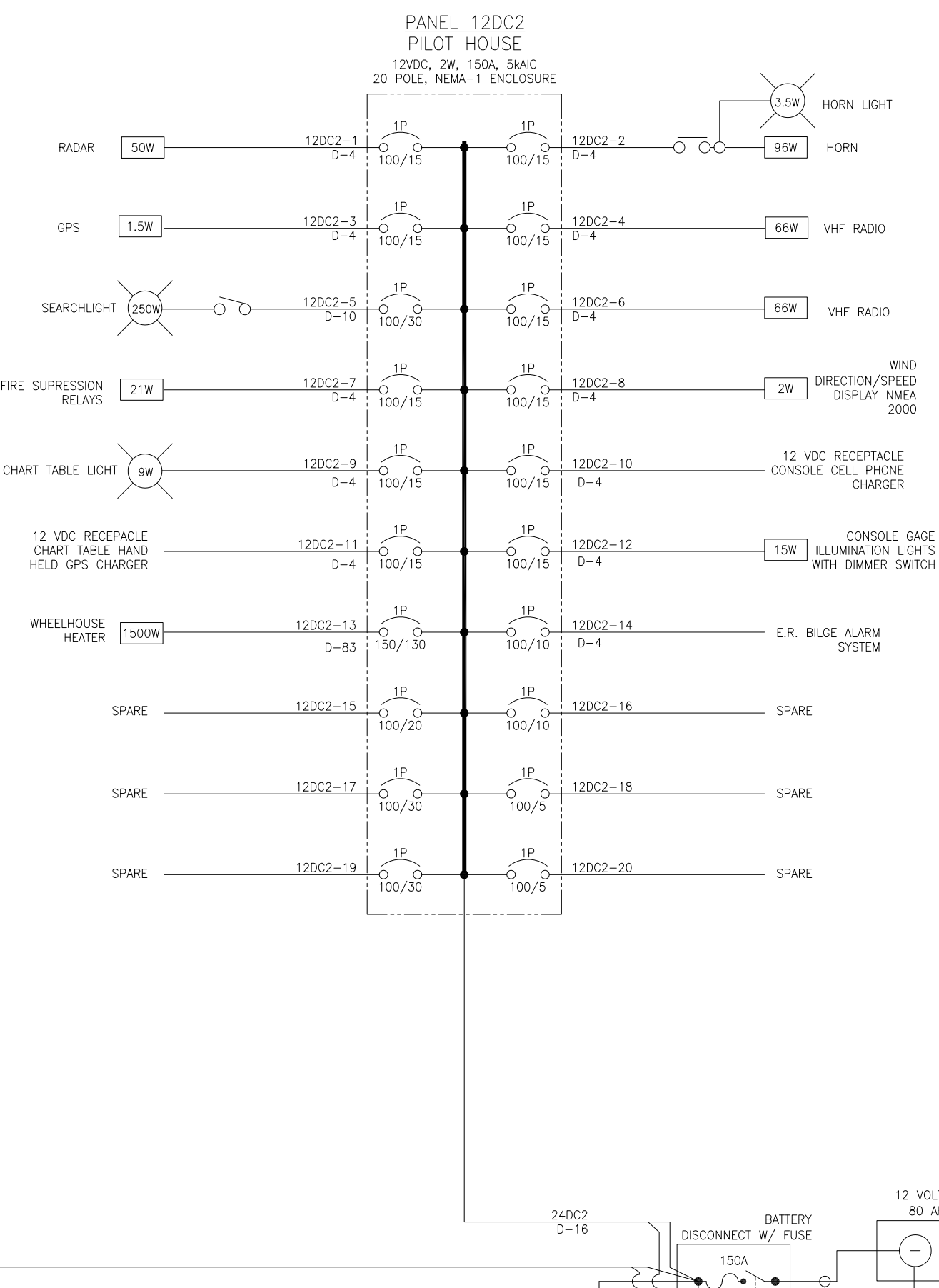
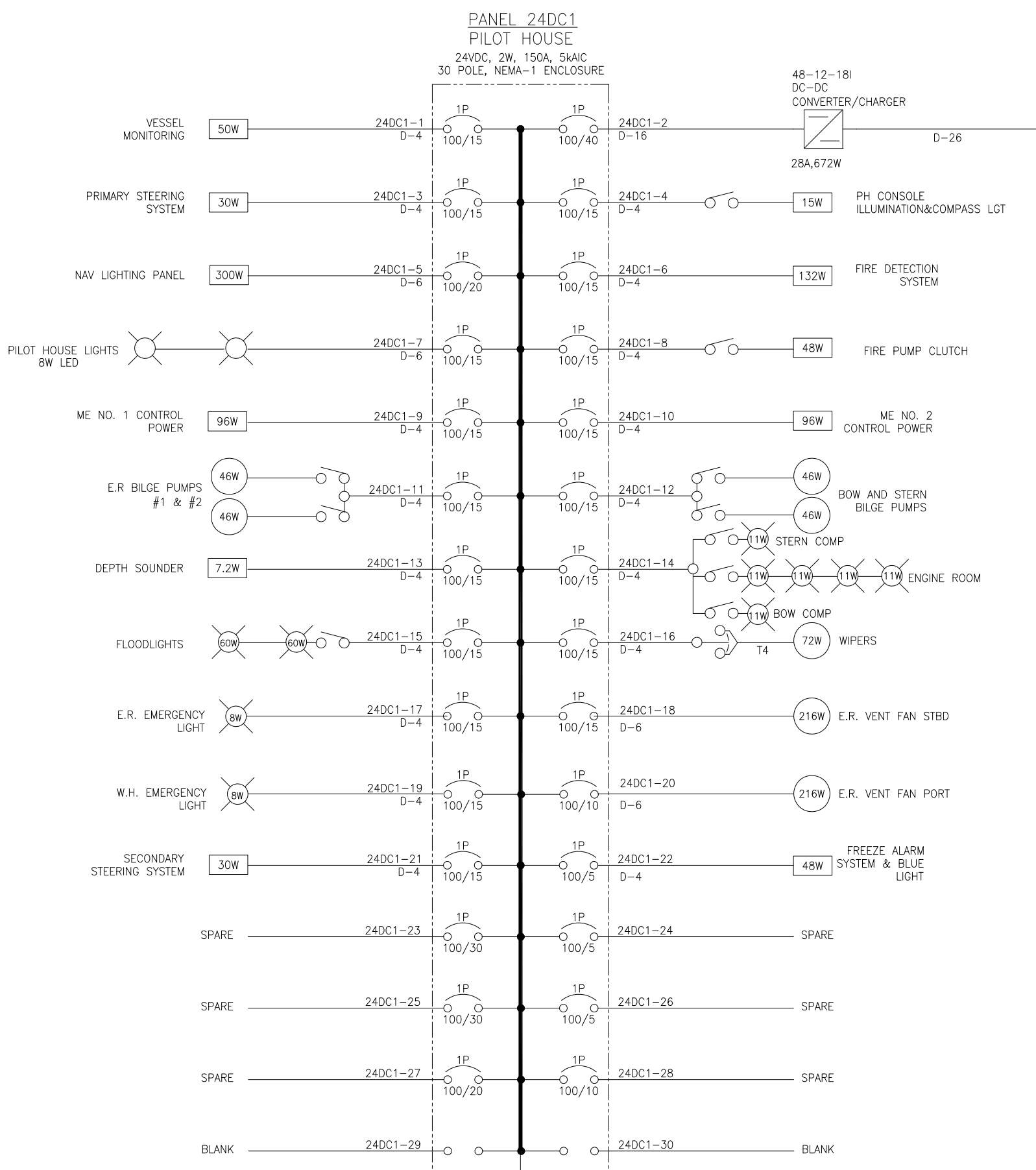


SYMBOLS LIST	
	CIRCUIT BREAKER X = POLES Y = FRAME SIZE Z = TRIP RATING
	SWITCH
	TWO SPEED SWITCH
	EQUIPMENT
	RECEPTACLE
	LIGHTING
	MOTOR
	DC-DC CONVERTER
	SHORE POWER RECEPTACLE
	INSTRUMENTATION V = VOLTS, A = AMPERES, kW = KILOWATTS, Hz = FREQUENCY PA = POWER AVAILABLE RO = PHASE ROTATION
	OFF-1-2-BOTH SWITCH
	CONTROL DEVICES/FUNCTIONS PB = PUSH-BUTTON PB/IL = PUSH-BUTTON, ILLUMINATED PS = PRESSURE SWITCH LS = LEVEL SWITCH FR = FIRE SHUTDOWN FS = FLOW SWITCH DS = DISCONNECT SWITCH TH = THERMOSTAT
	FUSE
	VENDOR PROVIDED MOTOR CONTROLLER
	MAIN ENGINE MOTOR
	LED



- GENERAL NOTES -	
NO.	DESCRIPTION
1	MATERIAL AND WORKMANSHIP SHALL CONFORM TO U.S. COAST GUARD REQUIREMENTS FOR SUBCHAPTER "M" VESSELS AND AMERICAN BUREAU OF SHIPPING RULES FOR BUILDING AND CLASSING STEEL VESSELS UNDER 90M.
2	SHIP SERVICE SWITCHBOARD IS A 3 PHASE 4 WIRE SYSTEM, 208/120V, 60 Hz, WITH GROUNDED NEUTRAL. SEE REFERENCE 1 FOR SWITCHBOARD LOCATION.
3	ALL PERMANENTLY INSTALLED ELECTRICAL EQUIPMENT SHALL HAVE METAL ENCLOSURES PROPERLY GROUNDED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, UNLESS NOTED OTHERWISE.
4	ALL POWER CABLE SHALL COMPLY WITH THE REQUIREMENTS OF IEEE 1580. ALL CABLE SHALL BE LOW SMOKE, ZERO HALOGEN TYPE, TRICAB OR EQUAL.
5	NYLON OR BRASS STUFFING TUBES SHALL BE USED WHEN PENETRATING ELECTRICAL ENCLOSURES OR JUNCTION BOXES.
6	RESIZE CABLE FOR LENGTH OF RUN OF DC CIRCUITS IF APPLICABLE
7	ALL CABLES SHALL BE RATED AT 90°C CONDUCTOR TEMPERATURE IN ACCORDANCE WITH IEEE STANDARD NO. 45 2002 TABLE 25.
8	EACH CABLE SHALL BE TAGGED WITH ITS UNIQUE CIRCUIT DESIGNATION USING EMBOSSED ALUMINUM TAGS ON EACH SIDE OF PENETRATIONS AND INTO CONNECTION BOXES AND/OR EQUIPMENT.
9	METAL USED FOR TERMINAL STUDS, LUGS, NUTS, AND WASHERS SHALL BE CORROSION RESISTANT AND GALVANICALLY COMPATIBLE WITH THE WIRE AND TERMINAL LUGS.
10	WIRES TERMINATING IN EQUIPMENT SHALL BE ARRANGED TO PROVIDE A SURPLUS LENGTH OF WIRE SUFFICIENT TO ALLOW FOR DISCONNECTION, AND TO PERMIT MULTIPLE WIRES TO BE FORMED AT TERMINAL STUDS.
11	CABLE PENETRATIONS OF STRUCTURAL FIRE PROTECTION SHALL UTILIZE FIRE STOPS WHICH MAINTAIN THE FIRE PROTECTION LEVEL (GRADE A, B, ETC.) ASSOCIATED WITH THE FIRE ZONE PENETRATED.
12	CABLE PENETRATIONS THROUGH BULKHEADS AND DECKS, BOTH WATERTIGHT AND NON-WATERTIGHT, SHALL COMPLY WITH REGULATORY BODY REQUIREMENTS. MULTI-CABLE TRANSIT TYPE PENETRATIONS MAY BE SUBSTITUTED FOR STUFFING TUBES FOR ALL PENETRATIONS EXCEPT THROUGH OPEN DECKS. EXTRA HEAVY, LOW ALLOY KICK PIPES WITH STUFFING TUBES, OR EQUIVALENT, SHALL BE WELDED INTO ALL OPEN DECKS AND SHALL BE NINE INCHES HIGH TO TOP OF THE STUFFING TUBE. BUILT-IN WATERTIGHT BOXES MAY BE USED IN LIEU OF KICK PIPES. POURED SEALERS SHALL NOT BE ALLOWED.

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Title: 45.5'x20'x6.5' NCDOT PUSHBOAT

**ELECTRICAL ONE-LINE DIAGRAM**

Dwg. No. 17-1393-320 Alt. No. 0 Sht. 1 of 1

Drawn By: JAH Date: DECEMBER 19, 2018  
Checked By: Date: \_\_\_\_\_  
App'd By: Scale: 1/4" = 1'-0"  
ABS App'l: USCG App'l: \_\_\_\_\_

