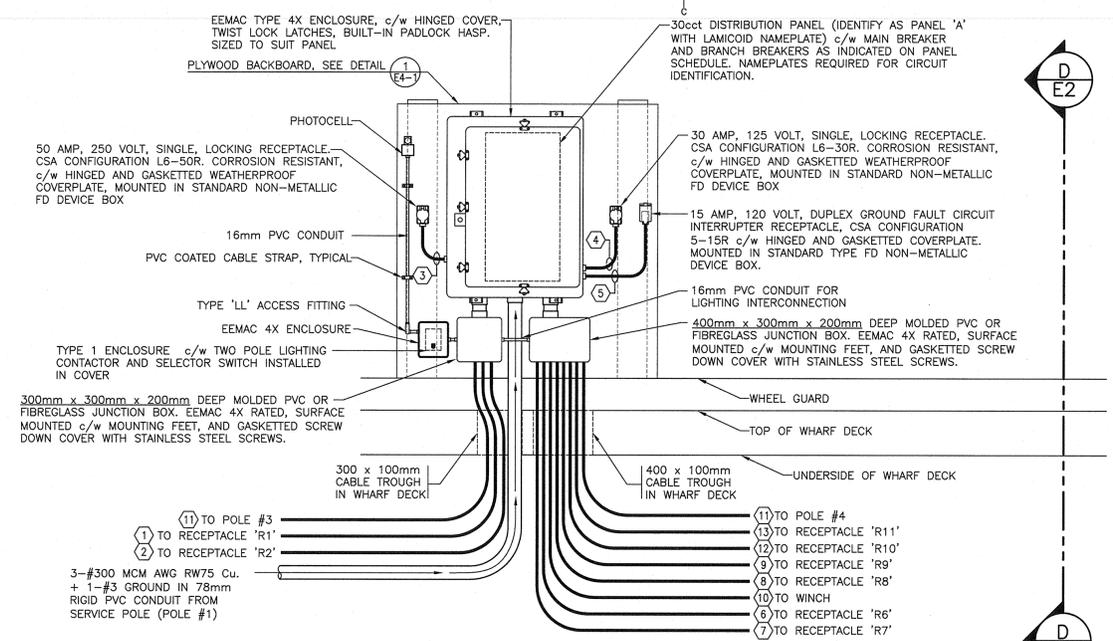


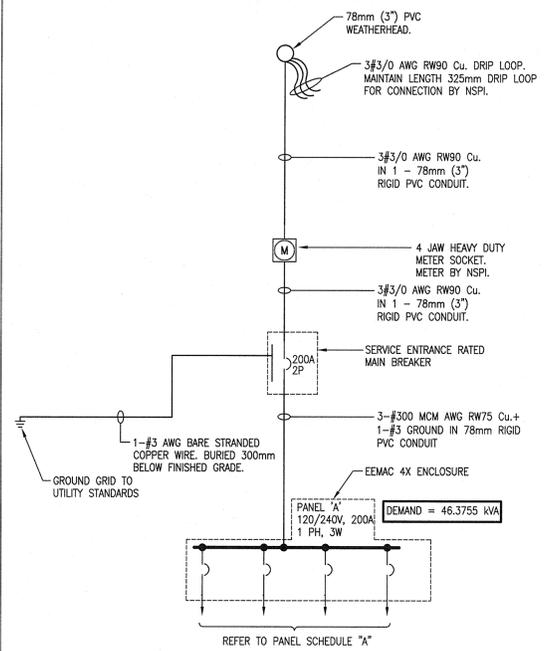
SERVICE POLE DETAIL
SCALE : N.T.S. 1
E2

NOTE:
1. FOR SERVICE POLE LIGHT FIXTURE INSTALLATION REFER TO DRAWING E3-1.

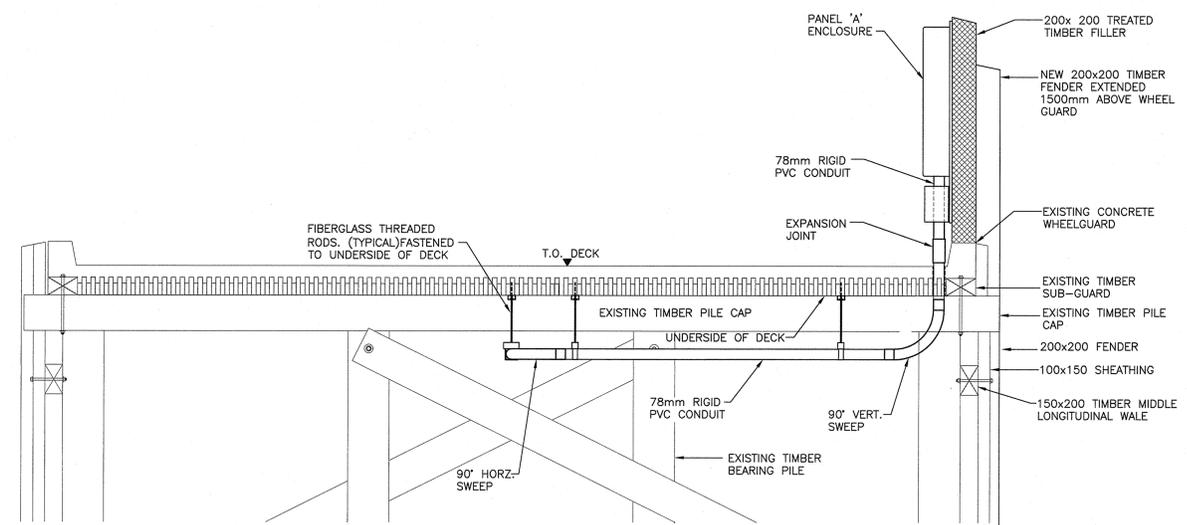


POWER CENTRE #2 - SERVICE LAYOUT
SCALE : 1:20 2
E2

INDICATES BRANCH CIRCUIT FEEDER, SEE CABLE/FEEDER SCHEDULE THIS DRAWING.



ELECTRICAL SINGLE LINE DIAGRAM



SECTION - THROUGH DECK AT PANEL 'A'
SCALE : 1:25 D
E2

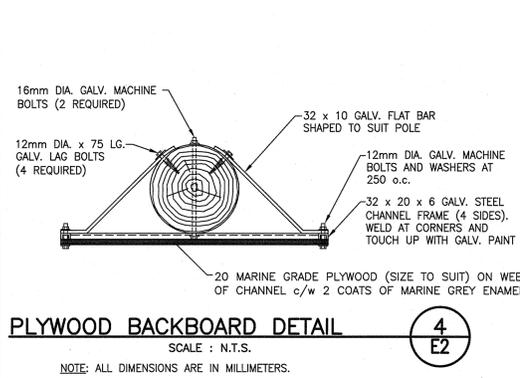
LOAD CALCULATION (DEMAND) - PANEL A

- RECEPTACLE LOAD (CEC 78-056)
 - (1 x 50A x 240) 100% = 12.00kW
 - (3 x 30A x 120) 100% = 10.80kW
 - (2 x 30A x 120) 65% = 4.680kW
 - (2 x 20A x 120) 65% = 3.120kW
 - (3 x 20A x 120) 50% = 3.600kW

SUBTOTAL = 34.200 kW
- WHARF LIGHTING
 - 6 - 185 WATT LED AREA LIGHTS = 6 x 1185 = 1.110 kW
- WINCH (NON-CONTINUOUS LOAD)
 - 1 x 3.0HP x 746W = 2.238 kW x 80%

TOTAL DERRICK LOAD = 1.7904 kW

TOTAL LOAD	RECEPTACLES	= 34.200 kW
	WHARF LIGHTING	= 1.1100 kW
	WINCH	= 1.7904 kW
	TOTAL	= 37.1004 kW
TOTAL		37.1004 kW x 1.25 = 46.3755 kVA
TOTAL SERVICE LOADING		= 46.3755 kVA/240 VOLTS = 193.23125 AMPS



PLYWOOD BACKBOARD DETAIL
SCALE : N.T.S. 4
E2

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS.

VOLTS	120/240	PANEL	A
PHASE	1	LOCATION	WHARF
WIRE	3	FED FROM	75kVA NSPI XFMR
		BRANCH BREAKER I.C.	10 kA MTG. SURFACE

DESIGNATION	KW		WIRE SIZE	CIR NO.	BKR	A		B		DESIGNATION	NOTES
	A	B				A	B				
DERRICK (3HP)	2.238	10	10	1	2P	30A	2	10/8/10	2.40	RECEPTACLE R1	1.3
WHARF LIGHTING	0.695	12	5	15A	40A	3	4	12	1.92	RECEPTACLE R2	2
LIGHTING CONTACTOR	0.200	12	7	15A	2P	6	8		9.60	RECEPTACLE R3 (WELDING RECEPTACLE)	
					30A	10	10	2.40		RECEPTACLE R4	1
					20A	12	12	1.92		RECEPTACLE R5	2
					30A	14	10	2.40		RECEPTACLE R6	1
					20A	16	12	1.92		RECEPTACLE R7	2
					30A	18	10/6/10	2.40		RECEPTACLE R8	1.3
					20A	20	12/10/12	1.92		RECEPTACLE R9	2.3
					30A	22	10/6/10	2.40		RECEPTACLE R10	1.3
					20A	24	12/8/12	1.92		RECEPTACLE R11	2.3
						26					
						28					
						30					

NOTES:
1. TWIST LOCK RECEPTACLE
2. GFI RECEPTACLE
3. CIRCUIT CONDUCTORS TO INCREASE IN SIZE TO ALLOW FOR VOLTAGE DROP

FEEDER 3-#300 MCM AWG RW75 Cu. + 1-#4 GROUND IN 78mm RIGID PVC CONDUIT

φ "A" TOTAL 19029 WATTS
φ "B" TOTAL 15719 WATTS
TOTAL LOAD 34.748 KW 144.783 AMPS @ 240V

CABLE #	LOADS	LOCATION	BRK. RATING	VOLTAGE	RATED CURRENT	CIRCUIT	DISTANCE METER (FT)	VOLTAGE DROP	FEEDER SIZE	JUNCTION BOX SIZE
1	RECEPTACLE #R1	POWER CENTRE #1	30 AMP	120V	24 AMPS	A-2	26m (85')	2.663V (2.219%)	2/C #8 TECK CABLE WITH #10 BOND	200mm x 200mm x 100mm (8"x8"x4")
2	RECEPTACLE #R2	POWER CENTRE #1	20 AMP	120V	16 AMPS	A-4	26m (85')	2.77V (2.31%)	2/C #10 TECK CABLE WITH #12 BOND	MOUNTED ON POWER CENTRE
3	RECEPTACLE #R3	POWER CENTRE #2	50 AMP	240V	40 AMPS	A-6	1m (3')	0.171V (0.071%)	2/C #8 TECK CABLE WITH #10 BOND	NO JUNCTION BOX REQUIRED
4	RECEPTACLE #R4	POWER CENTRE #2	30 AMP	120V	24 AMPS	A-8,10	1m (3')	0.16V (0.133%)	2/C #10 TECK CABLE WITH #12 BOND	
5	RECEPTACLE #R5	POWER CENTRE #2	20 AMP	120V	16 AMPS	A-12	1m (3')	0.126V (0.105%)	2/C #12 TECK CABLE WITH #14 BOND	
6	RECEPTACLE #R6	POWER CENTRE #3	30 AMP	120V	24 AMPS	A-14	16m (52.5')	2.561V (2.134%)	2/C #10 TECK CABLE WITH #12 BOND	200mm x 200mm x 100mm (8"x8"x4")
7	RECEPTACLE #R7	POWER CENTRE #3	20 AMP	120V	16 AMPS	A-16	16m (52.5')	2.69V (2.24%)	2/C #12 TECK CABLE WITH #14 BOND	MOUNTED ON POWER CENTRE
8	RECEPTACLE #R8	POWER CENTRE #4	30 AMP	120V	24 AMPS	A-18	49m (160')	3.217V (2.680%)	2/C #6 TECK CABLE WITH #8 BOND	200mm x 200mm x 100mm (8"x8"x4")
9	RECEPTACLE #R9	POWER CENTRE #4	20 AMP	120V	16 AMPS	A-20	49m (160')	3.34V (2.78%)	2/C #8 TECK CABLE WITH #10 BOND	MOUNTED ON POWER CENTRE
10	WINCH	WHARF	40 AMP	240V	17 AMPS (FLA)	A-1,3	30m (98')	3.402V (1.417%)	2/C #10 TECK CABLE WITH #12 BOND	COMBINATION STARTER
11	WHARF LIGHTING	POLES 1 - 5	15 AMP	120V	4.625 AMPS	A-5	81m (105')	0.917V (0.764%)	2/C #12 TECK CABLE WITH #14 BOND	100mm x 100mm x 50mm (4"x4"x2") ON POLES
12	RECEPTACLE #R10	POWER CENTRE #5	30 AMP	120V	24 AMPS	A-22	52m (170.6')	3.414V (2.845%)	2/C #6 TECK CABLE WITH #8 BOND	200mm x 200mm x 100mm (8"x8"x4")
13	RECEPTACLE #R11	POWER CENTRE #5	20 AMP	120V	16 AMPS	A-24	52m (170.6')	3.55V (2.95%)	2/C #8 TECK CABLE WITH #10 BOND	MOUNTED ON POWER CENTRE

0	ISSUED FOR TENDER	NOV 2015
revisions		date

project WHARF CONSTRUCTION

MARIE JOSEPH
GUYSBOROUGH COUNTY
NOVA SCOTIA

drawing K. WOLFE
DESIGNER
DETAILS - SERVICE POLE & PANEL 'A', SINGLE LINE DIAGRAM, VOLTAGE DROP CALC'S AND PANEL SCHEDULE

designed K. WOLFE/G. BOWSER
checked K. WOLFE
date NOVEMBER 2015
drawing K. WOLFE
date NOVEMBER 2015
approved
date
submitted
approved
date
project number R.076162.001
drawing no. no. du dessin