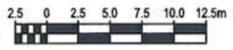


On behalf of Ausenco  
Engineering Canada Inc.  
PROFESSIONAL  
OF  
D.P. BEAN  
BRITISH  
COLUMBIA  
ENGINEER  
DPB SEP 15 2017

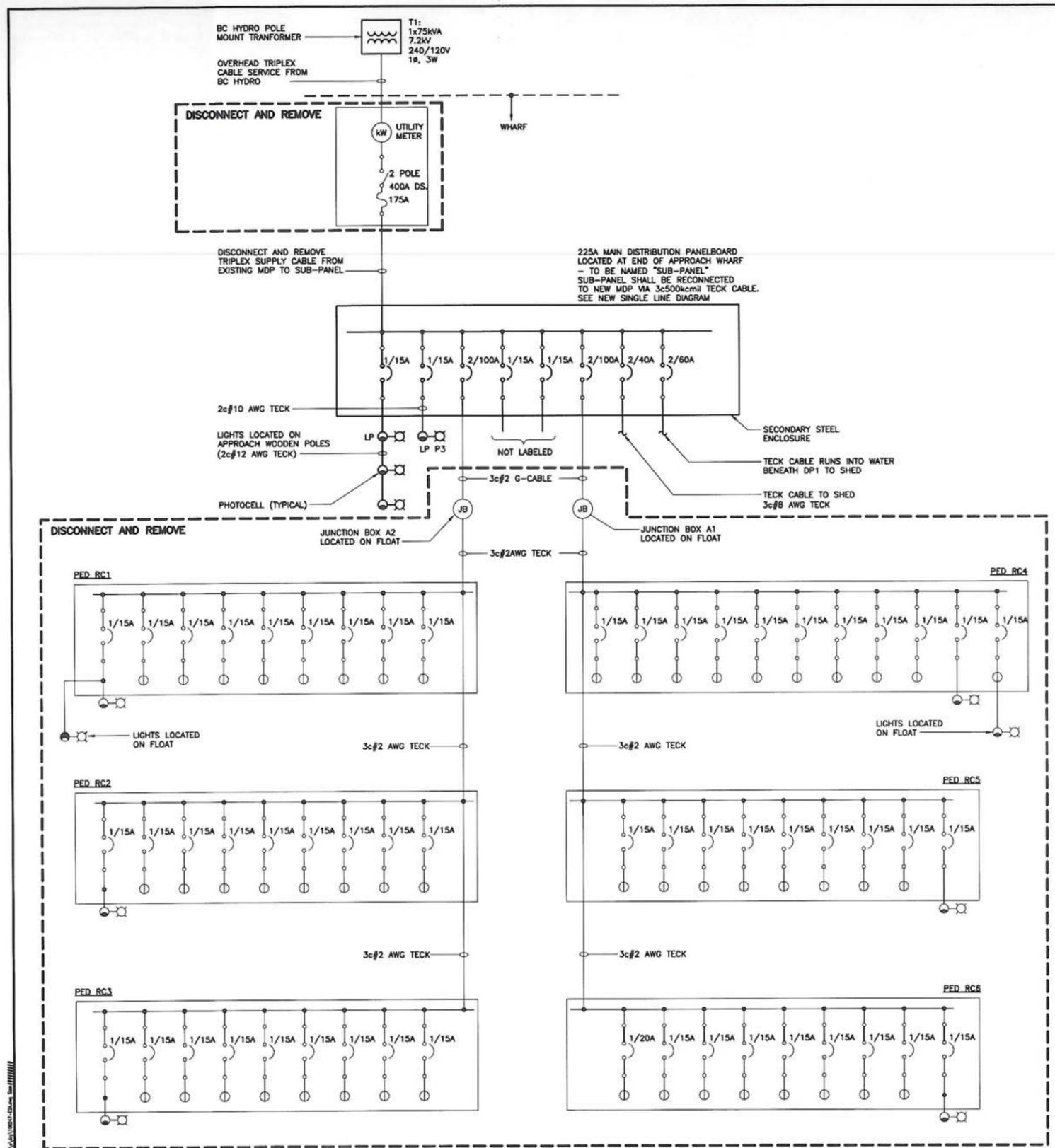
- LEGEND**
- ☒ RECEPTACLE CABINET c/w LIGHT
  - ⊗ EXISTING POLE MOUNTED LIGHT
  - ELECTRICAL PANEL ENCLOSURE

- NOTES:**
1. SIX RECEPTACLE CABINETS SUPPLIED BY SMALL CRAFT HARBOURS, FULLY ASSEMBLED, INSTALLED BY CONTRACTOR TO MATCH EXISTING LOCATIONS ON FLOATS B AND C. OLD RECEPTACLE CABINETS SHALL REMAIN THE PROPERTY OF SMALL CRAFT HARBOURS. FOR DETAILS, SEE REF. DWG. 2.
  2. THREE RECEPTACLE CABINETS SUPPLIED BY SMALL CRAFT HARBOURS, FULLY ASSEMBLED INSTALLED BY CONTRACTOR AT LOCATIONS SHOWN ON FLOAT E.
  3. SEE DWG. E2 FOR LUMINAIRE DETAILS.
  4. SEE STRUCTURAL DWG. C1 FOR ELECTRICAL EQUIPMENT SUPPORT DETAILS.



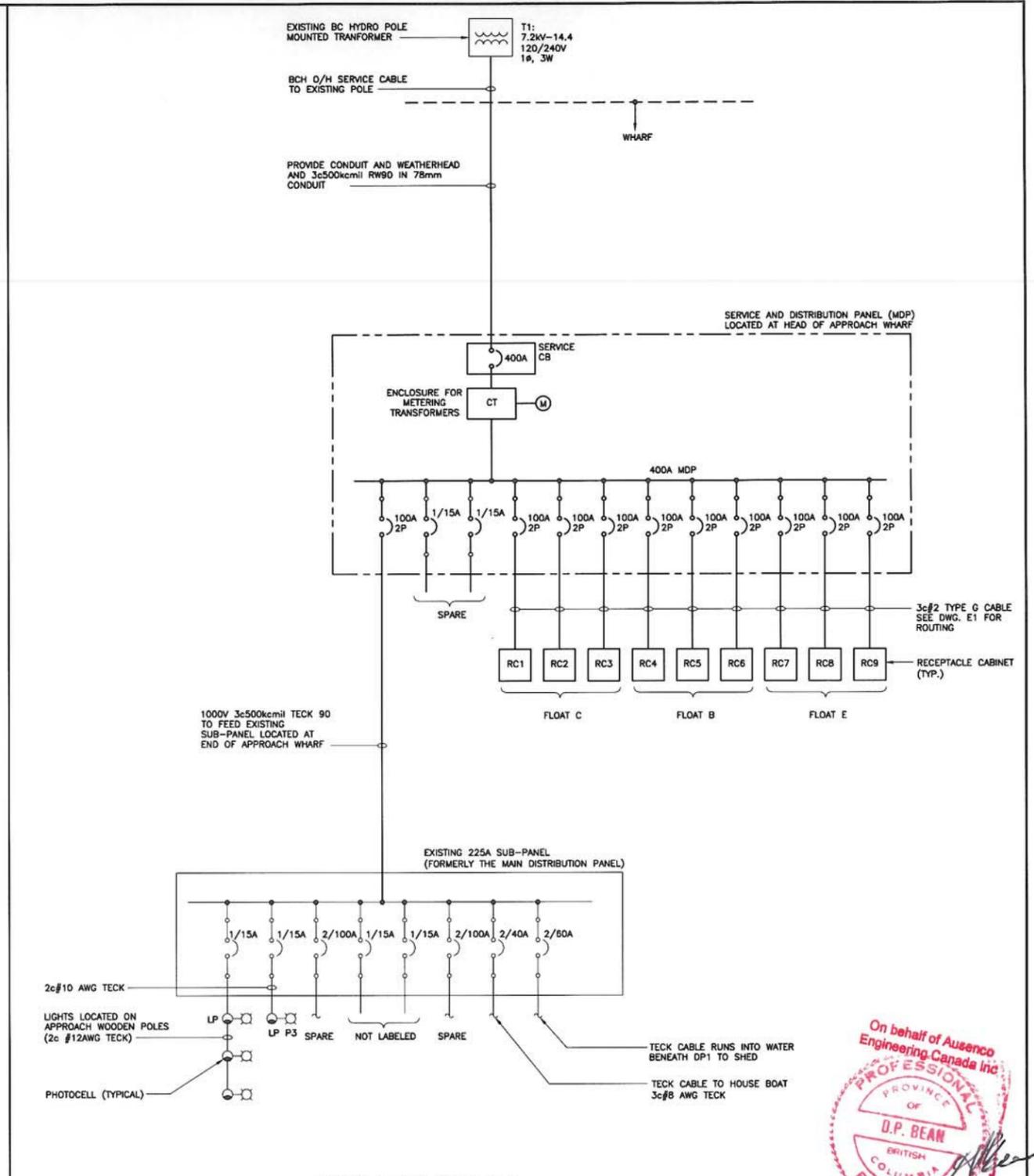
DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS
-EB	SERVICE & DISTRIBUTION PANEL LAYOUT		0	14SEP17	ISSUED FOR TENDER
-E3	RECEPTACLE CABINET DETAILS		P2	19DEC13	REVISED PER CLIENT COMMENTS
-E2B	ELECTRICAL DISTRIBUTION DIAGRAM		P1	27NOV13	ISSUED FOR COMMENTS

DESIGNED PJS	<p><b>Ausenco</b> FISHERIES AND OCEANS CANADA SMALL CRAFT HARBOURS</p> <p><b>HARBOUR UPGRADE BELLA BELLA - MARTINS COVE, B.C. HARBOUR PLAN AND DETAILS</b></p>	SCALE AS NOTED
DRAWN LT		DATE 27-NOV-2013
CHECKED DPB		DRAWING NUMBER 100247-E1
RECOMMENDED		REVISION 0
APPROVED		



**EXISTING ELECTRICAL SINGLE LINE DIAGRAM**

Ⓢ 125V 20A TWIST LOCK RECEPTACLE TYPICAL WITH 15A BREAKER EXCEPT NOTED IN PED RC6



**SINGLE LINE DIAGRAM**

On behalf of Ausenco Engineering Canada Inc.  
**PROFESSIONAL ENGINEER**  
 PROVINCE OF BRITISH COLUMBIA  
**D.P. BEAN**  
 DPB SEP 15 2017

DWG. NO.	- E1
DRAWING REFERENCES	HARBOUR PLAN AND DETAILS

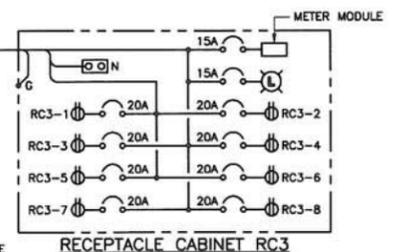
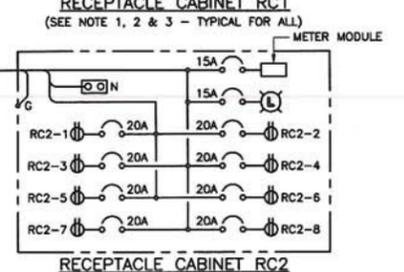
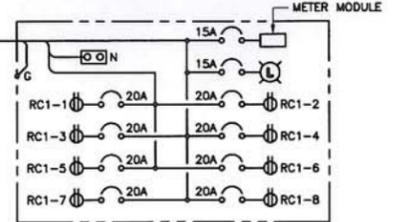
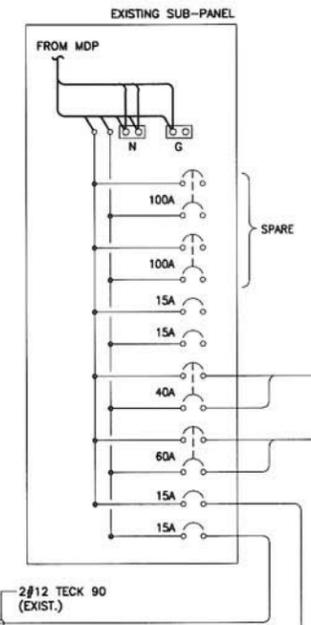
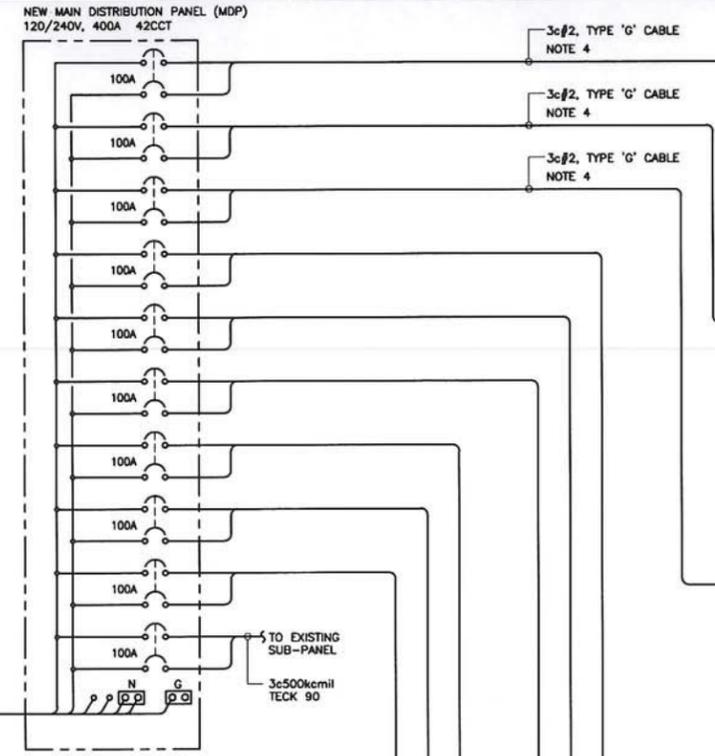
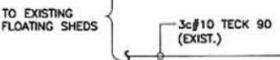
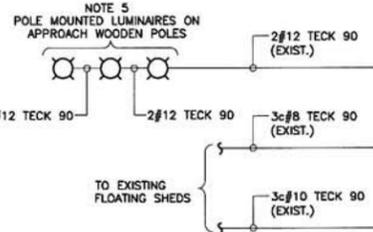
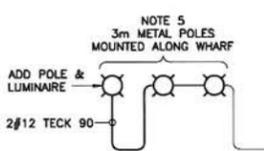
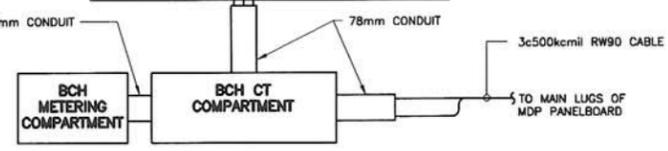
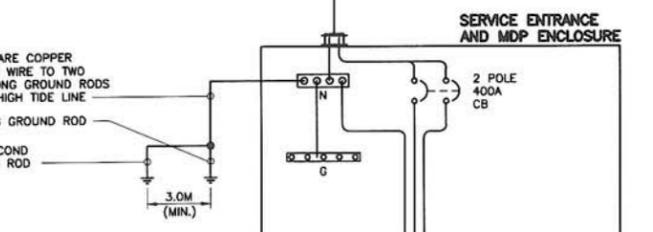
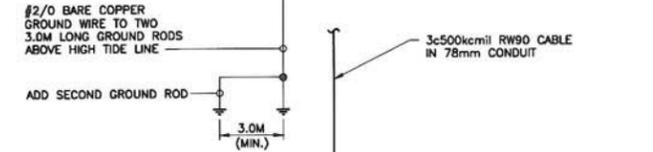
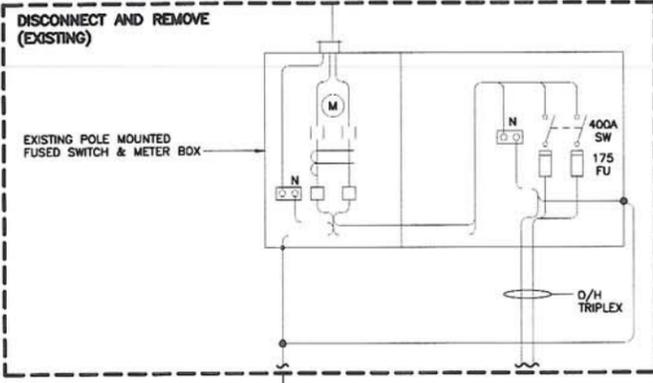
NOTES	
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DESIGNED	PJS	
DRAWN	LT	
CHECKED	DPB	
RECOMMENDED		
APPROVED		
APPROVED		
NO.	DATE	REVISIONS
0	14SEP17	ISSUED FOR TENDER
P1	19DEC13	ISSUED FOR COMMENTS

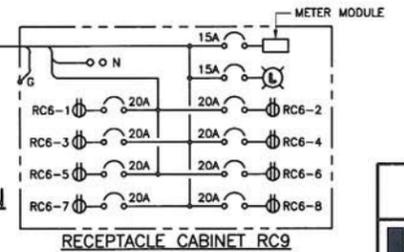
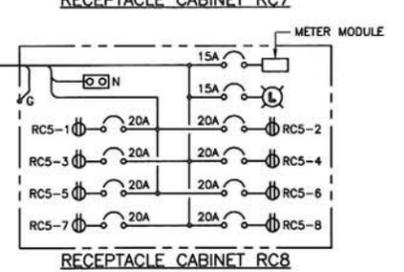
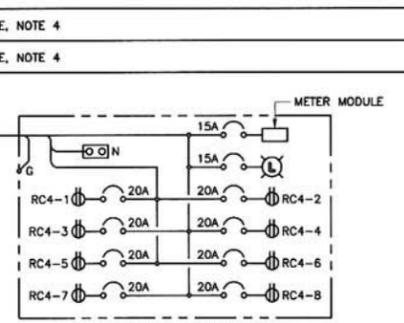
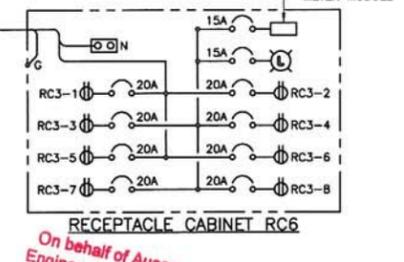
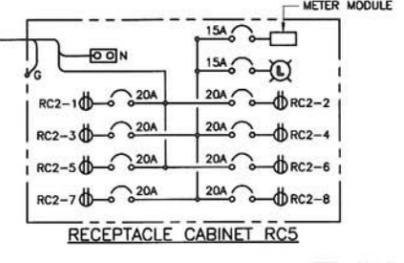
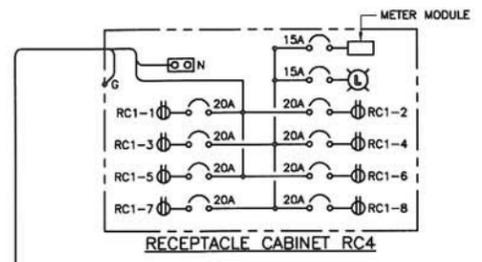
**Ausenco**  
 FISHERIES AND OCEANS CANADA  
 SMALL CRAFT HARBOURS

**HARBOUR UPGRADE  
 BELLA BELLA - MARTINS COVE, B.C.  
 SINGLE LINE DIAGRAMS**

SCALE AS NOTED	DATE
27-NOV-2013	
DRAWING NUMBER	100247-E2A
REVISION	0



- NOTES:**  
CONTRACTOR SHALL SUPPLY AND INSTALL THE FOLLOWING:
- ADD LAMACOID NAMEPLATES TO RECEPTACLE CABINETS AND CIRCUIT BREAKER POSITIONS AS SHOWN. SEE REF. DWG. -E3 FOR MOUNTING DETAILS.
  - RECEPTACLE CABINETS ARE SUPPLIED BY OTHERS, ASSEMBLED INSTALLED BY CONTRACTOR TO MATCH EXISTING LOCATIONS.
  - ALL RECEPTACLE CABINETS CIRCUIT BREAKERS ARE SINGLE POLE 20A AND RECEPTACLES ARE TYPE L5-20R TWIST LOCK.
  - 3c#2, TYPE 'G' CABLE TO RECEPTACLE CABINETS. ROUTE ALL CABLES UNDER GANGWAY IN RIGID PVC CONDUIT C/W BELL ENDS WHERE CABLES EXIT CONDUITS UNDER GANGWAY. SEE DETAIL REF. DWG. -E1.
  - REPLACE ALL POLE MOUNTED LUMINAIRES ON APPROACH AND ON FLOAT A. ADD SQUARE METAL 3m POLE & LUMINAIRE WHERE SHOWN ON REF. DWG. -E1. LUMINAIRES SHALL BE AS FOLLOWS:  
STANPRO TYPE KL ROADWAY LED,  
4500K COLOUR TEMP, 120VAC, 50W  
CAT. KL-50-G-3-W-GY/PR C/W PHOTOCELL RECEPTACLE.
  - ADD BREAKERS TO MAIN BREAKER PANEL. SIZES AS SHOWN. THOSE NOT MARKED EXISTING ARE NEW.



**120/240V, 1Ø, 3W DISTRIBUTION DIAGRAM**  
N.T.S.

On behalf of Ausenco Engineering Canada Inc  
PROFESSIONAL  
D.P. DEAN  
BRITISH COLUMBIA  
REGISTERED ELECTRICAL ENGINEER  
DPB SEP 15 2017

**Ausenco**  
FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS

DESIGNED PJS	SCALE
DRAWN LT	DATE
CHECKED DPB	27-NOV-2013
RECOMMENDED	DRAWING NUMBER
APPROVED	100247-E2B
APPROVED	REVISION
	0

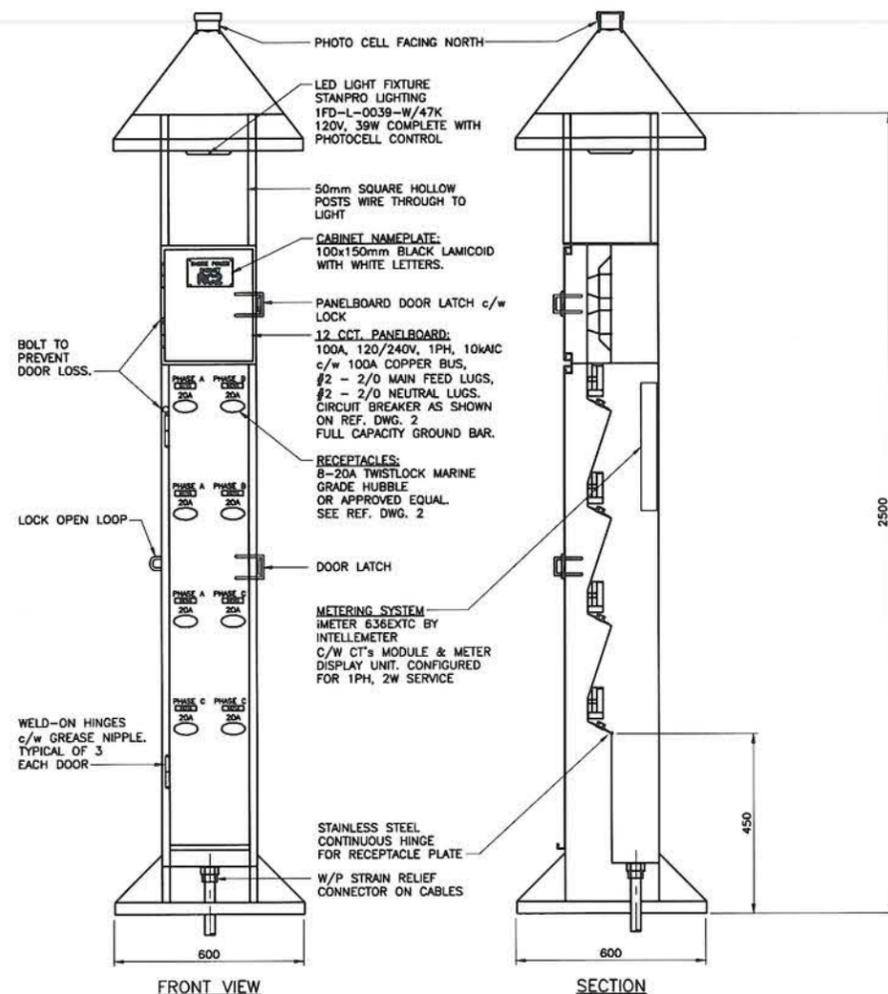
DWG. NO.	DRAWING REFERENCES
-EB	SERVICE AND DISTRIBUTION PANEL LAYOUT
-E4 TO E7	ALUMINUM KIOSK DETAILS
-E3	BELLA BELLA HARBOUR RECEPT CAB & ENCLOSURE DET.
-E1	BELLA BELLA HARBOUR PLAN DETAILS

NO.	DATE	REVISIONS
0	14SEP17	ISSUED FOR TENDER
P2	19DEC13	REVISED PER CLIENT COMMENTS
P1	27NOV13	ISSUED FOR COMMENTS

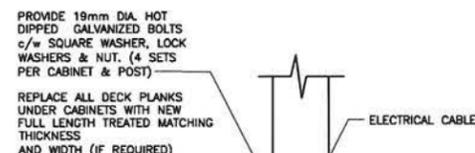
NOTES

**NOTES**

1. RECEPTACLE CABINETS WILL BE SUPPLIED BY OTHERS AS A COMPLETE ASSEMBLED UNIT. ELECTRICAL COMPONENTS INCLUDE LED LUMINAIRE, PANELBOARD, CIRCUIT BREAKERS AND RECEPTACLES.
2. CONTRACTOR TO INSTALL RECEPTACLE CABINETS IN SAME LOCATION AS EXISTING. REPLACE DECK PLANKS UNDER CABINETS WITH SAME IF REQUIRED.



**METERED RECEPTACLE CABINET**  
(NOTE 1, 2)



NOTE: LOCATIONS TO MATCH EXISTING

PROVIDE 150 x 150 x 2000mm TREATED  
TIMBER FOR BOLTING OF CABINETS & LIGHT  
POSTS  
AND REPLACE DECK PLANKS UNDER CABINET  
WITH NEW TREATED PLANKS TO MATCH  
EXISTING DIMENSIONS (IF REQUIRED).

**TYPICAL RECEPTACLE & LIGHT POST  
CABINET  
ON FLOAT DETAIL**

On behalf of Ausenco  
Engineering, Canada Inc

PROFESSIONAL  
ENGINEER  
OF  
BRITISH  
COLUMBIA  
D.P. BEAN

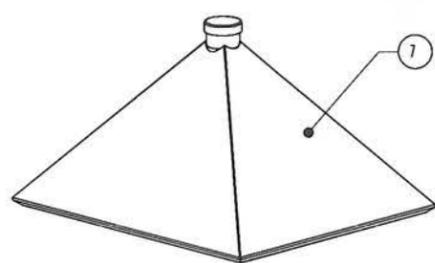
DPB SEP 15 2017

**Ausenco**  
FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS

HARBOUR UPGRADE  
BELLA BELLA - MARTINS COVES B.C.  
RECEPTACLE CABINET  
DETAILS

SCALE	
DATE	27-NOV-2013
DRAWING NUMBER	100247-E3
REVISION	0

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED PJS	DRAWN LT	CHECKED DPB	RECOMMENDED	APPROVED
-E2B	BELLA BELLA HARBOUR - ELECT. DISTRIBUTION DIAG.		0	14SEP17	ISSUED FOR TENDER					
-E1	BELLA BELLA HARBOUR - PLAN DETAILS		P2	19DEC13	REVISED PER CLIENT COMMENTS					
			P1	27NOV13	ISSUED FOR COMMENTS					

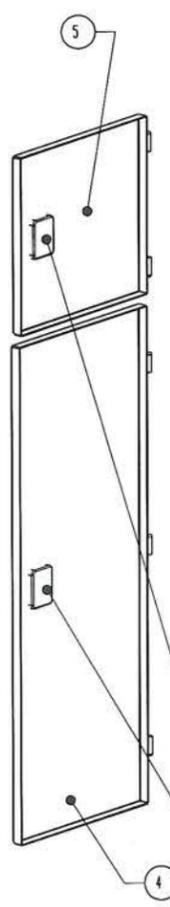


DOORS ARE TETHERED WITH 1/16" S.S. CABLE NOT TO OPEN BEYOND 100°

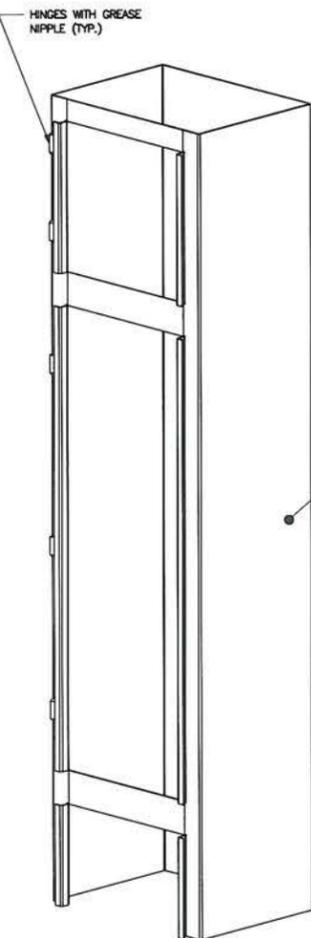
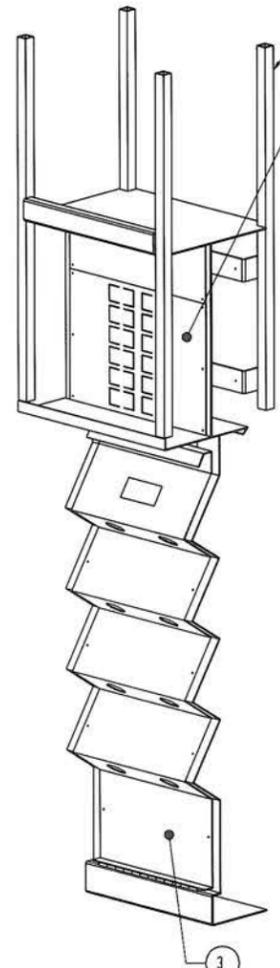
DOOR HINGES MAY BE LOCATED ON EITHER SIDE OF THE CABINET IN CONSIDERATION OF WIND DIRECTION AT THE SUBJECT HARBOUR. CONSULTATION WITH THE ENGINEER IS REQUIRED

**NOTE:**  
KIOSK FABRICATOR TO INSTALL ALL ELECTRICAL DEVICES (SEE DWG. -E3) AND HAVE COMPLETED PANEL INSPECTED, ELECTRICALLY CERTIFIED AND LABELED BY AN AUTHORIZED AGENCY.

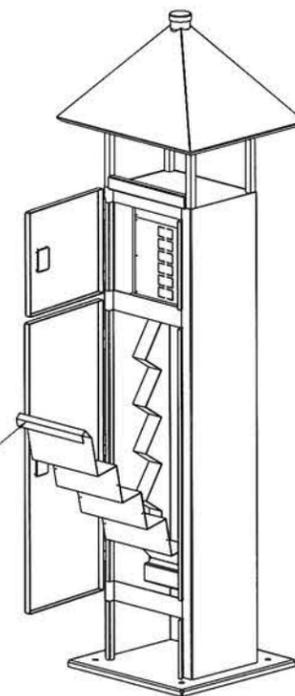
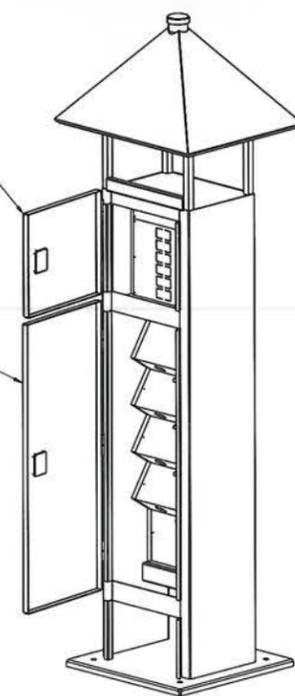
ITEM NO.	DWG No.	DESCRIPTION	Default/ QTY.
1	E5	BASE PLATE	1
2	E5	BOX SECTION ASSEMBLY	1
3	E6	HINGED PLATE ASSEMBLY	1
4	E5	LOWER DOOR ASSEMBLY	1
5	E5	UPPER DOOR ASSEMBLY	1
6	E5	BREAKER PANEL ASSEMBLY	1
7	E7	ROOF CAP ASSEMBLY	1
8	E7	ROOF SUPPORTS	4



STAINLESS STEEL KEYED ALIKE RECESSED T HANDLE LOCKS, LIP AND WEATHER STRIPPING ALL AROUND DOORS. TYP. ALL DOORS, INSTALL AS PER MANUFACTURERS INSTRUCTIONS.

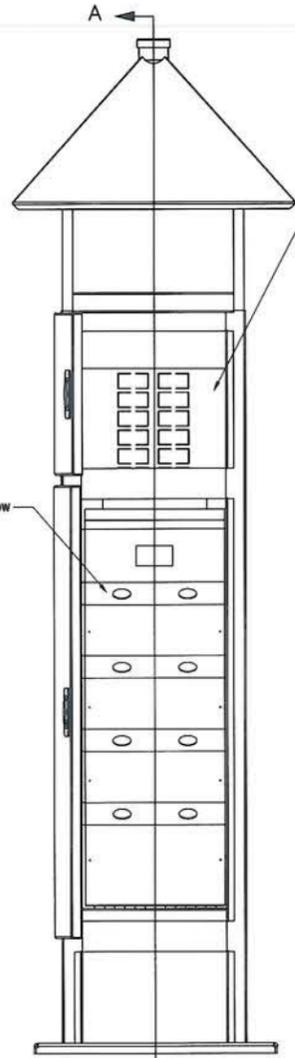


HINGES WITH GREASE NIPPLE (TYP.)

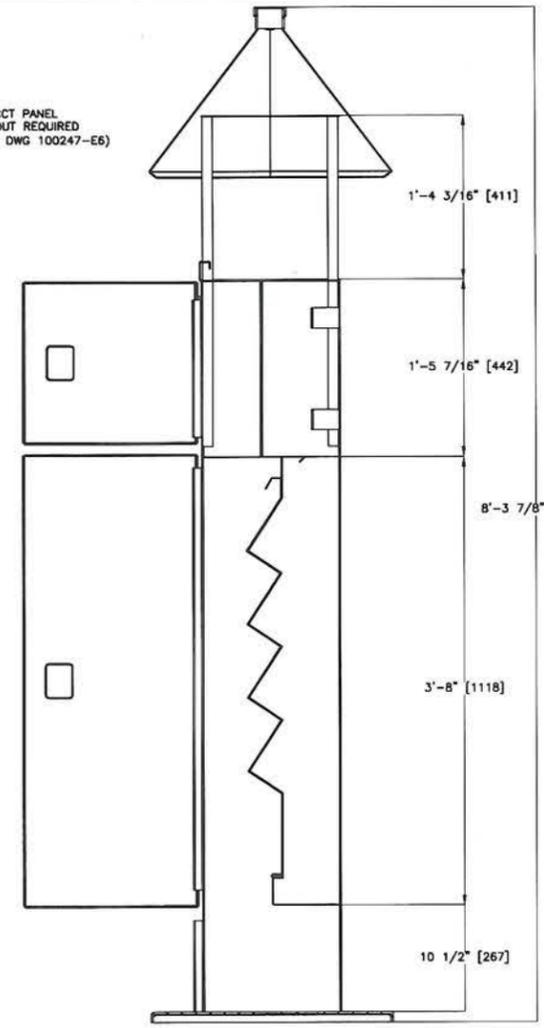


2 RECEPTACLES PER ROW

HINGED PLATE FOR RECEPTALS



12 CCT PANEL CUTOUT REQUIRED (SEE DWG 100247-E6)



SECTION A-A  
SCALE 1 : 8

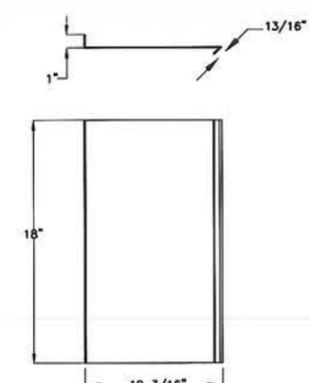
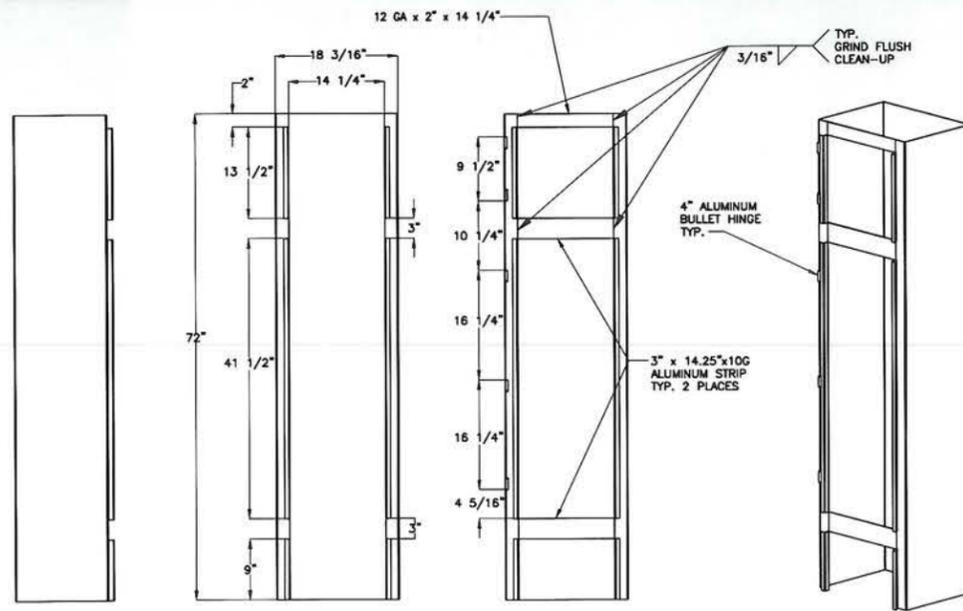
On behalf of Ausenco Engineering Canada Inc  
PROFESSIONAL ENGINEER  
OF  
D.P. BEAN  
BRITISH COLUMBIA  
DPB SEP 15 2017

**Ausenco**  
FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS

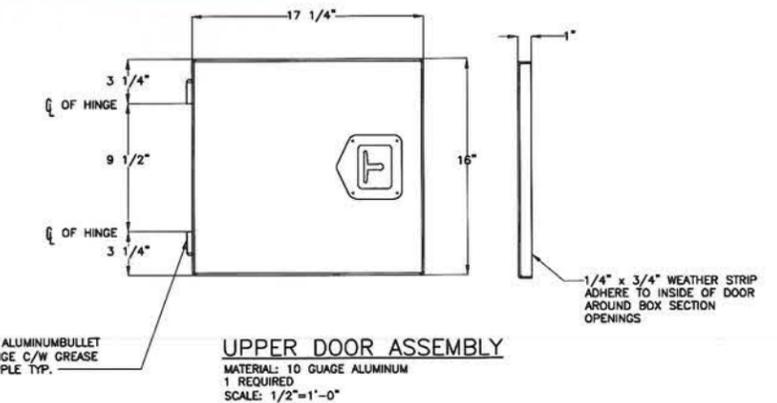
HARBOUR UPGRADE  
BELLA BELLA - MARTINS COVE, B.C.  
ALUMINUM KIOSK  
DETAILS

SCALE AS NOTED  
DATE 27-NOV-2013  
DRAWING NUMBER 100247-E4  
REVISION 0

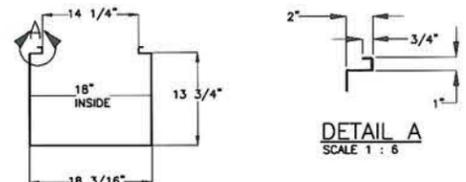
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-E3	RECEPTACLE CABINET DETAILS		0	14SEP17	ISSUED FOR TENDER	PJS	LT	DPB		
			P2	19DEC13	REVISED PER CLIENT COMMENTS					
			P1	27NOV13	ISSUED FOR COMMENTS					



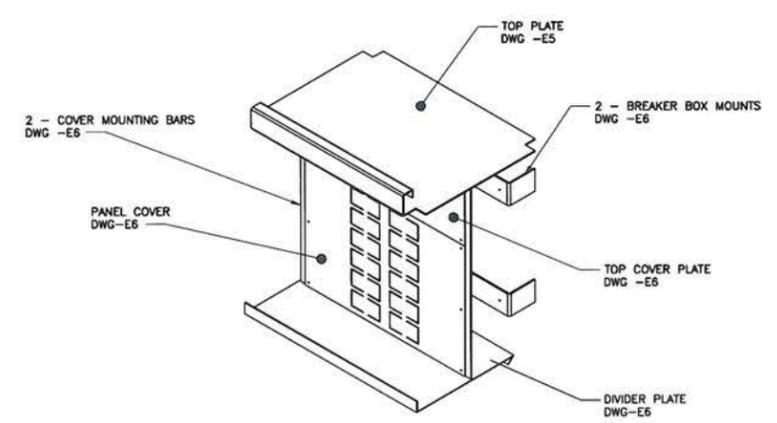
**DIVIDER PLATE**  
 MATERIAL: 12 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1/2"=1'-0"



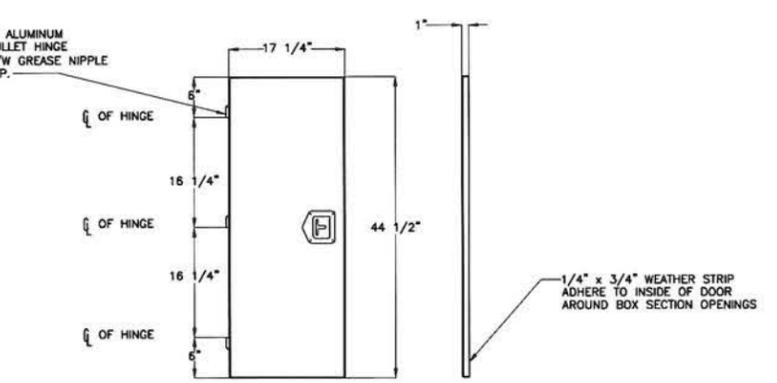
**UPPER DOOR ASSEMBLY**  
 MATERIAL: 10 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1/2"=1'-0"



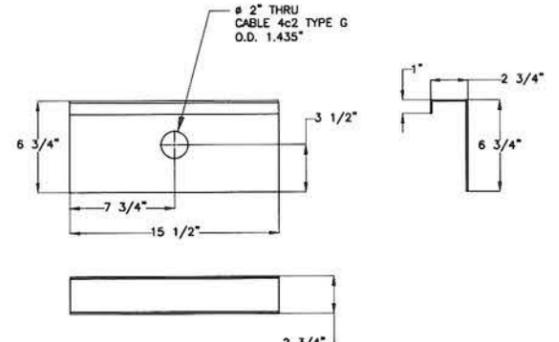
**BOX SECTION ASSEMBLY**  
 MATERIAL: 10 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1"=1'-0"



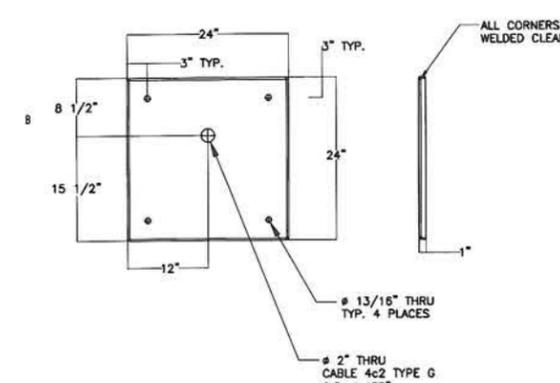
**BREAKER PANEL ASSEMBLY**



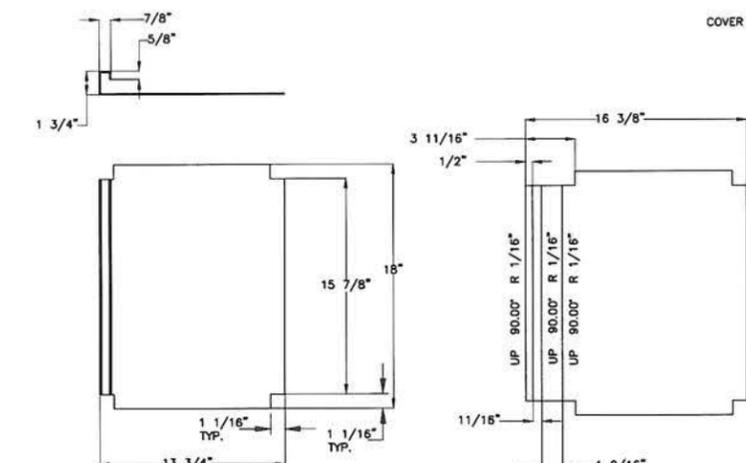
**LOWER DOOR ASSEMBLY**  
 MATERIAL: 10 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1"=1'-0"



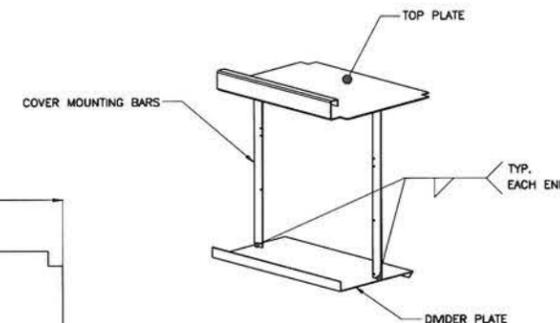
**MOUNTING PLATE**  
 MATERIAL: 10 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1/2"=1'-0"



**BASE PLATE**  
 MATERIAL: ALUMINUM 3/16" PLATE  
 1 REQUIRED  
 SCALE: 1"=1'-0"



**TOP PLATE**  
 MATERIAL: 10 GAUGE ALUMINUM  
 1 REQUIRED  
 SCALE: 1/2"=1'-0"



**BREAKER PANEL ASSEMBLY LAYOUT**

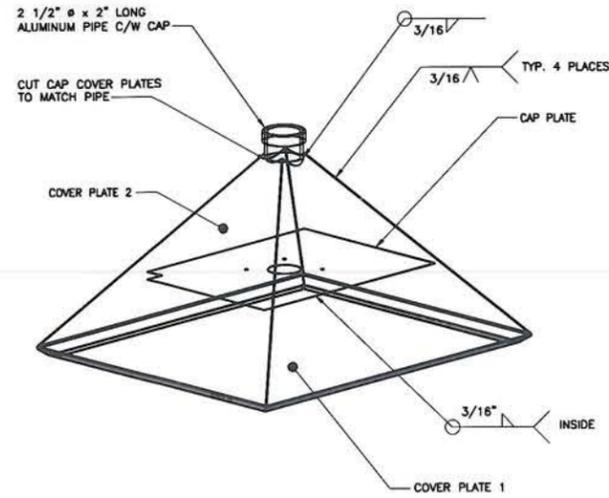
On behalf of Ausenco Engineering Canada Inc.  
 PROFESSIONAL ENGINEER  
 PROVINCE OF BRITISH COLUMBIA  
 D.P. BEAN  
 SEP 15 2017

**Ausenco**  
 FISHERIES AND OCEANS CANADA  
 SMALL CRAFT HARBOURS

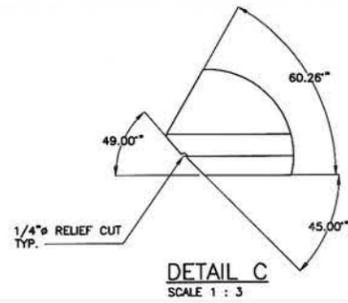
DESIGNED PJS DRAWN LT CHECKED DPB RECOMMENDED APPROVED APPROVED	<b>HARBOUR UPGRADE          BELLA BELLA, MARTINS COVE, B.C.          ALUMINUM KIOSK          DETAILS</b>		SCALE AS NOTED DATE 27-NOV-2013 DRAWING NUMBER 100247-E5 REVISION 0
	0	14SEP17	ISSUED FOR TENDER
	P2	19DEC13	REVISED PER CLIENT COMMENTS
	P1	27NOV13	ISSUED FOR COMMENTS
	NO.	DATE	REVISIONS

DWG. NO.	DRAWING REFERENCES	NOTES

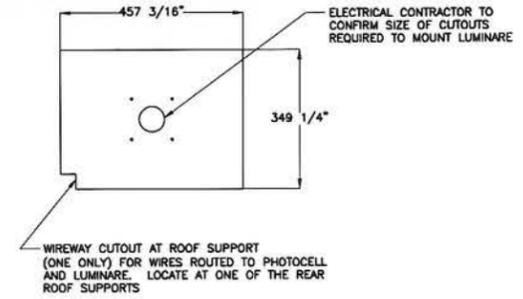
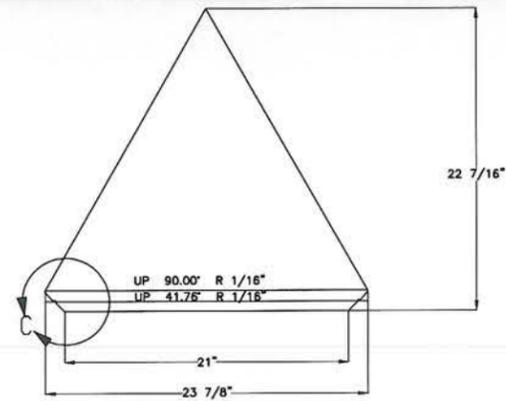




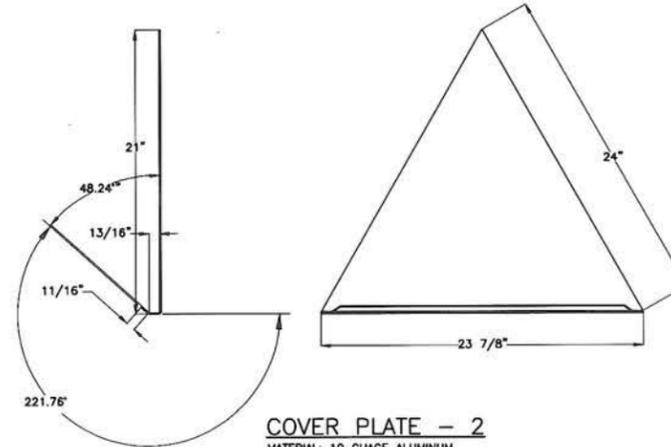
**ROOF CAP ASSEMBLY**



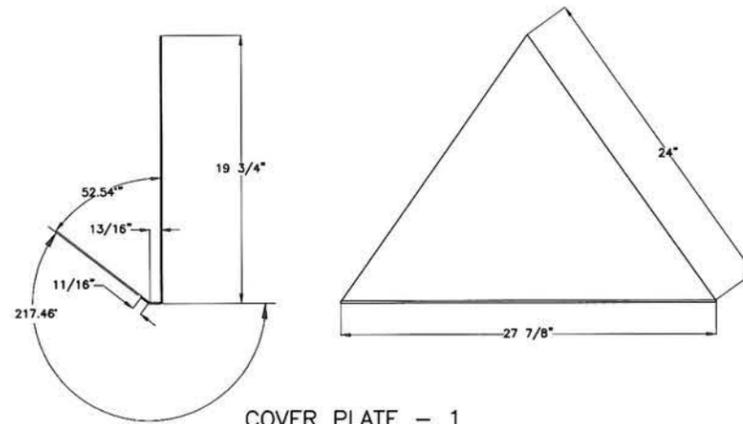
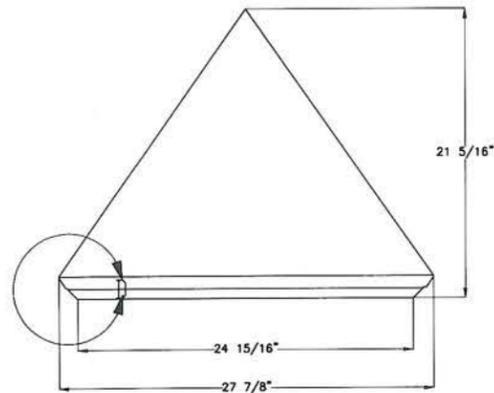
**DETAIL C**  
SCALE 1 : 3



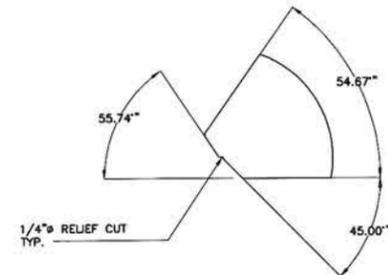
**CAP PLATE**  
MATERIAL: 12 GAUGE ALUMINUM  
1 REQUIRED  
SCALE: 3/4\"=1'-0"



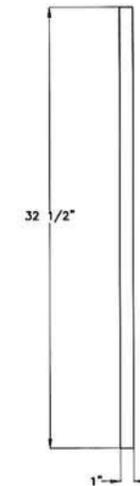
**COVER PLATE - 2**  
MATERIAL: 10 GAUGE ALUMINUM  
2 REQUIRED  
SCALE: 1/2\"=1'-0"



**COVER PLATE - 1**  
MATERIAL: 10 GAUGE ALUMINUM  
2 REQUIRED  
SCALE: 1/2\"=1'-0"



**DETAIL D**  
SCALE 1 : 3

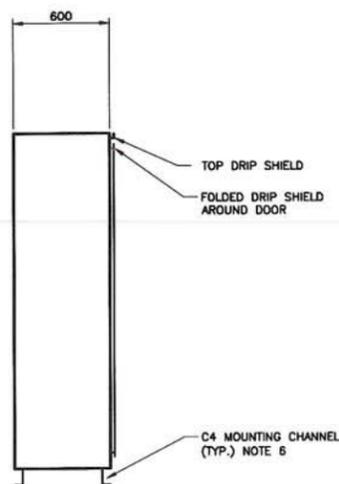


**ROOF SUPPORTS**  
MATERIAL: TS 1 x 1 x 0.12 x 32 1/2\" LONG  
4 REQUIRED  
SCALE: 1/2\" = 1'-0"

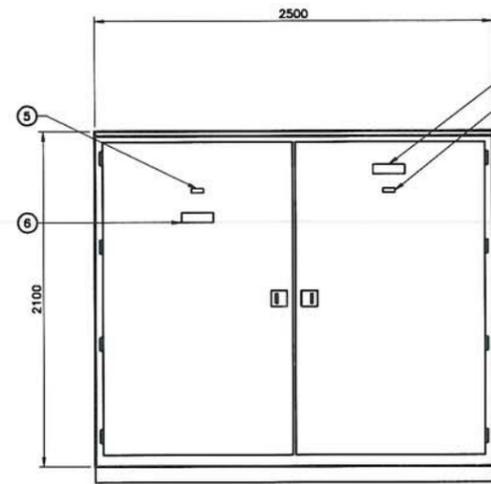
On behalf of Ausenco  
Engineering Canada Inc  
**PROFESSIONAL ENGINEER**  
OF  
**D.P. BEAN**  
BRITISH COLUMBIA  
ENGINEER  
DPB SEP 15 2017

<b>Ausenco</b>	
FISHERIES AND OCEANS CANADA SMALL CRAFT HARBOURS	
<b>HARBOUR UPGRADE</b> <b>BELLA BELLA - MARTINS COVE, B.C.</b> <b>ALUMINUM KIOSK</b> <b>DETAILS</b>	SCALE AS NOTED DATE 27-NOV-2013 DRAWING NUMBER <b>100247-E7</b> REVISION <b>0</b>

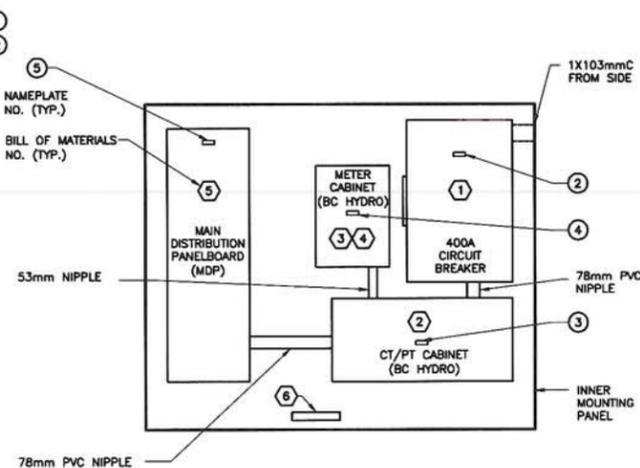
DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED PJS	DRAWN LT	CHECKED	RECOMMENDED	APPROVED	APPROVED
			0	14SEP17	ISSUED FOR TENDER						
			P2	19DEC13	REVISED PER CLIENT COMMENTS						
			P1	27NOV13	ISSUED FOR COMMENTS						



SIDE VIEW



FRONT VIEW



INNER PANEL LAYOUT  
(NOTE 3)

**MAIN SERVICE AND DISTRIBUTION CABINET (MDP)**

1:20

**NOTES**

- CONTRACTOR SHALL SUPPLY AND INSTALL ALL EQUIPMENT. HOWEVER:  
A. B.C. HYDRO SUPPLY AND INSTALL:  
- ONE METER
- CONTRACTOR SHALL VERIFY CABINET SIZES AND LAYOUT WITH EQUIPMENT PURCHASED AND SUPPLIED. PRIOR TO FABRICATION, CONTRACTOR SHALL MODIFY CABINET SIZE TO SUIT EQUIPMENT AND COORDINATE WITH OWNER THE FINAL SIZES NECESSARY. ENCLOSURE SHALL BE NEMA 4X.
- B.C. HYDRO METERS, METER CABINET AND INSTRUMENT TRANSFORMER ENCLOSURE SHALL BE INSTALLED AS PER B.C. HYDRO STANDARD "REQUIREMENTS FOR SECONDARY VOLTAGE REVENUE METERING (750V AND LESS)", AND EQUIPMENT ADVISORIES. CONTRACTOR SHALL ARRANGE/COORDINATE WITH BC HYDRO REGARDING WHAT NEEDS TO BE SUPPLIED AND INSTALLED.
- LAMICOID NAMEPLATES ARE WHITE WITH BLACK LETTERING.
- RIGID PVC CONDUITS SCHEDULE 40.
- CONTRACTOR SHALL FIELD DRILL C4 MOUNTING CHANNEL TO SUIT STRUCTURAL SUPPORTS. SEE DWG. C1 AND C2 FOR DETAILS.

BILL OF MATERIAL		
ITEM NO.	QTY.	DESCRIPTION
1	1	CIRCUIT BREAKER, MOULDED CASE, 600VAC RATED, 3 POLE, 400A FRAME, 22KA IC MINIMUM, CUTLER-HAMMER BREAKER HLD 3400 WITH PROVISION FOR INTERCHANGEABLE ELECTRONIC TRIP UNIT SHALL BE DIGITRIP 310+ WITH LSIG. RATING PLUG SHALL BE 400A, NEUTRAL TERMINAL, LINE AND LOAD COPPER TERMINALS IN NEMA 4X STAINLESS STEEL ENCLOSURE. 400(W) x 600(H) x 200(D), LOCKABLE HANDLE IN 'OFF' POSITION, TWO LUGS PER PHASE
2	1	INSTRUMENT TRANSFORMER ENCLOSURE (FOR B.C. HYDRO), NEMA 4X, 1130(W) x 521(H) x 419(D), INNER MOUNTING PANEL, ISOLATED NEUTRAL TERMINAL BLOCK AND THREE MECHANICAL CONNECTORS FOR #12 AWG, #12-#8 AWG BONDING CONNECTOR, COVER TO BE ABLE TO ACCEPT B.C. HYDRO SEAL, TWO LUGS PER PHASE AT CT'S
3	1	METER CABINET
4	1	METER SOCKET, 7 JAW, 600VAC, 400A, SEALING RING, TAMPERPROOF
5	1	MAIN DISTRIBUTION PANELBOARD (MDP), 600VAC RATED, 400A BUS, 1 PHASE, 3 WIRE, 42 CIRCUITS, CUTLER-HAMMER P16JCA-42 OR EQUIVALENT, MAIN LUGS WITH THROUGH-FEED LUGS, SUITABLE FOR 15A 1P TO 100A 3P BRANCH BREAKERS, RATED FOR SERVICE ENTRANCE, 508(W) x 1524(H) x 146(D)
6	1	GROUND BAR, COPPER, 300(W) x 50(H) x 6(D), MOUNTED ON TWO ISOLATING STAND-OFFS

NAMEPLATE SCHEDULE (NOTE 4)					
ITEM NO.	NAMEPLATE SIZE (W x H) (mm)	LETTER SIZE (mm)	DESCRIPTION		
			LINE 1	LINE 2	LINE 3
1	200 x 60	12.7	MAIN SERVICE AND	DISTRIBUTION PANEL	400A 208V
2	75 x 25	3.2	SERVICE CIRCUIT BREAKER		
3	75 x 25	3.2	B.C. HYDRO INSTRUMENT CABINET		
4	75 x 25	3.2	BELLA BELLA HARBOUR	METER	
5	75 x 25	3.2	MDP-1	MAIN DISTRIBUTION PANEL	
6	200 x 60	12.7	- CAUTION -	208V POWER	

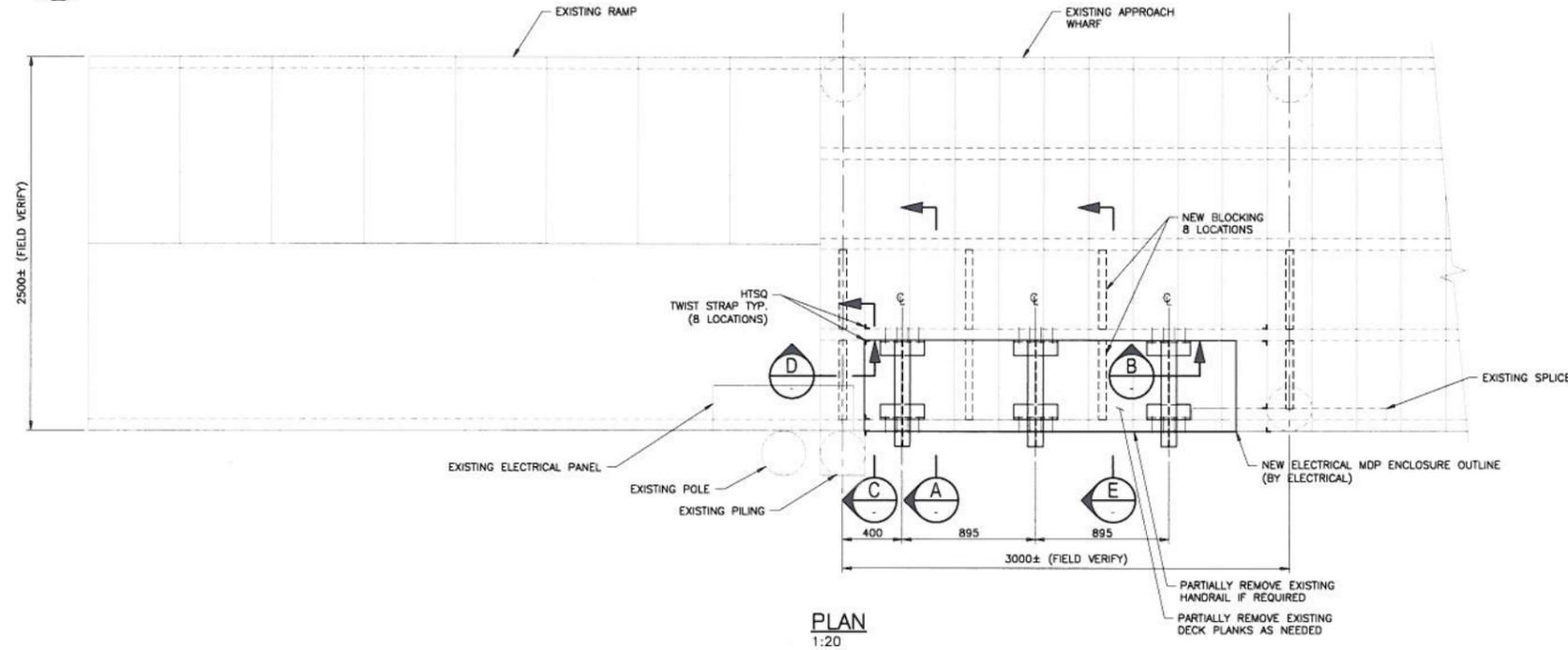


**Ausenco**  
FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS

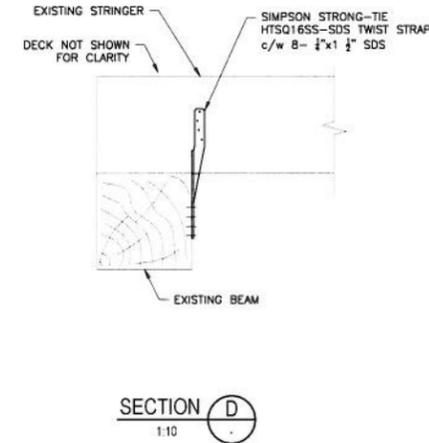
**HARBOUR UPGRADE  
BELLA BELLA - MARTINS COVE, B.C.  
MAIN SERVICE & DISTRIBUTION PANEL  
LAYOUT**

SCALE AS NOTED  
DATE 14-SEP-2017  
DRAWING NUMBER 100247-E8  
REVISION 0

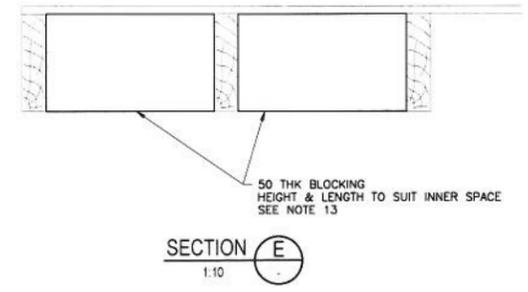
DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS
- E1	HARBOUR PLAN AND DETAILS		0	14SEP17	ISSUED FOR TENDER



PLAN  
1:20



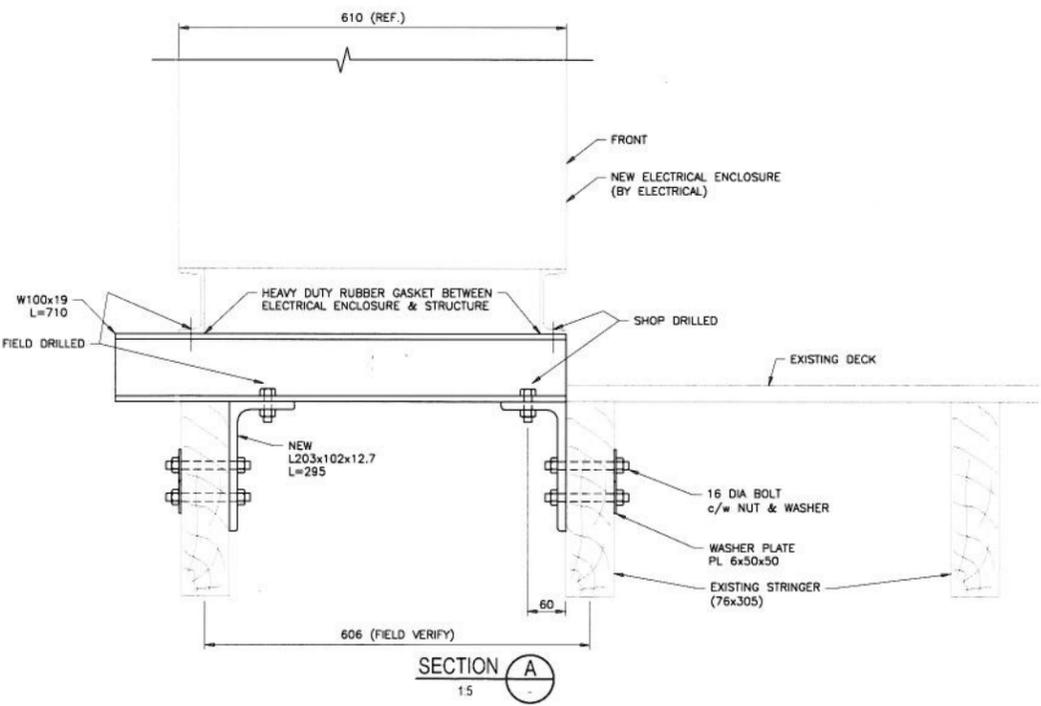
SECTION D  
1:10



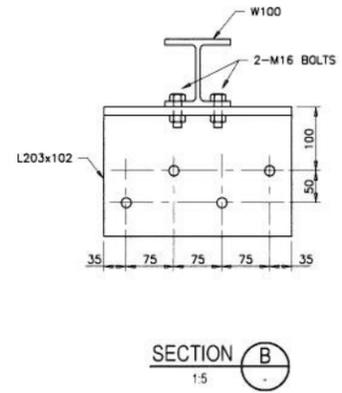
SECTION E  
1:10

NOTES:

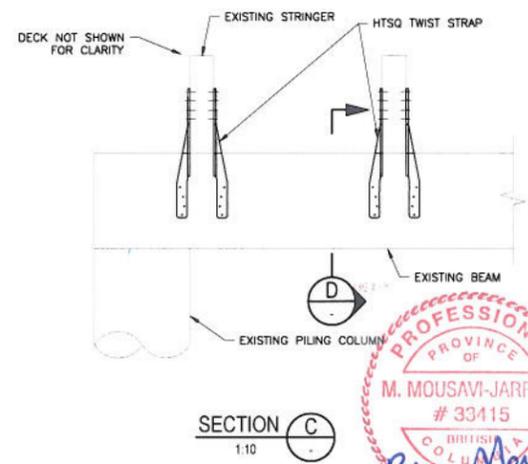
1. ALL WORK SHALL BE IN ACCORDANCE WITH CONTRACT DOCUMENTS.
2. CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF OCCUPATIONAL HEALTH REGULATIONS OF WORKSAFE BC AND THE OWNER'S SAFETY POLICY.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
4. CONTRACTOR TO FIELD VERIFY DIMENSIONS AND ELEVATIONS OF ALL EXISTING ITEMS PRIOR TO FABRICATION.
5. STRUCTURAL STEEL SHALL CONFORM TO THE GENERAL REQUIREMENTS OF CAN/CSA-G40.20-13/G40.21-13. ALL STEEL WORKS TO BE IN ACCORDANCE WITH BCBC 2012 AND CSA STANDARD S16-14.
6. STRUCTURAL STEEL:
  - A. WIDE FLANGE SECTIONS: GRADE 350
  - B. ANGLES, CHANNELS AND PLATES: GRADE 300
  - C. THREADED RODS AND ANCHOR RODS: ASTM A307.
7. ALL BOLTS SHALL BE GALVANIZED HIGH STRENGTH STRUCTURAL BOLTS CONFORMING TO ASTM A325.
8. ALL STRUCTURAL AND MISCELLANEOUS STEEL INCLUDING ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIP GALVANIZED TO MINIMUM COATING THICKNESS OF 700 g/m<sup>2</sup> AFTER FABRICATION. GALVANIZING SHALL CONFORM TO CSA STANDARD G164.
9. APPLY TWO COATS OF GALVON ON ANY STEEL SURFACE WHERE BARE STEEL HAS BEEN EXPOSED INCLUDING FIELD DRILLED HOLES.
10. PROVIDE STRUCTURAL WOOD FRAMING/AND DECKING AND PERFORM WORK TO 2012 BC BUILDING CODE AND CAN/CSA-086-14 ENGINEERING DESIGN IN WOOD.
11. LUMBER SHALL CONFORM TO CAN/CSA-0141-05, THE NLGA STANDARD GRADING RULES FOR CANADIAN LUMBER, AND SHALL HAVE A MAXIMUM 15% MOISTURE CONTENT AT TIME OF INSTALLATION.
12. WOOD MATERIAL: PRESSURE-TREATED DOUGLAS FIR No.1.
13. FOR ALL NEW BLOCKING PROVIDE TIGHT FIT BETWEEN EXISTING STRINGERS AND CONNECT WITH 4-76mm LONG TOE NAILS ON BOTH SIDES.



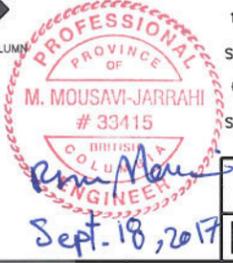
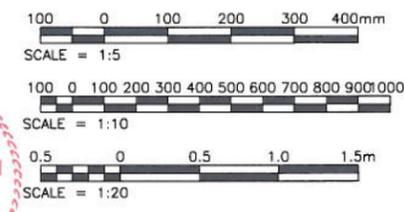
SECTION A  
1:5



SECTION B  
1:5



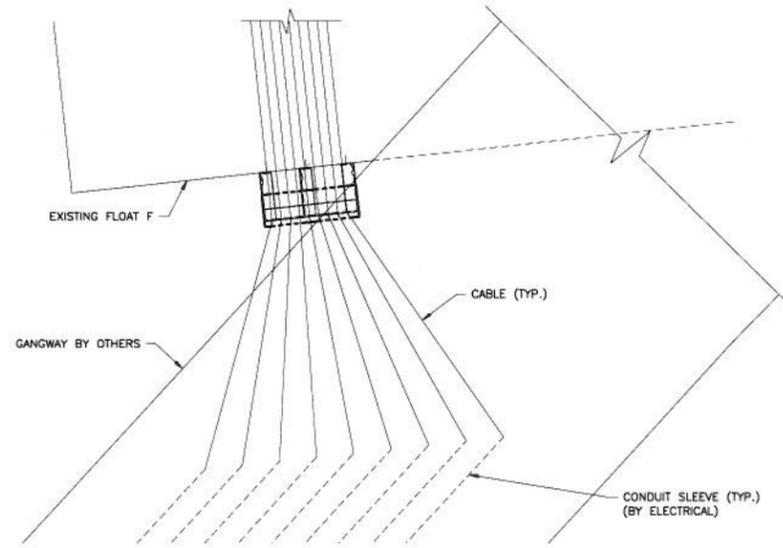
SECTION C  
1:10



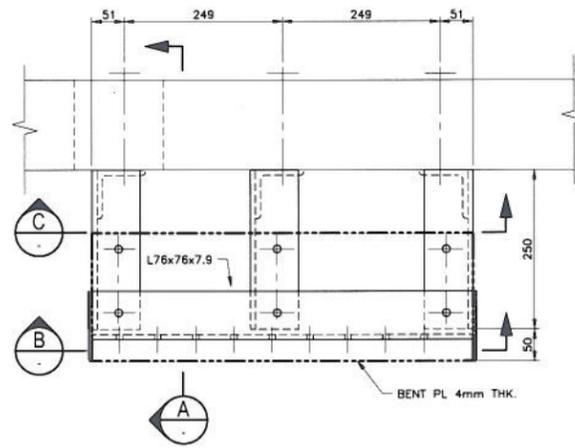
**Ausenco**  
FISHERIES AND OCEANS CANADA  
SMALL CRAFT HARBOURS

HARBOUR UPGRADE BELLA BELLA - MARTINS COVE, B.C. ELECTRICAL ENCLOSURE SUPPORT SECTIONS AND DETAILS		SCALE AS NOTED
		DATE 15-SEP-2017
		DRAWING NUMBER 100247-S1
		REVISION 0

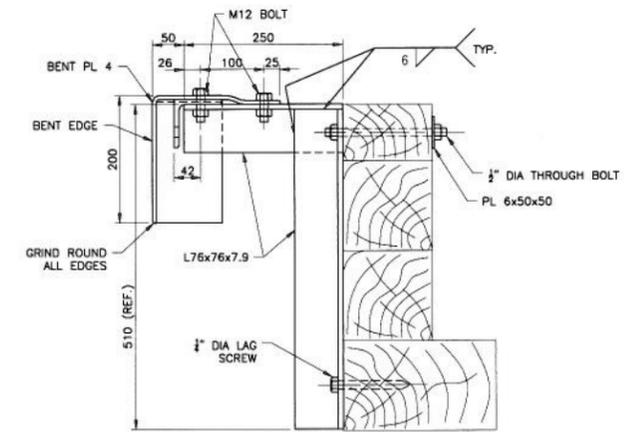
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-E3	RECEPTACLE CABINET DETAILS		0	15SEP17	ISSUED FOR TENDER						



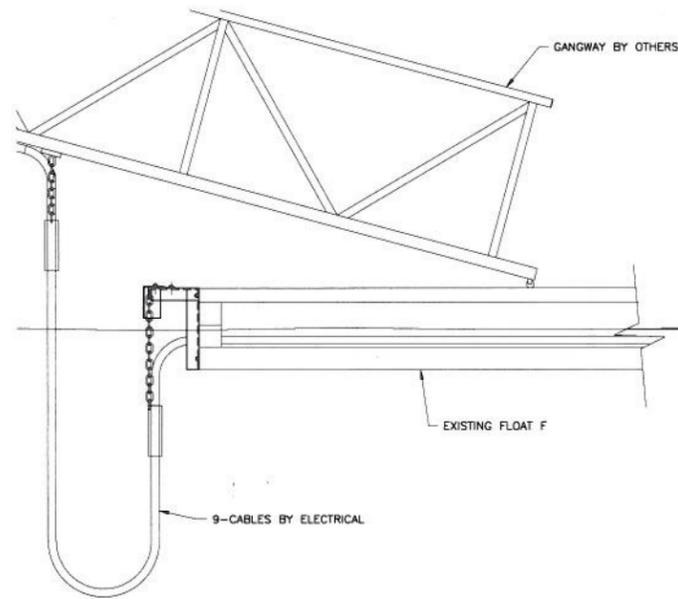
**GENERAL ARRANGEMENT - PLAN**  
1:20



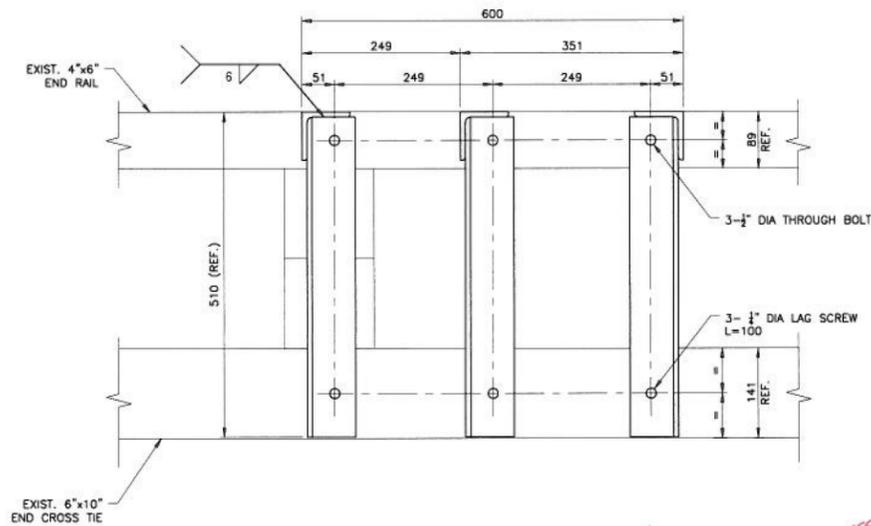
**PLAN**  
1:5



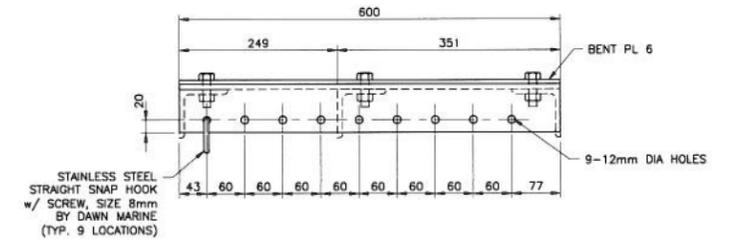
**SECTION A**  
1:5



**ELEVATION**  
1:20



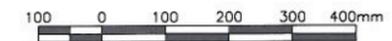
**SECTION C**  
1:5



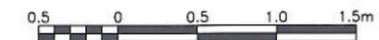
**SECTION B**  
1:5

**NOTES:**

1. FOR ALL GENERAL NOTES SEE DWG 100247-S1



SCALE = 1:5

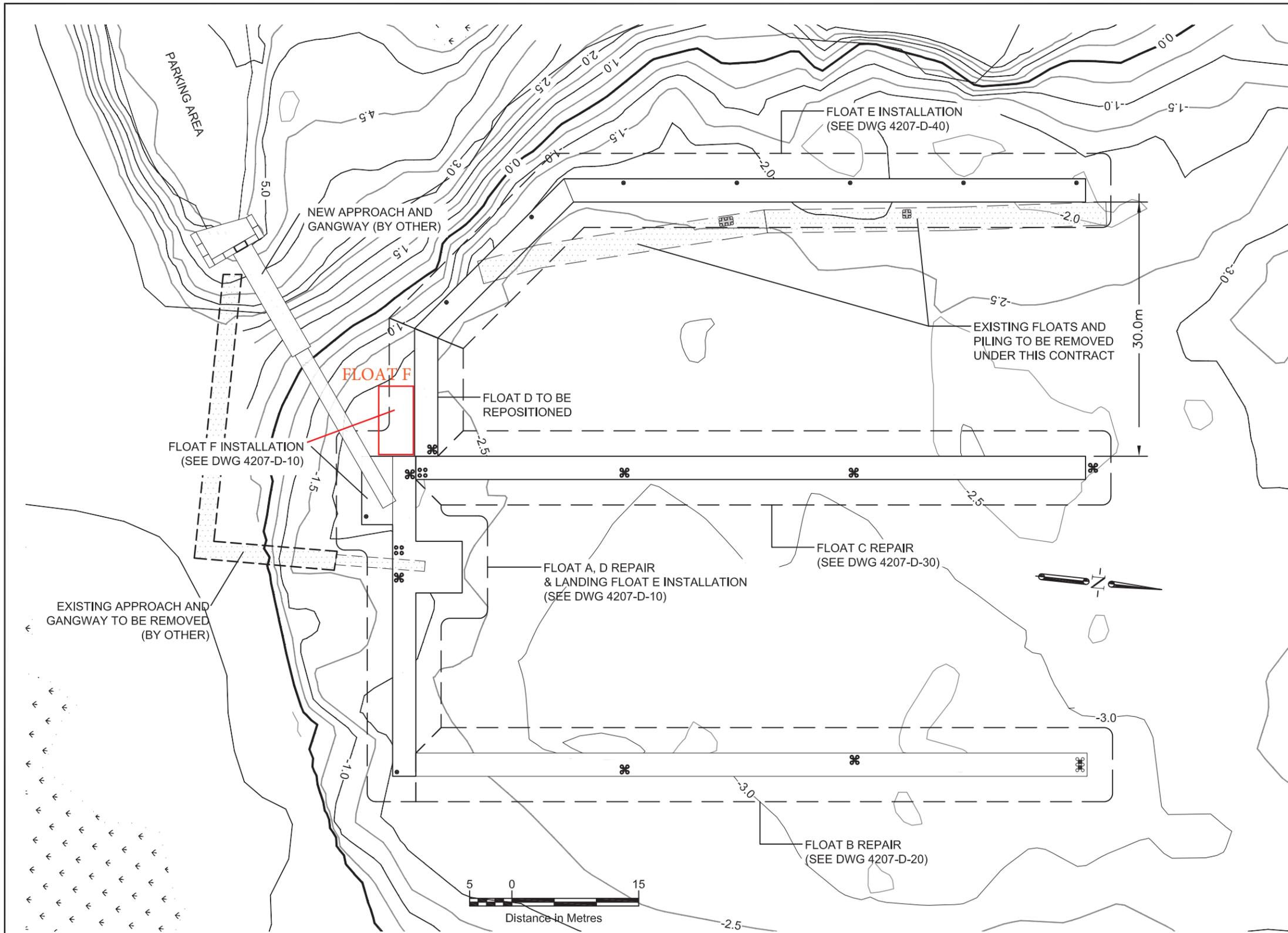


SCALE = 1:20



<b>Ausenco</b>	
FISHERIES AND OCEANS CANADA SMALL CRAFT HARBOURS	
<b>HARBOUR UPGRADE BELLA BELLA - MARTINS COVE, B.C. STEEL BRACKET DETAIL FOR CABLE SUPPORT AT FLOAT</b>	
SCALE AS NOTED	DATE 15-SEP-2017
DRAWING NUMBER <b>100247-S2</b>	REVISION 0

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED RM	DRAWN SB	CHECKED HP	RECOMMENDED	APPROVED DB	APPROVED
			0	15SEP17	ISSUED FOR TENDER						



**GENERAL NOTES**

1. NOT AN AS-BUILT DRAWING.
2. ALL DIMENSIONS ARE IN METRES.
3. ELEVATIONS ARE IN METRES REFERENCED TO LOCAL CHART DATUM.
4. BATHYMETRY BASED ON SURVEY BY SEA FORCE CONSULTANTS INC. PERFORMED FEBRUARY 10-12, 2015.

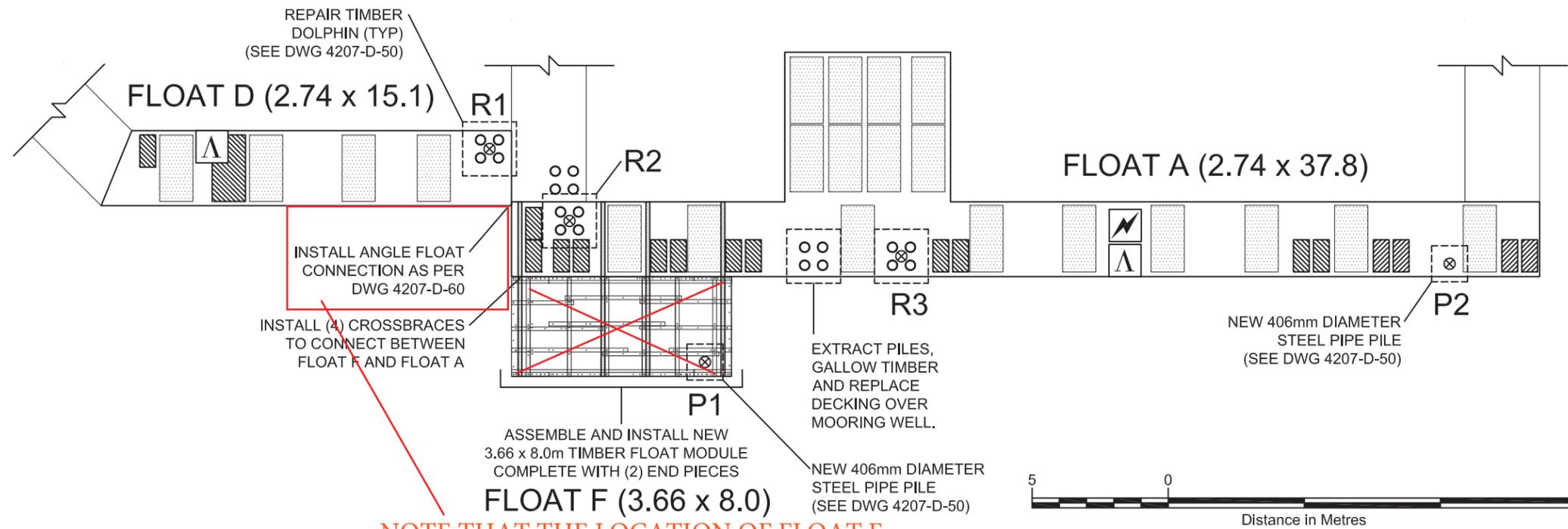
**LEGEND**

- MAJOR CONTOUR (1.0m)
- MINOR CONTOUR (0.5m)
- LOW WATER LINE (0.0m)
- ▨ STRUCTURES TO BE REMOVED
- ⊙ EXISTING 4-PILE TIMBER DOLPHIN
- ⊗ NEW 406mm DIAMETER STEEL PIPE PILE

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BEEN COMPLETED.

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Ref. No.	REFERENCE					

**PLAN VIEW: FLOATS A, D & E**



**NOTE THAT THE LOCATION OF FLOAT F HAS CHANGED TO THAT SHOWN ON DWG. 4207-D-02.3**

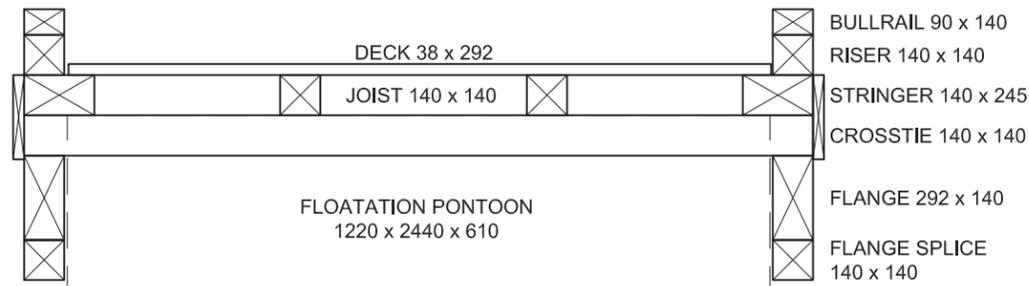
**DRAWING NOTES**

- NOT AN AS-BUILT DRAWING.
- REPAIR LOCATIONS SHOWN FOR ILLUSTRATION PURPOSES.
- ALL DIMENSIONS AND REPAIR LOCATIONS TO BE CONFIRMED BY THE CONTRACTOR.
- ALL FLOAT MODULES TO BE ASSEMBLED AS PER REFERENCE DRAWINGS:
  - FM12-END-200: 3.66m (12ft) WIDE END PIECE ASSEMBLY
  - FM12-END-201: 3.66m (12ft) WIDE END PIECE MEMBERS
  - FM12-ST-000: 3.66m (12ft) WIDE MODULE ASSEMBLY
  - FM12-ST-001: 3.66m (12ft) WIDE MODULE MEMBERS

**REPAIR SCHEDULE 1**

COMPONENT	MATERIAL	DIMENSIONS (mm)	QUANTITY	LOCATION/COMMENTS
4-PILE DOLPHIN	TIMBER	NA	1	EXTRACT AT LOCATION SHOWN
GALLOW BEAM	TIMBER	305 x 305 x 5000	1	REMOVE PLUS HARDWARE.
4-PILE DOLPHIN REPAIR WITH CENTER STEEL PILE (R)			3	REPAIR IN LOCATIONS SHOWN.
STEEL MOORING PILE INSTALLATION (P)			2	INSTALL IN LOCATIONS SHOWN.
FLOAT F - NEW 3.66 x 8.0m TIMBER FLOAT MODULE			1	ASSEMBLE AND INSTALL.
CROSS-TIES	CREO	140 x 140 x 6400	4	INSTALL AS SHOWN.
DECKING	ACZA	38 x 292 x 2440	5 PLANKS	REPLACE WHERE SHOWN.
FLOATATION A	FIBRGLAS	610 x 1200 x 2440	1 PONTOON	INSTALL/REPLACE AS SHOWN.
FLOATATION B	PLASTIC	610 x 580 x 1180	17 PONTOONS	INSTALL/REPLACE AS SHOWN.
FASCIA	ACZA	292 x 38 x TO SUIT	125 METRES	REPLACE ALL EXISTING
WALKWAY TREAD	STEEL	1220 WIDE	50 METRES	INSTALL ON TOP OF DECK
FLOAT CONNECTION	STEEL	AS SPECIFIED	1	INSTALL AS SHOWN.

**TYPICAL SECTION: FLOATS A & D**



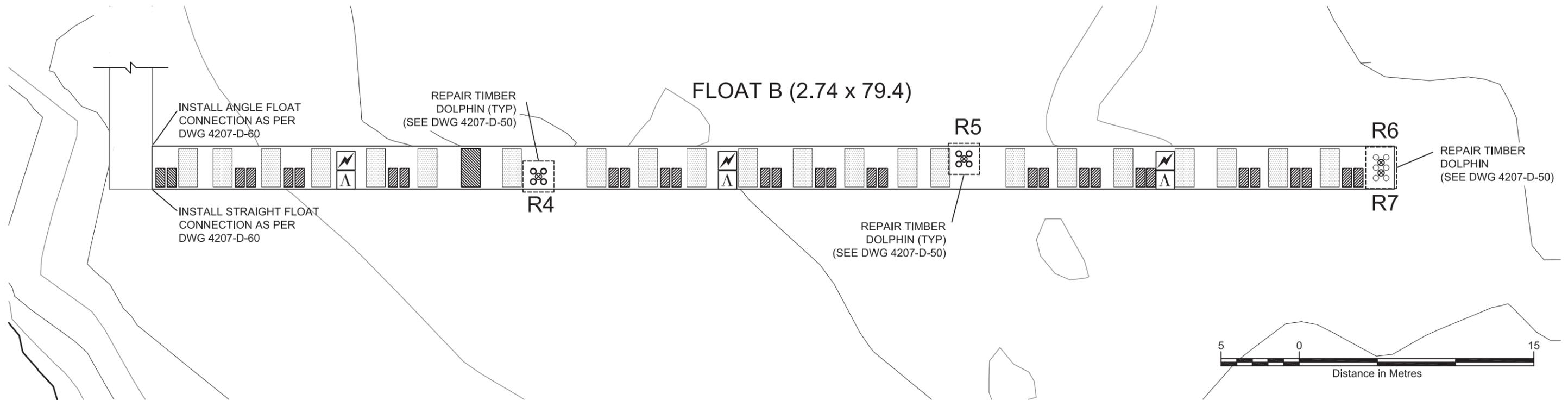
**LEGEND**

- EXISTING FLOATATION
- NEW FLOATATION PONTOON A (610 x 1220 x 2440)
- NEW FLOATATION PONTOON B (610 x 580 x 1180)
- NEW 406mm DIAMETER STEEL PIPE PILE
- EXISTING 4-PILE TIMBER DOLPHIN
- LAMP STANDARD
- TRANSFORMER
- ELECTRICAL RECEPTACLE

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Ref. No.			REFERENCE			
					Drawn by	
					DB	
					Date	
					27-MAR-15	
					Scale	
					1:200	
					Inspectors	
					DB, WP	
					Paper	
					11 x 17	DWG. No. 4207 -D- 10.3

**PLAN VIEW: FLOAT B**



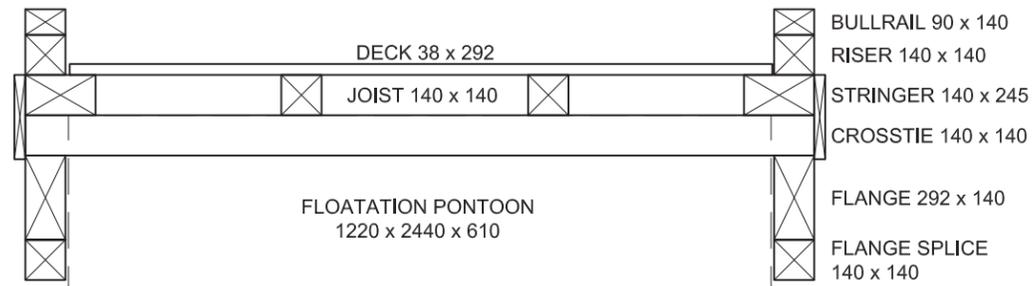
**DRAWING NOTES**

1. NOT AN AS-BUILT DRAWING.
2. REPAIR LOCATIONS SHOWN FOR ILLUSTRATION PURPOSES.
3. ALL DIMENSIONS AND REPAIR LOCATIONS TO BE CONFIRMED BY THE CONTRACTOR.

**REPAIR SCHEDULE 2**

COMPONENT	MATERIAL	DIMENSIONS (mm)	QUANTITY	LOCATION/COMMENTS
4-PILE DOLPHIN REPAIR WITH CENTER STEEL PILE (R)			4	REPAIR IN LOCATIONS SHOWN.
FLOATATION A	FIBRGLAS	610 x 1200 x 2440	1 PONTOONS	INSTALL/REPLACE AS SHOWN.
FLOATATION B	PLASTIC	610 x 580 x 1180	30 PONTOONS	INSTALL/REPLACE AS SHOWN.
FASCIA	ACZA	292 x 38 x TO SUIT	160 METRES	REPLACE ALL EXISTING.
WALKWAY TREAD	STEEL	1220 WIDE	78 METRES	INSTALL ON TOP OF DECK.
FLOAT CONNECTION	STEEL	AS SPECIFIED	2	INSTALL AS SHOWN.

**TYPICAL SECTION: FLOAT B**



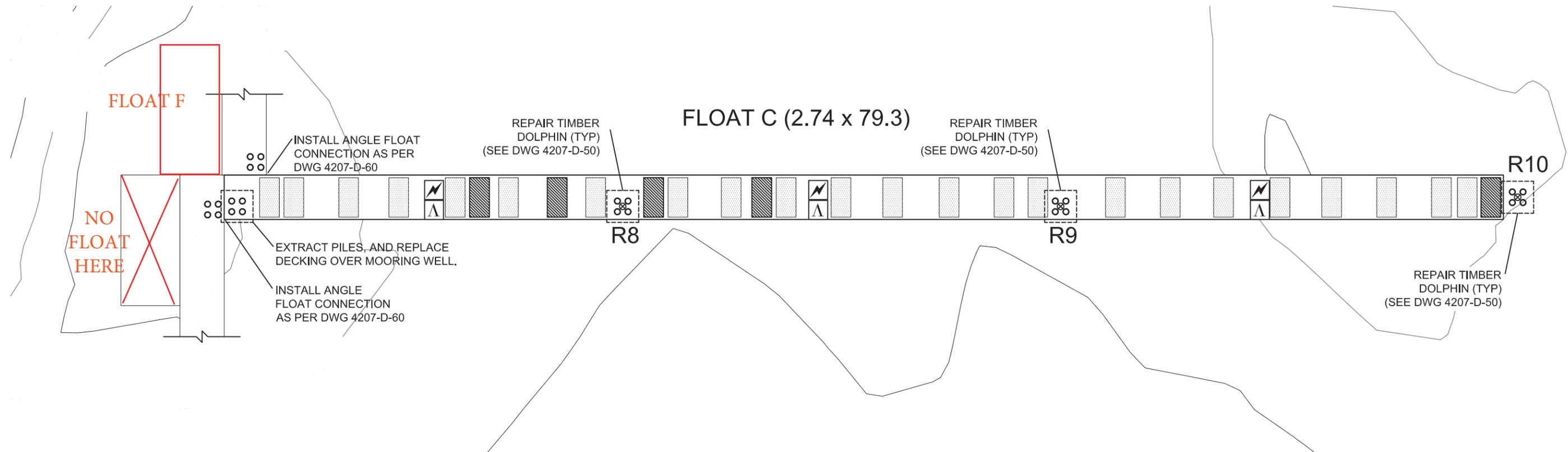
**LEGEND**

- EXISTING FLOATATION
- NEW FLOATATION PONTOON A (610 x 1220 x 2440)
- NEW FLOATATION PONTOON B (610 x 580 x 1180)
- NEW 406mm DIAMETER STEEL PIPE PILE
- EXISTING 4-PILE TIMBER DOLPHIN
- LAMP STANDARD
- TRANSFORMER
- ELECTRICAL RECEPTACLE

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		Fisheries and Oceans / Pêches et Océans Small Craft Harbours Branch			XIE		
					Drawn by		DB
					Date		27-MAR-15
					Scale		1:1000
				Inspectors	DB, WP		
				Paper	11 x 17	DWG. No. 4207 -D- 20.3	

**PLAN VIEW: FLOAT C**



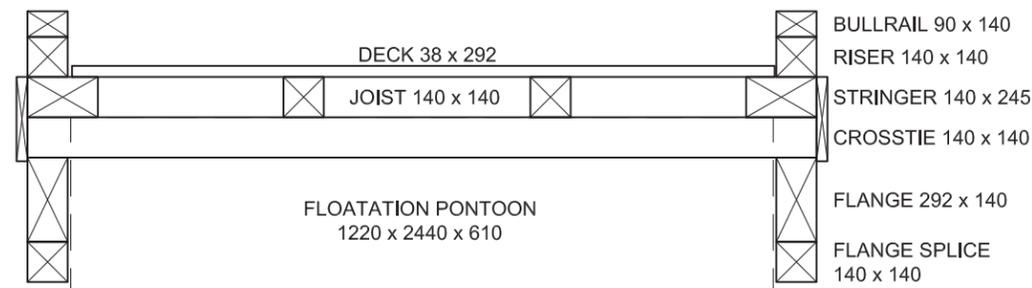
**DRAWING NOTES**

1. NOT AN AS-BUILT DRAWING.
2. REPAIR LOCATIONS SHOWN FOR ILLUSTRATION PURPOSES.
3. ALL DIMENSIONS AND REPAIR LOCATIONS TO BE CONFIRMED BY THE CONTRACTOR.

**REPAIR SCHEDULE 3**

COMPONENT	MATERIAL	DIMENSIONS (mm)	QUANTITY	LOCATION/COMMENTS
4-PILE DOLPHIN	TIMBER	NA	1	EXTRACT AT LOCATION SHOWN
4-PILE DOLPHIN REPAIR WITH CENTER STEEL PILE (R)			3	REPAIR IN LOCATIONS SHOWN.
DECKING	ACZA	38 x 292 x 2440	5 PLANKS	REPLACE WHERE SHOWN.
FLOATATION A	FIBRGLAS	610 x 1200 x 2440	5 PONTOONS	INSTALL/REPLACE AS SHOWN.
FASCIA	ACZA	292 x 38 x TO SUIT	160 METRES	REPLACE ALL EXISTING
WALKWAY TREAD	STEEL	1220 WIDE	78 METRES	INSTALL ON TOP OF DECK
FLOAT CONNECTION	STEEL	AS SPECIFIED	2	INSTALL AS SHOWN.

**TYPICAL SECTION: FLOAT C**



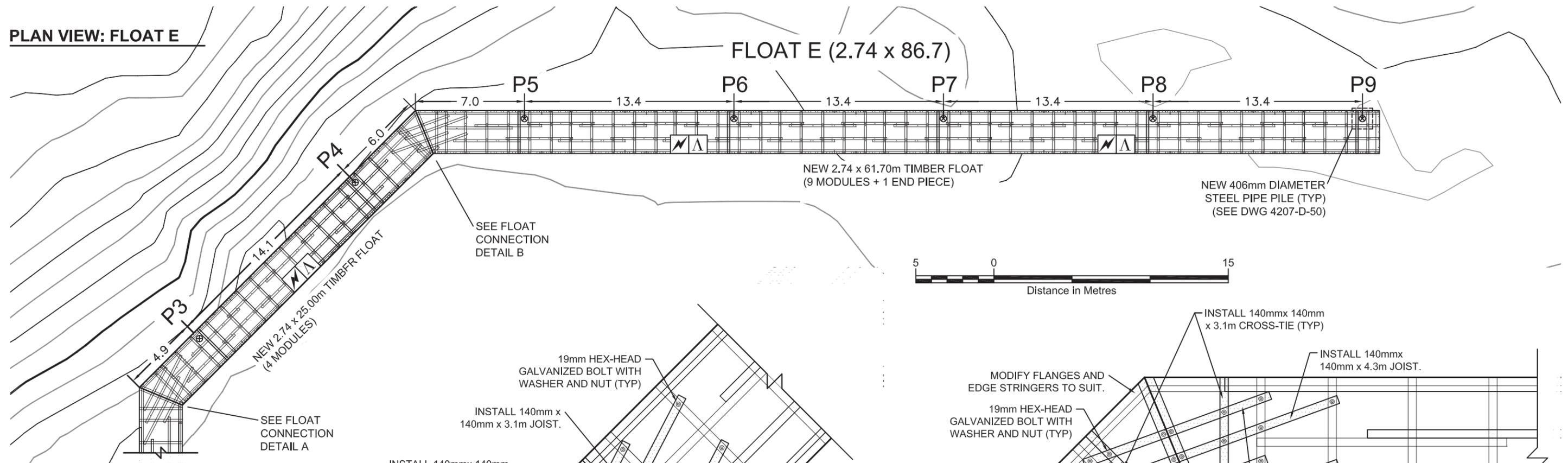
**LEGEND**

- EXISTING FLOATATION
- NEW FLOATATION PONTOON A (610 x 1220 x 2440)
- NEW FLOATATION PONTOON B (610 x 580 x 1180)
- NEW 406mm DIAMETER STEEL PIPE PILE
- EXISTING 4-PILE TIMBER DOLPHIN
- LAMP STANDARD
- TRANSFORMER
- ELECTRICAL RECEPTACLE

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		Fisheries and Oceans Pêches et Océans  Small Craft Harbours Branch		SEA FORCE	XIE		FLOAT C LAYOUT FLOAT RECONSTRUCTION BELLA BELLA SMALL CRAFT HARBOUR BELLA BELLA, BRITISH COLUMBIA	
								Drawn by
								DB
								Date
		27-MAR-15	Scale					
		1:1000	Inspectors					
		DB, WP	Paper					
		11 x 17	DWG. No.					
		4207 -D- 30.3						

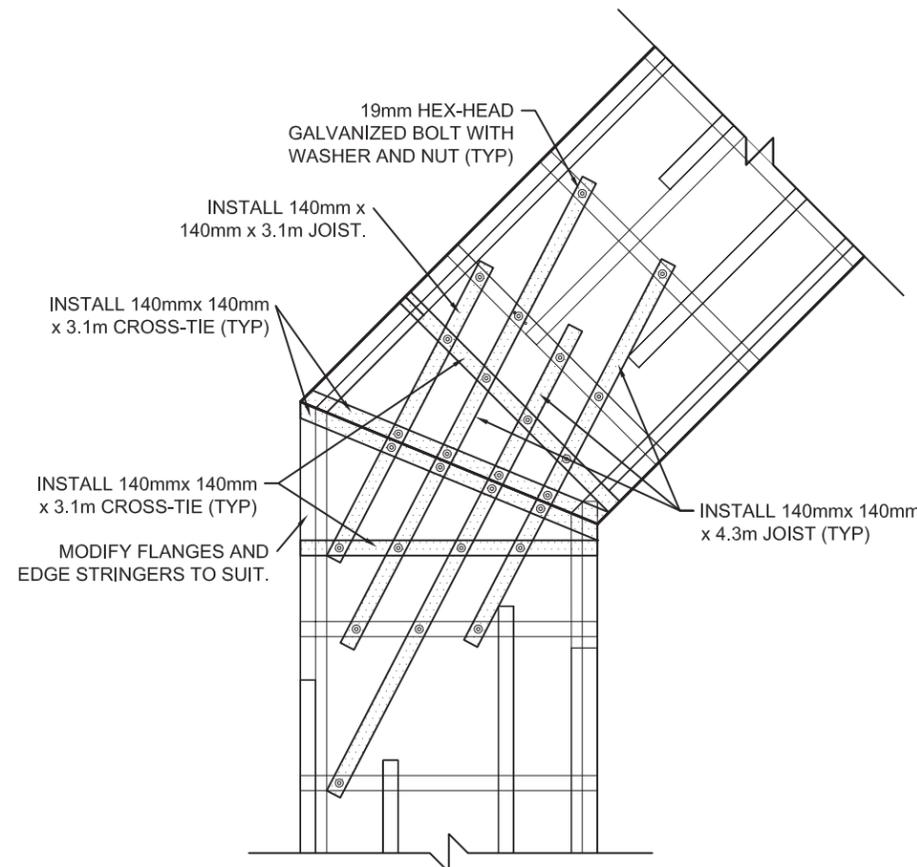
**PLAN VIEW: FLOAT E**



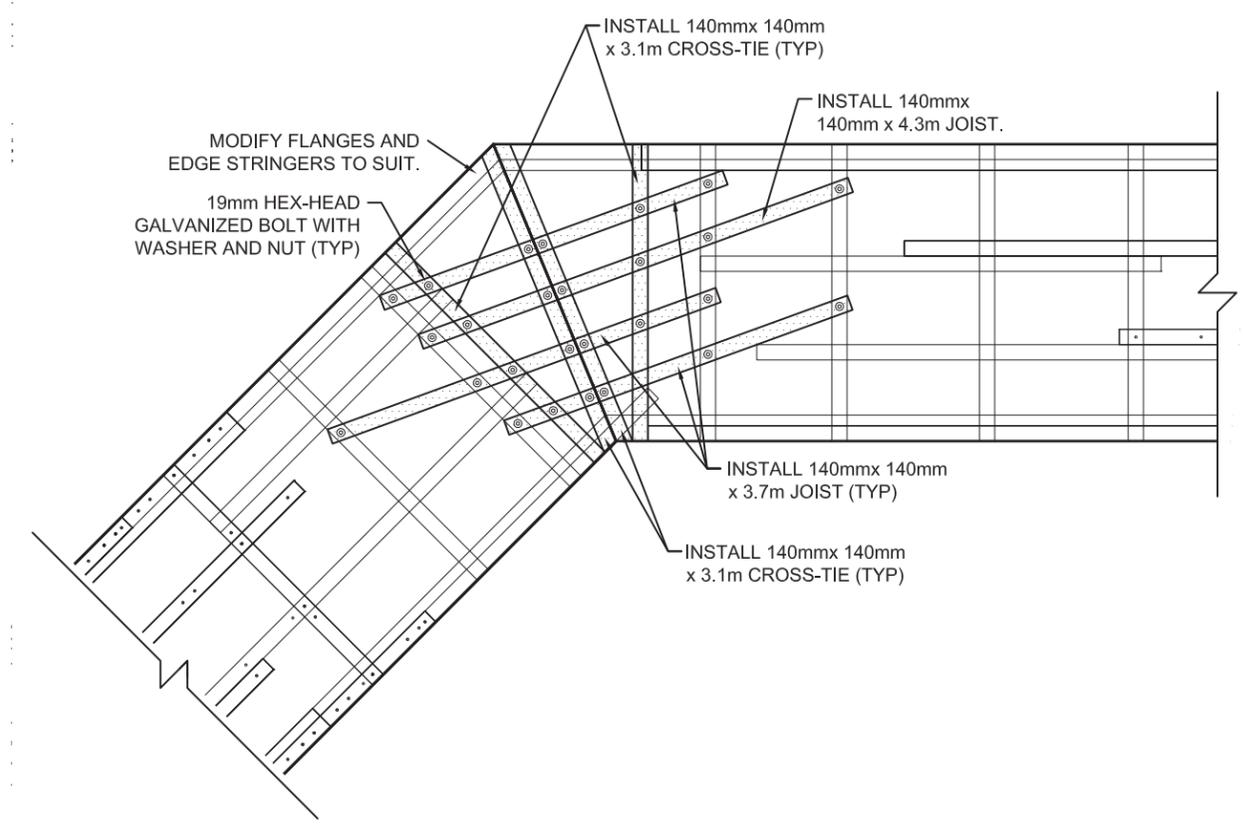
**DRAWING NOTES**

1. NOT AN AS-BUILT DRAWING.
2. DECKING AND OTHER MEMBERS NOT SHOWN FOR CLARITY.
3. ALL FLOAT MODULES TO BE ASSEMBLED AS PER REFERENCE DRAWINGS:  
 FM9-END-200: 2.74m (9ft) WIDE END PIECE ASSEMBLY  
 FM9-END-201: 2.74m (9ft) WIDE END PIECE MEMBERS  
 FM9-ST-000: 2.74m (9ft) WIDE MODULE ASSEMBLY  
 FM9-ST-001: 2.74m (9ft) WIDE MODULE MEMBERS  
  
 WITH 84 m OF WALKWAY TREAD AS PER DWG 4900-D-01.3 AND 174m OF NEW 38mm x 292m ACZA FASCIA TIMBER.
4. CROSS-TIES AND CONNECTION JOISTS AS SHOWN TO BE INCLUDED WITH OWNER SUPPLIED FLOAT MODULE MATERIALS AND MODIFIED IN ORDER TO MAKE CONNECTIONS SHOWN.

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THIS CONSTRUCTION HAS  
BEEN COMPLETED.**



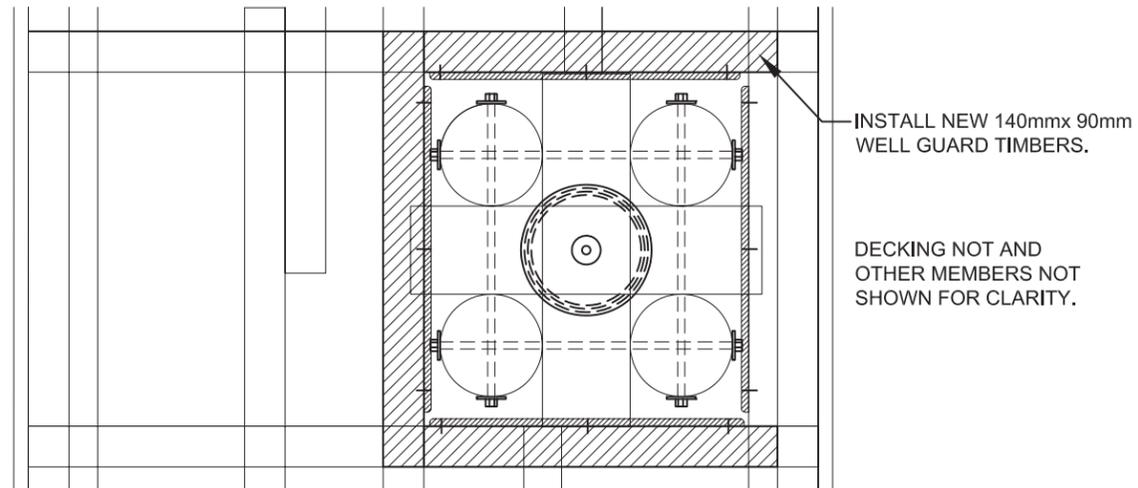
**FLOAT CONNECTION DETAIL A**



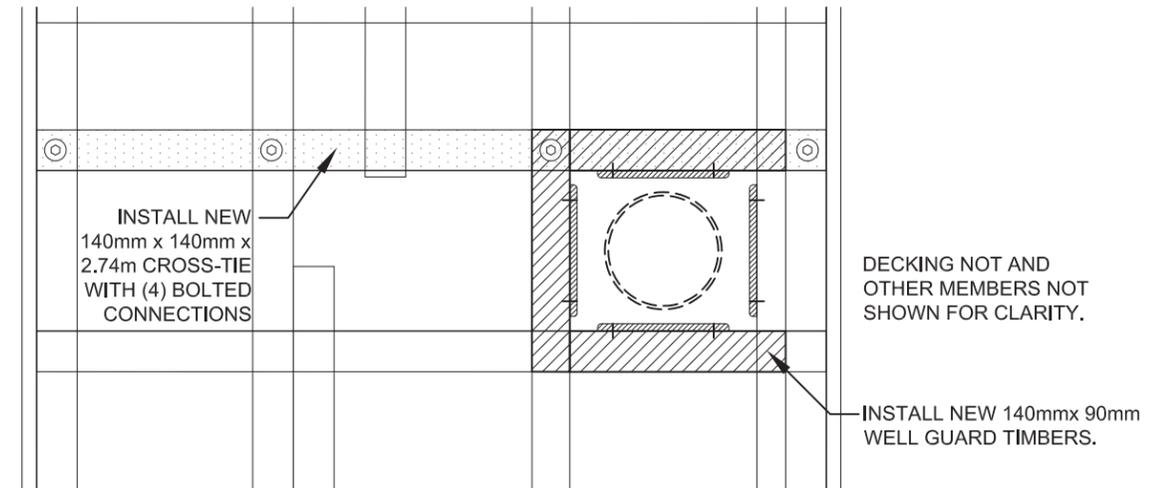
**FLOAT CONNECTION DETAIL B**

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	Drawn by			DB			
	Date			27-MAR-15			
	Scale			1:1000			
	Inspectors			DB, WP			
				Paper	11 x 17	DWG. No.	4207 -D- 40.3

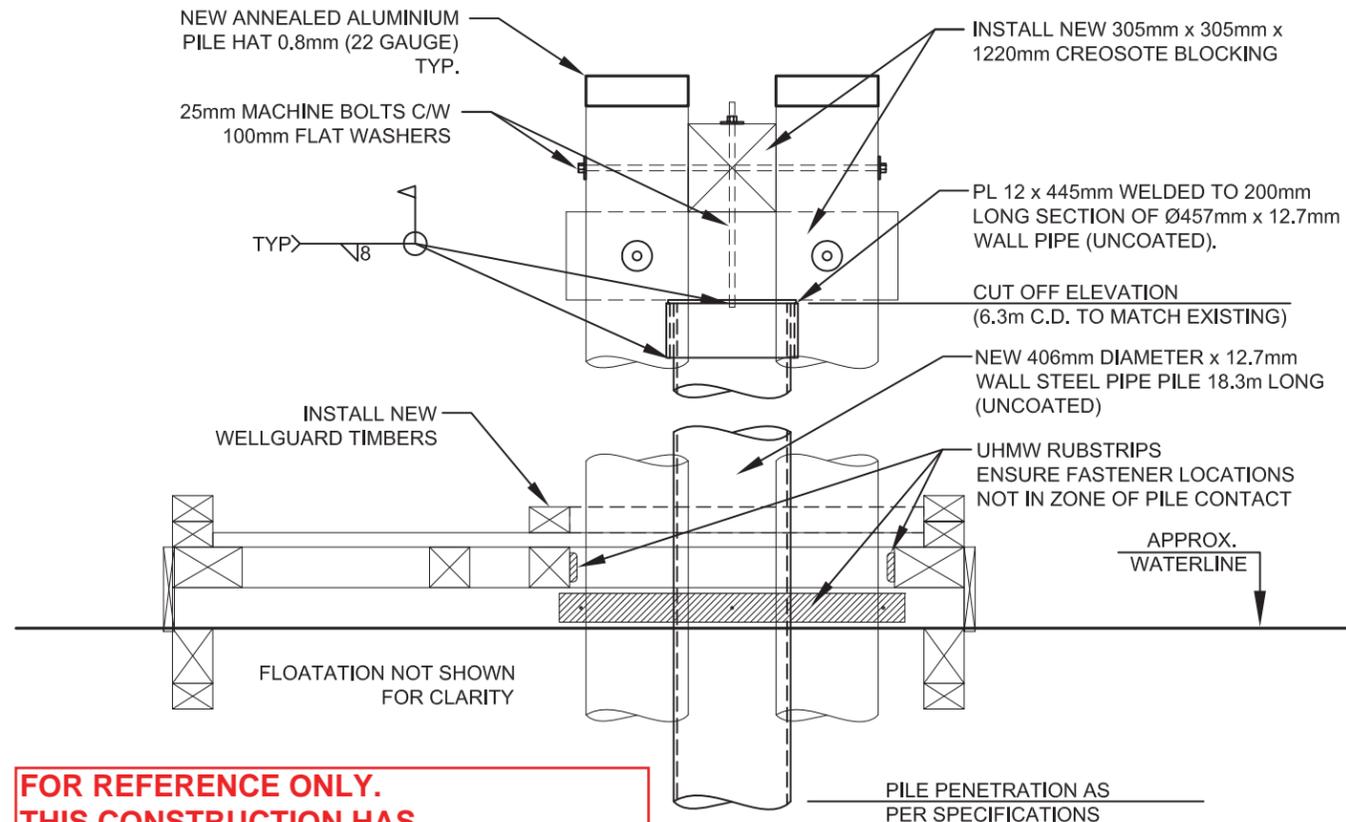
**TIMBER PILE DOLPHIN REPAIR:  
PLAN VIEW (TYP)**



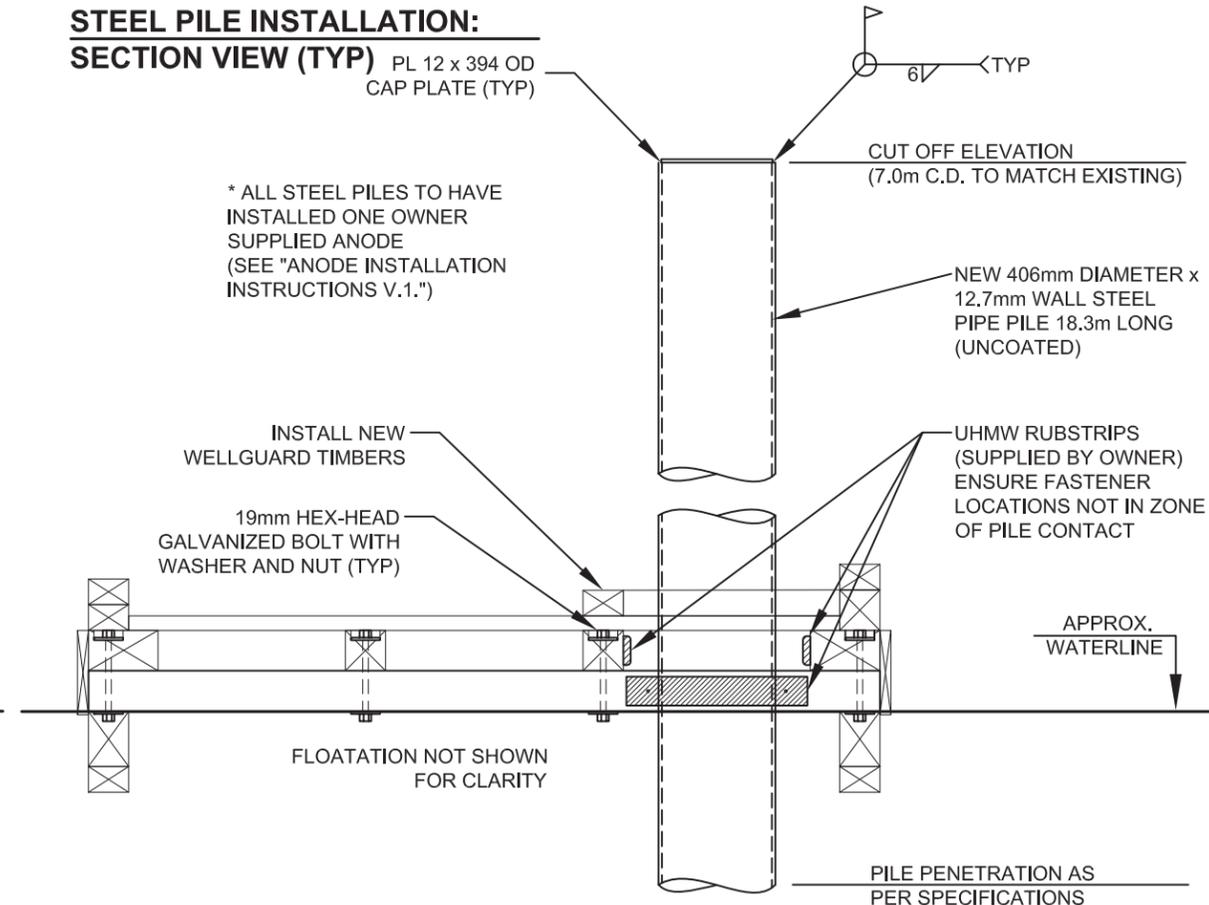
**STEEL PILE INSTALLATION:  
PLAN VIEW (TYP)**



**TIMBER PILE DOLPHIN REPAIR:  
SECTION VIEW (TYP)**



**STEEL PILE INSTALLATION:  
SECTION VIEW (TYP)**



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Ref. No.	Client	 <b>Fisheries and Oceans</b> / <b>Pêches et Océans</b> Small Craft Harbours Branch	This document contains restricted and/or privileged information and has been prepared solely for use by the party with whom Sea Force Consultants Inc. has entered into a contract. This document is to be used only for the purpose to which it refers and none of the information in this document may be used, reproduced or transmitted, in any form or by any means, electronic or mechanical, without written permission of Sea Force Consultants Inc.	Checked by	XIE	PROJECT PILE DOLPHIN DETAILS FLOAT RECONSTRUCTION BELLA BELLA SMALL CRAFT HARBOUR BELLA BELLA, BRITISH COLUMBIA	
	Author				Drawn by		DB
					Date		27-MAR-15
					Scale		1:25
					Inspectors		DB, WP
			Paper	11 x 17	DWG. No.	4207 -D- 50.3	

Client



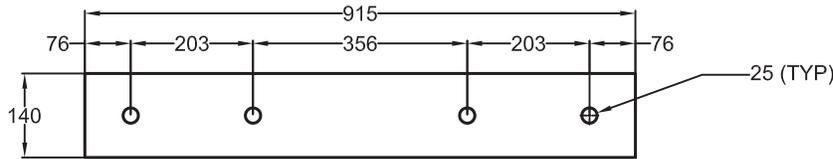
Fisheries and Oceans  
Pêches et Océans  
Small Craft Harbours Branch

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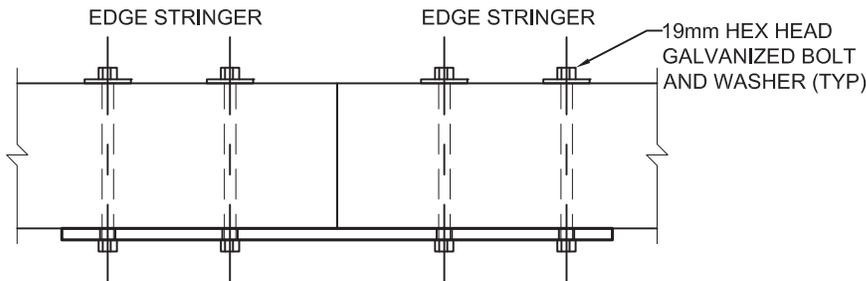
Author



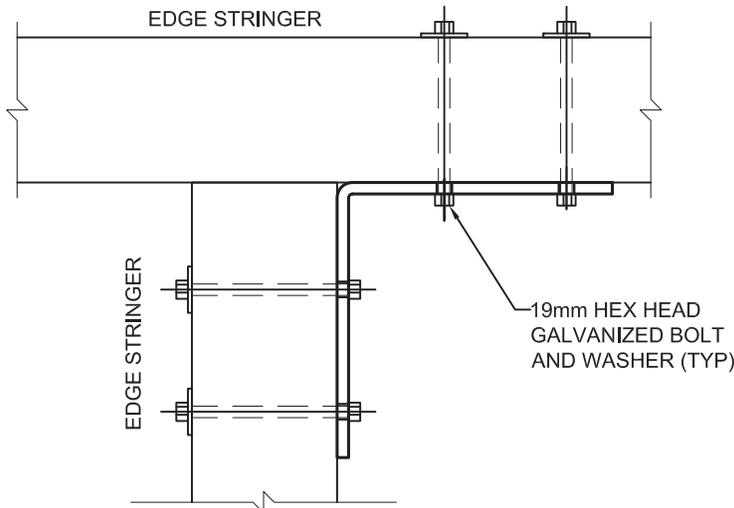
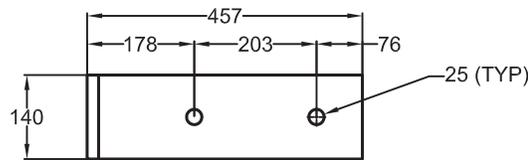
**FLOAT CONNECTOR: STRAIGHT**



**MATERIAL: 19mm STEEL PLATE  
COATING: HOT DIPPED GALVANIZED**



**FLOAT CONNECTOR: ANGLED**



\* DECKING AND OTHER FLOAT COMPONENTS NOT SHOWN FOR CLARITY.

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BEEN COMPLETED.**

		Checked by XIE	PROJECT  FLOAT CONNECTION DETAILS (TYPICAL) 2.74m AND 3.66m WIDE TIMBER FLOATS SMALL CRAFT HARBOURS PACIFIC REGION
		Drawn by DB	
		Date 27-MAR-15	
		Scale AS SHOWN	
		Inspectors N/A	
Ref. No.	REFERENCE	Paper 8.5 x 11	

Client



Fisheries and Oceans  
Pêches et Océans

Small Craft Harbours Branch

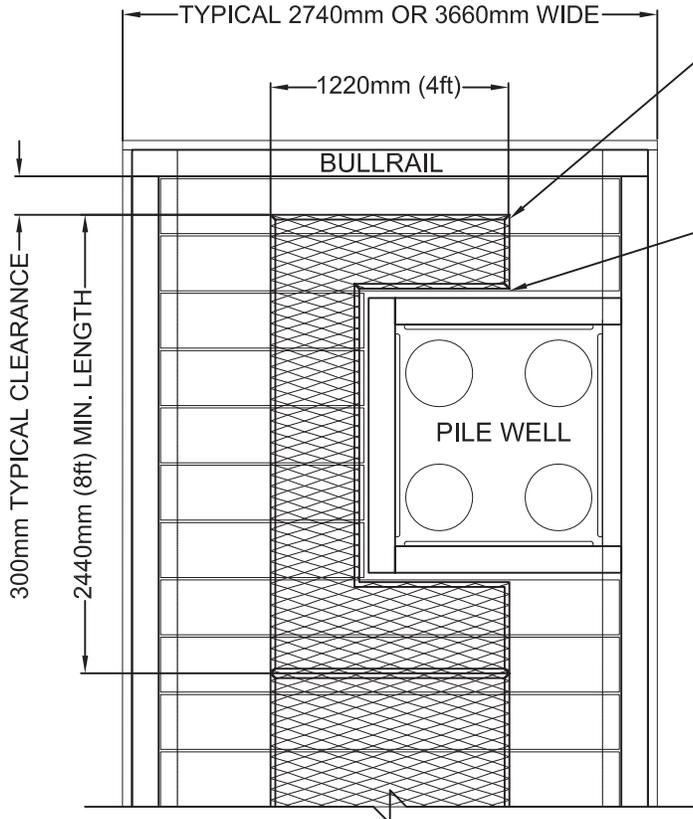
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Author



**PLAN VIEW WALKWAY TREAD LAYOUT (TYPICAL)**

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BEEN COMPLETED.**



U-EDGE MITRED AT 45 DEG. ANGLE ON CORNERS

LEAVE MINIMUM 25mm CLEARANCE FROM PILE WELLS AND OTHER SURFACE MOUNTED ITEMS.

**NOTES**

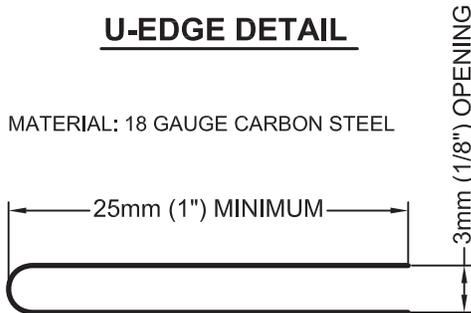
1. WALKWAY TREAD INSTALLED DOWN CENTRE OF FLOAT AS SHOWN.
- WALKWAY TREAD MATERIAL:**  
1-1/2" #9 AMICO FLATTENED EXPANDED METAL MESH (CARBON STEEL) OR EQUIVALENT.
2. TREAD MATERIAL TO BE CUT TO CONFORM TO SURFACE MOUNTED ITEMS SUCH AS PILE WELLS, ELECTRICAL RECEPTACLE CABINETS, ETC.
3. U-EDGING TO BE INSTALLED OVER ALL EXPOSED EDGES OF WIRE MESH WITH CORNERS MITRED AT 45 DEGREES.

**U-EDGING MATERIAL:** 18 GAUGE #401 METALMART OR EQUIVALENT WITH DIMENSIONS SHOWN.

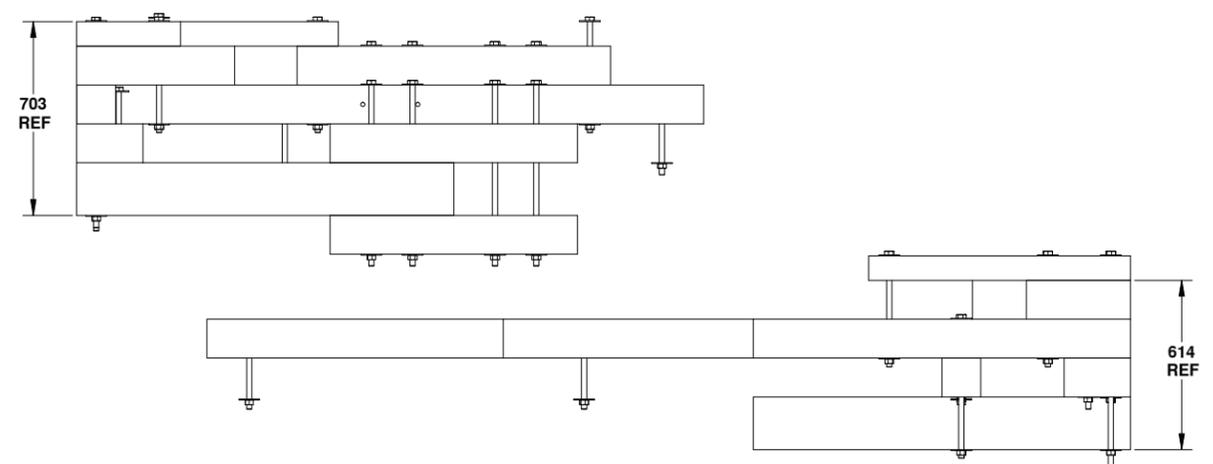
4. U-EDGING TO BE PRE-DRILLED AND FASTENED WITH #14 STAINLESS PAN HEAD WOOD SCREWS, 38mm (1-1/2" LONG).
5. FASTENERS TO HAVE A MAXIMUM SPACING OF 500mm WITH TWO (2) CONNECTION POINTS AT EACH CORNER

**U-EDGE DETAIL**

MATERIAL: 18 GAUGE CARBON STEEL



		Checked by XIE	PROJECT  WALKWAY TREAD TYPICAL DETAIL 2.74m (9ft) AND 3.66m (12ft) WIDE TIMBER FLOATS SMALL CRAFT HARBOURS PACIFIC REGION, BRITISH COLUMBIA
		Drawn by DB	
		Date 25-MAR-15	
		Scale 1:40	
		Inspectors N/A	
Ref. No.	REFERENCE	Paper 8.5 x 11	
			DWG. No. 4900 -D- 01 .3

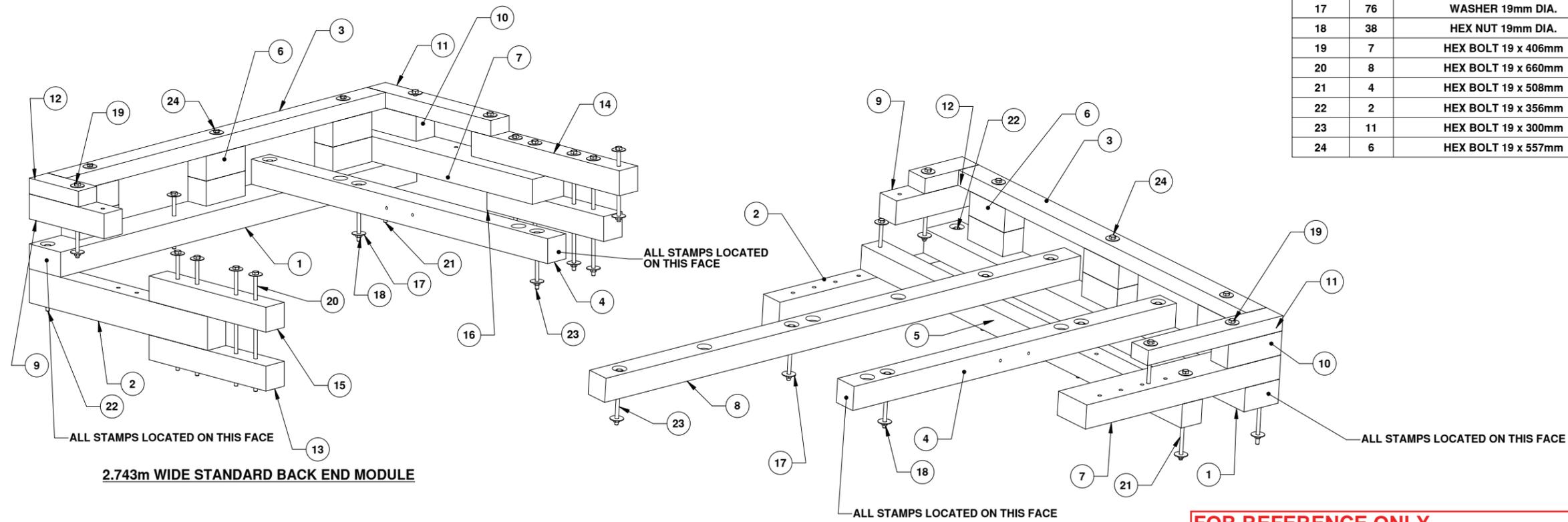


### TIMBER MEMBERS REQUIREMENTS

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	2	END CROSSTIE	(6x10) 141 x 241 x 2743 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE END	(6x8) 141 x 191 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
3	2	END RAIL	(4x6) 89 x 141 x 2460 LG.	ACZA
4	2	JOIST END 'B'	(6x6) 141 x 141 x 2281 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
5	1	STANDARD CROSSTIE	(6x6) 141 x 141 x 2743 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
6	14	END BLOCK	(6x6) 141 x 141 x 300 LG.	ACZA
7	2	STRINGER END	(6x10) 141 x 241 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
8	1	MODIFIED JOIST	(6x6) 141 x 141 x 3359 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
9	2	SPACER END 'B'	(6x6) 141 x 141 x 575 LG.	ACZA
10	2	SPACER END	(6x6) 141 x 141 x 378 LG.	ACZA
11	2	RAIL END	(4x6) 89 x 141 x 952 LG.	ACZA
12	2	RAIL END 'B'	(4x6) 89 x 141 x 378 LG.	ACZA
13	1	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
14	1	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG.	ACZA
15	1	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
16	1	LOWER STRINGER SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR

### HARDWARE REQUIREMENTS

ITEM NO.	QTY.	DESCRIPTION
17	76	WASHER 19mm DIA.
18	38	HEX NUT 19mm DIA.
19	7	HEX BOLT 19 x 406mm
20	8	HEX BOLT 19 x 660mm
21	4	HEX BOLT 19 x 508mm
22	2	HEX BOLT 19 x 356mm
23	11	HEX BOLT 19 x 300mm
24	6	HEX BOLT 19 x 557mm



**2.743m WIDE STANDARD BACK END MODULE**

**2.743m WIDE STANDARD FRONT END MODULE**

**2.743m WIDE END FLOAT MODULES**

**FOR REFERENCE ONLY**



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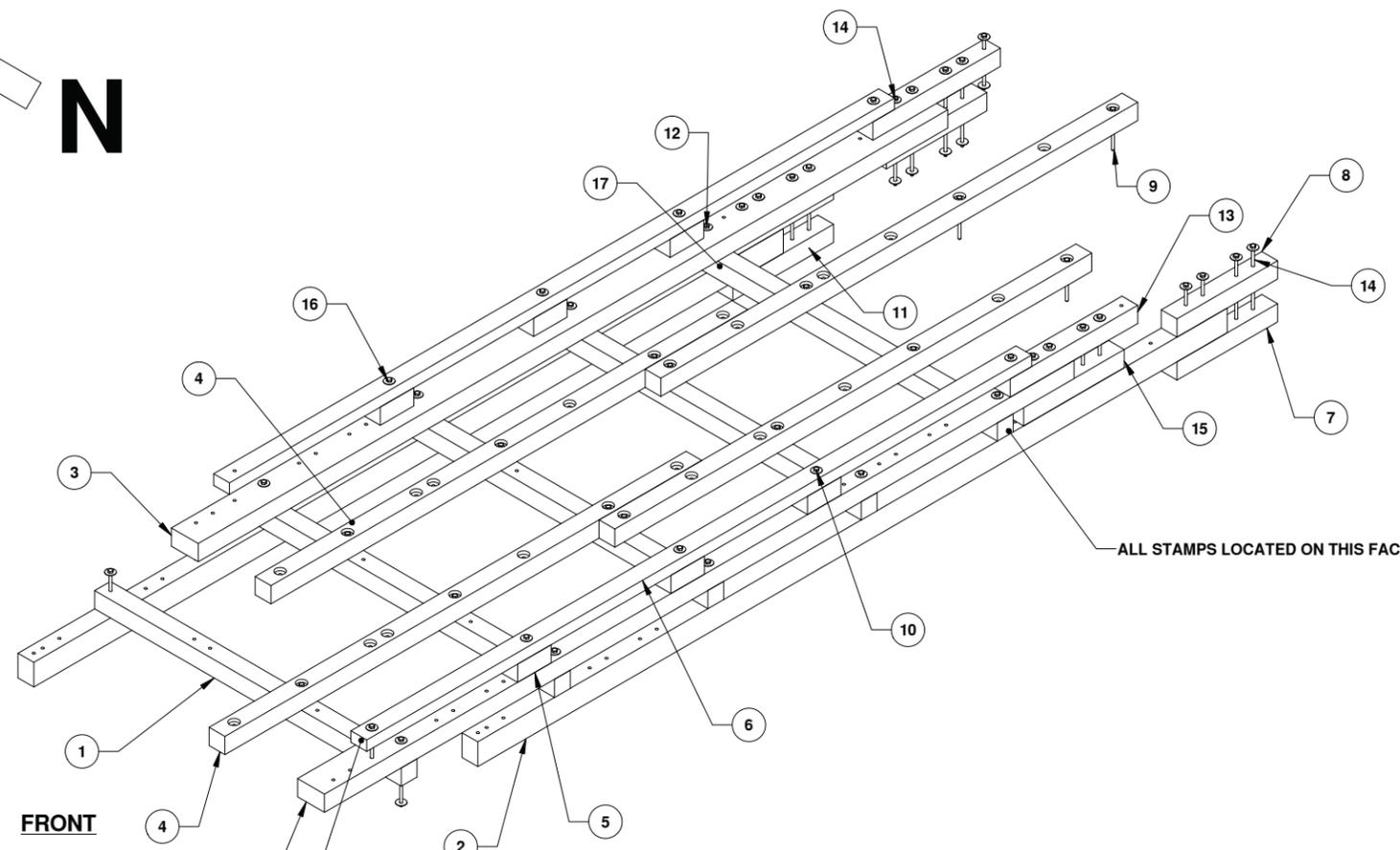
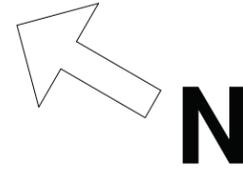
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TOLERANCES:			
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ANGULAR: MATCH ±	BEND ±		
TWO PLACE DECIMAL ±	THREE PLACE DECIMAL ±		
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
NEXT ASSY	USED ON	FINISH	
APPLICATION	DO NOT SCALE DRAWING		



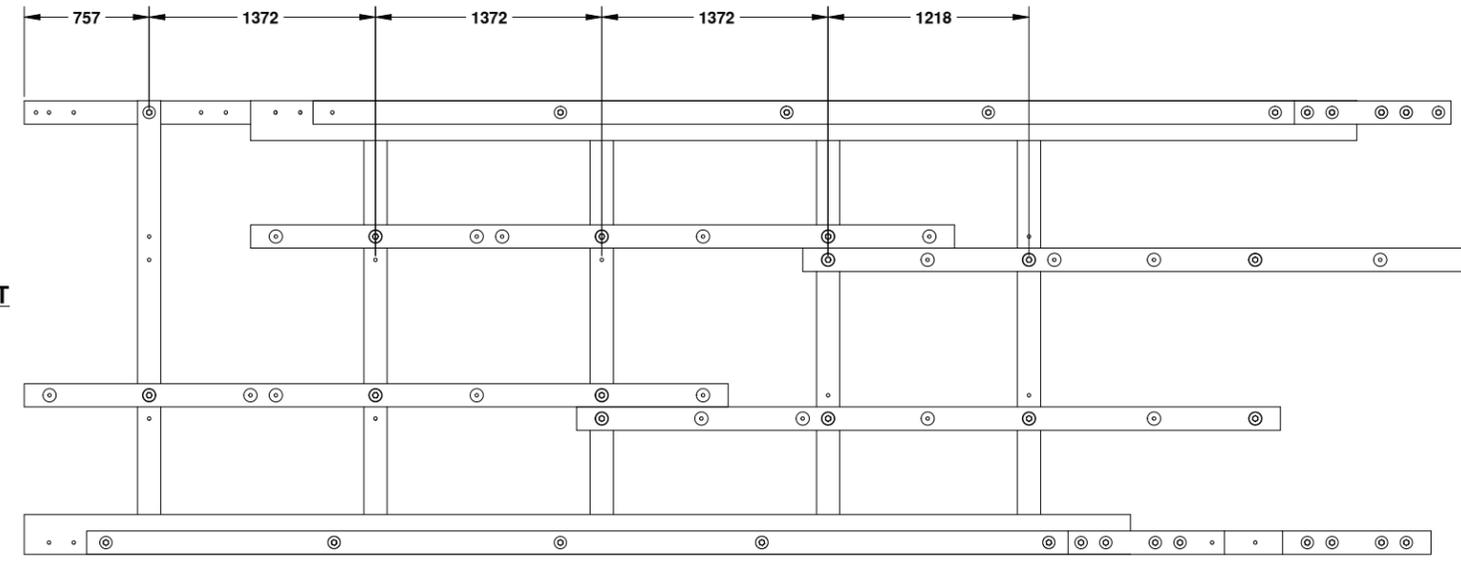
TITLE: **2.743m WIDE FLOAT MODULE 2011 REVISION**

SIZE	DWG. NO.	REV
D	FM9-END-200	G

SCALE: 1:12 WEIGHT: SHEET 1 OF 1



**STANDARD 2.743M WIDE FLOAT MODULE - 2011 REVISION**  
WITH 141x141 CROSSTIE, 141x141 RISERS  
ALL STAMPS LOCATED ON THIS FACE



**PLAN VIEW**

**TIMBER MEMBERS**

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	5	CROSS TIES	(6x6) 141 X 141 x 2743 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE	(6x8) 141 x 191 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
3	2	STRINGER	(6x10) 141 x 241 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
4	4	JOISTS	(6x6) 141 x 141 x 4267 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
5	6	RISERS	(6x6) 141 x 141 x 300 LG	ACZA
6	2	RAIL	(4x6) 89 x 141 x 5950 LG	ACZA
7	2	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
8	2	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
13	2	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG	ACZA
15	2	LOWER STRINGER SPLICE	(6x6) 141 X 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
17	5	FOAM BUOYANCY BILLET	1000 X 597 x 2438 LG.	
19	28	DECK PLANKS	(12x2) 305 x 38 x 2440 LG	ACZA

**HARDWARE REQUIREMENTS**

ITEM NO.	QTY.	HARDWARE
9	14	HEX BOLT 19 x 300mm
10	100	WASHERS 19 DIA.
11	50	HEX NUT 19mm DIA.
12	10	HEX BOLT 19 x 508mm
14	16	HEX BOLT 19 x 660mm
16	10	HEX BOLT 19 x 406mm
20	192	100mm GALVANIZED SPIRAL NAILS

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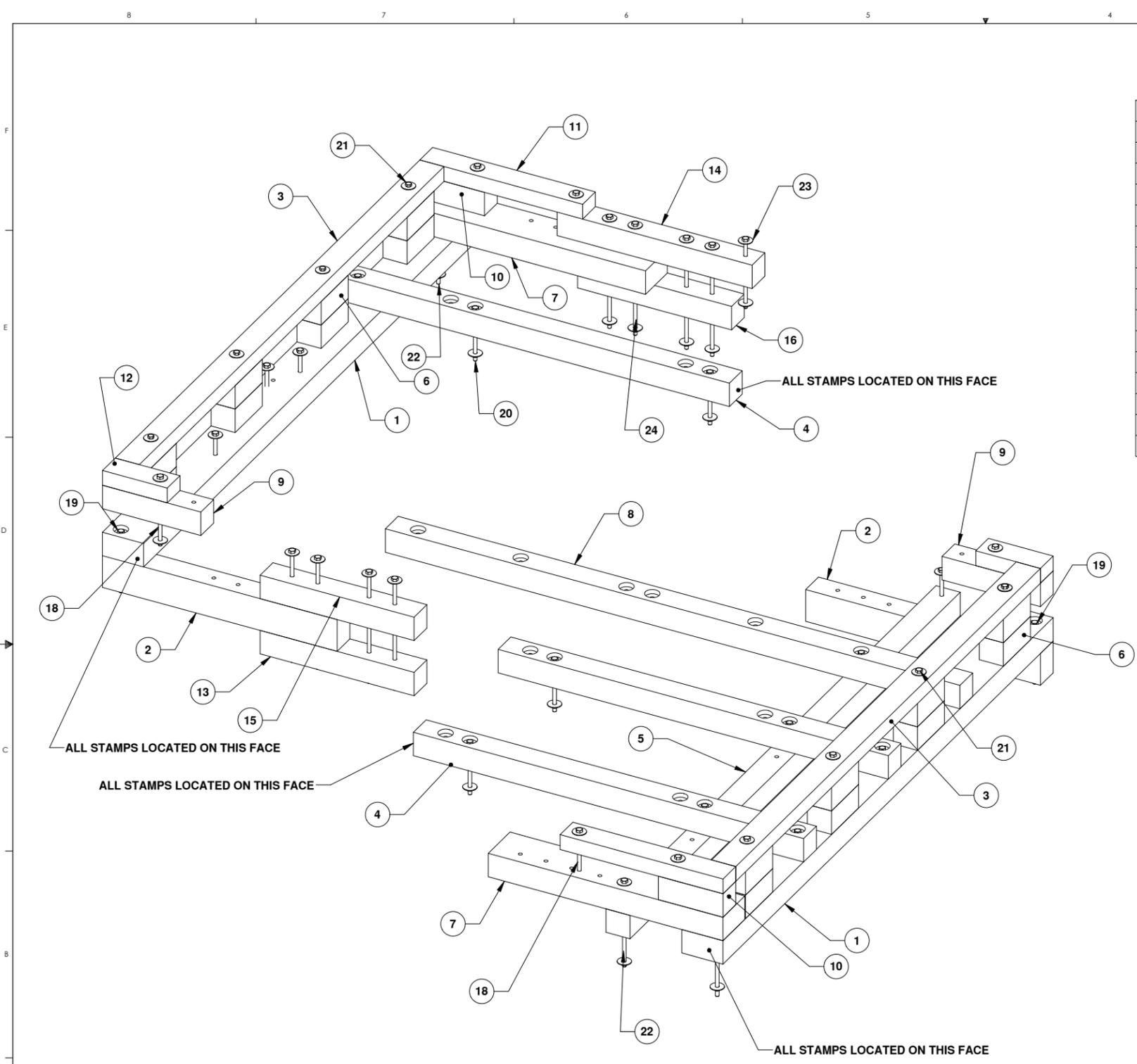
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FRACTIONAL ±	ANGULAR: MATCH ±		
	BEND ±		
	TWO PLACE DECIMAL ±		
	THREE PLACE DECIMAL ±		
	INTERPRET GEOMETRIC TOLERANCING PER:		
	MATERIAL		
	FINISH		
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		



TITLE: **'2011 REVISION' 2.743m WIDE STANDARD FLOAT MODULE**

SIZE	DWG. NO.	REV
D	FM9-ST-000	H

SCALE: 1:20 WEIGHT: SHEET 1 OF 1



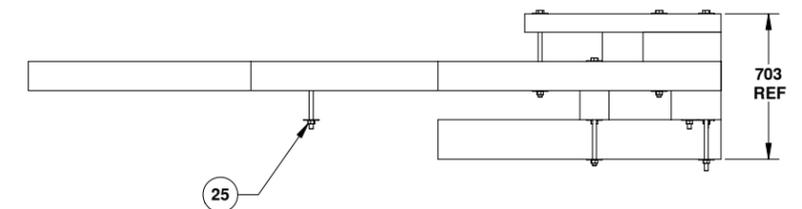
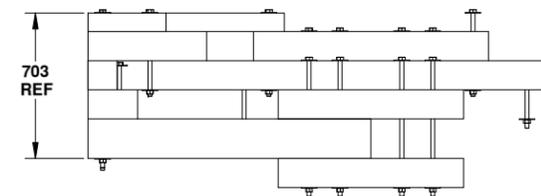
**3.65m WIDE FLOAT END MODULES**

**TIMBER MEMBER REQUIREMENTS**

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	2	END CROSSTIE	(6x10) 141 x 241 x 3658 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE END	(6x8) 141 x 191 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
3	2	END RAIL	(4x6) 89 x 141 x 3374 LG.	ACZA
4	3	JOIST END 'B'	(6x6) 141 x 141 x 2281 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
5	1	STANDARD CROSSTIE	(6x6) 141 x 141 x 3658 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
6	16	END BLOCK	(6x6) 141 x 141 x 300 LG.	ACZA
7	2	STRINGER END	(6x10) 141 X 241 x 1372 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
8	1	MODIFIED JOIST	(6x6) 141 x 141 x 3359 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
9	2	SPACER END 'B'	(6x6) 141 x 141 x 575 LG.	ACZA
10	2	SPACER END	(6x6) 141 x 141 x 378 LG.	ACZA
11	2	RAIL END	(4x6) 89 x 141 x 952 LG.	ACZA
12	2	RAIL END 'B'	(4x6) 89 x 141 x 378 LG.	ACZA
13	1	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
14	1	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG.	ACZA
15	1	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR
16	1	LOWER STRINGER SPLICE	(6x6) 141 x 141 x 900 LG.	14 LB. CREOSOTE TREATMENT #1 BTR FIR

**HARDWARE REQUIREMENTS**

ITEM NO.	QTY.	DESCRIPTION
18	7	HEX BOLT 19 x 406mm
19	2	HEX BOLT 19 x 356mm
20	13	HEX BOLT 19 x 300mm
21	8	HEX BOLT 19 x 557mm
22	4	HEX BOLT 19 x 508mm
23	84	WASHER 19mm DIA.
24	8	HEX BOLT 19 x 660mm
25	42	HEX NUT 19mm DIA.



**FOR REFERENCE**



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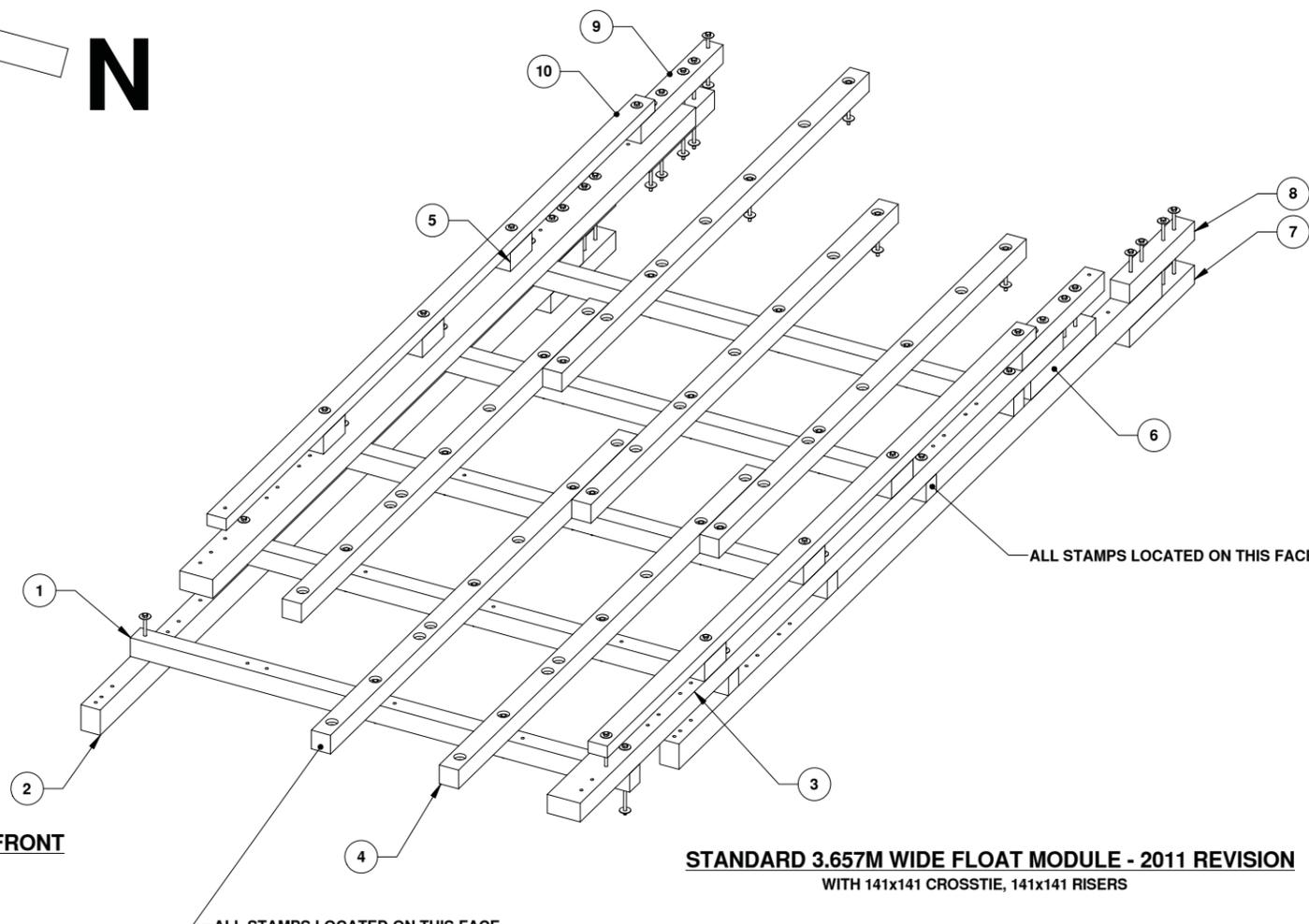
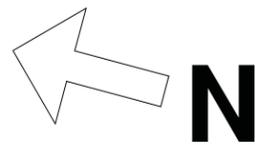
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TWO PLACE DECIMAL ±	ENG APPR.		
THREE PLACE DECIMAL ±	MEG APPR.		
	Q.A.		
INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:		
MATERIAL			
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		



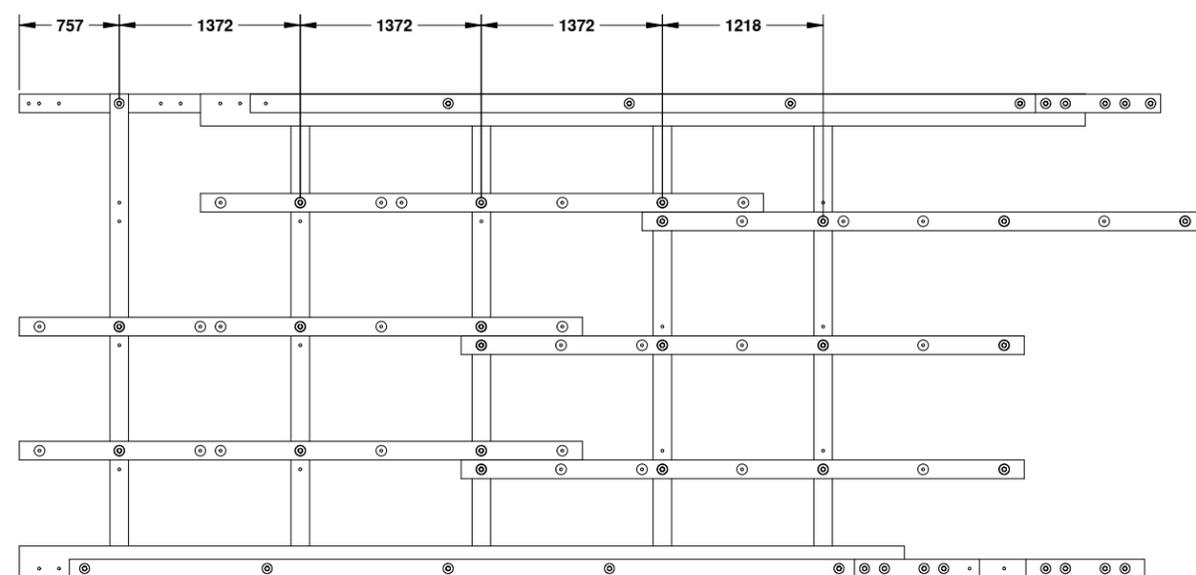
Small Craft  
Harbours Branch

**TITLE: 3.65m WIDE FLOAT  
MODULE  
2011 REVISION**

SIZE	DWG. NO.	REV
D	FM12-END-200	J
SCALE: 1:12	WEIGHT:	SHEET 1 OF 1



**STANDARD 3.657M WIDE FLOAT MODULE - 2011 REVISION**  
WITH 141x141 CROSSTIE, 141x141 RISERS



**FRONT**

**PLAN VIEW**  
SCALE: 1 - 25

**TIMBER REQUIRED**

ITEM NO.	QTY.	TIMBER MEMBER	DESCRIPTION	MATERIAL
1	5	CROSS TIES	(6x6) 141 x 141 x 3658 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
2	2	FLANGE	(6x8) 141 x 191 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
3	2	STRINGER	(6x10) 141 x 241 x 6706 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
4	6	JOISTS	(6x6) 141 x 141 x 4267 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
5	6	RISER	(6x6) 141 x 141 x 305 LG	ACZA
6	2	LOWER STRINGER SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
7	2	LOWER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
8	2	UPPER FLANGE SPLICE	(6x6) 141 x 141 x 900 LG	14 LB CREOSOTE TREATMENT #1 BTR FIR
9	2	UPPER STRINGER SPLICE	(6x6) 141 x 141 x 1140 LG	ACZA
10	2	RAIL	(4x6) 89 x 141 x 5950 LG	ACZA
21	28	DECK PLANKS	(12x2) 305 x 38 x 3352 LG	ACZA
17	5	FOAM BOUYANCY BILLETS	1000 x 597 x 3352 LG	

**HARDWARE REQUIRED**

ITEM NO.	QTY.	HARDWARE
11	21	HEX BOLT 19 x 300mm
12	114	WASHERS
13	57	HEX NUT 19mm DIA
14	16	HEX BOLT 19 x 660mm
15	10	HEX BOLT 19 x 406mm
16	10	HEX BOLT 19 x 508mm
19	264	GALVANIZED SPIRAL NAILS - 100mm LG

**FOR REFERENCE**



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UNLESS OTHERWISE SPECIFIED:		DATE	NAME
DIMENSIONS ARE IN INCHES		12/11	WSL
TOLERANCES:			
FRACTIONAL ±			
ANGULAR: MATCH ±	BEND ±		
TWO PLACE DECIMAL ±			
THREE PLACE DECIMAL ±			
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		



Small Craft Harbours Branch  
**TITLE: '2011 REVISION' 3.657m WIDE STANDARD FLOAT MODULE ASSEMBLY**  
 SIZE DWG. NO. REV  
**D FM12-ST-000 I**  
 SCALE: 1:20 WEIGHT: SHEET 1 OF 1