

THESE DOCK PLANS WERE DEVELOPED BY THE NAVAL ARCHITECTURE SECTION IN THE FLEET MAINTENANCE FACILITY CAPE BRETON TO DOCK THE VICTORIA-CLASS SUBMARINES IN THE CFB ESQUIMALT GRAVING DOCK. THEY WERE DEVELOPED BASED ON THE UK-SUPPLIED CLASS DOCK PLANS DRAWING NO. SSK/M/182/00/004 DOCKING ARRANGEMENT SECTIONS & PHOTOGRAPH NUMBERS. CONTAINED WITHIN THIS DRAWING PACKAGE ARE FOUR SEPARATE DOCK PLANS: TWO SPECIFIC FOR HMCS CHICOUTIMI AND TWO FOR THE REMAINDER OF THE CLASS. THESE ARE FURTHER BROKEN INTO TWO DIFFERENT DOCK PLANS: ONE BASED ON THE STANDARD CFB ESQUIMALT GRAVING DOCK BLOCK HEIGHT OF 1220 MM ( 4 FEET) AND THE OTHER BASED ON A REDUCED DOCK BLOCK HEIGHT OF 966 MM ( 3 FEET 2 INCHES) . THUS, GIVING A TOTAL OF FOUR ( 4 ) SEPARATE DOCKING PLANS

CONTENTS:

- APPLICABLE TO HMC SUBMARINES VICTORIA, WINDSOR & CORNER BROOK (SSK 876, SSK 877 & SSK 878)
- A. DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST (DOCK PLAN 1) - REDUCED DOCK BLOCK HEIGHT, PAGES 2 - 5
- B. DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST (DOCK PLAN 2) - STANDARD DOCK BLOCK HEIGHT, PAGES 6 - 9

- APPLICABLE TO HMC SUBMARINE CHICOUTIMI (SSK 879)
- C. DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST (DOCK PLAN 3) - REDUCED DOCK BLOCK HEIGHT, PAGES 10 - 13
- D. DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST (DOCK PLAN 4) - STANDARD DOCK BLOCK HEIGHT, PAGES 14 - 17

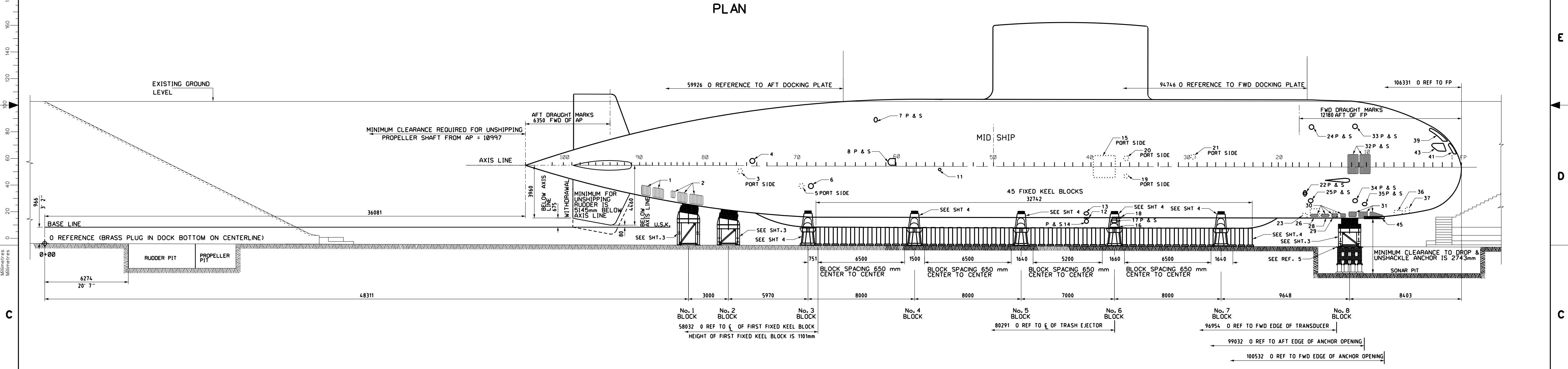
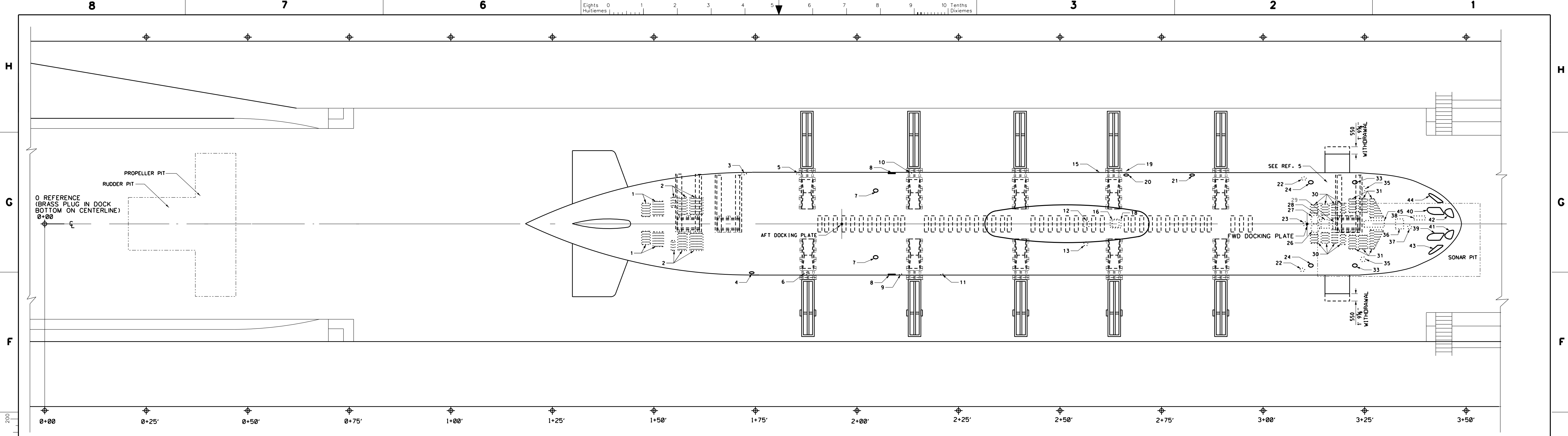
THESE DOCK PLANS ARE UNCLASSIFIED AND HAVE HAD ALL CLASSIFIED MATERIAL AND INFORMATION REMOVED.

REFERENCE DRAWINGS		
No.	TITLE	DRAWING No.
1	DRYDOCK LAYOUT WITH MIDSHIP SECTIONS OF SHIPS USING DOCK	9050096
2	KEEL BLOCK TOWER MODIFICATION DETAILS	0150062
3	KEEL AND BILGE BLOCK TOWER BLOCKING WEDGE FAB DETAILS	0150045
4	DOCKING ARRANGEMENT SECTIONS & PHOTOGRAPH NUMBERS	SSK/M/182/00/004
5	SLIDING KEEL BLOCK #8 SLIDER FABRICATION DETAILS	1350020

UNCLASSIFIED  
MODIFICATION DRAWING

UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE		APPLICATION/USAGE	
1. DIMENSIONS ARE IN/DIMENSIONS SONT EN mm 2. TOLERANCES - FRACTIONS - DECIMALS XXX ± DECIMALES XX ± X ± ANGLES ± 3 SURFACE FINISH FINIS DE SURFACES		HMCS VICTORIA CLASS	
INTERPRETATION/ INTERPRETER		SCALE/ EHELLE 1:100	
CF STD D-01-400/001/50-000 LEVEL/NIVEAU 2			

ALL	B	REVISED TABLE OF OFFSETS ON SHEETS 5 & 9	15-09-11	JC	DK	GM		
ALL	A	REVISED TABLE OF OFFSETS ON SHEETS 12 & 16	15-01-26	JC	DK	GM		
ALL	-	DRAWING APPROVAL BY DMEPMISM 4-2-2 VIA EMAIL DATED Oct-30-2014 TDAN #711146	14-10-30	JC	DK	GM		
ZONE		LTR LET	REVISION		DATE	OWN DES	CKD VER	APPLY APP
National Defence		Canada						
DWN/DESS J.CROCKER		CKD/VER D.KITTSO		DA/AD S.IRETON		CF APPVL/APP FC		
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED		DIT/DEL LTCdr.J.ASHCROFT		NSCH/USOP 35902		APPLY DATE D'APPROB 14-10-30		AO
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT GRAVING DOCK STERN FIRST		DRAWING NO DU DESSIN 1350001		SHEET 1		OF 17		



- GENERAL NOTES
- SUBMARINE DOCKED IAW REQUIREMENTS FOR DOCKING/UNDOCKING OF CF VESSELS D-03-002-008/SG-011
  - MINIMUM HEIGHT OF KEEL BLOCKS 966mm (3' 2") @ 0 REFERENCE
  - FIXED KEEL BLOCKS SPACED 650mm.
  - CAPPING ON KEEL BLOCKS TO BE DOUGLAS FIR.
  - POSITIONING OF THE VESSEL IN GRAVING DOCK SHOULD PROVIDE CLEARANCES AS NOTED FOR THE FOLLOWING. ANCHOR REMOVAL, RUDDER REMOVAL AND SHAFT REMOVAL.
  - THE VESSEL SHALL BE IN AN UPRIGHT CONDITION (MAXIMUM ALLOWABLE LIST 1.2cm (0.5") PORT OR STARBOARD) THE KEEL BLOCKS SHALL BE FLAT. (NOT PARALLEL TO THE DECLIVITY OF THE DOCK BOTTOM)
  - PRIOR TO DOCKING/UNDOCKING A CALCULATION SHALL BE CARRIED OUT TO ENSURE THAT THE VESSEL'S CONDITION IS SUCH THAT THE SUE LOAD WILL NOT EXCEED 68.07 TONNES (67 L.TONS) AND THAT THE DOCKED LOAD WILL NOT EXCEED 50 TONNES PER METRE (15 L.TONS PER FOOT) OR 60.96 TONNE (60 L.TONS) ON ANY ONE BLOCK. BILGE SUPPORT SHALL NOT BE CONSIDERED MORE THAN 15% OF TOTAL LOAD. IDEALLY, BOAT IS DOCKED ON AN EVEN KEEL, ie. NO TRIM.
  - KEEL BLOCK CONDITIONS SHALL BE SUCH THAT THEY ARE FREE FROM ANY CHECKS AND SPLITS WHICH WILL PREVENT OR DETRACT FROM THEIR LOAD BEARING CAPACITY & SHALL BE CAPABLE OF WITHSTANDING 81.28 TONNE (80 L.TONS).
  - 0 REFERENCE IS A BRASS PLUG ON CENTERLINE AT DOCK BOTTOM.
  - RETRACTABLE BLOCKS ARE PULLED IN FROM RETRACTED POSITION BEFORE BOAT HAS TOUCHED KEEL BLOCKS
  - FOR STANDARD DOCK BLOCK HEIGHT PLANS REFER TO DRAWING No.1350001 DOCK PLAN 2.
  - FOR HMCS CHICOUTIMI REFER TO DRAWING No.1350001 DOCK PLANS 3 & 4.

VESSEL PARTICULARS

LENGTH OVERALL 70250mm  
LENGTH BETWEEN PERPENDICULARS 70250mm  
BREADTH EXTREME (AFT HYDROPLANES) 11500mm  
DEPTH (MOLDED) 8350mm  
BEARING LENGTH ON FIXED KEEL BLOCKS 32742mm  
APPROXIMATE DOCKING DISPLACEMENT (DEPARTURE) 2140 TONNES  
APPROXIMATE DOCKING DRAUGHT 6900mm  
NORMAL SURFACE DIVING DISPLACEMENT 2238 TONNES

LENGTH FROM INNER FACE OF CAISSON TO COPING HEAD	= 146609mm (481'-0")
LENGTH AT TOP OF BLOCKS	= 146609mm (481'-0")
LENGTH OVER CL KEEL BLOCKS	= 131064mm (430'-0")
WIDTH OF ENTRANCE AT SILL	= 19812mm (65'-0")
WIDTH AT TOP OF BLOCKS	= 19812mm (65'-0")
WIDTH OF FLOOR AT BOTTOM	= 17374mm (57'-0")
DEPTH OF ENTRANCE - COPING TO SILL	= 10897mm (35'-9")
DEPTH OF ENTRANCE - COPING TO FLOOR	= 19355mm (36'-6")
DECLIVITY OF FLOOR TOWARDS CAISSON	= 304mm IN 131064mm (1'-0" IN 430'-0")

LEGEND

Φ = BRASS PLUG

UNCLASSIFIED  
MODIFICATION  
DRAWING

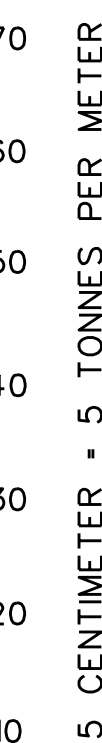
UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE  
1. DIMENSIONS ARE IN DIMENSIONS SONT EN mm  
2. TOLERANCES - N/A  
FRACTIONS -  
DECIMALES XXX +  
DECIMALES XX +  
DECIMALES X +  
ANGLES +  
3. SURFACE FINISH FINIS DE SURFACES  
INTERPRETATION/ INTERPRETER  
CF STD D-01-400-001/SG-000  
LEVEL/NIVEAU 2

APPLICATION/USAGE  
HMCS VICTORIA CORNERBROOK WINDSOR  
SCALE/ ECHELLE 1:100


ALL	B	SEE REV SHEET 1	15-01-26	JC	DK	GM
ALL	A	SEE REV SHEET 1	15-01-26	JC	DK	GM
ALL	-	SEE REV SHEET 1	14-10-30	JC	DK	GM
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
Defense nationale	National Defence					
DWN/DESS J.CROCKER	CKD/VER D.KITTSON	DA/AD S.IRETON	CF APPLV/APP FC			
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED	TOW/HD LT Cdr. M. PEARCE	INSTRUC/COF 35902	APPLV. DATE/DIAPPROB 14-10-30			AO
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 1			DRAWING NO DU DESSIN 1350001			
			SHEET FEUILLE 2	OF DE		17

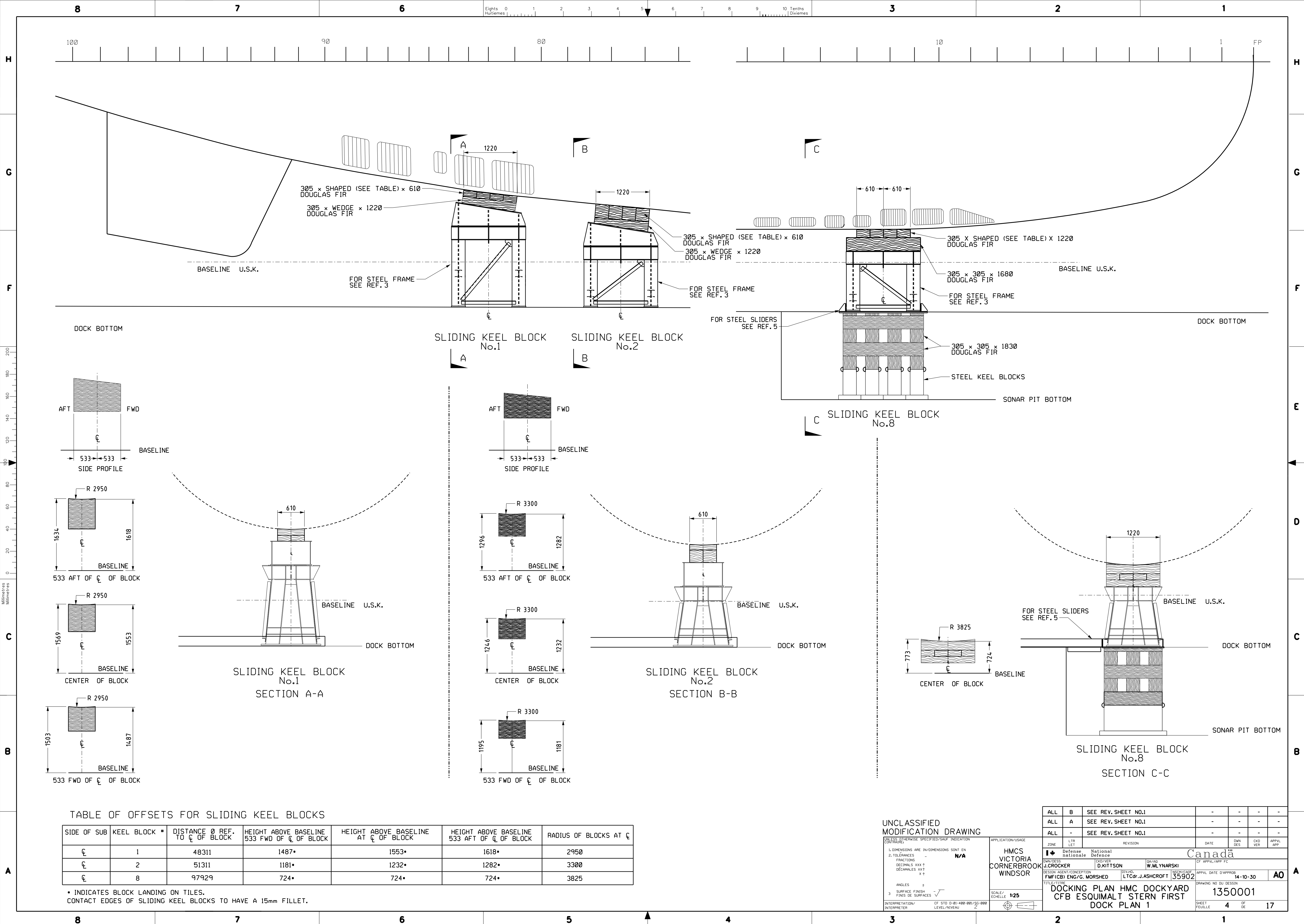


NOTE:  
WEIGHT CURVE IAW REF DWG 4  
WEIGHT CURVE AT BUILD  
LIGHT SURFACE DISPLACEMENT



UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE:	
1. DIMENSIONS ARE IN/DIMENSIONS SONT EN	
2. TOLERANCES	N/A
FRACTIONS	
DECIMALS XXX ±	
DÉCAIMALES XX ±	
X ±	
ANGLES	±
3 SURFACE FINISH	√
FINIS DE SURFACES	
INTERPRETATION/ INTERPRÈTE	CF STD D-01-400-B LEVEL/NIVEAU

ALL	B	SEE REV. SHEET NO.1		-	-	-	-		
ALL	A	SEE REV. SHEET NO.1		-	-	-	-		
		SEE REV. SHEET NO.1							
ZONE			LTR	DEF	REVISION	DATE	DWN DES	CKD VER	APPLY APP
 Defense nationale National Defence		CKD/VER <b>D.KITTON</b>		DA/AD <b>W.M.L YNARSKI</b>		CF APPLY/APP FC			
DWN/BESS		CKD/VER		DA/AD		CF APPLY/APP FC			
DESIGN /ENG/CONCEPTION		DIV/HL		SECM/COF		APPLY DATE /APPROB			
FMF (CB) ENG/G. MORSHED		LTCdr. J.ASHCROFT		35902		14-10-30			
TITLE /TITRE						DRAWING NO DU DESSIN			
DOCKING PLAN HMC DOCKYARD						1350001			
CFB ESQUIMALT STERN FIRST									
DOCK PLAN 1									
SHEET						3		OF	17
FEUILLE								DE	

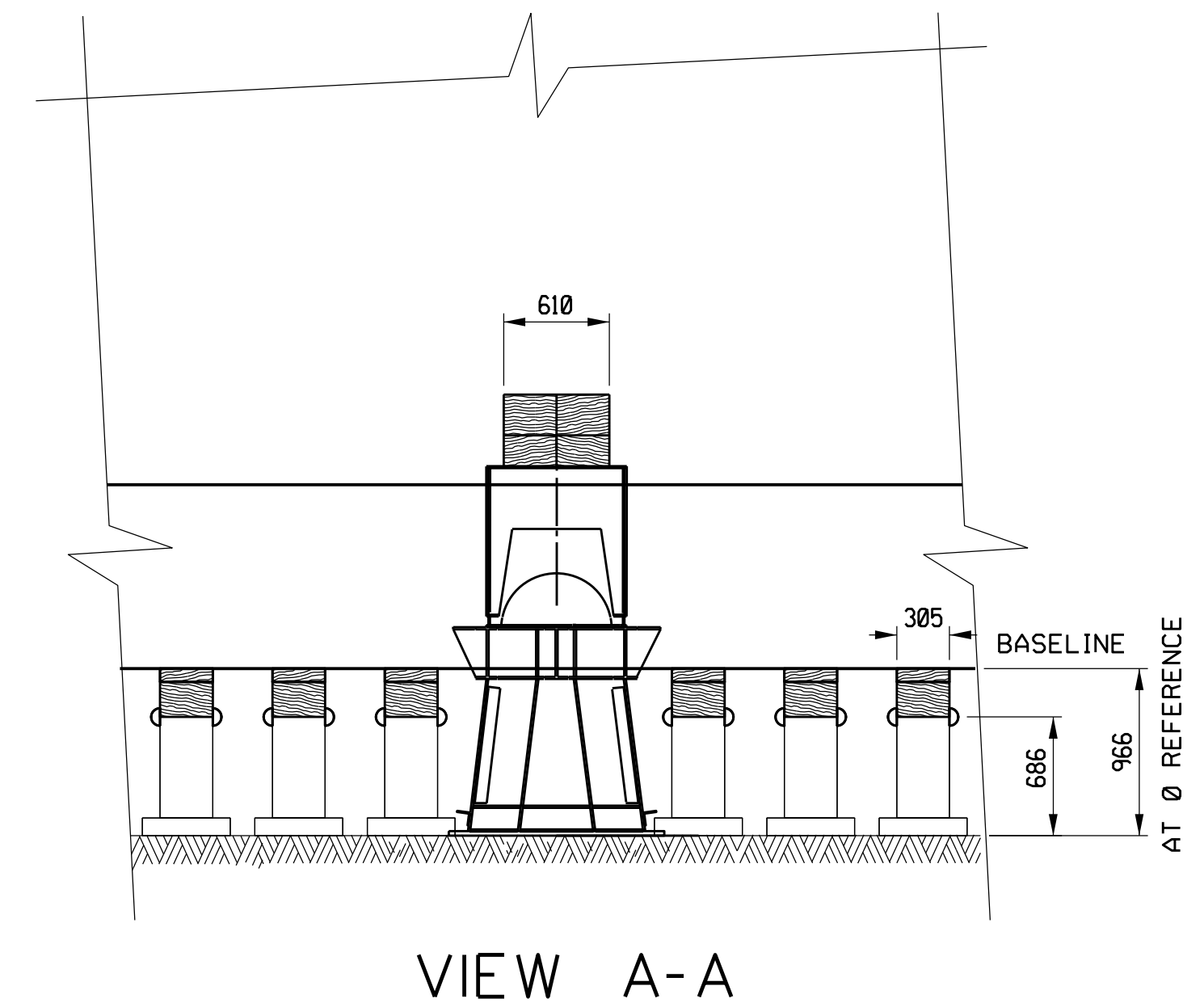


UNCLASSIFIED  
MODIFICATION  
DRAWING

1. DIMENSIONS ARE IN DIMENSIONS SONT EN  
2. TOLERANCES -  
FRACTIONS -  
DECIMALS XXX +  
DÉCALES XX +  
X +  
ANGLES +  
3. SURFACE FINISH  
FINIS DE SURFACES -  
INTERPRETATION/  
INTERPRETER -  
CF. STD. D-01-400-001/50-000  
N/A  
LEVEL/NIVEAU 2

APPLICATION/USAGE  
HMCS  
VICTORIA  
CORNERBROOK  
WINDSOR  
SCALE/  
ECHELLE 1:25



ALL	B	SEE REV. SHEET NO.1	-	-	-	-
ALL	A	SEE REV. SHEET NO.1	-	-	-	-
ALL	-	SEE REV. SHEET NO.1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPL APP
Canada						
DWN/DESS J.CROCKER	CKD/VER D.KITSON	DA/AD W.M.YNARSKI	CF. APPL/APP. FC			
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED			TOT/DEL LTCdr. J. ASHCROFT	15902	APPLV. DATE D'APPROB 14-10-30	AO
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 1						DRAWING NO DU DESSIN 1350001
				SHEET FEUILLE 4	OF DE 17	



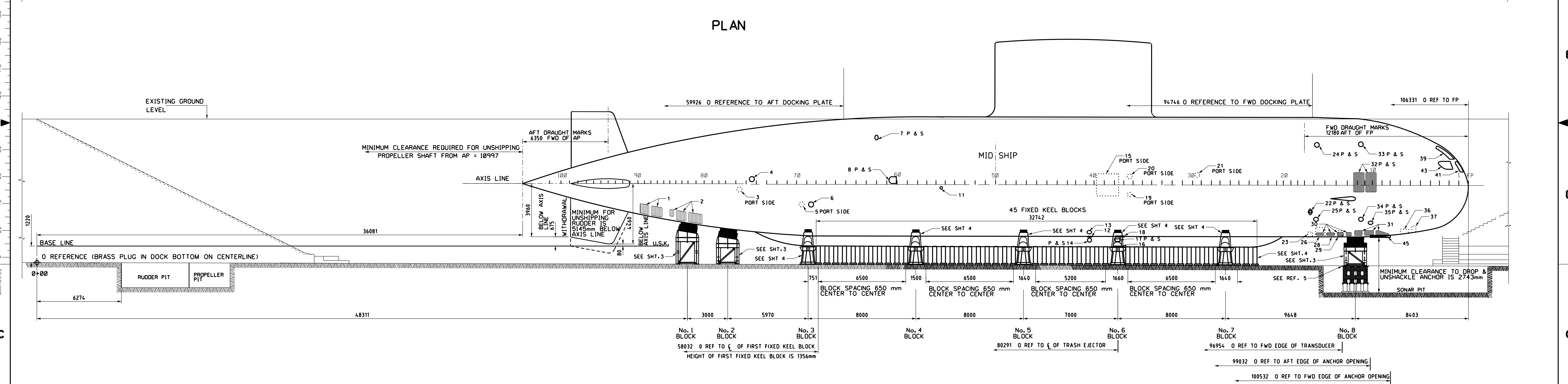
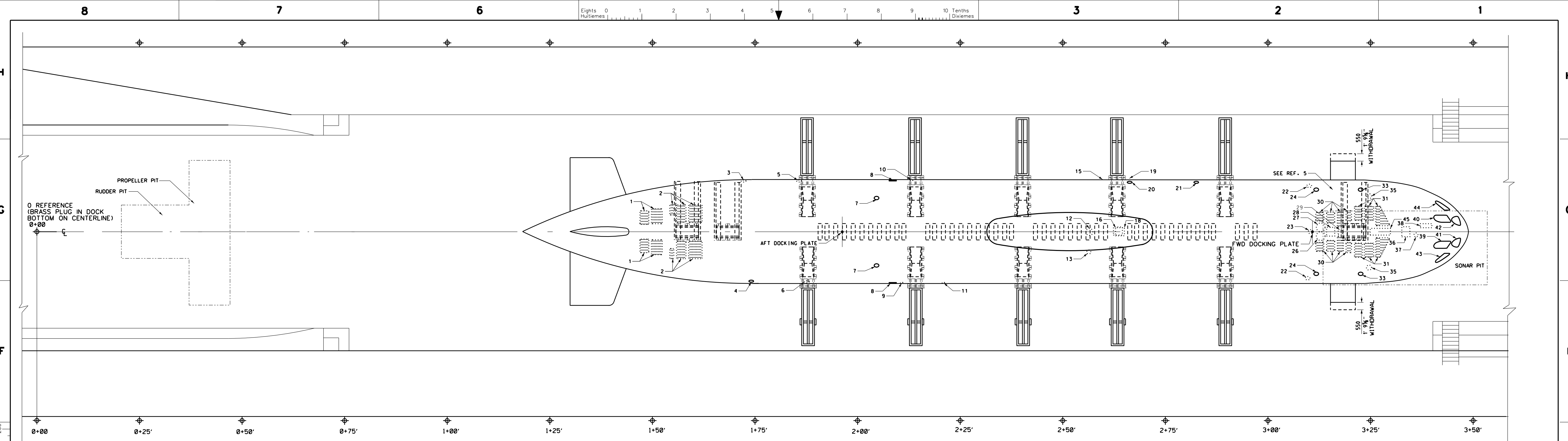
VIEW A-A

SIDE OF SUB	SIDE BLOCK #	F/A FACE OF BLOCK	DISTANCE Ø REF. TO BLOCK	POINT A HALF BREADTH	POINT A HEIGHT ABOVE BASELINE	POINT B HALF BREADTH	POINT B HEIGHT ABOVE BASELINE	RADIUS OF BLOCKS
S	3 STBD	FWD	57553	1349	986•	1900	1247•	3825
S	3 STBD	AFT	56943	1349	1010• (VIC 1010•) (•)	1900	1272.5• (VIC 1272.5•) (•)	3825
P	3 PORT	FWD	57553	1349	986•	1900	1247•	3825
P	3 PORT	AFT	56943	1349	1010• (VIC 1030•) (•)	1900	1272.5• (VIC 1297•) (•)	3825
P & S	4	FWD	65886	1349	969•	1900	1228.5•	3825
P & S	4	AFT	56976	1349	969•	1900	1228.5•	3825
P & S	5	FWD	73586	1349	969•	1900	1228.5•	3825
P & S	5	AFT	72976	1349	969•	1900	1228.5•	3825
P & S	6	FWD	80586	1349	971•	1900	1230•	3825
P & S	6	AFT	79976	1349	971•	1900	1230•	3825
P & S	7	FWD	88586	1349	997.5	1900	1259	3800
P & S	7	AFT	87976	1349	997.5	1900	1259	3800

UNCLASSIFIED  
MODIFICATION DRAWING

ALL	B	SEE REV. SHEET NO.1		-	-	-	-	-	-
ALL	A	SEE REV. SHEET NO.1		-	-	-	-	-	-
		SEE REV. SHEET NO.1		-	-	-	-	-	-
ZONE	LTR LST	REVISION		DATE	DWN VER	CKD VER	APPLY APP		
 Defense nationale National Defence									
DWN/DESS J.CROCKER	DO/VER D.KITSON	DO/AD W.MLYNARSKI	CF APPL/APPP FC						
DESIGN AGENT/CONCEPTION FMF(CB) ENG'G. MORSHED			DIY/HL LTCdr. J.ASHCROFT	NISM/CNF 35902		APPLY DATE / D'APPROB		14-10-30	
TITLE/PROJET DOCKING PLAN HMC DOCKYARD CFB ESQUIMAULT STERN FIRST DOCK PLAN 1						DRAWING NO DU DESSIN 1350001			
				SHEET FEUILLE	5	OF DE	17		





**GENERAL NOTES**

- SUBMARINE DOCKED LAW REQUIREMENTS FOR DOCKING/UNDOCKING OF CF VESSELS D-03-002-008/SG-011
- MINIMUM HEIGHT OF KEEL BLOCKS 1.220m (4' 0") @ 0 REFERENCE
- FIXED KEEL BLOCKS SPACED 650mm.
- CAPPING ON KEEL BLOCKS TO BE DOUGLAS FIR.
- POSITIONING OF THE VESSEL IN GRAVING DOCK SHOULD PROVIDE CLEARANCES AS NOTED FOR THE FOLLOWING. ANCHOR REMOVAL, RUDDER REMOVAL AND SHAFT REMOVAL.
- THE VESSEL SHALL BE IN AN UPRIGHT CONDITION (MAXIMUM ALLOWABLE LIST 1.2cm (0.5") PORT OR STARBOARD) THE KEEL BLOCKS SHALL BE FLAT. (NOT PARALLEL TO THE DECLINITY OF THE DOCK BOTTOM)
- PRIOR TO DOCKING/UNDOCKING A CALCULATION SHALL BE CARRIED OUT TO ENSURE THAT THE VESSEL'S CONDITION IS SUCH THAT THE SUE LOAD WILL NOT EXCEED 68.07 TONNES (67 L.TONS) AND THAT THE DOCKED LOAD WILL NOT EXCEED 50 TONNES PER METRE (15 L.TONS PER FOOT) OR 60.96 TONNE (60 L.TONS) ON ANY ONE BLOCK. BILGE SUPPORT SHALL NOT BE CONSIDERED MORE THAN 15% OF TOTAL LOAD. IDEALLY BOAT IS DOCKED ON AN EVEN KEEL, ie NO TRIM.
- KEEL BLOCK CONDITIONS SHALL BE SUCH THAT THEY ARE FREE FROM ANY CHECKS AND SPLITS WHICH WILL PREVENT OR DETRACT FROM THEIR LOAD BEARING CAPACITY & SHALL BE CAPABLE OF WITHSTANDING 81.28 TONNE (80 L.TONS).
- 0 REFERENCE IS A BRASS PLUG ON CENTERLINE AT DOCK BOTTOM.
- RETRACTABLE BLOCKS ARE PULLED IN FROM RETRACTED POSITION AFTER BOAT HAS TOUCHED KEEL BLOCKS
- FOR REDUCED DOCK BLOCK HEIGHT PLANS REFER TO DRAWING No.1350001 DOCK PLAN 1
- FOR HMCS CHICOUTIMI REFER TO DRAWING No.1350001 DOCK PLANS 3 & 4.

**VESSEL PARTICULARS**

LENGTH OVERALL	70250mm
LENGTH BETWEEN PERPENDICULARS	70250mm
BREADTH EXTREME (AFT HYDROPLANES)	11500mm
DEPTH (MOLDED)	8350mm
BEARING LENGTH ON FIXED KEEL BLOCKS	32742mm
APPROXIMATE DOCKING DISPLACEMENT (DEPARTURE)	2140 TONNES
APPROXIMATE DOCKING DRAUGHT	6900mm
NORMAL SURFACE DIVING DISPLACEMENT	2238 TONNES

**LEGEND**

Φ = BRASS PLUG

**UNCLASSIFIED MODIFICATION DRAWING**

1. DIMENSIONS ARE IN DIMENSIONS SONT EN mm  
2. TOLERANCES -  
FRACTIONS -  
DECIMALES XXX +  
DECIMALES XX +  
X +

ANGLES +  
3 SURFACE FINISH  
FINIS DE SURFACES

INTERPRETATION/ INTERPRETER

CF STD D-01-400-001/SG-000  
LEVEL/NIVEAU

APPLICATION/USAGE

HMCS VICTORIA CORNERBROOK WINDSOR

SCALE/ ECHELLE 1:100

DATE 14-10-30

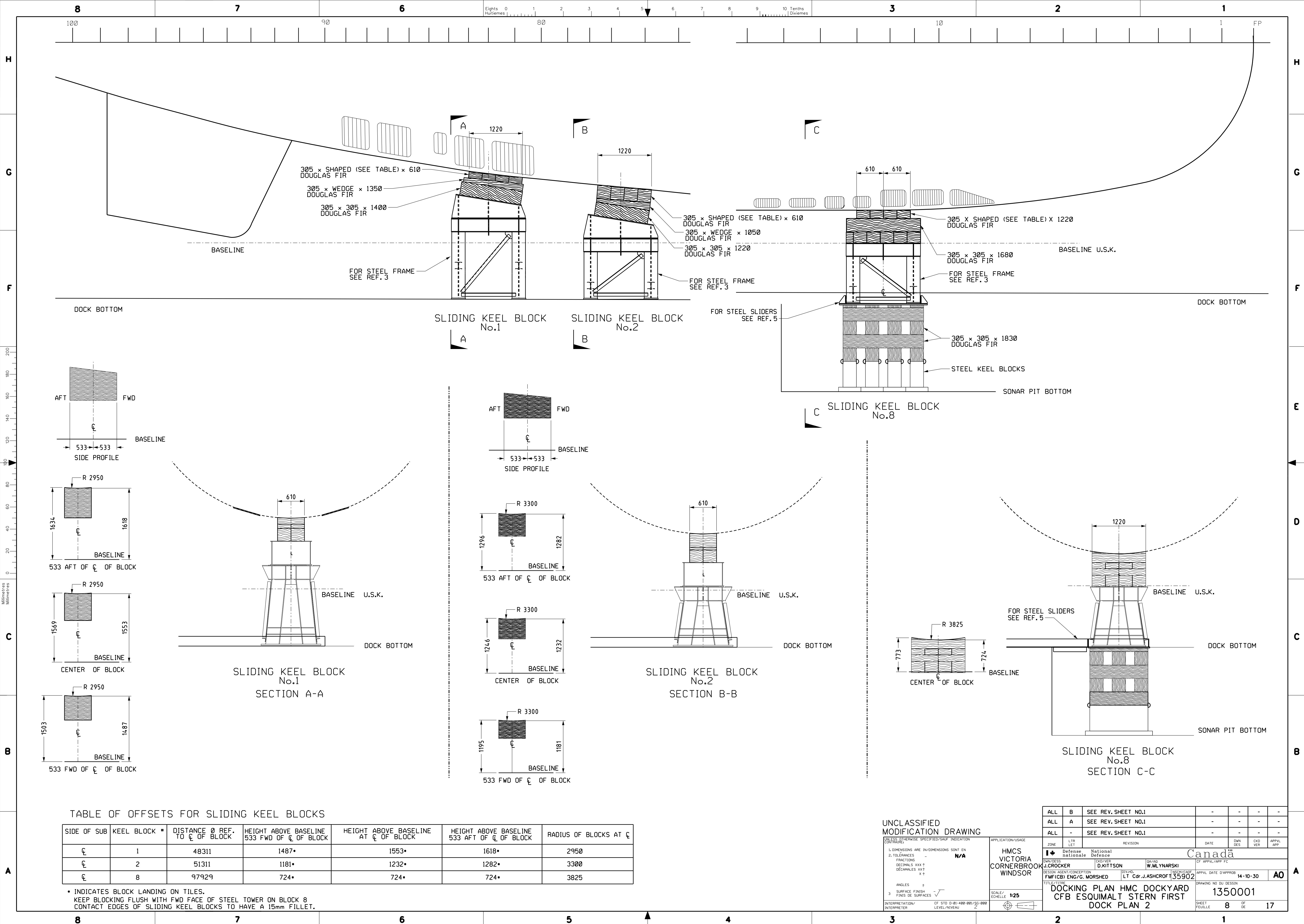
DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 2

1350001

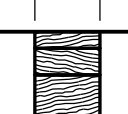
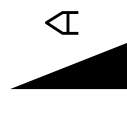
6 OF 17

ALL	A	SEE REV SHEET 1	-	-	-	-
ALL	B	SEE REV SHEET 1	-	-	-	-
ALL	-	SEE REV SHEET 1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
1	Defense Nationale	National Defence				
DWN/DESS	J.CROCKER	CKD/VER	D.KITTSO	DA/AD	S.IRETON	CF APPLV/APP FC
DESIGN AGENT/CONCEPTION	FMF(CB) ENG/G. MORSHED	TOU/HD	LT Cdr J.ASHCROFT	135902		
TITLE/TITRE	DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 2					
	1350001					
	6 OF 17					









1220  
AT Ø REFERENCE

TYPICAL ELEVATION FIXED KEEL BLOCK & SLIDING SIDE BLOCKS  
LOOKING FWD (NORTH)

## TABLE OF OFFSETS FOR SLIDING SIDE BLOCKS

SIDE OF SUB	SIDE BLOCK #	F/A FACE OF BLOCK	DISTANCE 0 REF. TO BLOCK	POINT A HALF BREADTH	POINT A HEIGHT ABOVE BASELINE	POINT B HALF BREADTH	POINT B HEIGHT ABOVE BASELINE	RADIUS OF BLOCKS
S	3 STBD	FWD	57553	1349	986•	1900	1247•	3825
S	3 STBD	AFT	56943	1349	1010• (VIC 1010•) (•)	1900	1272.5•(VIC 1272.5•) (•)	3825
P	3 PORT	FWD	57553	1349	986•	1900	1247•	3825
P	3 PORT	AFT	56943	1349	1010• (VIC 1030•) (•)	1900	1272.5• (VIC 1297•) (•)	3825
P & S	4	FWD	65886	1349	969•	1900	1228.5•	3825
P & S	4	AFT	56976	1349	969•	1900	1228.5•	3825
P & S	5	FWD	73586	1349	969•	1900	1228.5•	3825
P & S	5	AFT	72976	1349	969•	1900	1228.5•	3825
P & S	6	FWD	80586	1349	971•	1900	1230•	3825
P & S	6	AFT	79976	1349	971•	1900	1230•	3825
P & S	7	FWD	88586	1349	997.5	1900	1259	3800
P & S	7	AFT	87976	1349	997.5	1900	1259	3800

NOTES:

1. • INDICATES BLOCK LANDING ON TILES.
2. (\*)HMCS VICTORIA WAS FOUND TO HAVE ASYMMETRY IWO SIDE BLOCK No.3 WHEN DOCKED IN 2004.  
THIS MAY NOT BE PRESENT IN OTHER VICTORIA CLASS SUBMARINES.
3. CONTACT EDGES OF SLIDING SIDE BLOCKS TO HAVE 15mm FILLET.
4. 725 WITH TILES, 750 WITHOUT TILES.

UNCLASSIFIED  
MODIFICATION DRAWING

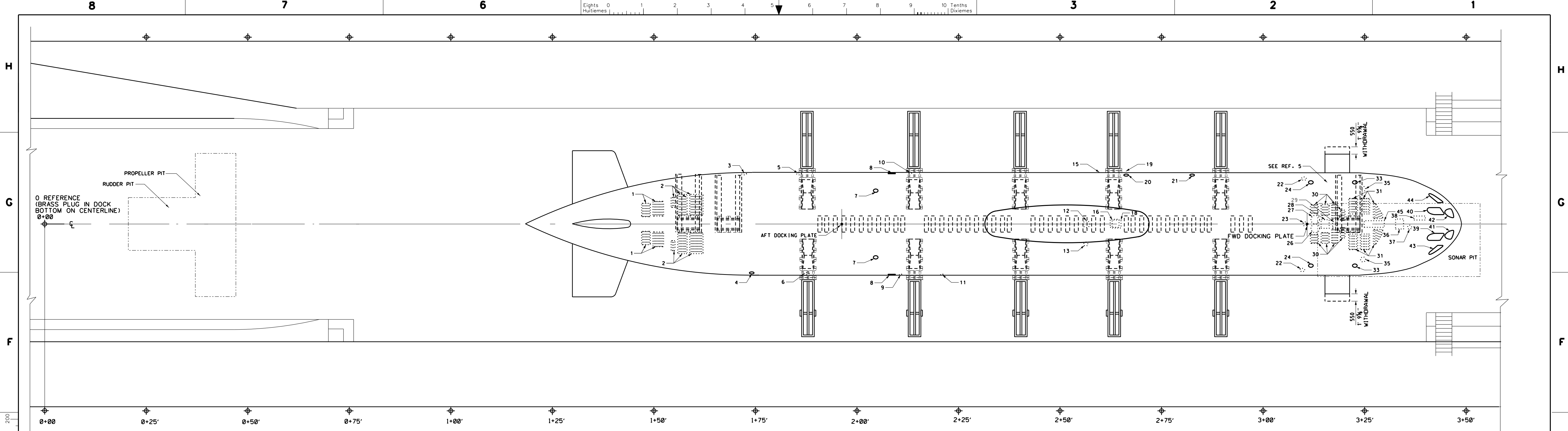
1. DIMENSIONS SPECIFIED/SAUF INDICATION 1. DIMENSIONS ARE IN DIMENSIONS SONT EN 2. TOLERANCES <b>N/A</b> FRACTIONS DECIMALS xxx + DÉCAIMALES xxx + xxx +		APPLICATION/USAGE <b>HMC VICTORIA CORNER BROOK WINDSOR</b>		ZONE <b>I +</b> Defense nationale National Defense		LTR LET REVISION		DATE <b>Canada</b>		DWN DES CKD VER APPV APP	
3. ANGLES + SURFACE FINISH FINIS DE SURFACES		SCALE/ÉCHELLE <b>1:25</b>		DWN/DESS <b>J.CROCKER</b>		CKD/VER <b>D.KITTSON</b>		DA/AD <b>W.ML YNARSKI</b>		CF APPV/APPV FC <b>35902</b>	
4. INTERPRETER INTERPRÈTE CF STD 0-81-400-001/0-800-000 LEVEL/NIVEAU		DETAIL IDENTIFICATION <b>F.M.FCB (ENG) G. MORSEH</b>		TITUL <b>L.TCdr. J.ASHCROFT</b>		APPLV DATE D'APPROB <b>14-10-30</b>		DRAWING NO DU DESSIN <b>1350001</b>		<b>AO</b>	
		DOCKING PLAN HMC DOCKYARD CFB ESQUIMAULT STERN FIRST DOCK PLAN 2									
		SHEET FEUILLE		9		OF DE				17	

Canada<sup>191</sup>

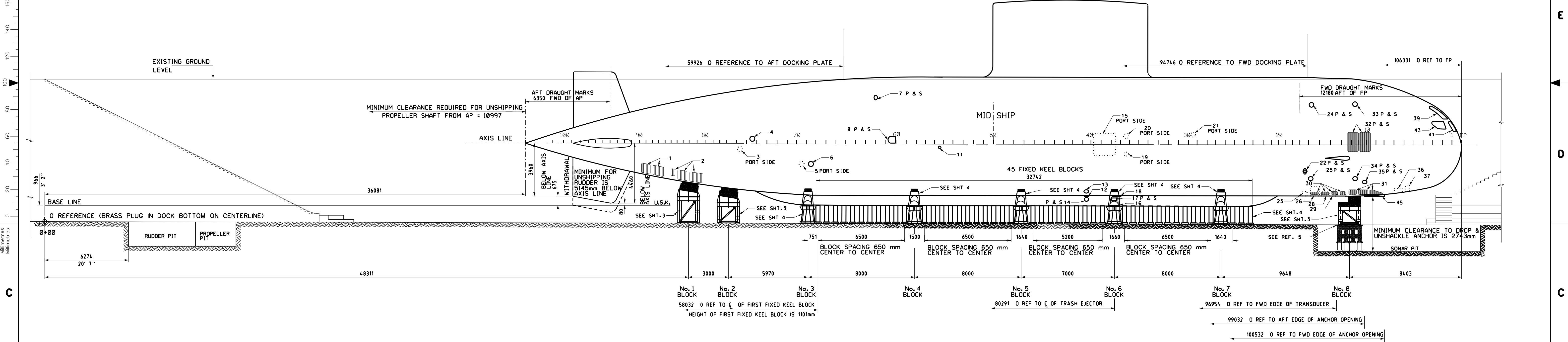
OWN/DESS <b>J.CROCKER</b>	CKD/VER <b>D.KITSON</b>	DA/AG <b>W.MLYNARSKI</b>	CF APPVL/APP FC
DESIGN AGENT/CONCEPTION <b>FME(CB) ENG/G. MORSHED</b>	DIV.HD. <b>LTCdr.J.ASHCROFT</b>	NSCM/CAOF <b>35902</b>	APPVL DATE D'APPROB

TITLE/TITRE	DRAWING NO DU DESSIN
DOCKING PLAN HMC DOCKYARD CFB ESQUIMAULT STERN FIRST	13500

DOCK PLAN 2	SHEET FEUILLE	9
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PLAN



GENERAL NOTES

- SUBMARINE DOCKED LAW REQUIREMENTS FOR DOCKING/UNDOCKING OF CF VESSELS D-03-002-008/56-011
- MINIMUM HEIGHT OF KEEL BLOCKS 966mm (3' 2") @ 0 REFERENCE
- FIXED KEEL BLOCKS SPACED 650mm.
- CAPPING ON KEEL BLOCKS TO BE DOUGLAS FIR.
- POSITIONING OF THE VESSEL IN GRAVING DOCK SHOULD PROVIDE CLEARANCES AS NOTED FOR THE FOLLOWING, ANCHOR REMOVAL, RUDDER REMOVAL AND SHAFT REMOVAL.
- THE VESSEL SHALL BE IN AN UPRIGHT CONDITION (MAXIMUM ALLOWABLE LIST 1.2cm (0.5") PORT OR STARBOARD) THE KEEL BLOCKS SHALL BE FLAT. (NOT PARALLEL TO THE DECLIVITY OF THE DOCK BOTTOM)
- PRIOR TO DOCKING/UNDOCKING A CALCULATION SHALL BE CARRIED OUT TO ENSURE THAT THE VESSEL'S CONDITION IS SUCH THAT THE SUE LOAD WILL NOT EXCEED 68.07 TONNES (67 L.TONS) AND THAT THE DOCKED LOAD WILL NOT EXCEED 50 TONNES PER METRE (15 L.TONS PER FOOT) OR 60.96 TONNE (60 L.TONS) ON ANY ONE BLOCK. BILGE SUPPORT SHALL NOT BE CONSIDERED MORE THAN 15% OF TOTAL LOAD. IDEALLY, BOAT IS DOCKED ON AN EVEN KEEL, ie. NO TRIM.
- KEEL BLOCK CONDITIONS SHALL BE SUCH THAT THEY ARE FREE FROM ANY CHECKS AND SPLITS WHICH WILL PREVENT OR DETRACT FROM THEIR LOAD BEARING CAPACITY & SHALL BE CAPABLE OF WITHSTANDING 81.28 TONNE (80 L.TONS).
- 0 REFERENCE IS A BRASS PLUG ON CENTERLINE AT DOCK BOTTOM.
- RETRACTABLE BLOCKS ARE PULLED IN FROM RETRACTED POSITION BEFORE BOAT HAS TOUCHED KEEL BLOCKS
- FOR STANDARD DOCK BLOCK HEIGHT REFER TO DRAWING No.1350001 DOCK PLAN 4.
- FOR OTHER VESSELS OF CLASS REFER TO DRAWING No. 1350001 DOCK PLANS 1 & 2.

VESSEL PARTICULARS

LENGTH OVERALL 70250mm  
LENGTH BETWEEN PERPENDICULARS 70250mm  
BREADTH EXTREME (AFT HYDROPLANES) 11500mm  
DEPTH (MOLDED) 8350mm  
BEARING LENGTH ON FIXED KEEL BLOCKS 32742mm  
APPROXIMATE DOCKING DISPLACEMENT (DEPARTURE) 2140 TONNES  
APPROXIMATE DOCKING DRAUGHT 6900mm  
NORMAL SURFACE DIVING DISPLACEMENT 2238 TONNES

LENGTH FROM INNER FACE OF CAISSON TO COPING HEAD	= 146609mm (481'-0")
LENGTH AT TOP OF BLOCKS	= 146609mm (481'-0")
LENGTH OVER CL KEEL BLOCKS	= 131064mm (430'-0")
WIDTH OF ENTRANCE AT SILL	= 19812mm (65'-0")
WIDTH AT TOP OF BLOCKS	= 19812mm (65'-0")
WIDTH OF FLOOR AT BOTTOM	= 17374mm (57'-0")
DEPTH OF ENTRANCE - COPING TO SILL	= 10897mm (35'-9")
DEPTH OF ENTRANCE - COPING TO FLOOR	= 19355mm (36'-6")
DECLIVITY OF FLOOR TOWARDS CAISSON	= 304mm IN 131064mm (1'-0" IN 430'-0")

ELEVATION AT CL  
POSITION STANDARD CONFIGURATION

LEGEND

Φ = BRASS PLUG

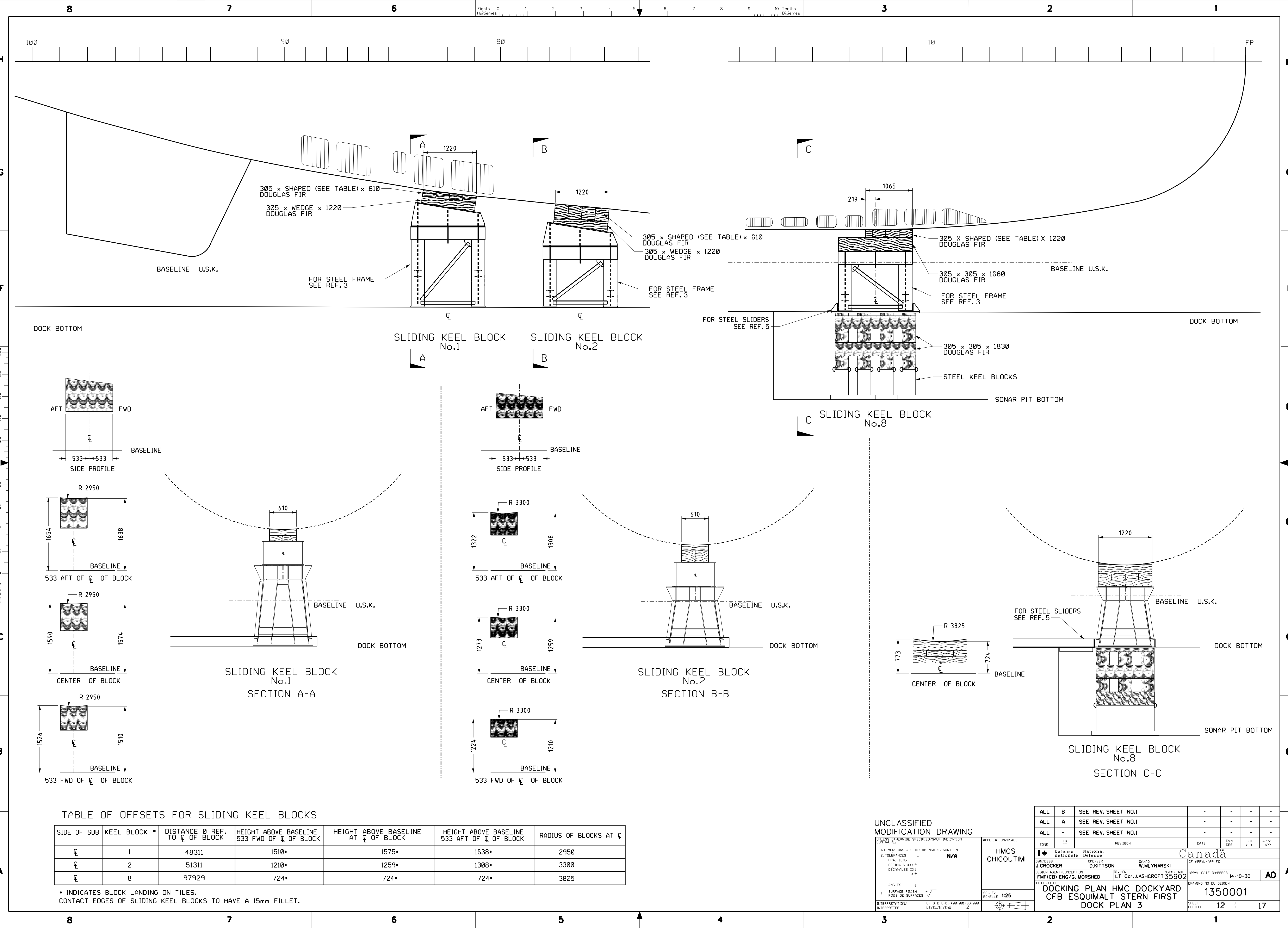
UNCLASSIFIED  
MODIFICATION  
DRAWING

UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE  
1. DIMENSIONS ARE IN DIMENSIONS SONT EN mm  
2. TOLERANCES -  
FRACTIONS -  
DECIMALES XXX +  
DECIMALES XX +  
X +  
ANGLES +  
3. SURFACE FINISH  
FINIS DE SURFACES  
INTERPRETATION/ INTERPRETER  
CF STD D-01-400-001/50-000  
LEVEL/NIVEAU 2

APPLICATION/USAGE  
HMCS  
CHICOUTIMI  
SCALE/ ECHELLE  
1:100

ALL	B	SEE REV. SHEET 1	-	-	-	-
ALL	A	SEE REV. SHEET 1	-	-	-	-
ALL	-	SEE REV. SHEET 1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
1	Defense Nationale	National Defence				
DWN/DESS	J.CROCKER	CKD/VER	D.KITTSO	DA/AD	W.MLYNARSKI	CF APPVL/APP FC
DESIGN AGENT/CONCEPTION	FMF(CB) ENG/G. MORSHED	TITLE/UTILE	LT Cdr.J.ASHCROFT	35902	14-10-30	AO
TITLE/TITRE	DOCKING PLAN HMC DOCKYARD	APPLV. DATE/DIAPROB	14-10-30			
	CFB ESQUIMAULT STERN FIRST	DRAWING NO DU DESSIN	1350001			
	DOCK PLAN 3	SHEET	10	OF	17	






UNCLASSIFIED  
MODIFICATION DRAWING

1. DIMENSIONS ARE IN DIMENSIONS SONT EN  
2. TOLERANCES -  
FRACTIONS -  
DECIMALS XXX +  
DÉCAIMALES XX +  
X +  
ANGLES +  
3 SURFACE FINISH  
FINIS DE SURFACES -  
INTERPRETATION/  
INTERPRETER -  
CF STD D-01-400-001/50-000  
LEVEL/NIVEAU 2

APPLICATION/USAGE  
HMCS  
CHICOUTIMI  
SCALE/  
ECHELLE 1:25

ALL	B	SEE REV. SHEET NO.1	-	-	-	-
ALL	A	SEE REV. SHEET NO.1	-	-	-	-
ALL	-	SEE REV. SHEET NO.1	-	-	-	-
ZONE	LTR LET	REVISION	DATE	DWN DES	CKD VER	APPL APP
 Defense nationale			Canada			
DWN/DESS J.CROCKER	CKD/VER D.KITTSON	DA/AD W.M.YNARSKI	CF APPVL/APP FC			
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED		TOTV/HQ LT Cdr.J.ASHCROFT	NECM/CAF 1758/UC/CAF 35902	APPLV DATE D'APPROB 14-10-30		AO
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 3				DRAWING NO DU DESSIN 1350001		
				SHEET FEUILLE 12 OF DE 17		



H  
C  
F  
E  
D  
B  
A

C

F

C

B

A

8

7

6

5

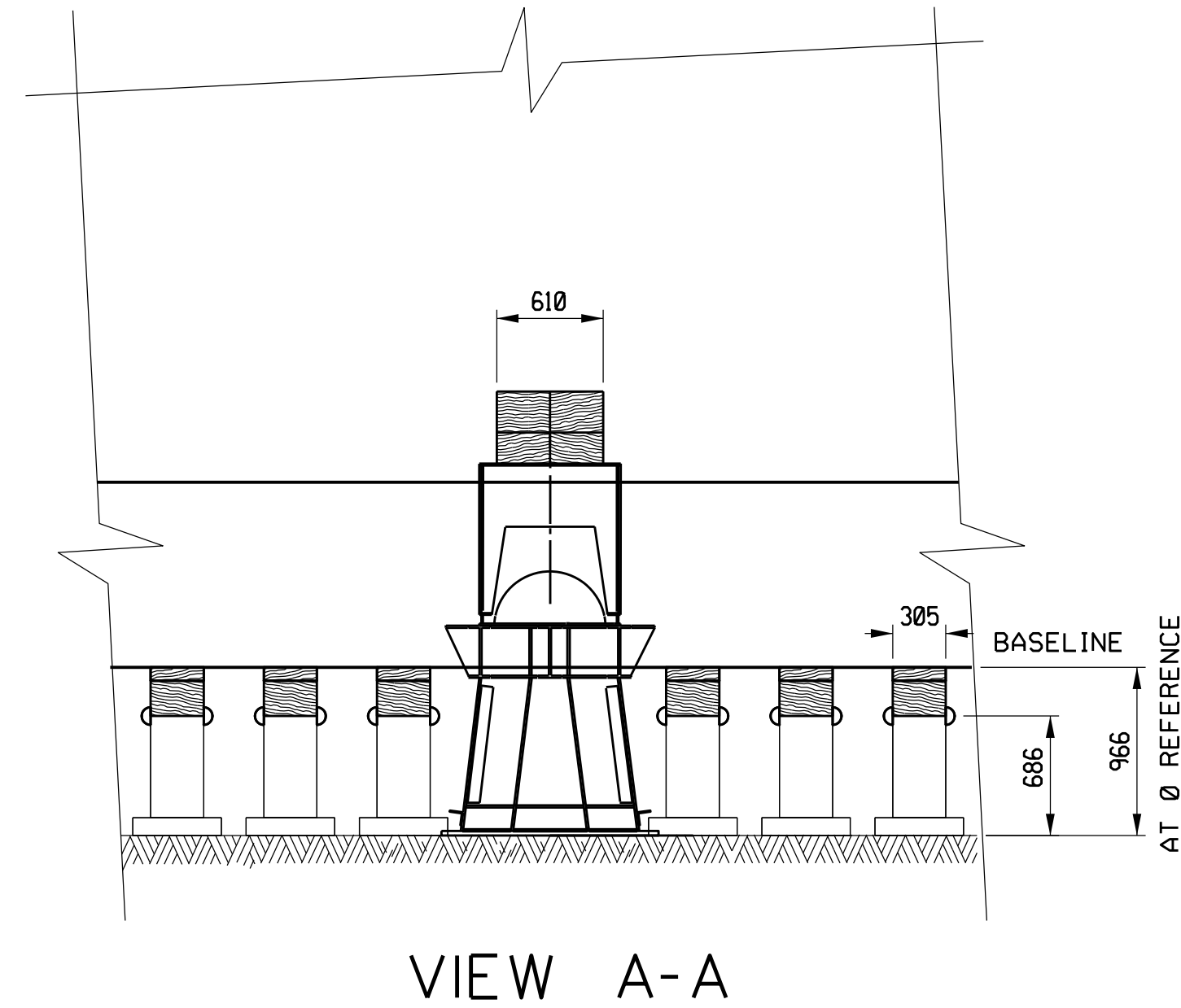
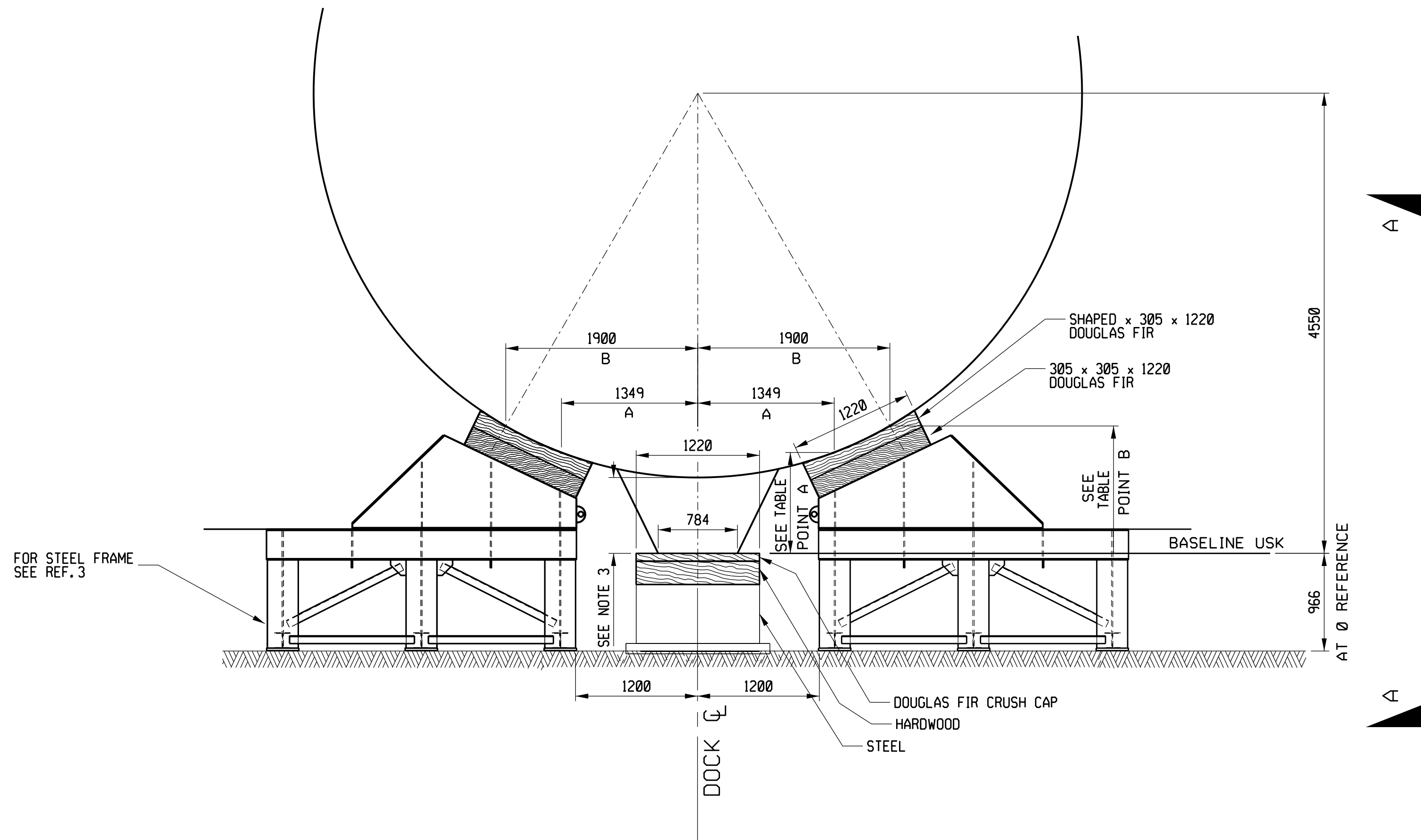
4

3

2

1

H  
C  
F  
E  
D  
B  
A



TYPICAL ELEVATION FIXED KEEL BLOCK & SLIDING SIDE BLOCKS  
LOOKING FWD (NORTH)

TABLE OF OFFSETS FOR SLIDING SIDE BLOCKS

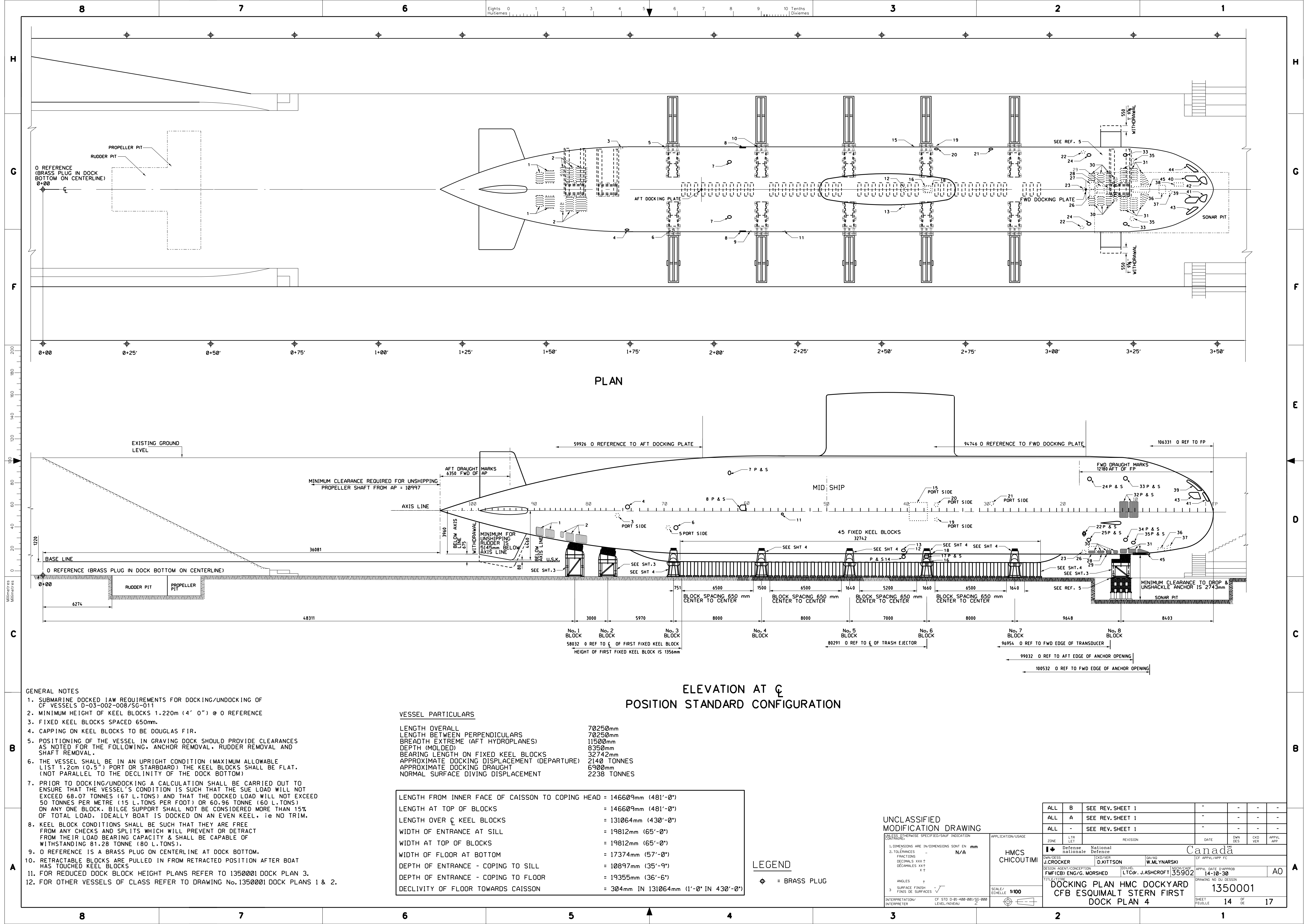
SIDE OF SUB	SIDE BLOCK #	F/A FACE OF BLOCK	DISTANCE Ø REF. TO BLOCK	POINT A HALF BREADTH	POINT A HEIGHT ABOVE BASELINE	POINT B HALF BREADTH	POINT B HEIGHT ABOVE BASELINE	RADIUS OF BLOCKS
P & S	3	FWD	57553	1349	986•	1900	1247•	3825
P & S	3	AFT	56943	1349	1010•	1900	1272.5•	3825
P & S	4	FWD	65886	1349	969•	1900	1228.5•	3825
P & S	4	AFT	56976	1349	969•	1900	1228.5•	3825
P & S	5	FWD	73586	1349	969•	1900	1228.5•	3825
P & S	5	AFT	72976	1349	969•	1900	1228.5•	3825
S	6 STBD	FWD	80586	1349	997.5	1900	1259	3800
S	6 STBD	AFT	79976	1349	997.5	1900	1259	3800
P	6 PORT	FWD	80586	1349	971•	1900	1230•	3825
P	6 PORT	AFT	79976	1349	971•	1900	1230•	3825
P & S	7	FWD	88586	1349	997.5	1900	1259	3800
P & S	7	AFT	87976	1349	997.5	1900	1259	3800

NOTES:  
1. • INDICATES BLOCK LANDING ON TILES.  
2. CONTACT EDGES OF SLIDING SIDE BLOCKS TO HAVE 15mm FILLET.  
3. 725 WITH TILES, 750 WITHOUT TILES.

UNCLASSIFIED  
MODIFICATION DRAWING

UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE		APPLICATION/USAGE	
1. DIMENSIONS ARE IN/DIMENSIONS SONT EN		HMCS CHICOUTIMI	
2. TOLERANCES -		SCALE/	
FRACTIONS -		ECHELLE 1:25	
DECIMALS XXX +		INTERPRETATION/	
DÉCAIMALES XX +		INTERPRETER	
X +		CF STD D-01-400-001/50-000	
ANGLES +		LEVEL/NIVEAU 2	
3 SURFACE FINISH		CF STD D-01-400-001/50-000	
FINIS DE SURFACES		LEVEL/NIVEAU 2	

ALL	B	SEE REV. SHEET NO.1	-	-	-	-
ALL	A	SEE REV. SHEET NO.1	-	-	-	-
ALL	-	SEE REV. SHEET NO.1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
National Defence						
Canada						
DWN/DESS	CKD/VER	DA/AD	CF APPVL/APP FC			
J.CROCKER	D.KITTSON	S.IRETON				
DESIGN AGENT/CONCEPTION	TOU/HCL	INSTRUC/APP	APPLV DATE D'APPROB			
FMF(CB) ENG/G. MORSHED	LCdr.J.ASHCROFT	35902	AO			
TITLE/TITRE			DRAWING NO DU DESSIN			
DOCKING PLAN HMC DOCKYARD			1350001			
CFB ESQUIMALT STERN FIRST			SHEET 13 OF 17			
DOCK PLAN 3			FEUILLE 13 DE 17			



- GENERAL NOTES
1. SUBMARINE DOCKED IAW REQUIREMENTS FOR DOCKING/UNDOCKING OF CF VESSELS D-03-002-008/SG-011
  2. MINIMUM HEIGHT OF KEEL BLOCKS 1.220m (4' 0") @ 0 REFERENCE
  3. FIXED KEEL BLOCKS SPACED 650mm.
  4. CAPPING ON KEEL BLOCKS TO BE DOUGLAS FIR.
  5. POSITIONING OF THE VESSEL IN GRAVING DOCK SHOULD PROVIDE CLEARANCES AS NOTED FOR THE FOLLOWING. ANCHOR REMOVAL, RUDDER REMOVAL AND SHAFT REMOVAL.
  6. THE VESSEL SHALL BE IN AN UPRIGHT CONDITION (MAXIMUM ALLOWABLE LIST 1.2cm (0.5") PORT OR STARBOARD) THE KEEL BLOCKS SHALL BE FLAT. (NOT PARALLEL TO THE DECLINITY OF THE DOCK BOTTOM)
  7. PRIOR TO DOCKING/UNDOCKING A CALCULATION SHALL BE CARRIED OUT TO ENSURE THAT THE VESSEL'S CONDITION IS SUCH THAT THE SUE LOAD WILL NOT EXCEED 68.07 TONNES (67 L.TONS) AND THAT THE DOCKED LOAD WILL NOT EXCEED 50 TONNES PER METRE (15 L.TONS PER FOOT) OR 60.96 TONNE (60 L.TONS) ON ANY ONE BLOCK. BILGE SUPPORT SHALL NOT BE CONSIDERED MORE THAN 15% OF TOTAL LOAD. IDEALLY BOAT IS DOCKED ON AN EVEN KEEL, ie NO TRIM.
  8. KEEL BLOCK CONDITIONS SHALL BE SUCH THAT THEY ARE FREE FROM ANY CHECKS AND SPLITS WHICH WILL PREVENT OR DETRACT FROM THEIR LOAD BEARING CAPACITY & SHALL BE CAPABLE OF WITHSTANDING 81.28 TONNE (80 L.TONS).
  9. 0 REFERENCE IS A BRASS PLUG ON CENTERLINE AT DOCK BOTTOM.
  10. RETRACTABLE BLOCKS ARE PULLED IN FROM RETRACTED POSITION AFTER BOAT HAS TOUCHED KEEL BLOCKS
  11. FOR REDUCED DOCK BLOCK HEIGHT PLANS REFER TO 1350001 DOCK PLAN 3.
  12. FOR OTHER VESSELS OF CLASS REFER TO DRAWING No.1350001 DOCK PLANS 1 & 2.

VESSEL PARTICULARS

LENGTH OVERALL 70250mm  
LENGTH BETWEEN PERPENDICULARS 70250mm  
BREADTH EXTREME (AFT HYDROPLANES) 11500mm  
DEPTH (MOLDED) 8350mm  
BEARING LENGTH ON FIXED KEEL BLOCKS 32742mm  
APPROXIMATE DOCKING DISPLACEMENT (DEPARTURE) 2140 TONNES  
APPROXIMATE DOCKING DRAUGHT 6900mm  
NORMAL SURFACE DIVING DISPLACEMENT 2238 TONNES

LENGTH FROM INNER FACE OF CAISSON TO COPING HEAD = 146609mm (481'-0")  
LENGTH AT TOP OF BLOCKS = 146609mm (481'-0")  
LENGTH OVER C KEEL BLOCKS = 131064mm (430'-0")  
WIDTH OF ENTRANCE AT SILL = 19812mm (65'-0")  
WIDTH AT TOP OF BLOCKS = 19812mm (65'-0")  
WIDTH OF FLOOR AT BOTTOM = 17374mm (57'-0")  
DEPTH OF ENTRANCE - COPING TO SILL = 10897mm (35'-9")  
DEPTH OF ENTRANCE - COPING TO FLOOR = 19355mm (36'-6")  
DECLIVITY OF FLOOR TOWARDS CAISSON = 304mm IN 131064mm (1'-0" IN 430'-0")

LEGEND

⊙ = BRASS PLUG

UNCLASSIFIED MODIFICATION DRAWING

UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE  
1. DIMENSIONS ARE IN DIMENSIONS SONT EN mm  
2. TOLERANCES - FRACTIONS - DECIMALES XXX + - - - -  
3. SURFACE FINISH FINIS DE SURFACES -  
INTERPRETATION/ INTERPRETER CF STD D-01-400-001/SG-000 LEVEL/NIVEAU 2

APPLICATION/USAGE  
HMCS CHICOUTIMI  
SCALE/ ECHELLE 1:100

ALL	B	SEE REV. SHEET 1	-	-	-	-
ALL	A	SEE REV. SHEET 1	-	-	-	-
ALL	-	SEE REV. SHEET 1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CHK VER	APPLV APP
1	Defense Nationale	National Defence				
DWN/DESS J.CROCKER	CHK/VER D.KITTSO	DA/AD W.MLYNARSKI	CF APPLV/APP FC			
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED	TOW/HD LTCdr. J.ASHCROFT	TICKET/CAF 35902	APPLV. DATE/DAPPROB 14-10-30			AO
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 4			1350001			
			SHEET FEUILLE 14	OF DE	17	



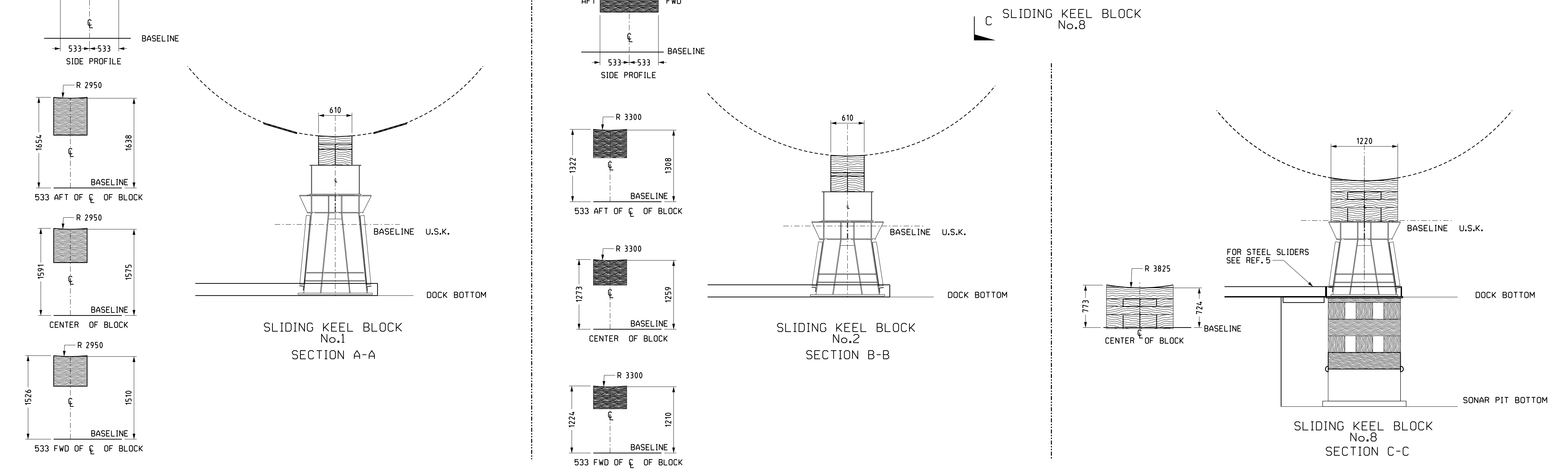
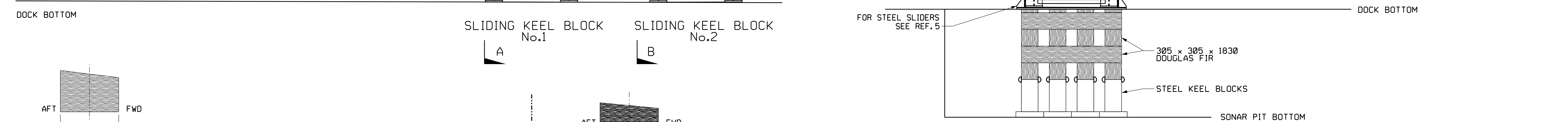
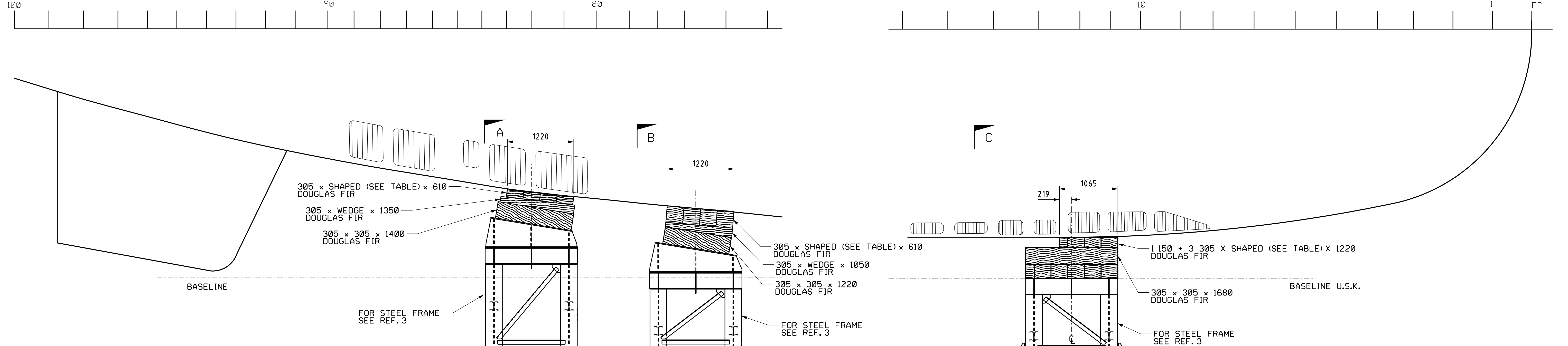
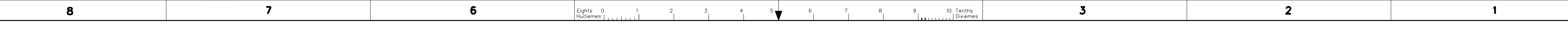


TABLE OF OFFSETS FOR SLIDING KEEL BLOCKS

SIDE OF SUB	KEEL BLOCK #	DISTANCE Ø REF. TO Ç OF BLOCK	HEIGHT ABOVE BASELINE 533 FWD OF Ç OF BLOCK	HEIGHT ABOVE BASELINE AT Ç OF BLOCK	HEIGHT ABOVE BASELINE 533 AFT OF Ç OF BLOCK	RADIUS OF BLOCKS AT Ç
Ç	1	48311	1510•	1575•	1638•	2950
Ç	2	51311	1210•	1259•	1308•	3300
Ç	8	97929	724•	724•	724•	3825

• INDICATES BLOCK LANDING ON TILES.  
KEEP BLOCKING FLUSH WITH FWD FACE OF STEEL TOWER ON BLOCK 8  
CONTACT EDGES OF SLIDING KEEL BLOCKS TO HAVE A 15mm FILLET.

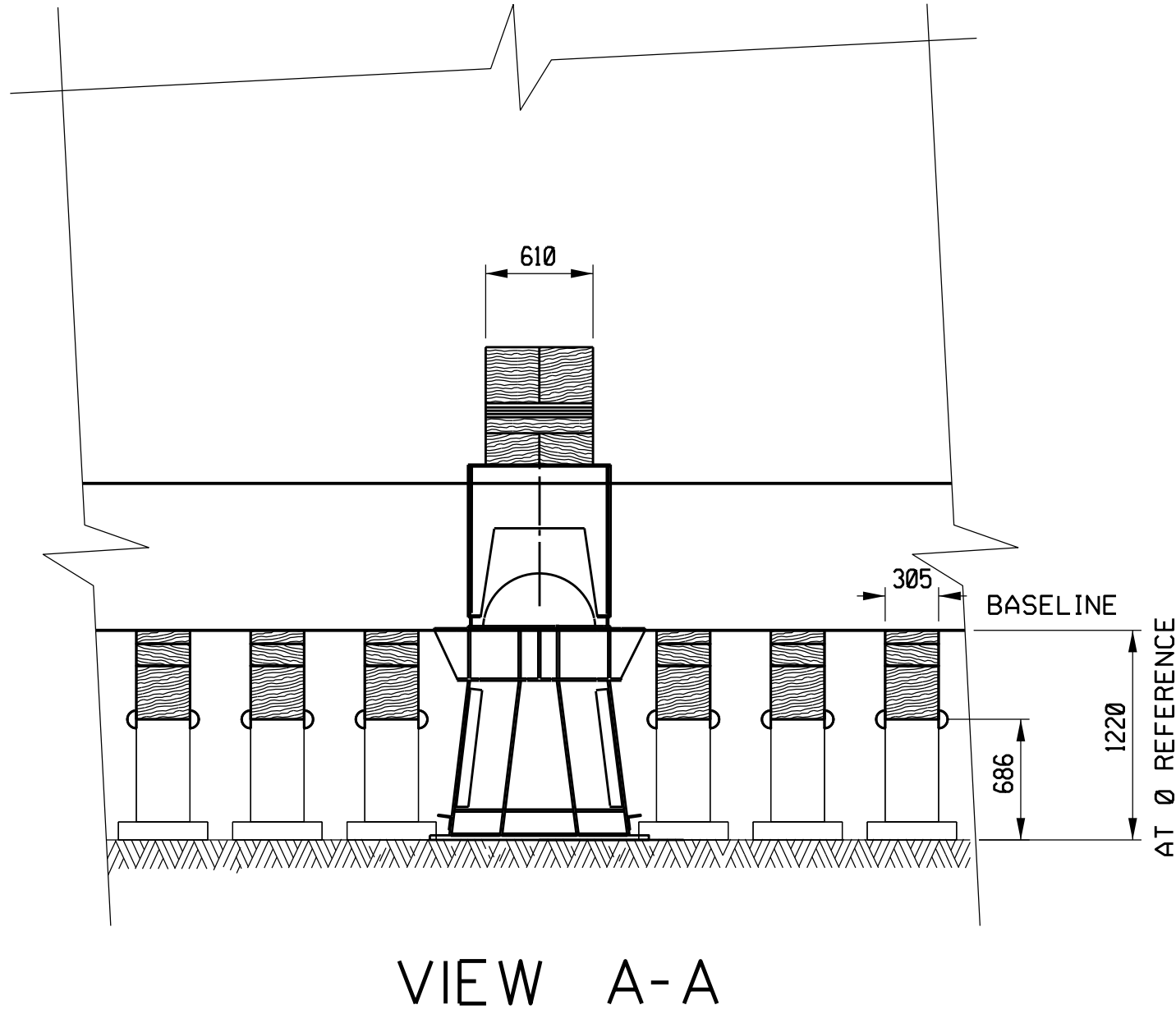
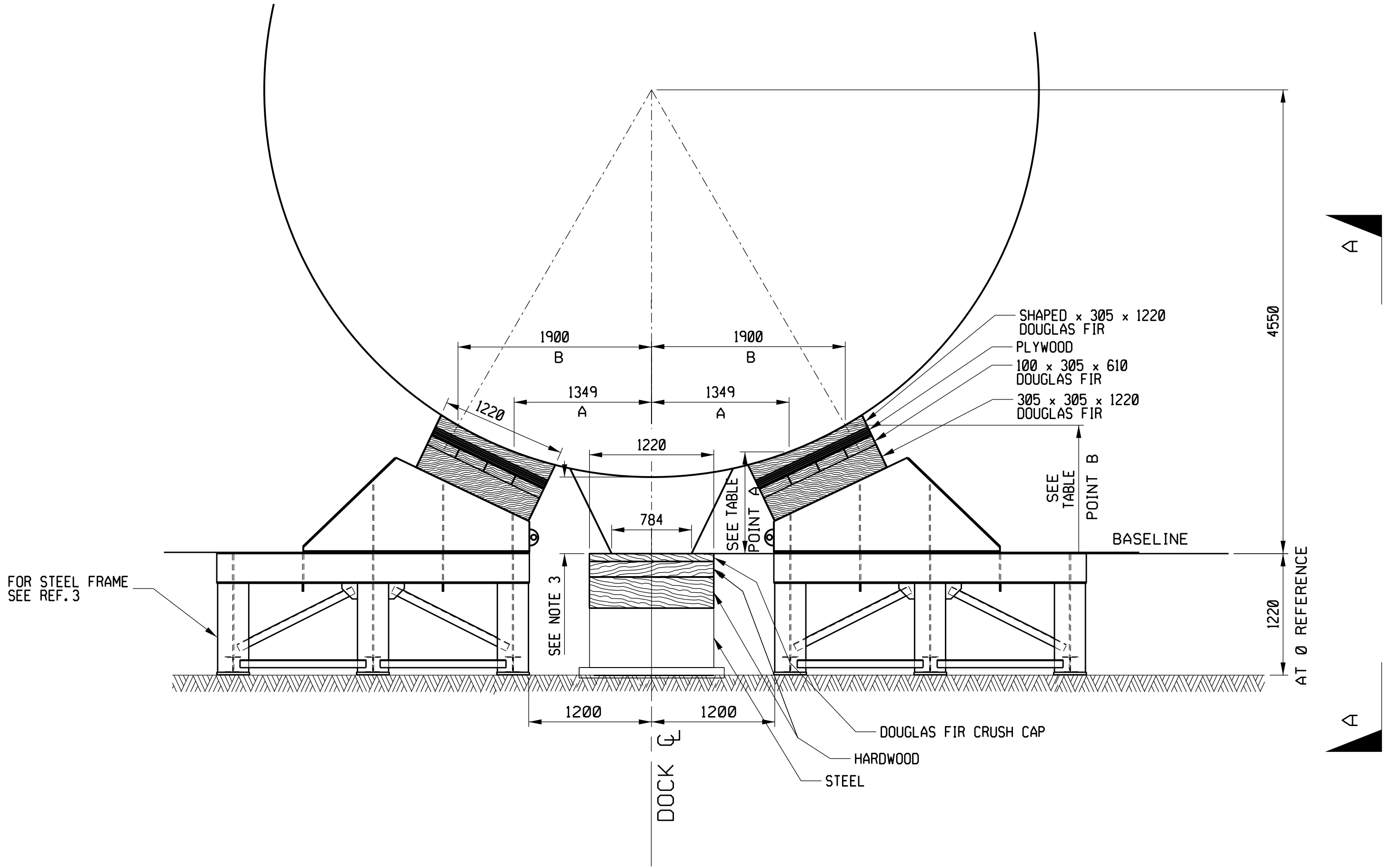
UNCLASSIFIED  
MODIFICATION DRAWING

1. DIMENSIONS ARE IN DIMENSIONS SONT EN  
2. TOLERANCES -  
FRACTIONS -  
DECIMALS XXX +  
DECIMALES XX +  
X +  
3. SURFACE FINISH  
FINIS DE SURFACES -  
INTERPRETATION/  
INTERPRETER -  
CF STD D-01-400-001/50-000  
LEVEL/NIVEAU -

APPLICATION/USAGE  
HMCS  
CHICOUTIMI  
SCALE/  
ECHELLE 1:25

ALL	B	SEE REV. SHEET NO.1	-	-	-	-
ALL	A	SEE REV. SHEET NO.1	-	-	-	-
ALL	-	SEE REV. SHEET NO.1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
Canada						
DWN/DESS J.CROCKER	CKD/VER D.KITTSON	DA/AD W.M.YNARSKI	CF APPVL/APP FC			
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED		TITRE/CHAP LT Cdr J.ASHCROFT 35902		APPLV DATE D'APPROB 14-10-30		
TITLE/TITRE DOCKING PLAN HMC DOCKYARD CFB ESQUIMALT STERN FIRST DOCK PLAN 4				DRAWING NO DU DESSIN 1350001		
SHEET FEUILLE 16				OF DE 17		





TYPICAL ELEVATION FIXED KEEL BLOCK & SLIDING SIDE BLOCKS  
LOOKING FWD (NORTH)

TABLE OF OFFSETS FOR SLIDING SIDE BLOCKS

SIDE OF SUB	SIDE BLOCK #	F/A FACE OF BLOCK	DISTANCE Ø REF. TO BLOCK	POINT A HALF BREADTH	POINT A HEIGHT ABOVE BASELINE	POINT B HALF BREADTH	POINT B HEIGHT ABOVE BASELINE	RADIUS OF BLOCKS
P & S	3	FWD	57553	1349	986•	1900	1247•	3825
P & S	3	AFT	56943	1349	1010•	1900	1272.5•	3825
P & S	4	FWD	65886	1349	969•	1900	1228.5•	3825
P & S	4	AFT	56976	1349	969•	1900	1228.5•	3825
P & S	5	FWD	73586	1349	969•	1900	1228.5•	3825
P & S	5	AFT	72976	1349	969•	1900	1228.5•	3825
S	6 STBD	FWD	80586	1349	997.5	1900	1259	3800
S	6 STBD	AFT	79976	1349	997.5	1900	1259	3800
P	6 PORT	FWD	80586	1349	971•	1900	1230•	3825
P	6 PORT	AFT	79976	1349	971•	1900	1230•	3825
P & S	7	FWD	88586	1349	997.5	1900	1259	3800
P & S	7	AFT	87976	1349	997.5	1900	1259	3800

NOTES:  
1. • INDICATES BLOCK LANDING ON TILES.  
2. CONTACT EDGES OF SLIDING SIDE BLOCKS TO HAVE 15mm FILLET.  
3. 725 WITH TILES, 750 WITHOUT TILES.

UNCLASSIFIED  
MODIFICATION DRAWING

UNLESS OTHERWISE SPECIFIED/SAUF INDICATION CONTRAIRE		APPLICATION/USAGE	
1. DIMENSIONS ARE IN/DIMENSIONS SONT EN		HMCS CHICOUTIMI	
2. TOLERANCES		SCALE/ ECHELLE 1:25	
FRACTIONS -		N/A	
DECIMALS XXX +			
DÉCAIMALES XX +			
X +			
ANGLES +			
3 SURFACE FINISH			
FINIS DE SURFACES			
INTERPRETATION/ INTERPRETER		CF STD D-01-400-001/SG-000	
		LEVEL/NIVEAU 2	

ALL	B	SEE REV. A SHEET NO.1	-	-	-	-
ALL	A	SEE REV. A SHEET NO.1	-	-	-	-
ALL	-	SEE REV. A SHEET NO.1	-	-	-	-
ZONE	LTR	REVISION	DATE	OWN DES	CKD VER	APPLV APP
Canada						
DWN/DESS J.CROCKER		CKD/VER D.KITTSON		DA/AD W.MLYNARSKI		CF APPVL/APP FC
DESIGN AGENT/CONCEPTION FMF(CB) ENG/G. MORSHED		TITL/HDL LT Cdr.J.ASHCROFT		TUB/CLASIF 35902		APPLV DATE D'APPROB 14-10-30
TITLE/TITRE DOCKING PLAN HMC DOCKYARD		DRAWING NO DU DESSIN 1350001		SHEET 17		OF 17