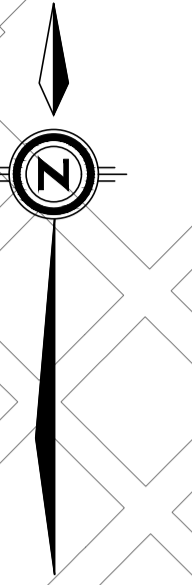
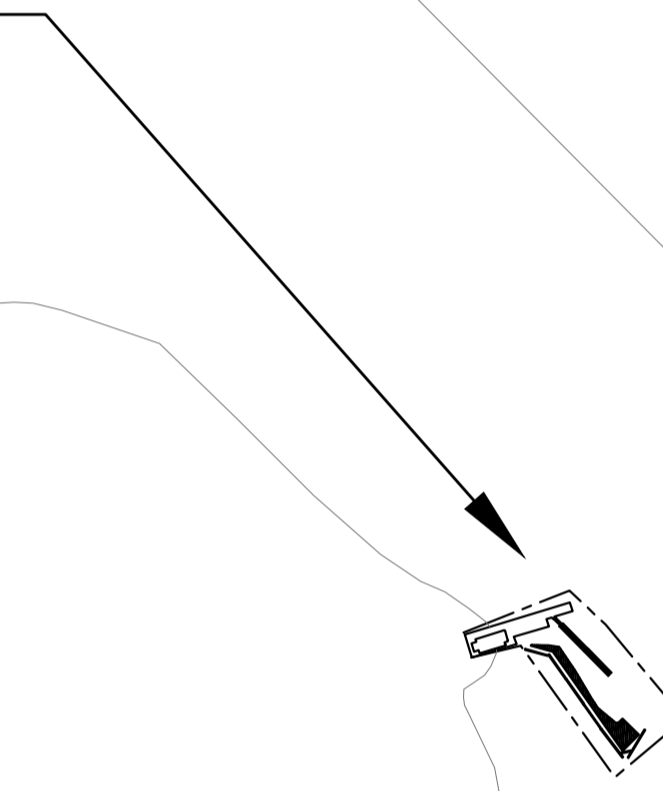


KITSILANO SAR STATION FLOAT UPGRADE



VANCOUVER

KITSILANO SAR STATION



ENGLISH BAY

GRANVILLE
ISLAND

KITSILANO

FALSE CREEK



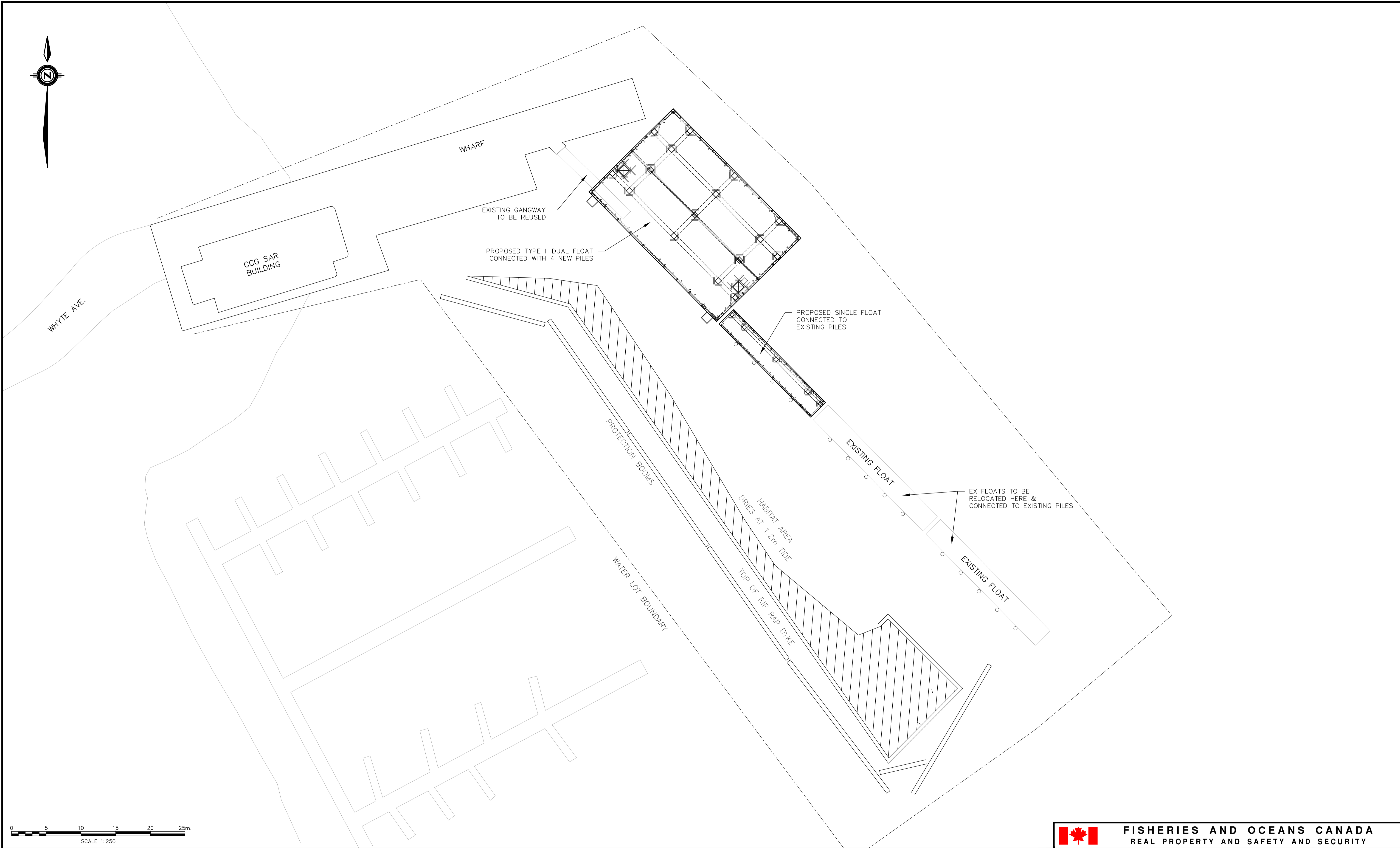
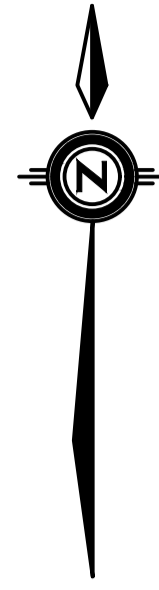
FISHERIES AND OCEANS CANADA
REAL PROPERTY AND SAFETY AND SECURITY

KITSILANO SAR STATION
FLOAT UPGRADE
KEY LOCATION MAP

SCALE
NTS
START DATE
DRAWING NUMBER
001

Plotted: 2/17/2017 9:22 AM

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED D LOGJDCI DRAWN D LOGJDCI CHECKED RECOMMENDED APPROVED	SCALE NTS START DATE DRAWING NUMBER 001
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Plotted: 2/17/2017 9:22 AM Plotted by: Logisci, Daniel

FISHERIES AND OCEANS CANADA
REAL PROPERTY AND SAFETY AND SECURITY

**KITSILANO SAR STATION
FLOAT UPGRADE
DOUBLE FLOAT CONCEPT**

SCALE
1:250
START DATE
DRAWING NUMBER
003

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS

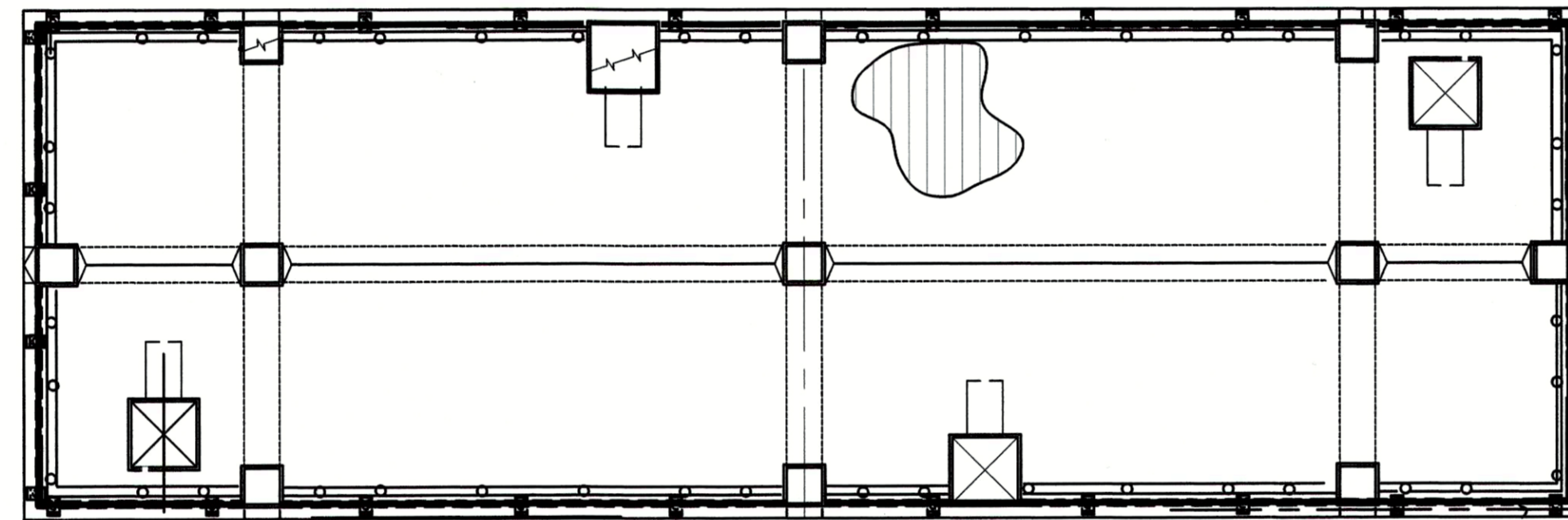
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CHECKED
RECOMMENDED
APPROVED



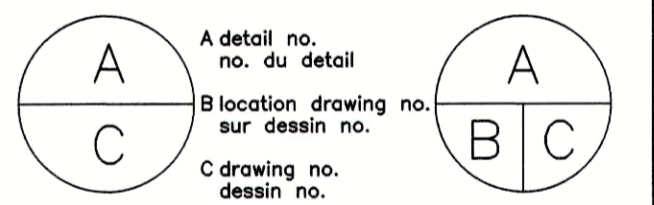
FISHERIES AND OCEANS CANADA

REAL PROPERTY, SAFETY & SECURITY

STANDARD CONCRETE FLOAT MODULE
26.22m LONG x 8.537m WIDE x 1.695m DEEP



1	ISSUED FOR TENDER	9/3/17
revisions		date



project _____ projet _____

**FISHERIES AND OCEANS CANADA
REAL PROPERTY,
SAFETY AND SECURITY
CONCRETE FLOAT DOCK**

drawing _____ dessin _____

PLAN of Standard Float

designed G.J. Gowdin _____ conçu

date 2017-02-17 _____

drawn WSL _____ dessiné

date 2017-02-17 _____

approved _____ approuvé

date _____

Tender _____ Soumission

PWGSC Project Manager / Administrateur de projets TPSGC

project number _____ no. du projet

TRN.VHWY03002-06

drawing no. _____ no. du dessin

56134-0801-R13-CONCRETE FLOAT-SHEET 1

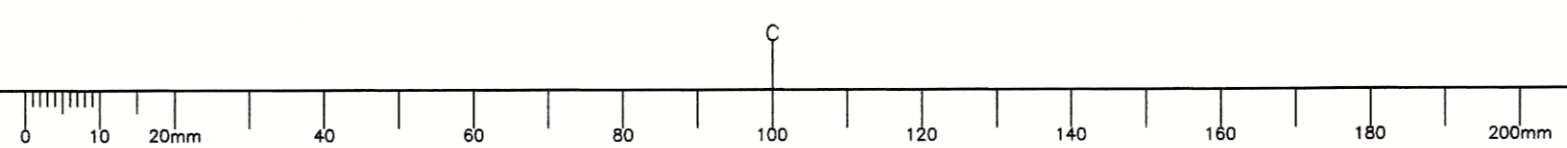
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DRAWING NUMBER

- 56134-0801-R13-CONCRETE FLOAT-SHEET 1
- 56134-0801-R8-CONCRETE FLOAT-SHEET 2
- 56134-0801-R6-CONCRETE FLOAT-SHEET 3
- 56134-0801-R6-CONCRETE FLOAT-SHEET 5
- 56134-0801-R9-CONCRETE FLOAT-SHEET 6
- 56134-0801-R5-CONCRETE FLOAT-SHEET 7
- 56134-0801-R5-CONCRETE FLOAT-SHEET 12
- 56134-0801-R2-CONCRETE FLOAT-SHEET 15
- 56134-0801-0-CONCRETE FLOAT-SHEET 24
- 56134-0801-0-CONCRETE FLOAT-SHEET 25
- 56134-0801-0-CONCRETE FLOAT-SHEET 26
- 56134-0801-0-CONCRETE FLOAT-SHEET 27
- 56134-0801-0-CONCRETE FLOAT-SHEET 28

TITLE

- TITLE PAGE (THIS SHEET)
- CONCRETE OUTLINE, PLANS
- REINFORCEMENT, FLOAT PLAN AND SECTIONS
- REINFORCEMENT AT FLOAT CORNERS & WALL SECTIONS
- METALWORK DETAILS
- FLOTATION BILLET LAYOUTS AND HOISTING GUIDELINES
- MODIFICATION DETAILS - FLOAT CORNER WITHOUT FLOAT TO FLOAT STEEL BAR CONNECTORS
- DRAIN HOLE & EMBED LAYOUT-SINGLE, DUAL TYPE I, QUAD TYPE II
- DUAL TYPE II KITSILANO COAST GUARD STATION FLOAT
- KITSILANO COAST GUARD STATION FLOAT - MOORING
- KITSILANO COAST GUARD STATION SECONDARY FLOAT
- KITSILANO COAST GUARD STATION SECONDARY FLOAT - DETAILS
- KITSILANO COAST GUARD STATION SECONDARY FLOAT - PILE HOOP DETAILS





1	ISSUED FOR TENDER	9/3/17
revisions		date

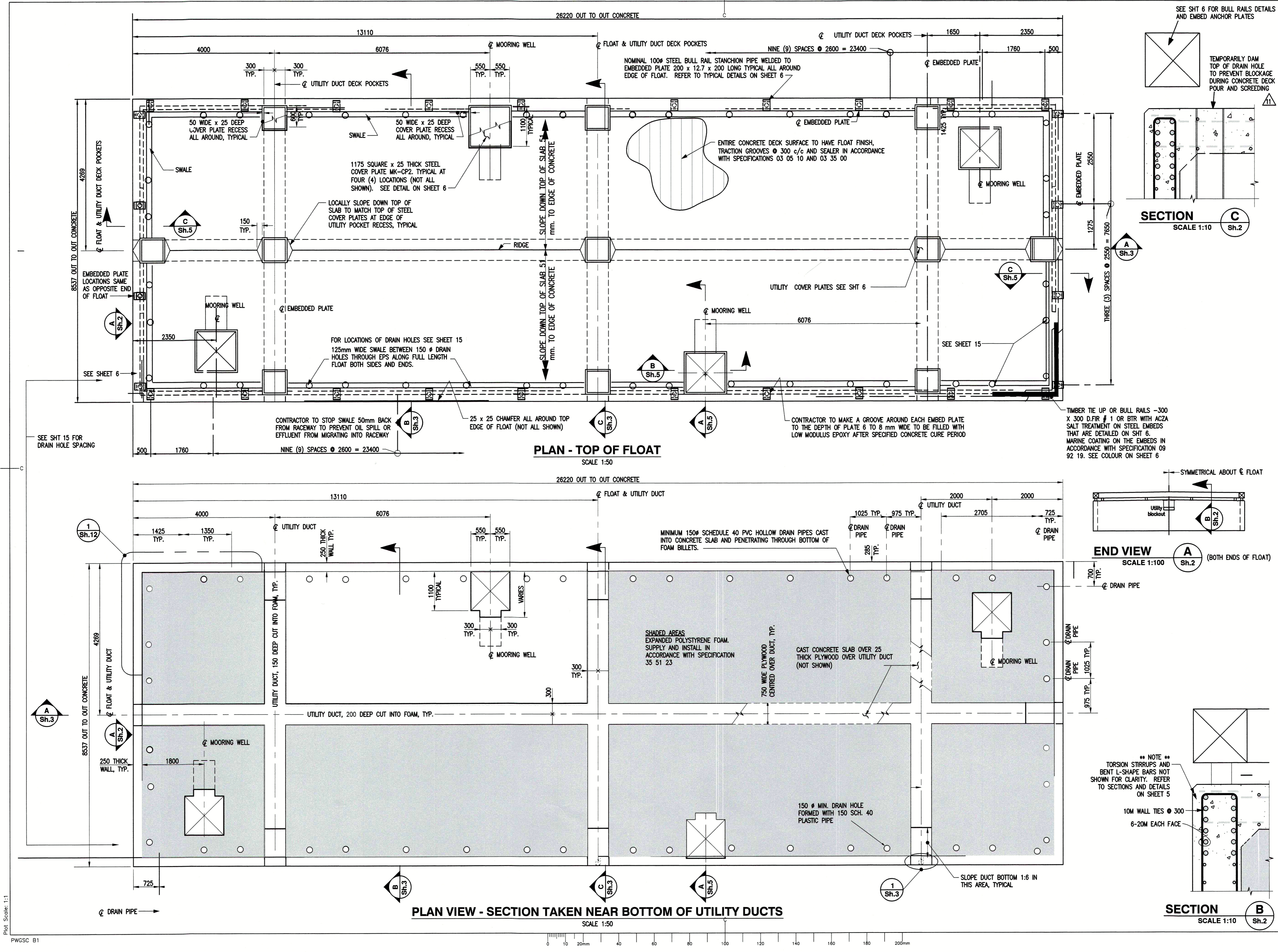
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	C drawing no. dessin no.	

project
FISHERIES AND OCEANS CANADA
REAL PROPERTY,
SAFETY AND SECURITY
STANDARD CONCRETE FLOAT
MODULE 26.22m x 8.537m

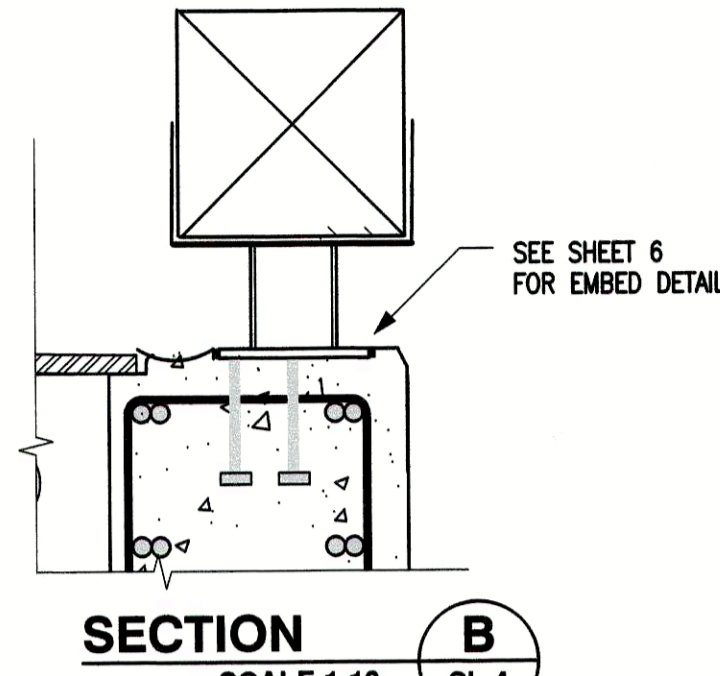
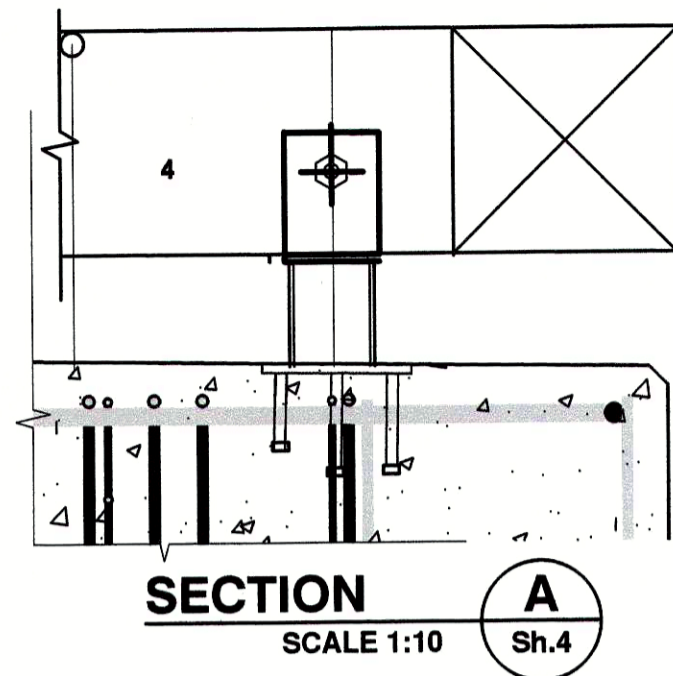
drawing
 dessin

CONCRETE OUTLINE PLANS

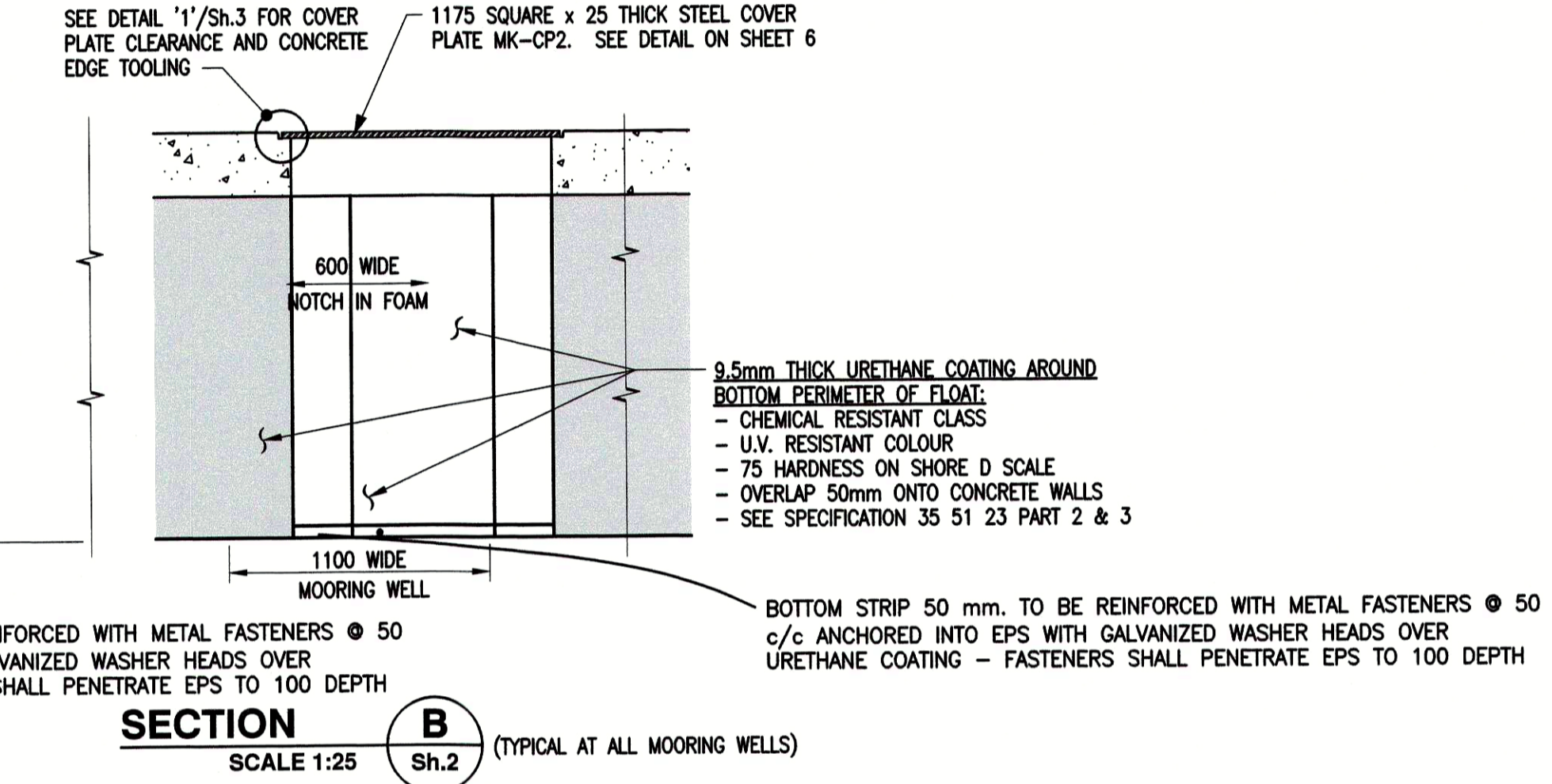
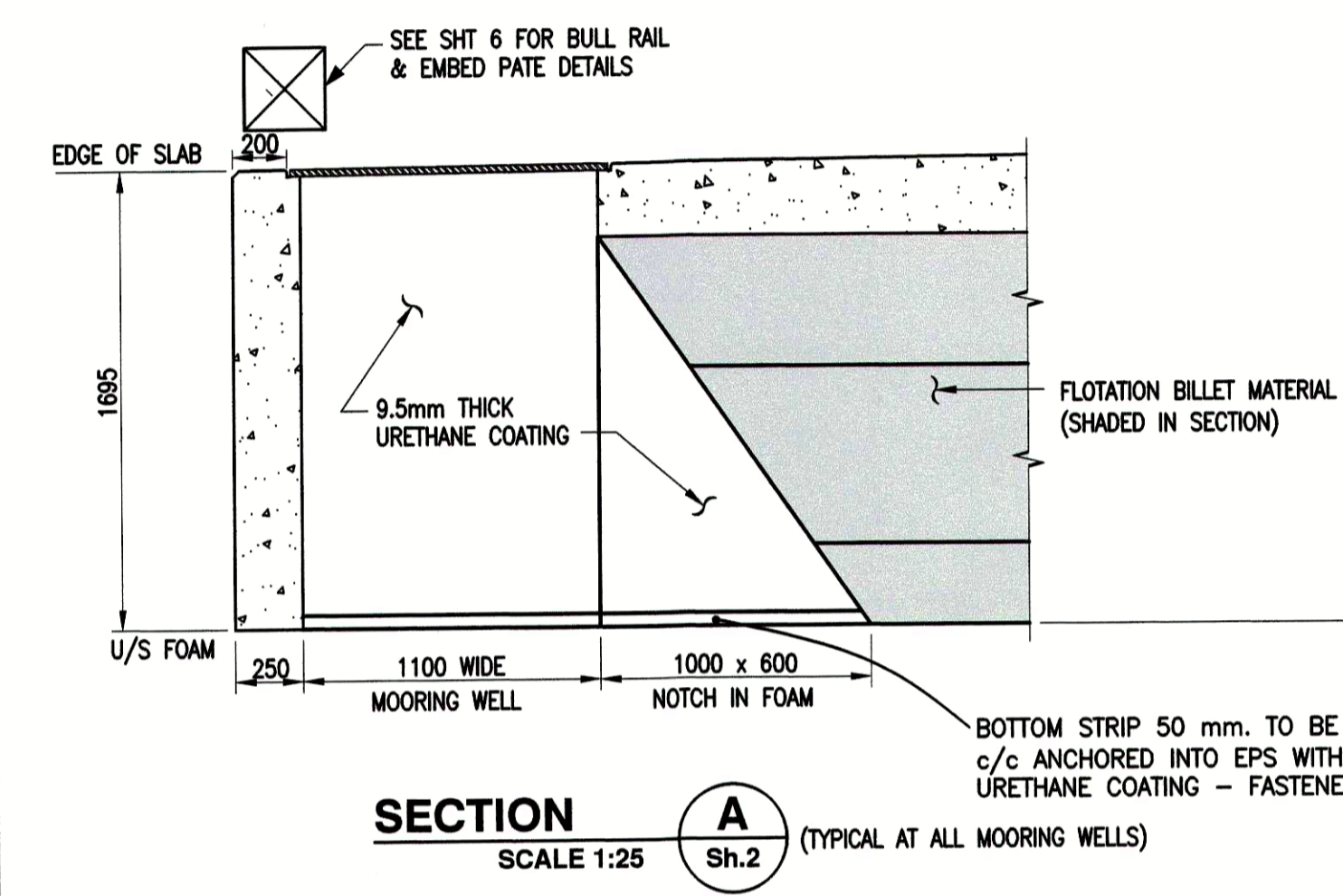
designed	GJG	concu
date	2017-02-17	
drawn	EB	dessine
date	2017-02-17	
approved		approuve
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPSGC	
project number	no. du projet	
	TRN.VHWT03002-06	
drawing no.	no. du dessin	
	56134 - 0801 - R8 - CONCRETE FLOAT - SHEET 2	



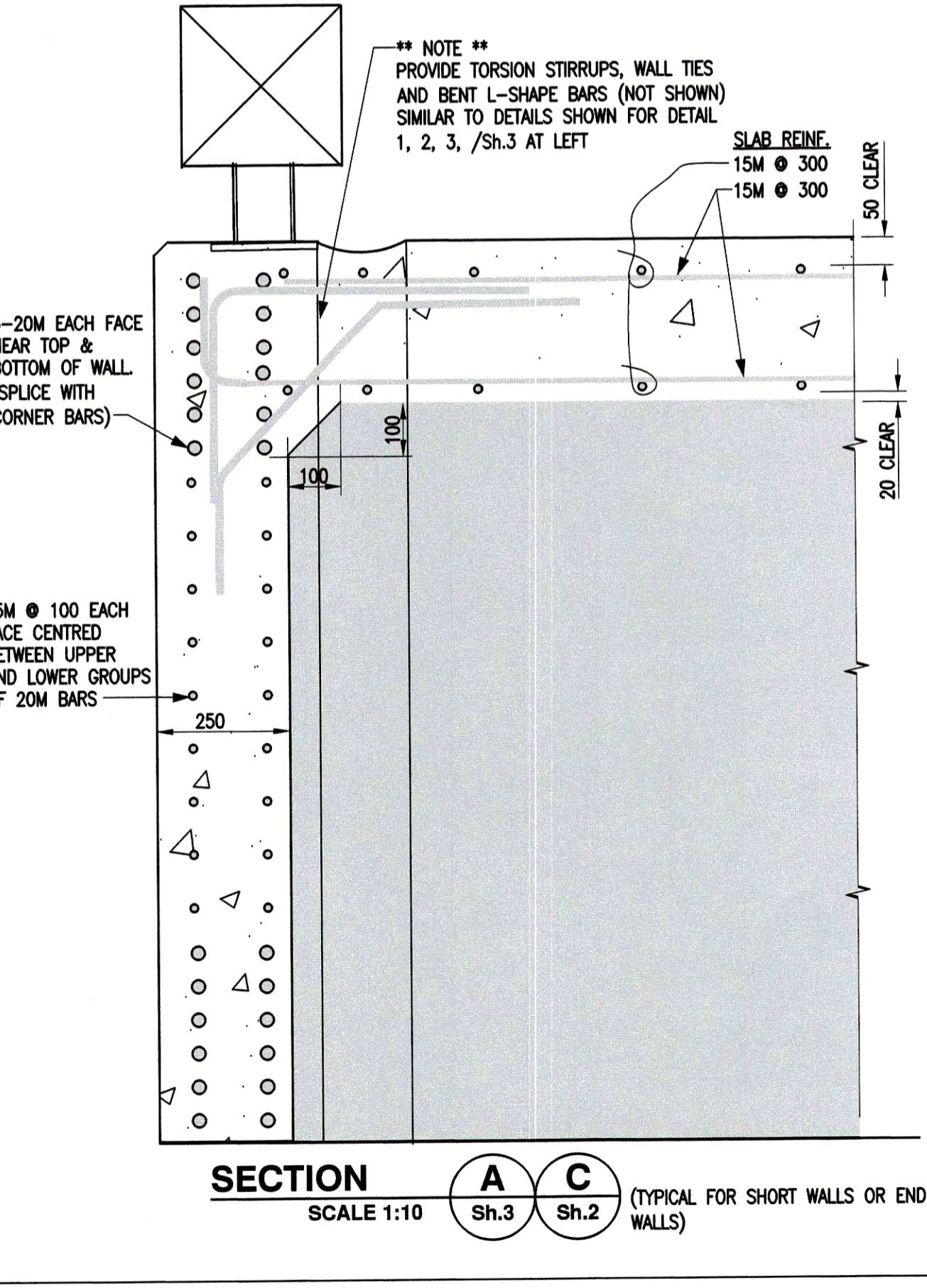
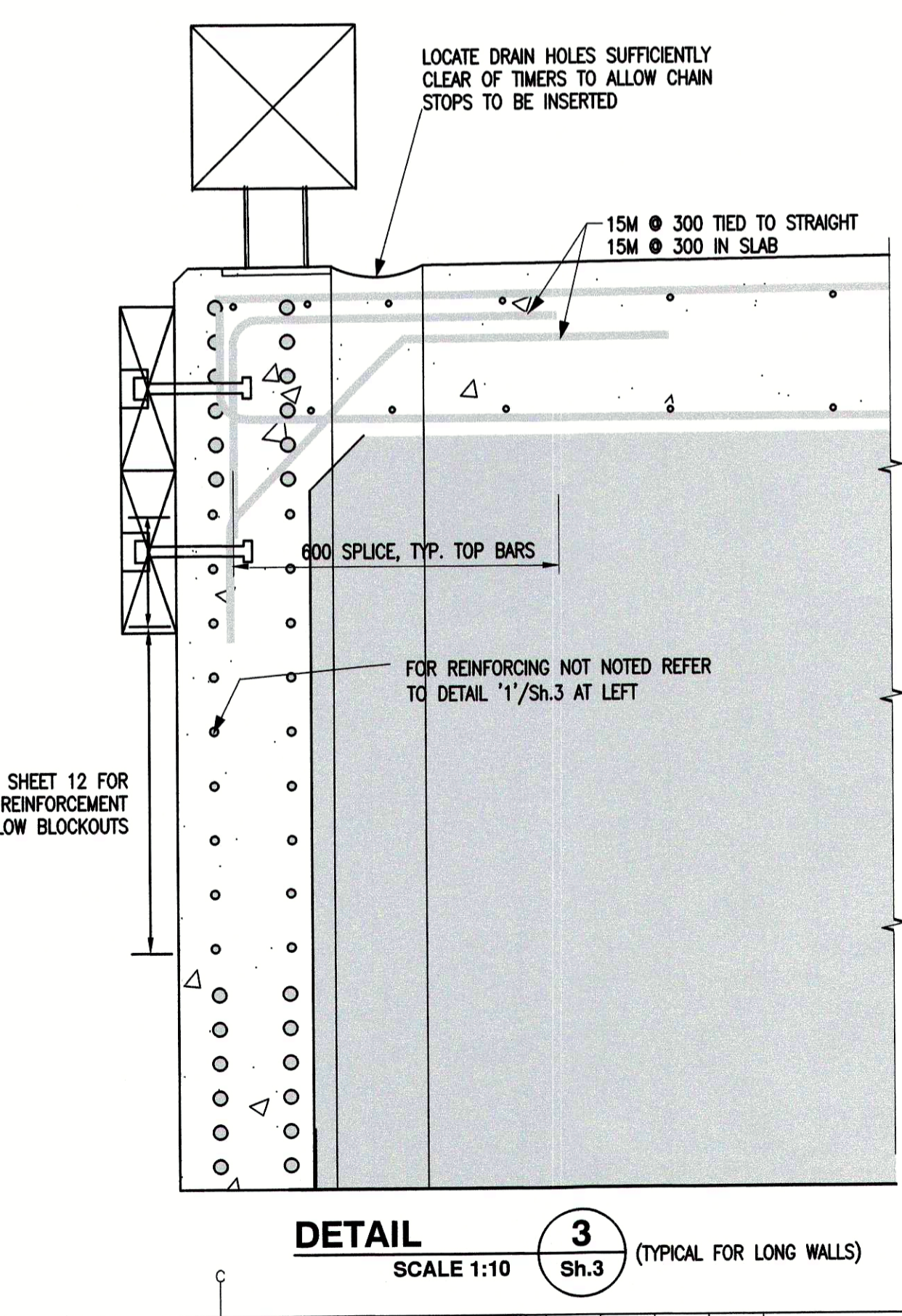
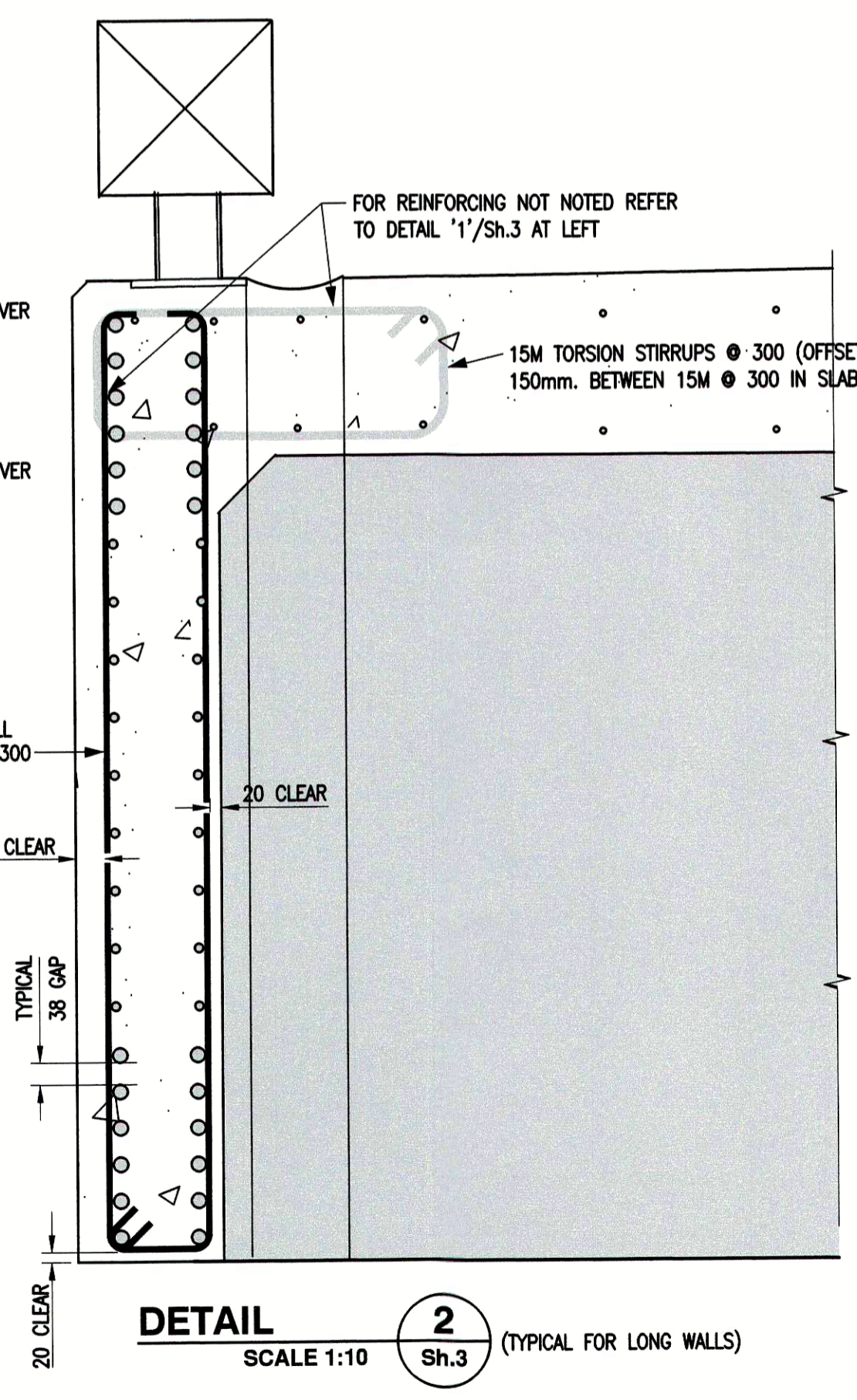
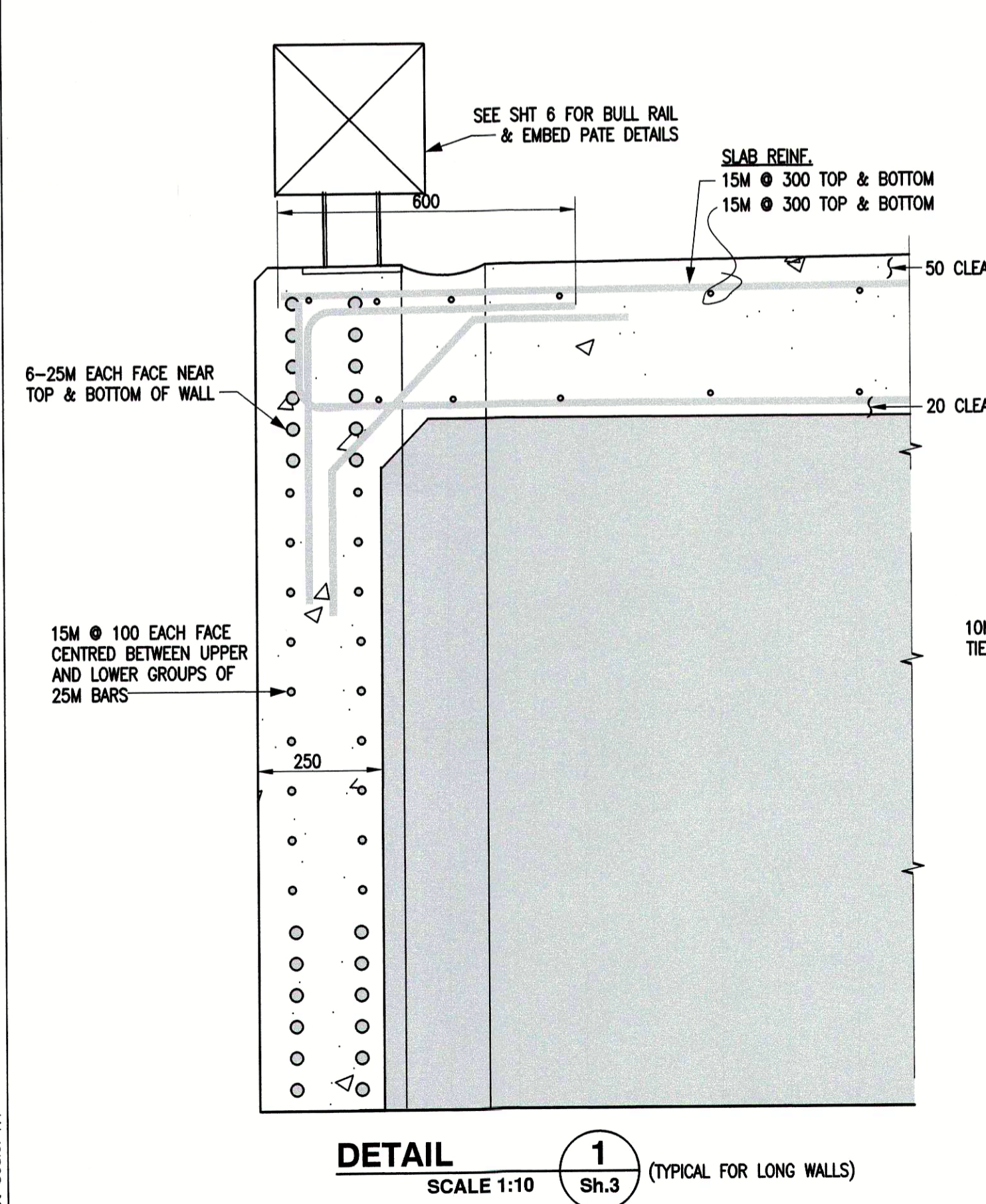
Plot Scale: 1:1
 PWGSC B1



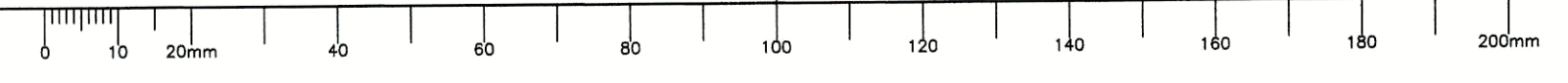
NOTES:
1. SEE WALL SECTIONS BELOW AND SHEET 12 FOR CORNER DETAILS.
2. SHEET 12 SHOWS TYPICAL LONG AND SHORT WALL DETAILS TO BE INCORPORATED WITH DETAILS ON THIS SHEET.

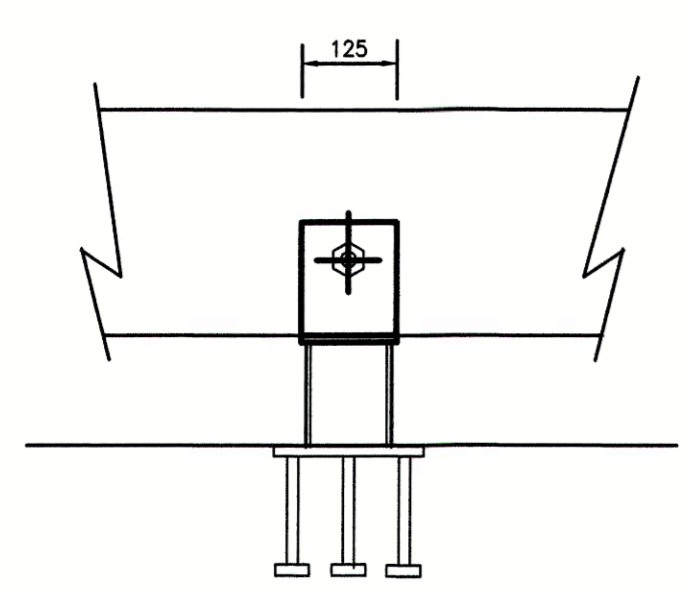


MAIN TENSION WALL BAR SPLICES TO BE STAGGERED 50%. ALL WALLS, TOP & BOTTOM DECK

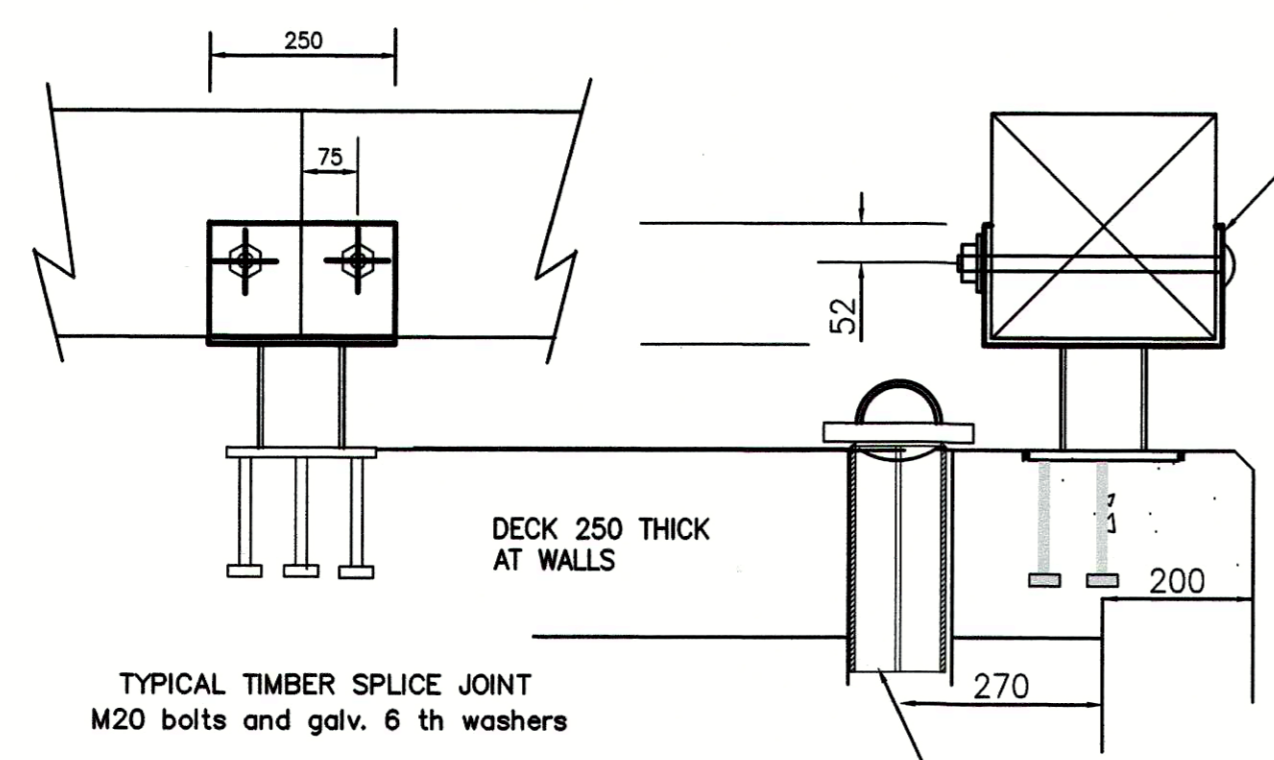


1	ISSUED FOR TENDER	9/3/17									
revisions		date									
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A	A detail no. no. du detail	A									
B	B location drawing no. sur dessin no.	B/C									
C	C drawing no. dessin no.	C									
project: FISHERIES AND OCEANS CANADA REAL PROPERTY, SAFETY AND SECURITY STANDARD CONCRETE FLOAT MODULE 26.22m x 8.537m											
drawing: REINFORCEMENT AT FLOAT CORNERS AND WALL SECTIONS											
designed	GJG	concu									
date	2017-02-17										
drawn	EB	dessine									
date	2017-02-17										
approved		approuve									
date											
Tender		Soumission									
PWGSC Project Manager	Administrateur de projets TPSGC										
project number		no. du projet									
TRN.VHWY03002-06											
drawing no.		no. du dessin									
56134 - 0801 - R6 - CONCRETE FLOAT - SHEET 5											

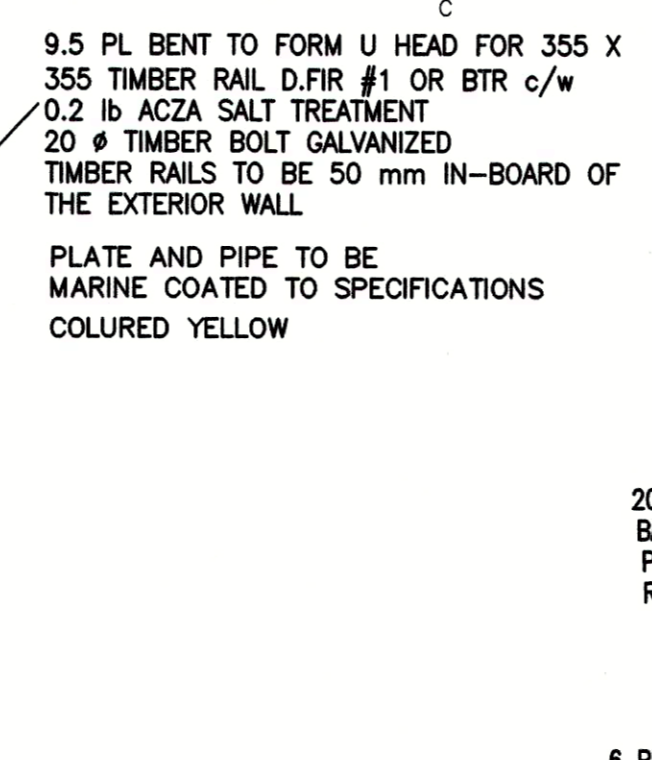




TYPICAL CONTINUOUS TIMBER JOINT
M20 bolt and galv. 6 th washers



TYPICAL TIMBER SPLICE JOINT
M20 bolts and galv. 6 th washers



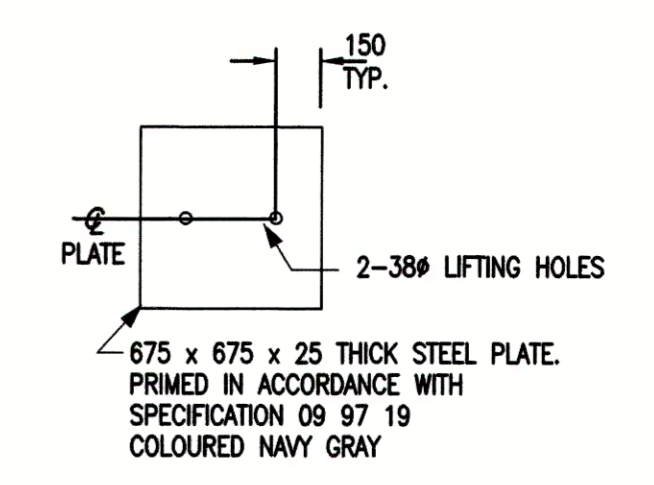
200 LONG STOP BAR - 25 SQUARE BAR WELDED TO 6 TH. SEAL PL ON PIPE. WELD A HAND GRIP FROM 6# ROUND. TWO PART MARINE COATING

6 PL STIFFENERS WELDED AT CENTER THEN INSERTED IN SLOTTED 127# PIPE AND SINGLE BEVEL WELDED TO PIPE TO KEEP OD FLUSH WITH PIPE. TWO PART MARINE COATING

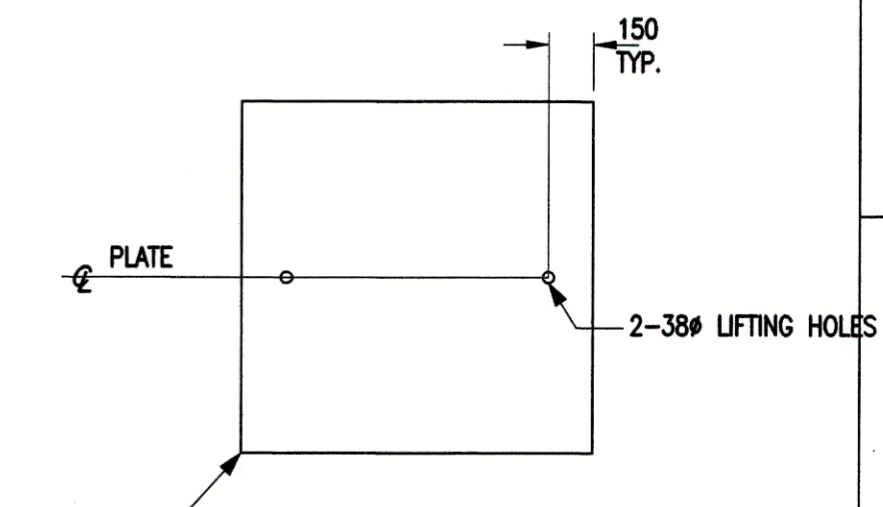
FENDER CHAIN STOP

PROVIDE 10 PER SINGLE FLOAT OR THE QUANTITY REQUIRED BY THE OWNER. NO CHAIN STOPS ARE REQUIRED FOR THE QUAD AND SAR FLOAT ON SHEET 22

NO CHAIN STOPS ARE REQUIRED FOR THE FLOATS ON SHEETS 24 AND 26.



UTILITY STEEL COVER PLATES



MOORING WELL STEEL COVER PLATES

SCALE 1:25

NOTE:
SAR FLOAT TO HAVE THE SAME NON-SKID COATING ON THE STEEL HATCH AND WELL COVERS AS THE QUAD FLOAT.

** NOTE **
ALL TIMBER BUTT SPLICES AND BOLT HOLES TO BE TREATED WITH BRUSHED ON 0.2 lb ACZA SALT TREATMENT OR EQUIVALENT PRESERVATIVE AND SEAL CAULKED WITH FIBREGUM OVER FULL PERIMETER OF JOINT APPLIED BEFORE PIECES ARE BOLTED IN THE SADDLE

SWALE AND DRAIN HOLES LOCATION ALLOW CHAIN STOPS ACCESS TO DRAIN HOLES

** NOTE **
ALL BOLT HOLES BE TREATED WITH BRUSHED ON CCA OR EQUIVALENT PRESERVATIVE.

THE SIZE OF THE U HEAD TO BE A SNUG FIT TO THE SPECIFIC BULL RAIL SIZE.

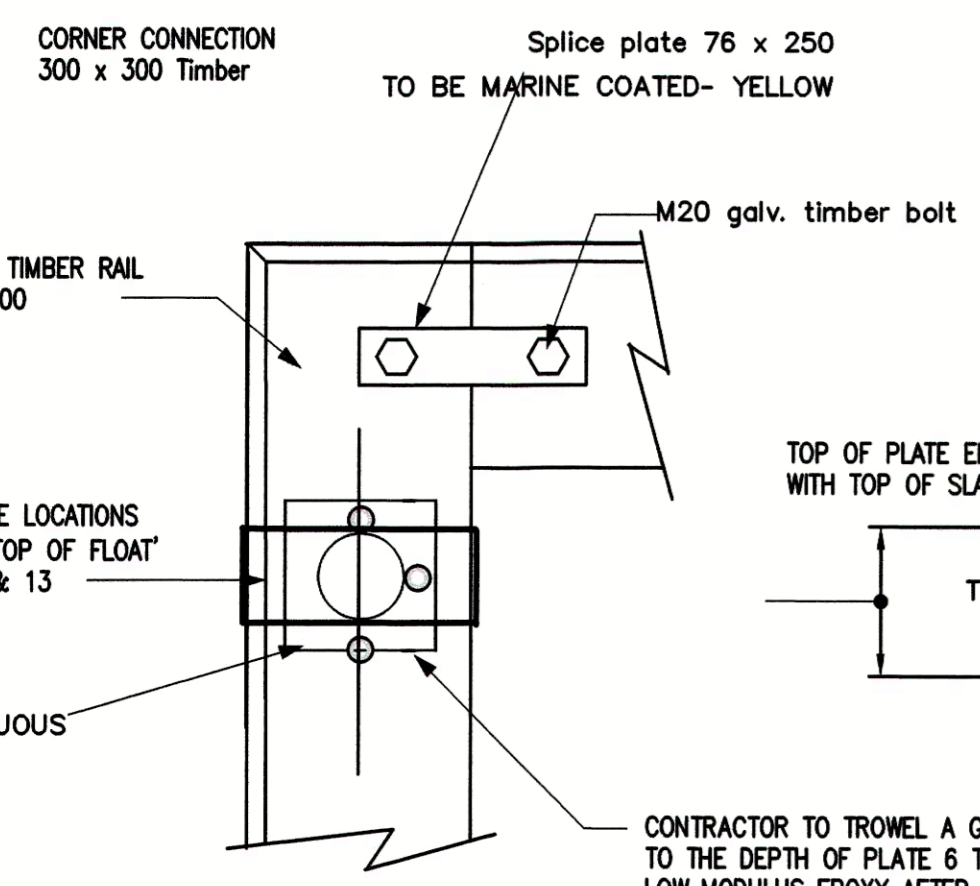
** NOTE **
TIE EMBEDDED PLATE & ANCHOR ASSEMBLIES AS MAIN BARS ARE BEING PLACED.

25 x 25 CHFR.

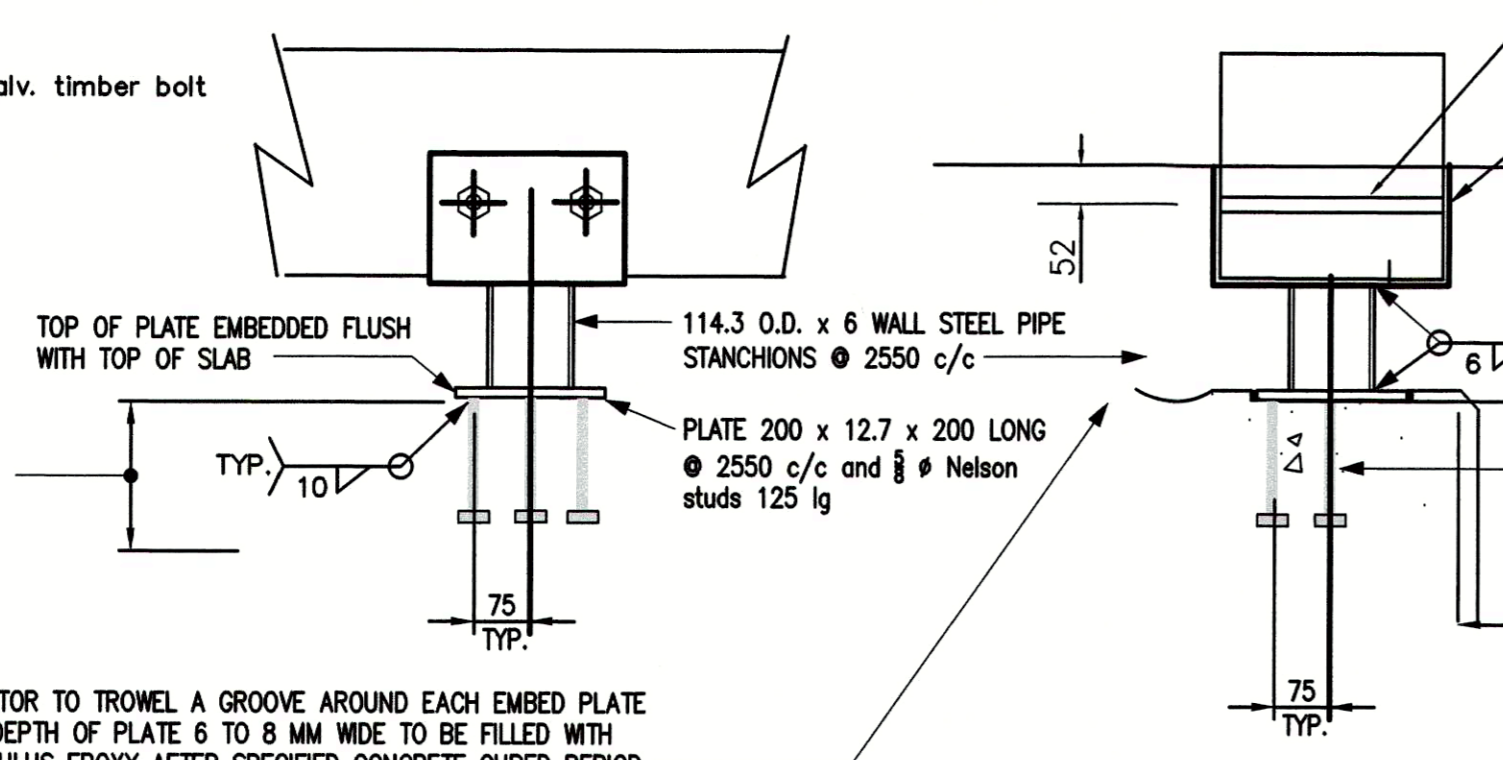
DUAL FLOATS TYPE I AND II TO HAVE THESE EMBEDS

THE DUAL FLOAT ON SHT. 22 MUST HAVE THESE EMBEDS

BULL RAILS FOR FLOATS ON SHEETS 24 AND 26 TO BE 184x184.



PLAN CORNER



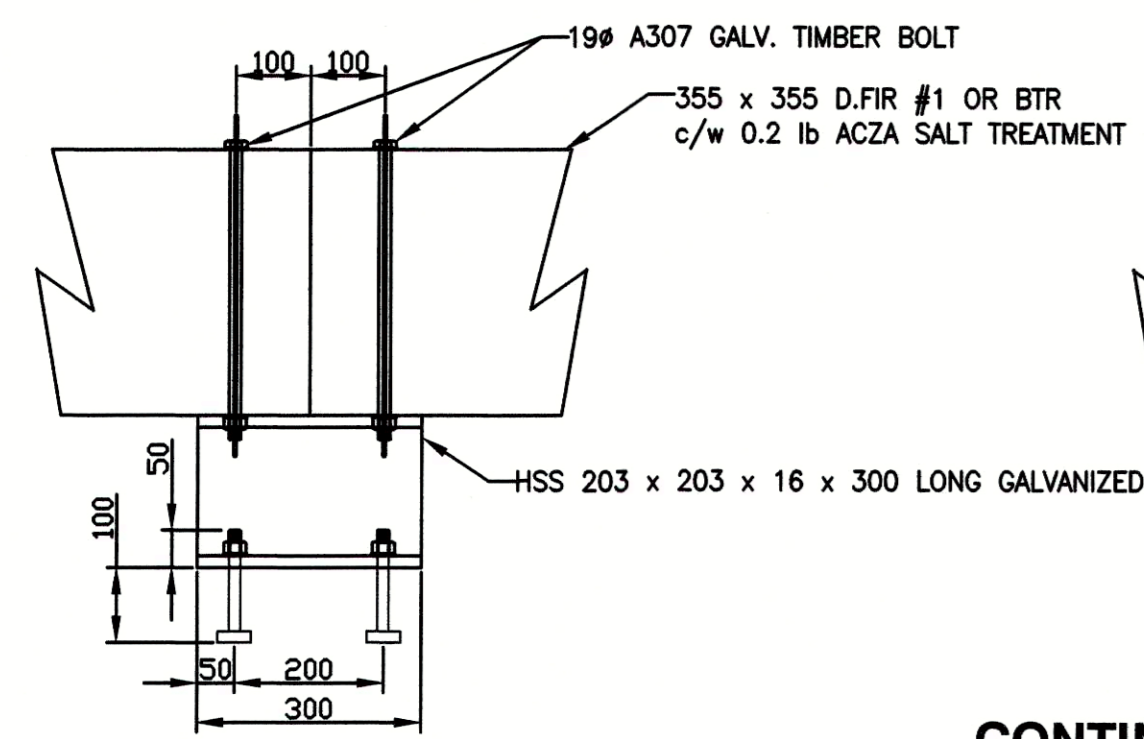
ELEVATION

SECTION

TYPICAL BULL RAIL DETAILS FOR SINGLE AND DUAL STANDARD FLOATS

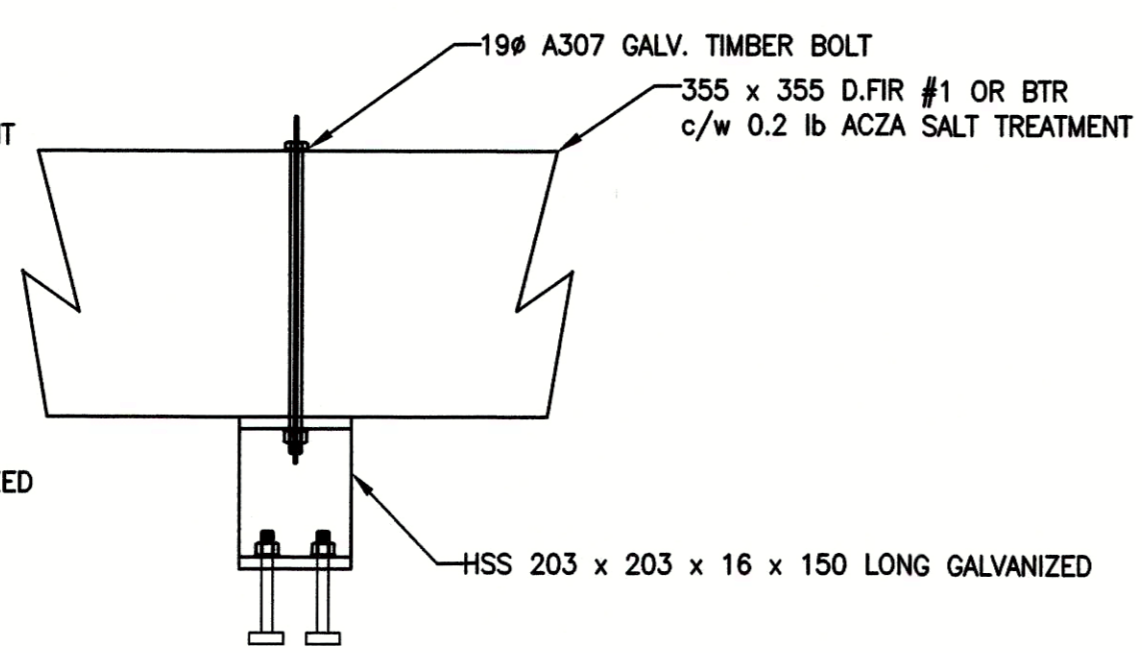
SCALE 1:10

MARINE COATING IN ACCORDANCE WITH SPECIFICATION 09 92 19



TIMBER BUTT JOINT

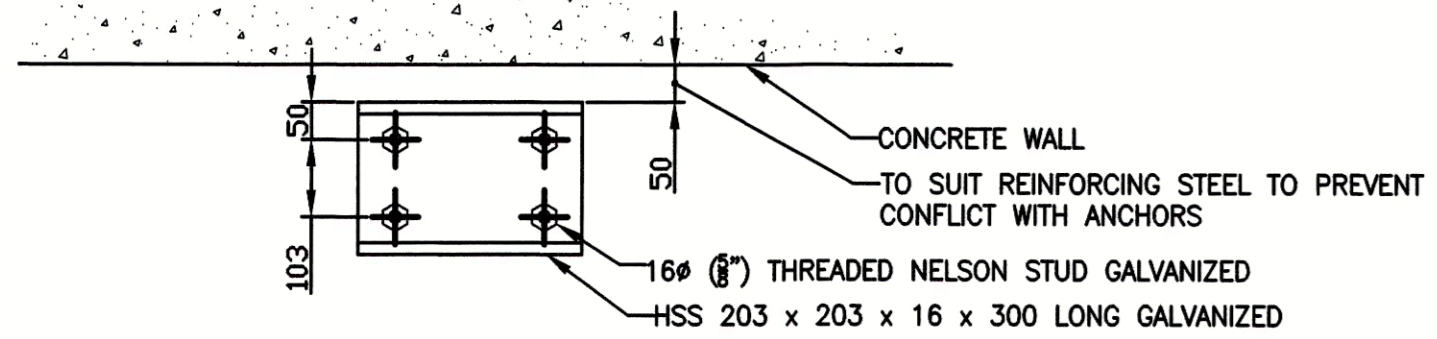
SCALE 1:10



CONTINUOUS TIMBER FLOAT JOINT

SCALE 1:10

PROVIDE 32# HOLES FOR NELSON STUDS AND 21# HOLE FOR TIMBER BOLT.



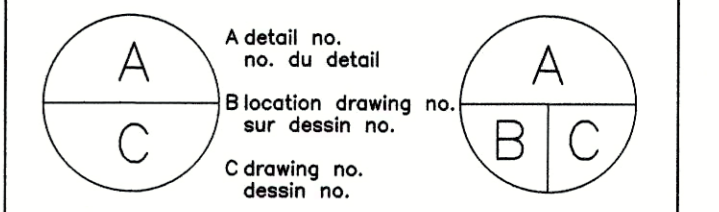
PLAN

SCALE 1:10

TYPICAL BULL RAIL FOR QUADS



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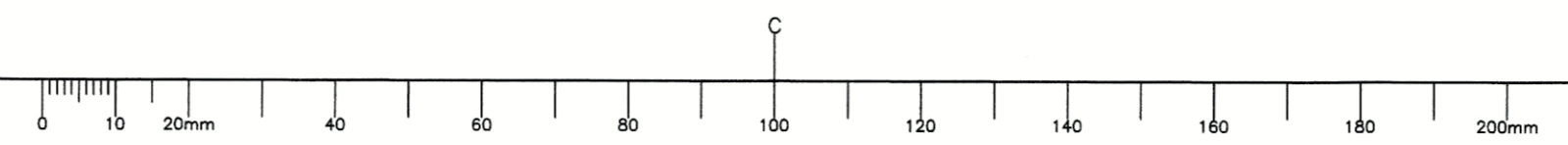


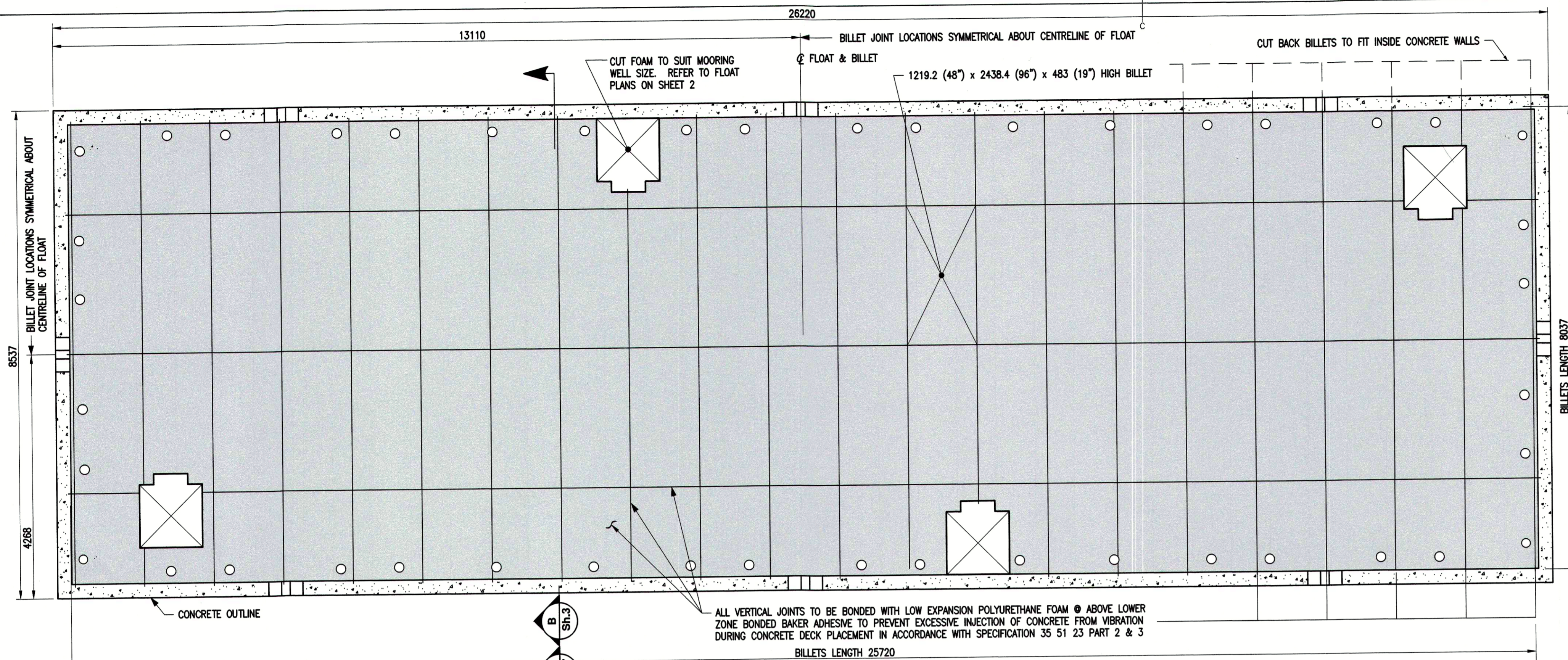
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**FISHERIES AND OCEANS CANADA
REAL PROPERTY,
SAFETY AND SECURITY
STANDARD CONCRETE FLOAT**

drawing no. dessein

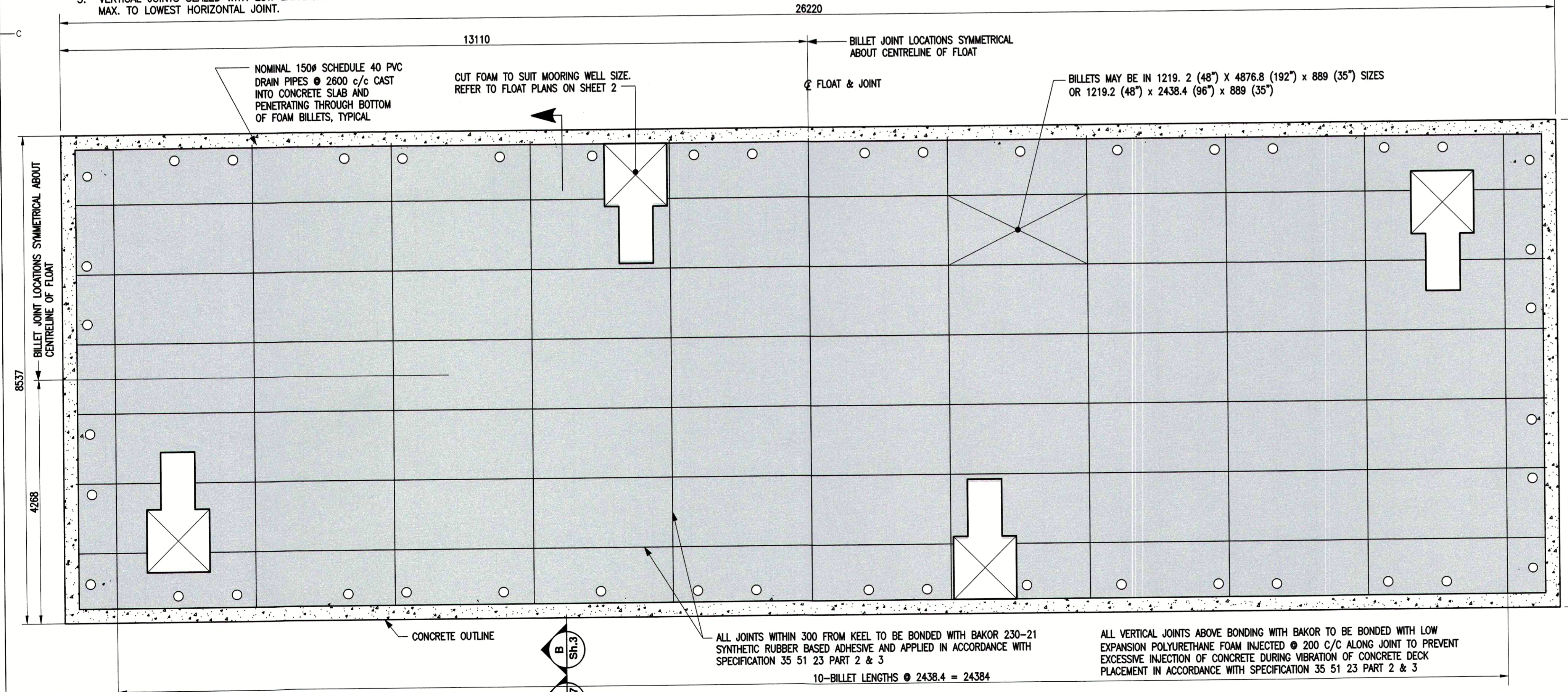
DETAILS

designed GJG	concu
date 2017-02-17	
drawn EB	dessine
date 2017-02-17	
approved	approuve
date	
Tender	Soumission
PWGC Project Manager	Administrateur de projets TPSCG
project number	no. du projet
TRN.VHWY03002-06	
drawing no.	no. du dessin

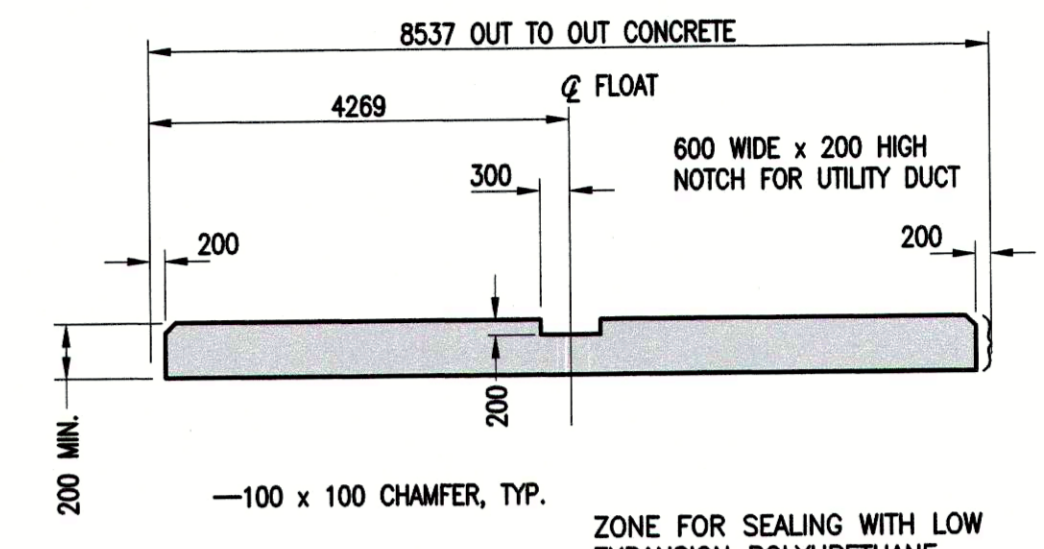




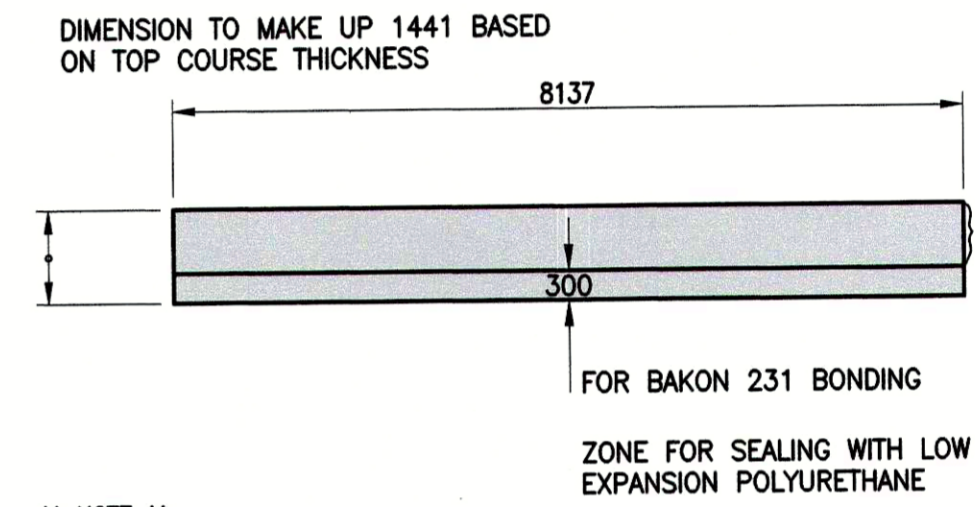
PLAN - TOP COURSE



**PLAN - BASE COURSE
FLOTATION BILLET LAYOUTS**



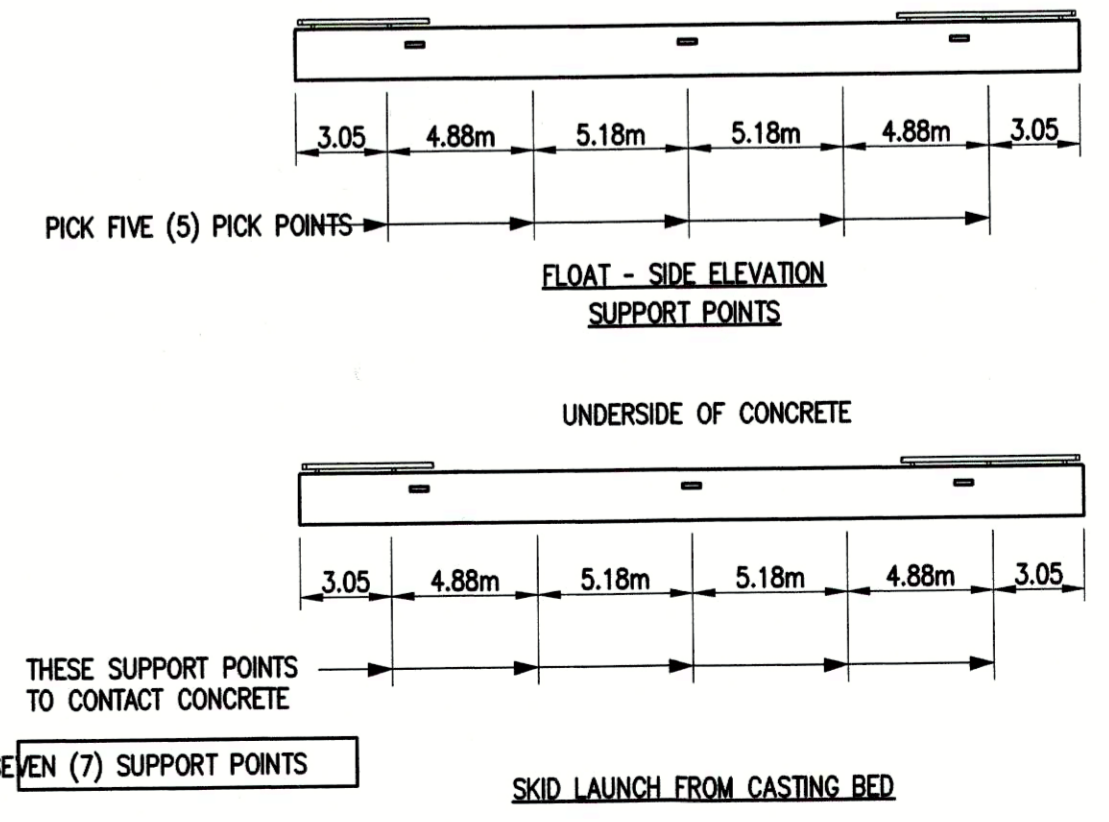
SECTION A (TOP COURSE CROSS-SECTION)
SCALE 1:75 Sh.7



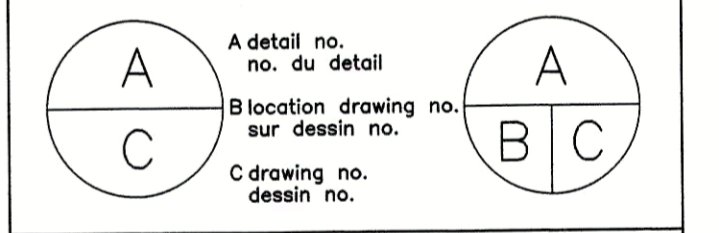
SECTION B (BASE COURSE CROSS-SECTION)
SCALE 1:75 Sh.7

HOISTING GUIDELINES

- CONCRETE COMPRESSIVE STRENGTH 35 MPa VERIFIED BY TEST CYLINDERS.
- APPROXIMATE HOISTING WEIGHT WITH TIGHT CONTROL ON CONCRETE MIX PLASTIC DENSITY IS 235 TONS IMPERIAL.
- NOTCH FOAM AS SHOWN AT SUPPORT POINT LOCATIONS.
- MANUFACTURER MUST DESIGN AND SET EMBEDDED HOISTING ATTACHMENTS AND REINFORCING AND PROVIDE A DURABLE CORROSIVE RESISTANT SURFACE TO MATCH DESIGN. IN THE EVENT THE MANUFACTURER INTENDS TO USE EMBEDDED HOISTING ATTACHMENTS, THE MANUFACTURER SHALL DESIGN AND SUPPLY, INSTALL ATTACHMENTS, REINFORCING AND MAKE GOOD THE DECK SURFACE TO AN EQUIVALENT DURABLE CORROSIVE RESISTANT SURFACE AT HIS COST.
- CONTRACTOR TO PROVIDE SUPPORT LATERAL SUPPORT FOR BOTTOM OF WALLS AT PICK POINTS TO PREVENT DAMAGE FROM EXCESSIVE DEFLECTION OF THE WALL AS THE EPS DEFORMS. CONTRACTOR TO PROVIDE PROTECTION TO THE BOTTOM SURFACE OF THE CONCRETE AND EPS FOR SKID LAUNCH.



1	ISSUED FOR TENDER	9/3/17
revisions		date

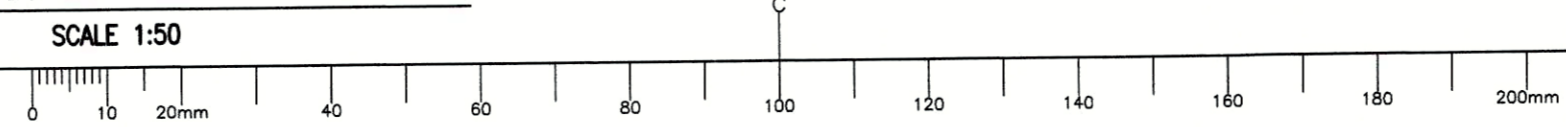


project FISHERIES AND OCEANS CANADA
REAL PROPERTY, SAFETY AND SECURITY
STANDARD CONCRETE FLOAT
MODULE 26.22m x 8.537m

drawing desin

**FLOTATION BILLET LAYOUTS AND HOISTING GUIDELINES
Single Float**

designed GJG	concu
date 2017-02-17	
drawn EB	dessine
date 2017-02-17	
approved	approve
date	
Tender	Soumission
PWGSC Project Manager	Administrateur de projets TPSCG
project number	no. du projet
TRN.VHWY03002-06	
drawing no.	no. du dessin
56134 - 0801 - R5 - CONCRETE FLOAT - SHEET 7	





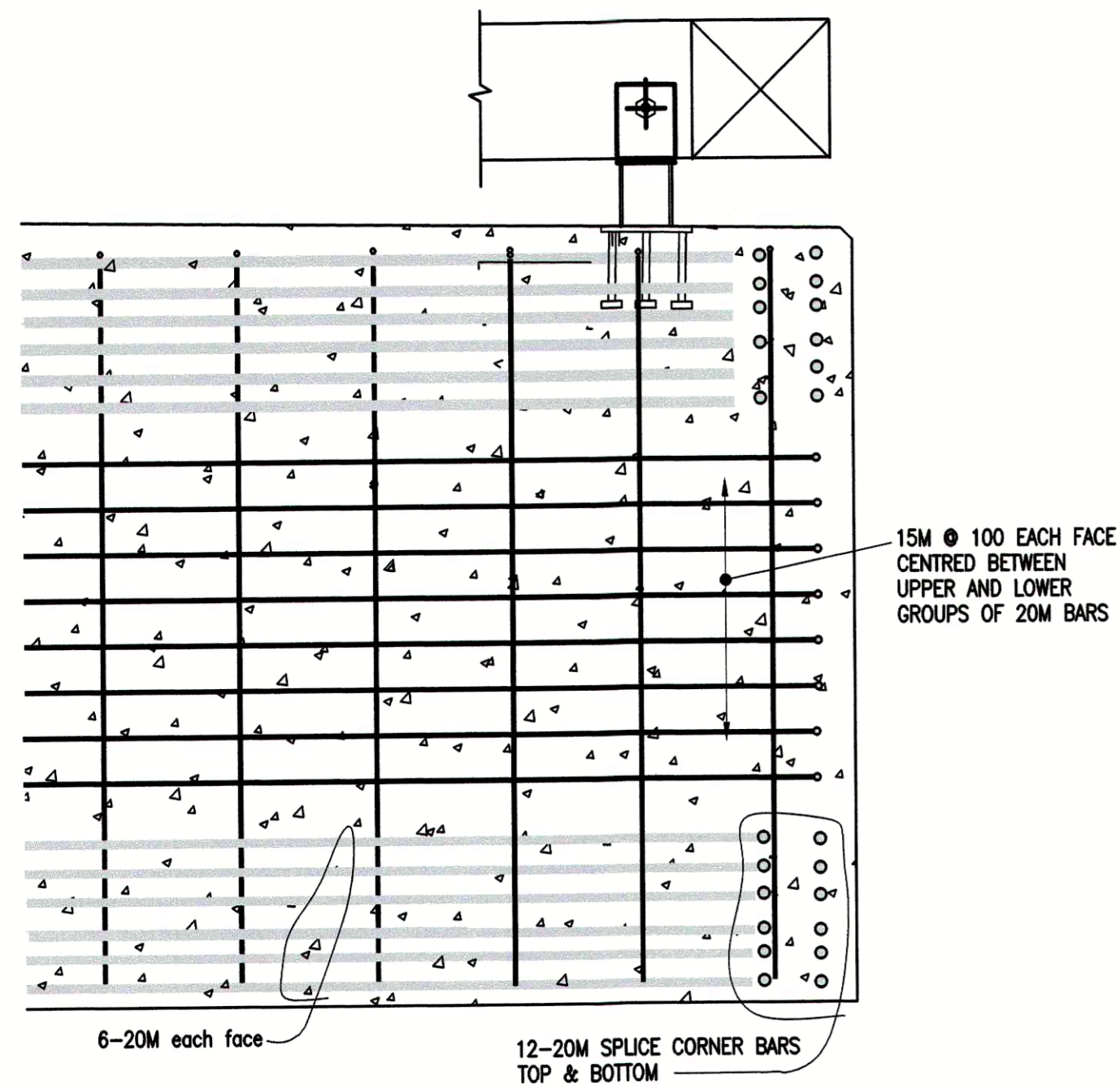
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revisions		date

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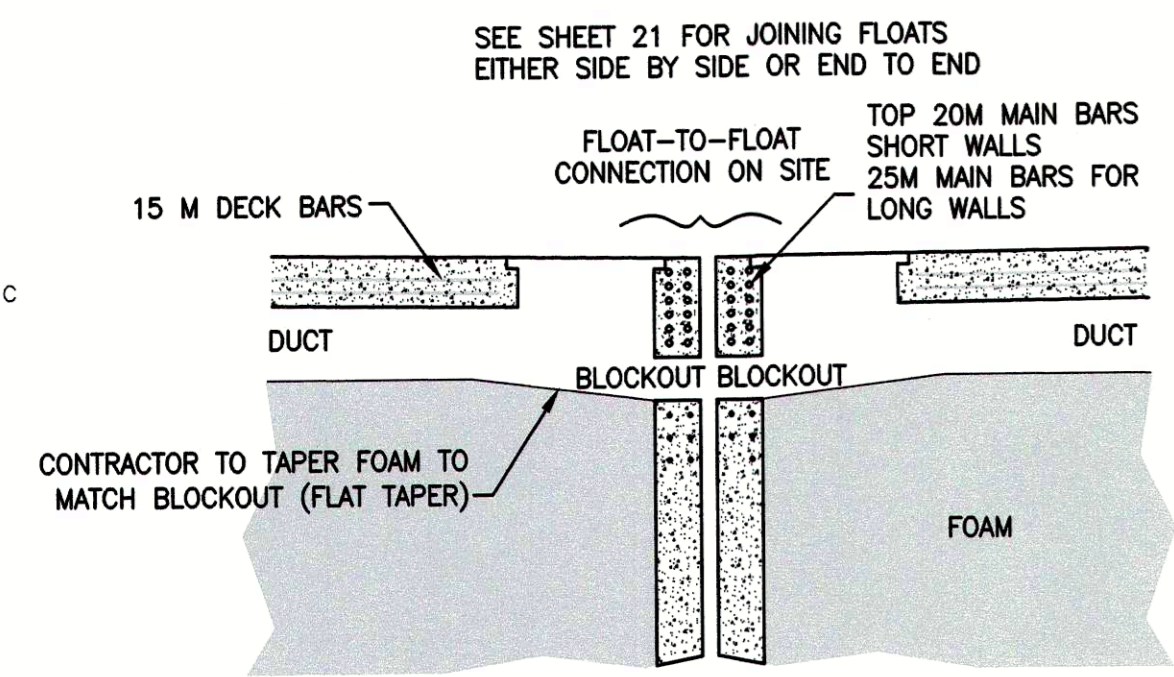
project / projet
FISHERIES AND OCEANS CANADA
REAL PROPERTY, SAFETY AND SECURITY
STANDARD CONCRETE FLOAT
MODULE 26.22m x 8.537m

drawing / dessin
FLOAT WITHOUT CONNECTION POCKETS AT THE CORNERS

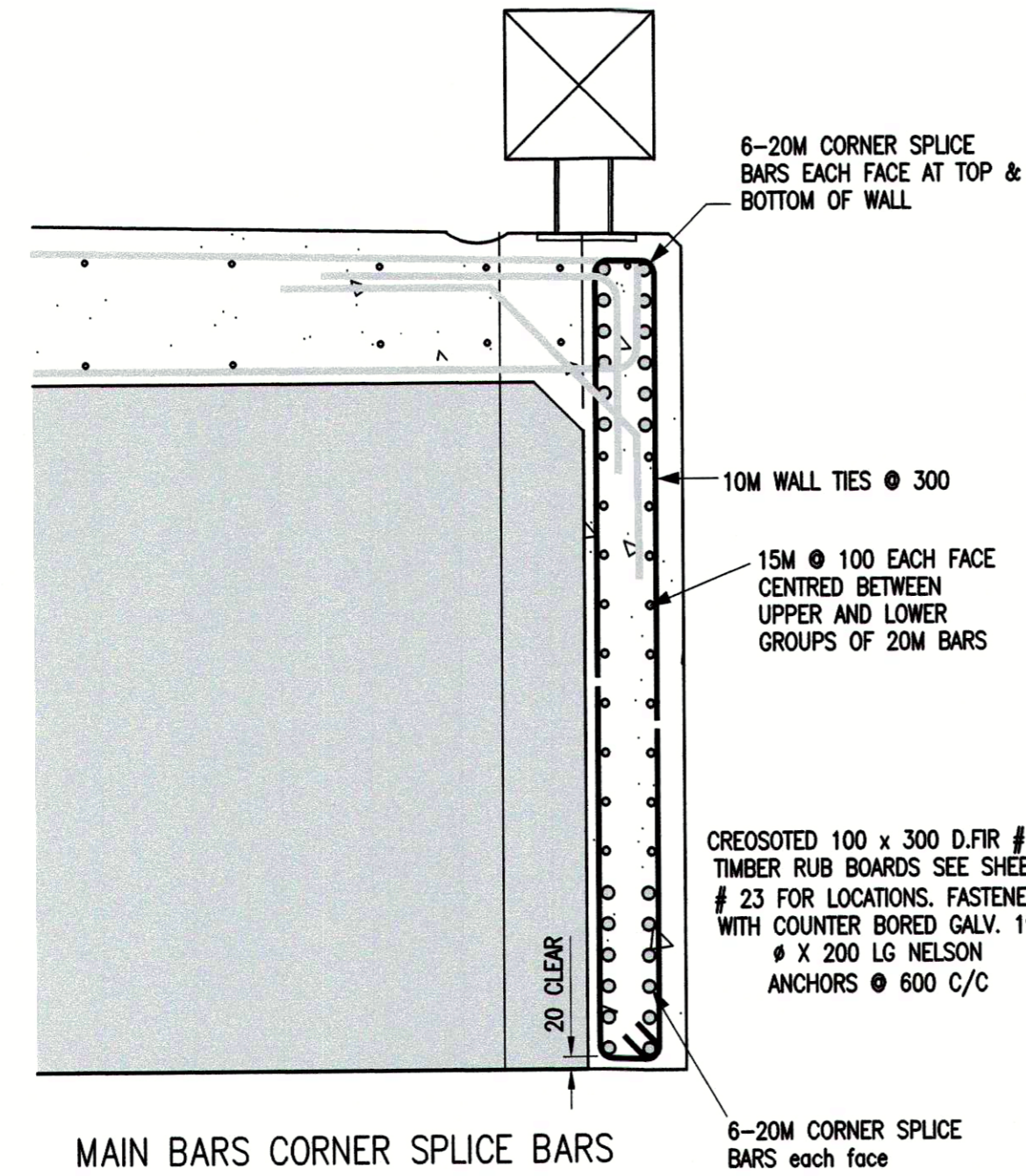
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date	2017-02-17	
drawn	EB	dessiné
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approved		approuvé
date		
Tender		Soumission
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project number	no. du projet	
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drawing no.	no. du dessin	



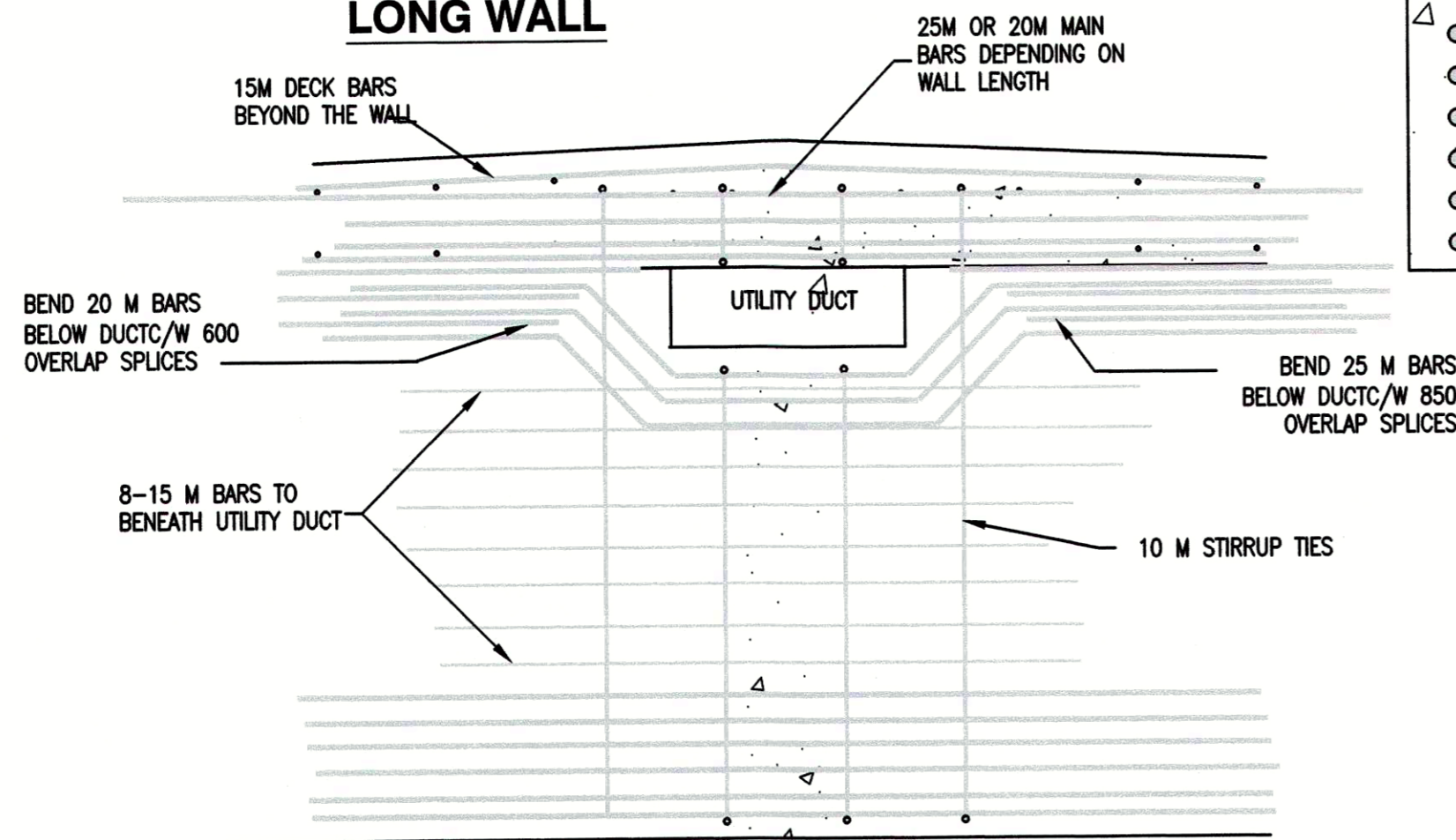
WALL REINFORCING AND CONCRETE AT CORNERS
TRANSVERSE WALL



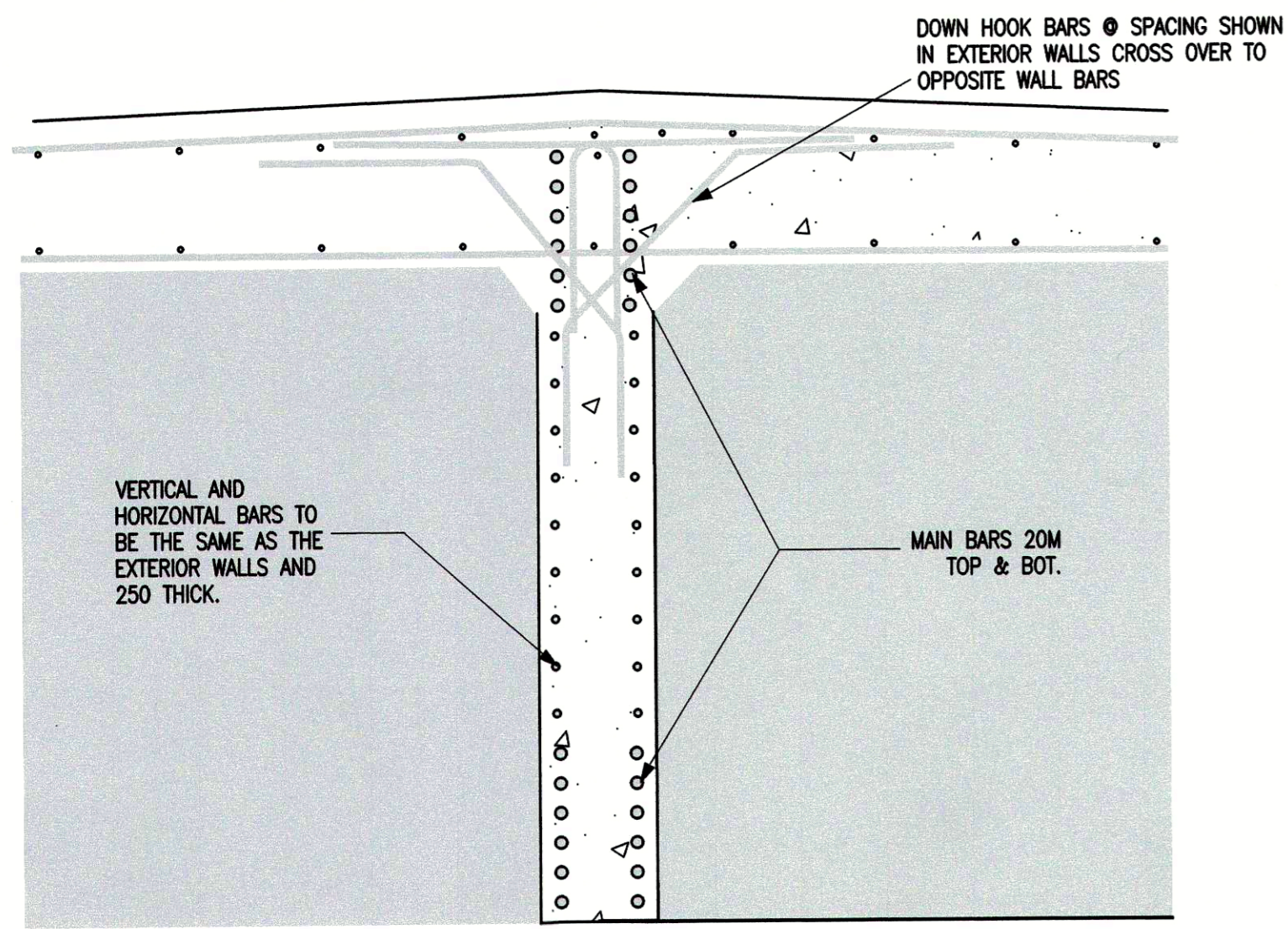
BLOCK OUT - EXTERIOR WALLS



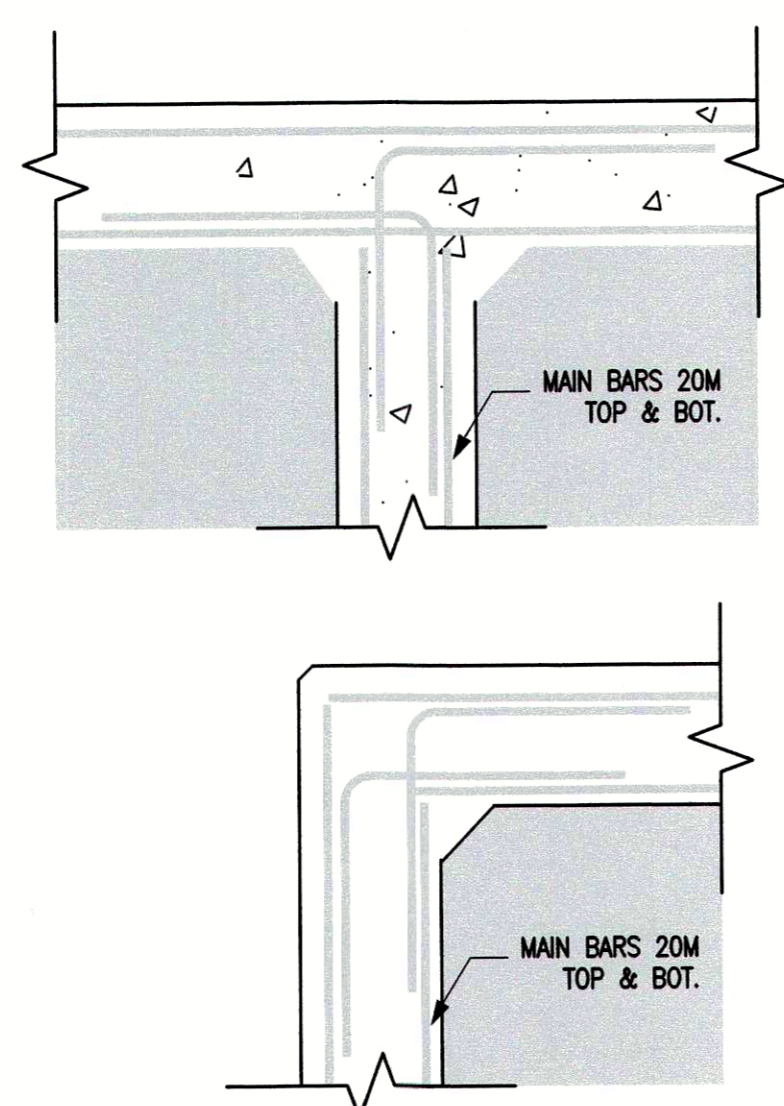
LONG WALL



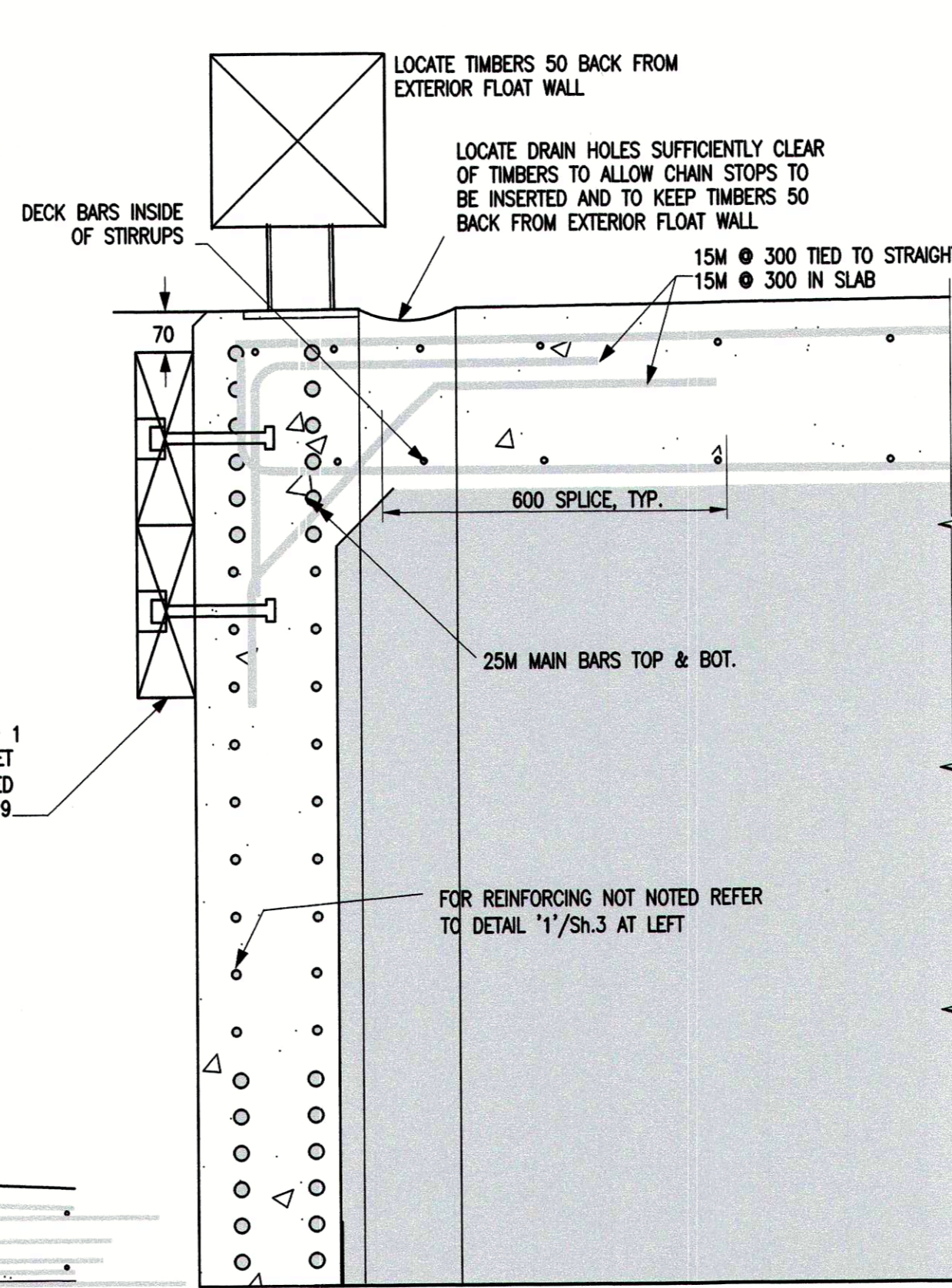
BLOCK OUTS THROUGH WALLS



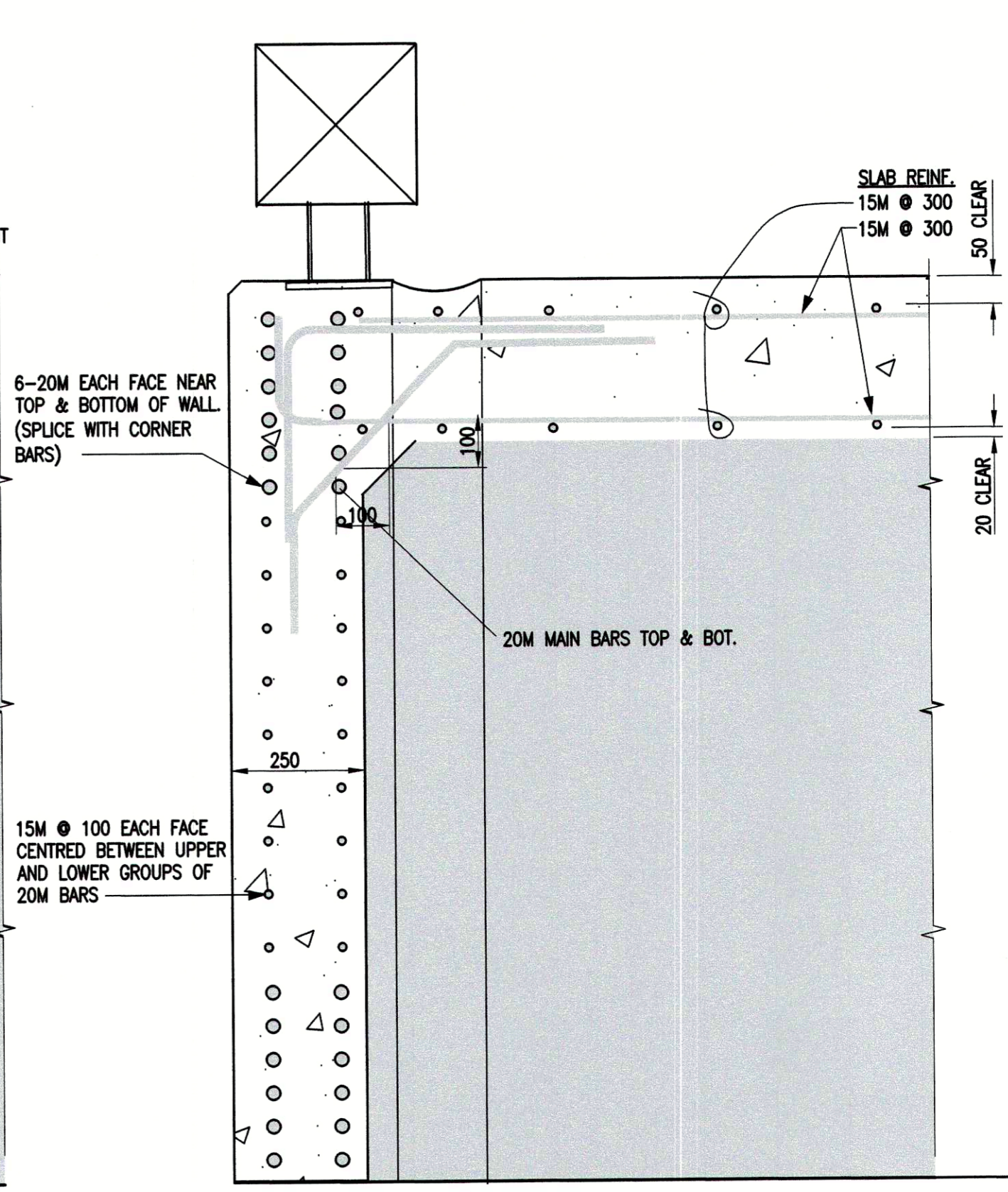
SECTION C
TYPICAL INTERIOR WALL REINFORCING BOTH LONG & TRANSVERSE WALLS



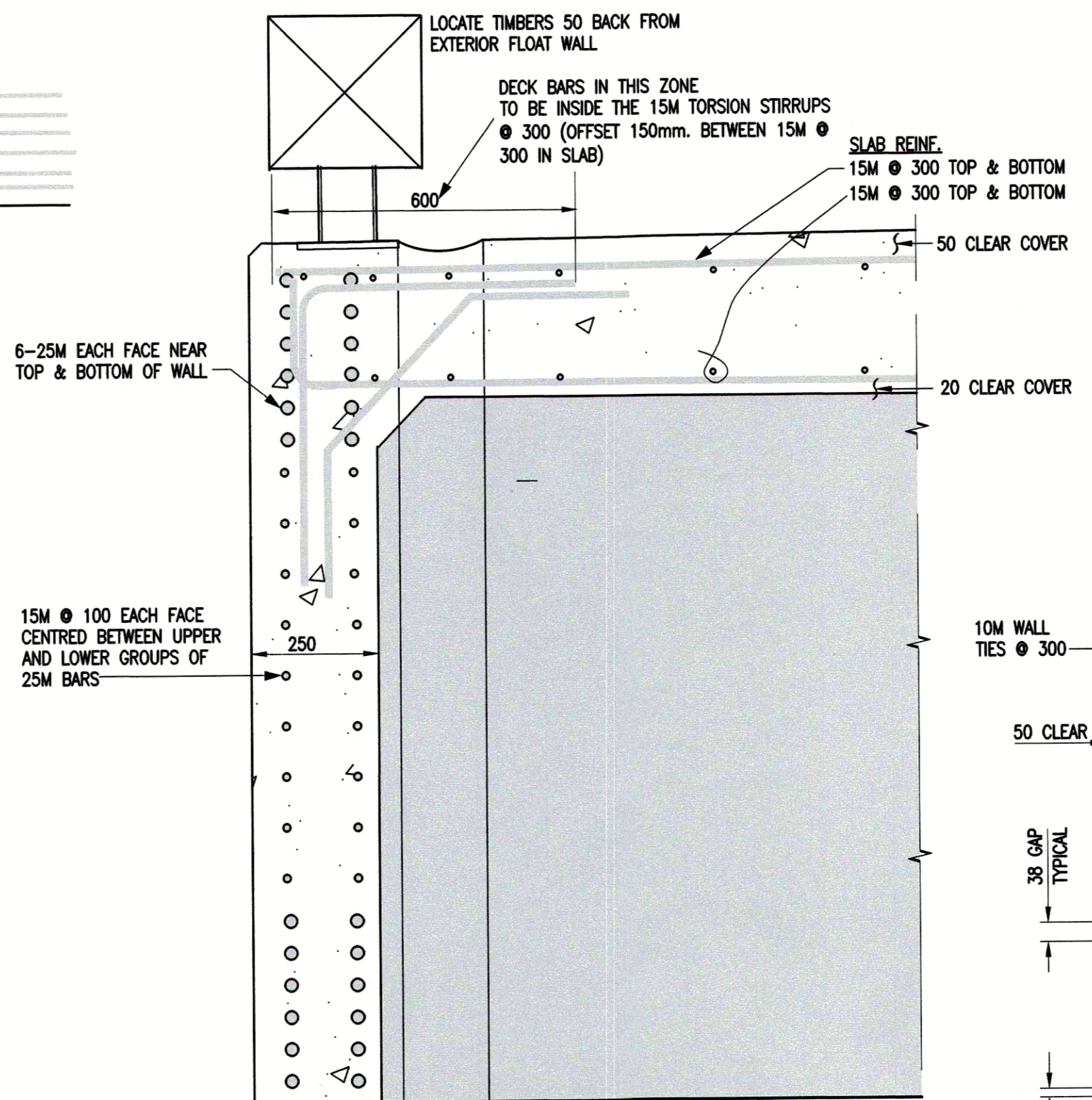
CORNER SPLICE BARS FOR MAIN BARS - PLAN



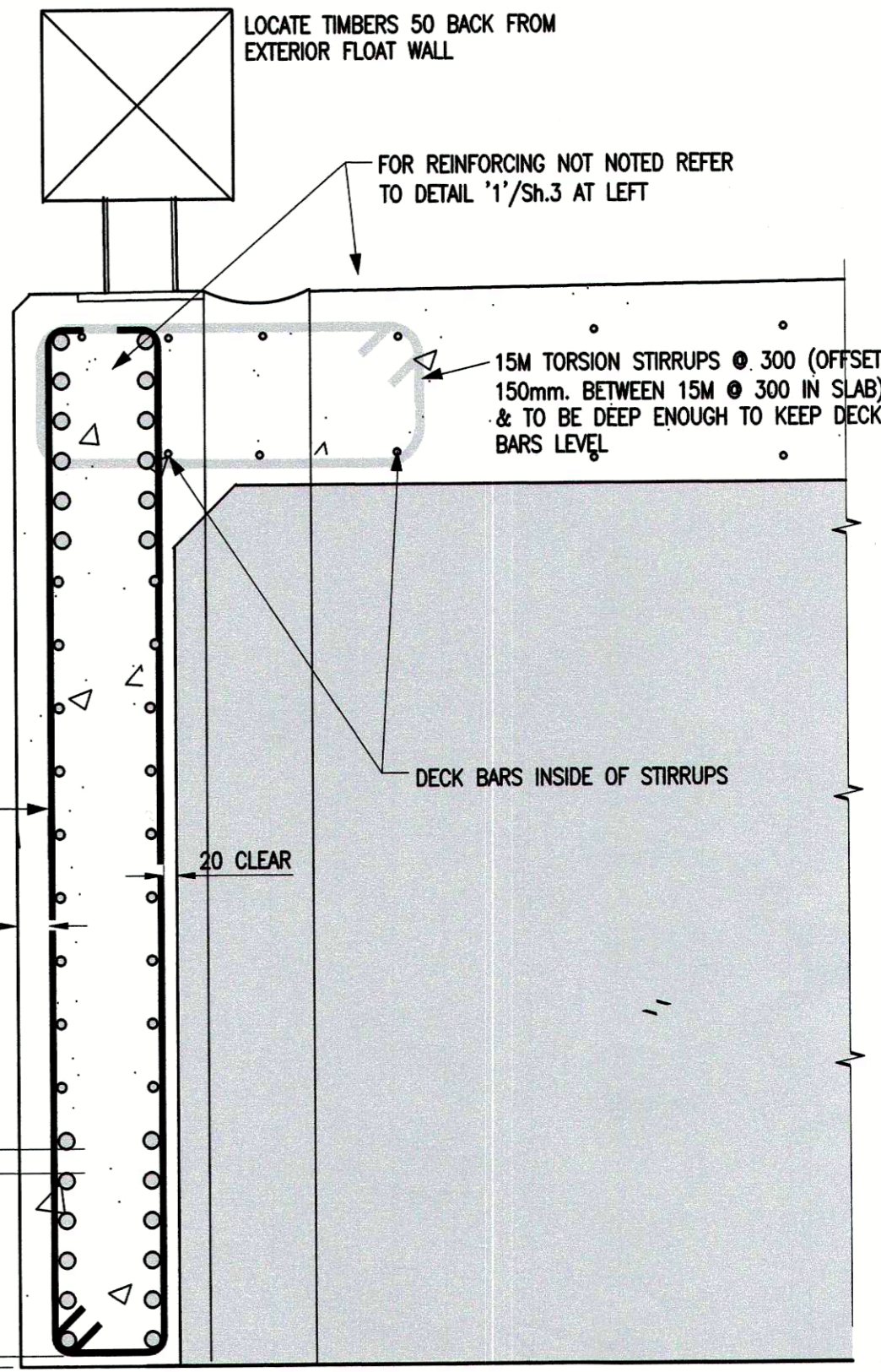
DETAIL 3
 SCALE 1:10 (TYPICAL FOR LONG WALLS)



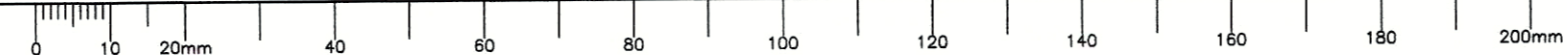
SECTION A C
 SCALE 1:10 (TYPICAL FOR SHORT WALLS)



DETAIL 1
 SCALE 1:10 (TYPICAL FOR LONG WALLS)

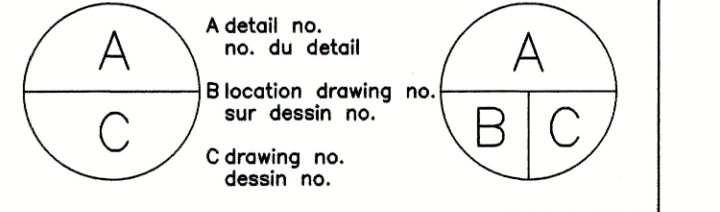


DETAIL 2
 SCALE 1:10 (TYPICAL FOR LONG WALLS)





1	ISSUED FOR TENDER	9/3/17
revisions		date

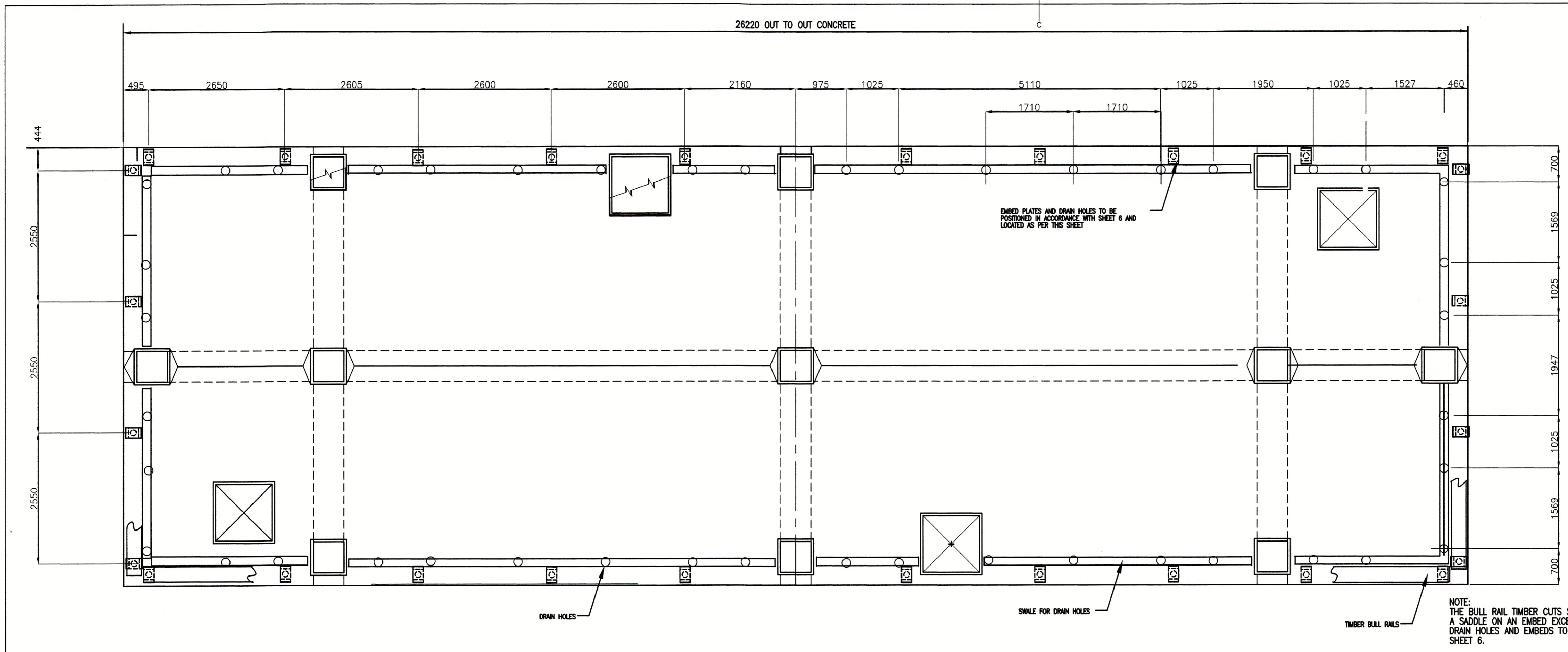


project / projet
FISHERIES AND OCEANS CANADA
REAL PROPERTY,
SAFETY AND SECURITY
STANDARD CONCRETE FLOAT
MODULE 26.22 m x 8.537m

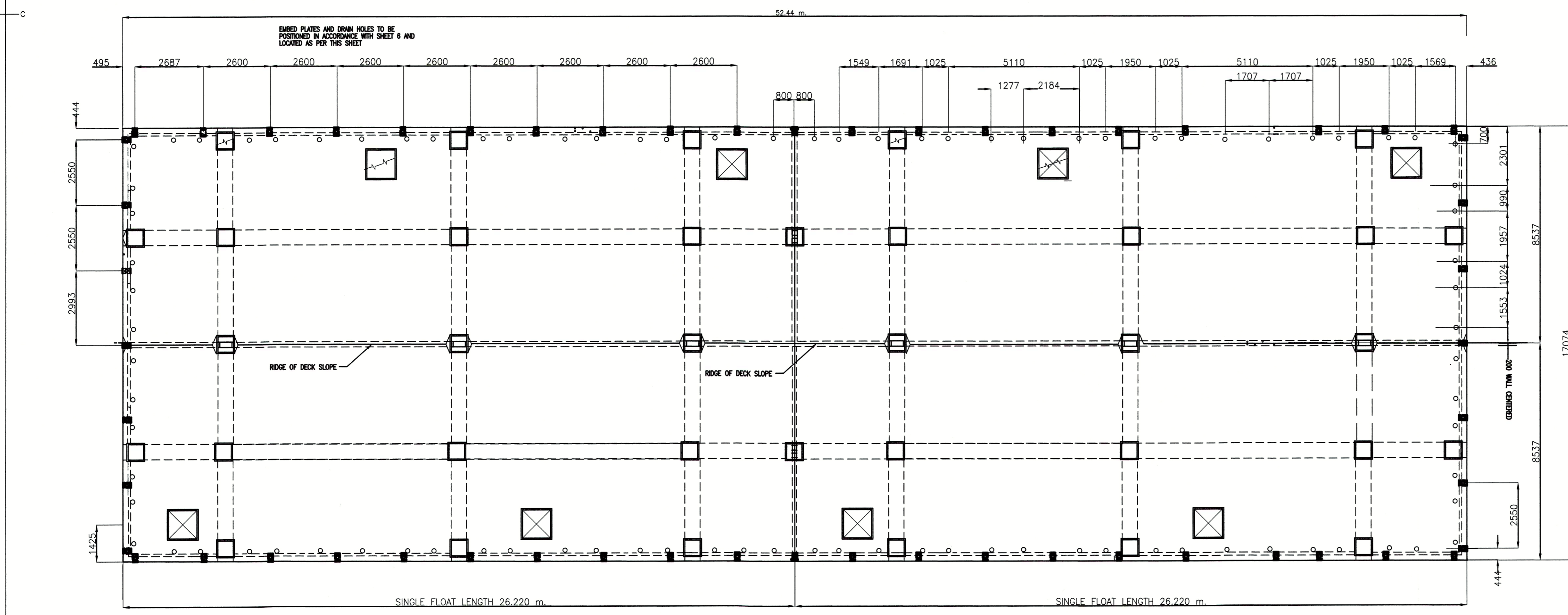
drawing / dessin
LOCATION OF DRAIN HOLES & EMBEDS - STD

designed GJG	concu
date 2017-02-17	
drawn EB	dessine
date 2017-02-17	
approved	approuve
date	
Tender	Soumission
PWSC Project Manager / Administrateur de projets TPSGC	
project number / no. du projet	

TRN.VHWY03002-06
 drawing no. / no. du dessin
56134 - 0801 - CONCRETE FLOAT - SHEET 15

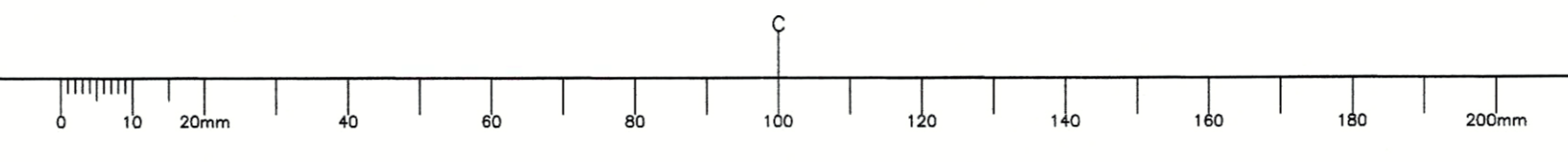


SINGLE FLOAT



QUAD TYPE II

Plot Scale: 1:1



PROJECT DESCRIPTION

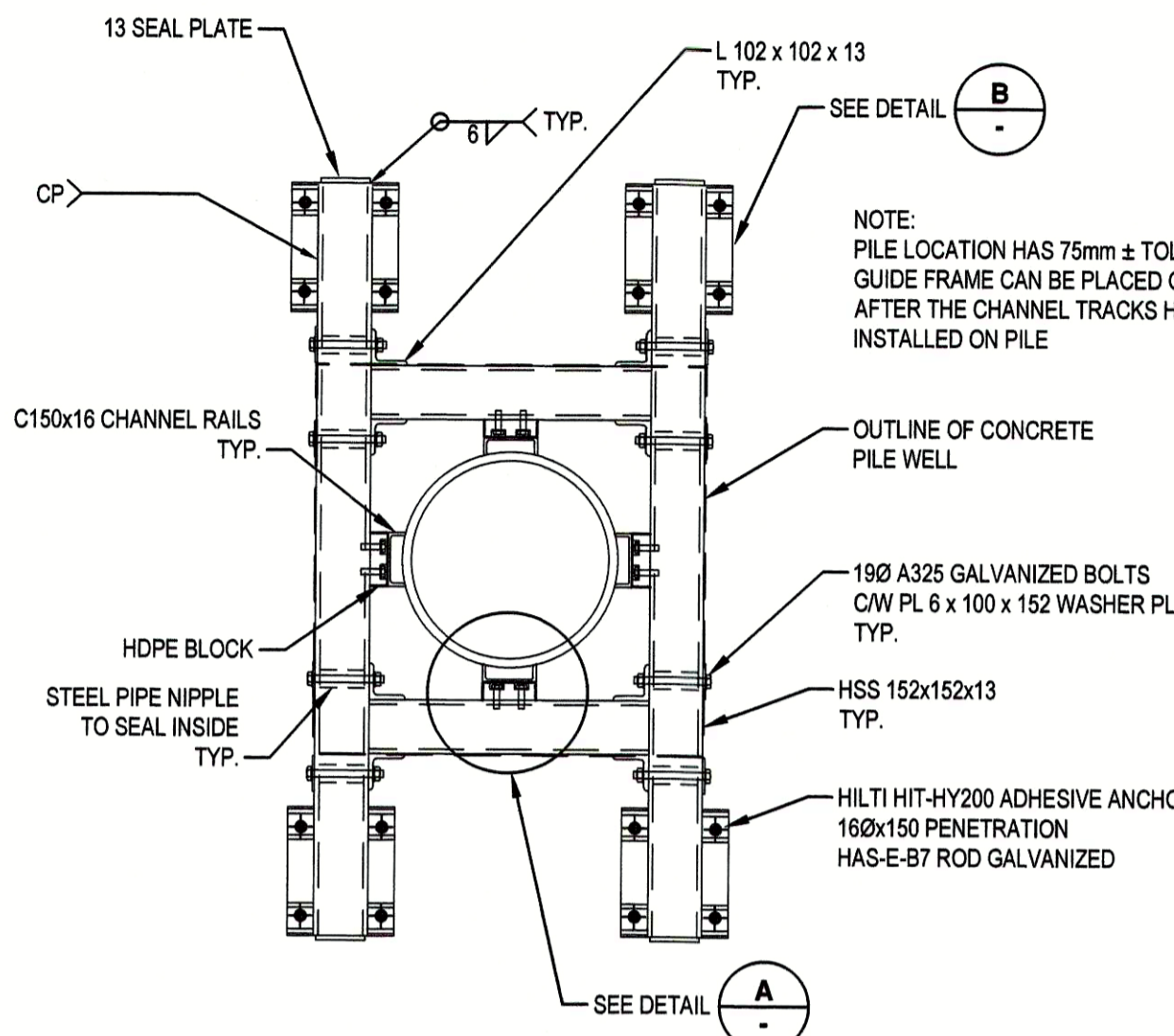
- 1.0 FISHERIES AND OCEANS CANADA DEPARTMENT OF REAL PROPERTY, SAFETY AND SECURITY (RPSS) REQUIRES A CONCRETE FLOAT 28.22 METERS LONG BY 17.074 METERS WIDE AND 1.895 METERS DEEP TO MOOR THE COAST GUARD VESSELS AT THE KITSILANO COAST GUARD STATION AT THE ENTRANCE OF FALSE CREEK OFF OF ENGLISH BAY.
- 2.0 THE FLOAT WAS SELECTED FROM THE DESIGN DRAWING SET FOR STANDARD CONCRETE FLOATS DESIGNED BY TETRA TECH FOR SMALL CRAFT HARBOURS DEPARTMENT OF FISHERIES AND OCEANS CANADA SEVERAL YEARS AGO.
- 3.0 THE FLOAT IS IDENTIFIED AS A DUAL TYPE II AND HAS BEEN MODIFIED TO SUIT THE SITE AND MOORING ARRANGEMENT THAT WAS SELECTED BY RPSS. THIS FLOAT IS DEPICTED ON SHEET 24 OF THIS TENDER PACKAGE.
- 4.0 RPSS ALSO REQUIRED TETRA TECH TO DESIGN THE MOORING PILES AND PILE GUIDES AND THESE DETAILS ARE SHOWN ON THIS SHEET.

DESIGN CRITERIA

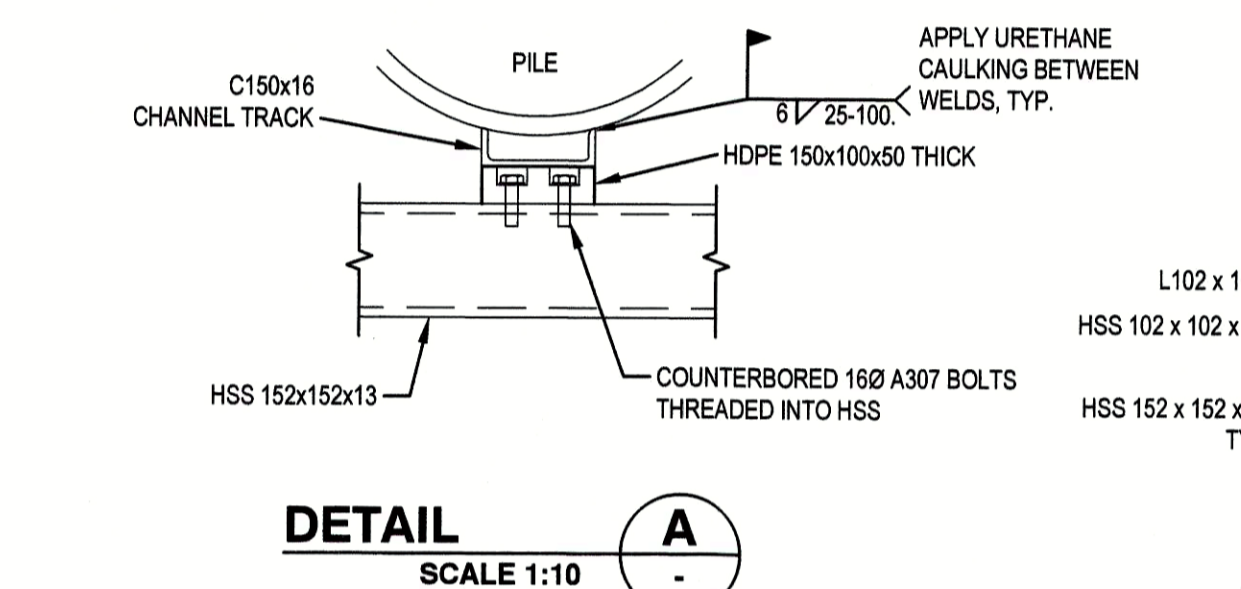
- 5.0 THE STRUCTURAL DESIGN OF THE CONCRETE FLOAT HAS NOT BEEN MODIFIED.
- 6.0 A WIND WAVE REPORT FOR A 1 IN 200 YEAR EVENT WAS PREPARED BY TETRA TECH THAT DETERMINED THE DESIGN WAVE TO BE 2.03 METERS IN HEIGHT AND A WAVE PERIOD OF 4.4 SECONDS.
- 7.0 TETRA TECH PERFORMED A HYDRODYNAMIC ANALYSES OF THE FLOAT WITH THE DESIGN WAVE THAT RESULTED IN A FORCE 28.8 KW/METER ACTING ON THE BEAM FACING THE NORTH WEST.
- 8.0 RPSS PROVIDED AS-BUILT DRAWINGS AND A BATHYMETRY DATED JANUARY 2017 THAT WAS USED BY TETRA TECH TO DESIGN THE MOORING PILES.
- 9.0 TETRA TECH RELIED ON A GEOTECHNICAL SITE INVESTIGATION TECHNICAL MEMO FROM A NEARBY SITE DATED OCTOBER 15, 2009 PREPARED BY EBA, NOW A PART OF TETRA TECH.
- 10.0 THE MOORING PILES AND PILE GUIDE STRUCTURAL FRAMING WERE DESIGNED IN ACCORDANCE WITH CSA S16-09 TENTH EDITION AND IN ACCORDANCE WITH CSA STANDARD A23.3-04 THIRD EDITION.
- 11.0 THE CONCRETE ANCHORS WERE DESIGNED IN ACCORDANCE WITH HILTI'S NORTH AMERICAN PRODUCT TECHNICAL GUIDE.
- 12.0 ALL WATER LEVELS ARE SHOWN IN METERS AND IN CHART DATUM WITH LOWEST TIDE SHOWN AS 0.0 METERS ELEVATION.
- 13.0 TIDE RANGE IS 5.5 METERS.
- 14.0 BERTHING FENDER SYSTEM SHALL BE PROVIDED BY RPSS.

TECHNICAL SPECIFICATIONS

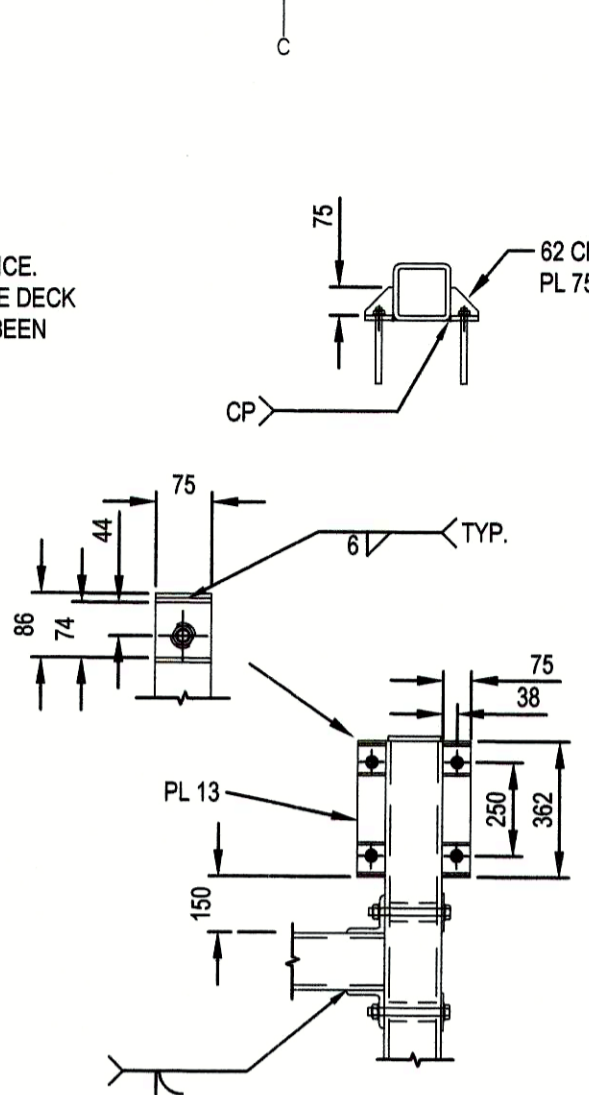
- 1.0 STRUCTURAL STEEL SHAPES AND PLATES TO CSA G40.20 / G40.21 GRADE 350W.
- 2.0 HSS STEEL TO CSA CLASS C G40.21 GRADE 350 W CATEGORY 4.
- 3.0 ALL STEEL TO BE CLEANED, PREPARED AND COATED IN ACCORDANCE WITH THE MARINE COATING MANUFACTURER SPECIFICATIONS FOR A TWO PART COATING.
- 4.0 STRUCTURAL BOLTS SHALL BE ASTM A325 GALVANIZED AND SIZED AS SHOWN ON THE DRAWINGS UNLESS OTHERWISE SHOWN AS COATED BOLTS.
- 5.0 ALL WELDING SHALL BE IN ACCORDANCE WITH CSA 48.13 AND CSA STANDARD W59-13.
- 6.0 THE CONTRACTOR SHALL SUBMIT FOR REVIEW WELD DATA PROCEDURES AND SHOP DRAWINGS TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
- 7.0 THE CONTRACTOR SHALL SUBMIT TO THE CONSULTANT DOCUMENTARY PROOF THAT THE FABRICATOR IS QUALIFIED UNDER THE CANADIAN WELDING BUREAU AND ALL WELDERS WILL HAVE PROPER WELDING TICKETS FROM THE CANADIAN WELDING BUREAU UNDER CSA W47.1.
- 8.0 MINIMUM WELD SIZE IS 6 MM.
- 9.0 ALL WELDING MATERIALS SHALL CONFORM TO CSA W59-13. WELDING ELECTRODES SHALL CONFORM TO E48XX.
- 10.0 WELDING ELECTRODES SHALL BE 490 MPa AND SHALL BE LOW HYDROGEN ELECTRODES.
- 11.0 THE MOORING PILES SHALL BE IN ACCORDANCE WITH STANDARD A252 WITH A 610 MM DIAMETER AND A 19 MM THICK WALL AND HAVE A MINIMUM YIELD STRENGTH OF 345 MPa.
- 12.0 THE PILES ARE TO BE FITTED WITH TEETH TO DRILL THE PILE 3000 MM INTO THE BEDROCK AS SHOWN ON THIS SHEET.
- 13.0 DFO SHALL SELECT A CORROSION PROTECTION SERVICE FIRM TO DESIGN, SUPPLY AND INSTALL ANODES FOR EACH PILE TO BE AT LEAST 1 METER BELOW 0.0 METER WATER LEVEL.
- 14.0 THE PIPE PILES SHALL BE COATED WITH A TWO PART MARINE COATING ACCEPTABLE TO RPSS FROM THE MUDLINE TO THE TOP OF PILE.
- 15.0 TOP OF PILE TO BE ELEVATION 8.0 METERS AND TO BE CAPPED WITH A SHEET METAL CONE FASTENED APPROPRIATELY TO WITH STAND WINDS OF 75 KNOTS.
- 16.0 RPSS SHALL PROVIDE DIRECTION ON DESIGN LOCATIONS FOR THE PILE CENTERS.
- 17.0 THE PILE INSTALLATION TOLERANCE FROM DESIGN LOCATION IS 75 MM +/- AND STEEL CHANNELS SHALL BE STITCH WELDED TO THE PILES AFTER THE PILES HAVE BEEN SURVEYED TO DETERMINE OUT OF PLUMB MEASUREMENTS TO PERMIT THE CHANNELS TO BE TRIMMED TO PROVIDE VERTICAL TRACKING
- 18.0 THE STITCH WELDS ON THE STEEL CHANNEL TRACKS SHALL BE SEALED BETWEEN THE STITCHES WITH A POLYURETHANE CAULKING
- 19.0 THE CONTRACTOR SHALL USE THE POST INSTALL SURVEY OF THE PILES TO SET THE PILE GUIDES GEOMETRY TO ENSURE EVEN LOAD DISTRIBUTION TO ALL PILES
- 20.0 THE RUB PADS SHALL BE FABRICATED FROM HIGH DENSITY POLYETHYLENE PLASTIC PLATE WITH A MINIMUM COMPRESSIVE STRENGTH OF 20.68 MPa.
- 21.0 RPS SHALL ISSUE THE TECHNICAL SPECIFICATIONS FOR THE CONCRETE FLOAT THAT WERE PREPARED BY TETRA TECH FOR THE ORIGINAL DESIGN OF THE STANDARD CONCRETE FLOATS.
- 22.0 THE CONTRACTOR SHALL SCAN THE CONCRETE SURFACES WITH AN ULTRASONIC DEVICE TO LOCATE THE REINFORCING STEEL BARS TO AVOID CUTTING THE BARS WHEN INSTALLING THE ADHESIVE ANCHORS FOR PILE GUIDES, DECK MOUNTED EQUIPMENT OR ENCLOSURES WITH HAMMER DRILLS AS CORE DRILLS ARE NOT PERMITTED.



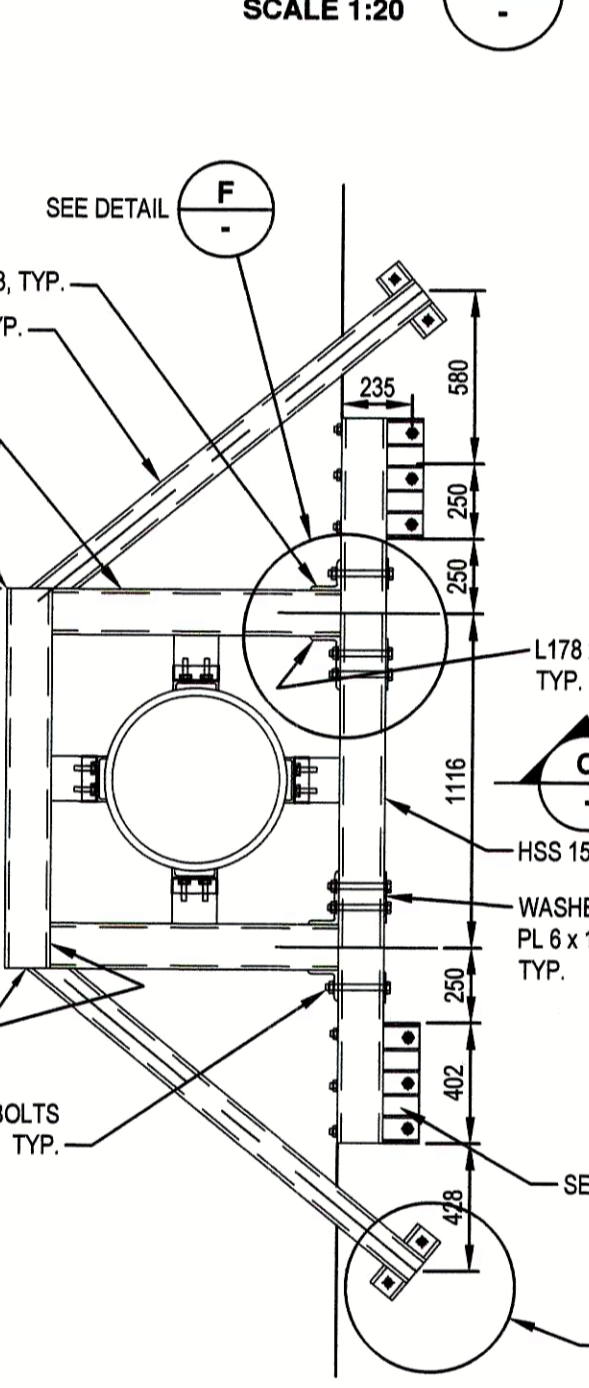
INBOARD PILE GUIDE



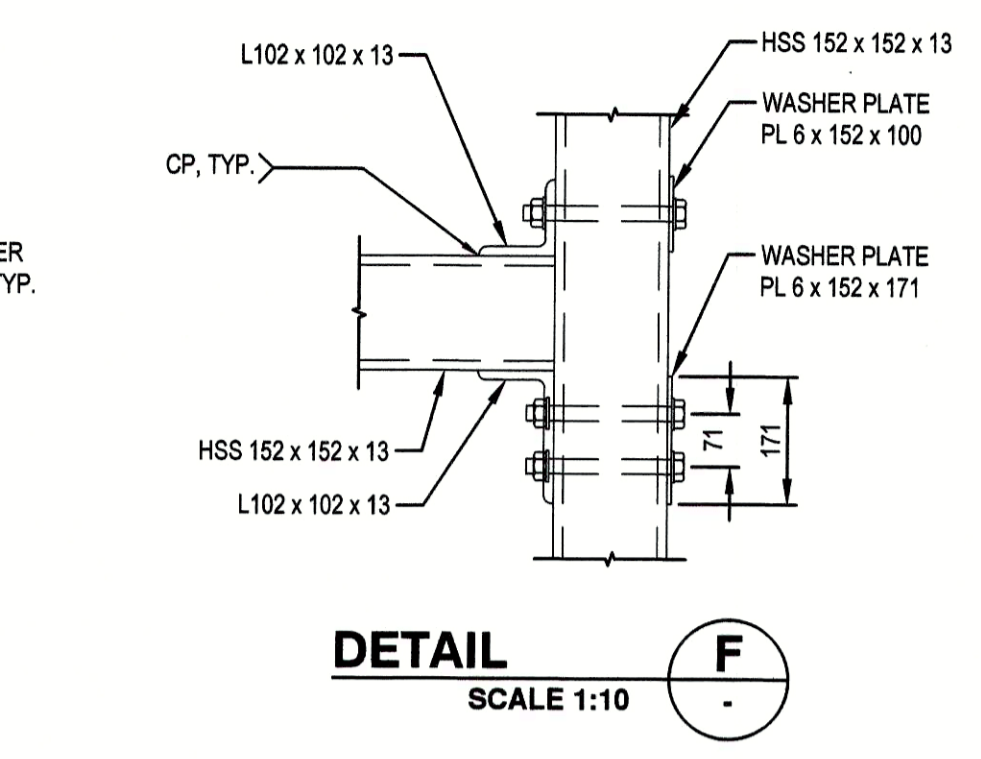
DETAIL A SCALE 1:10



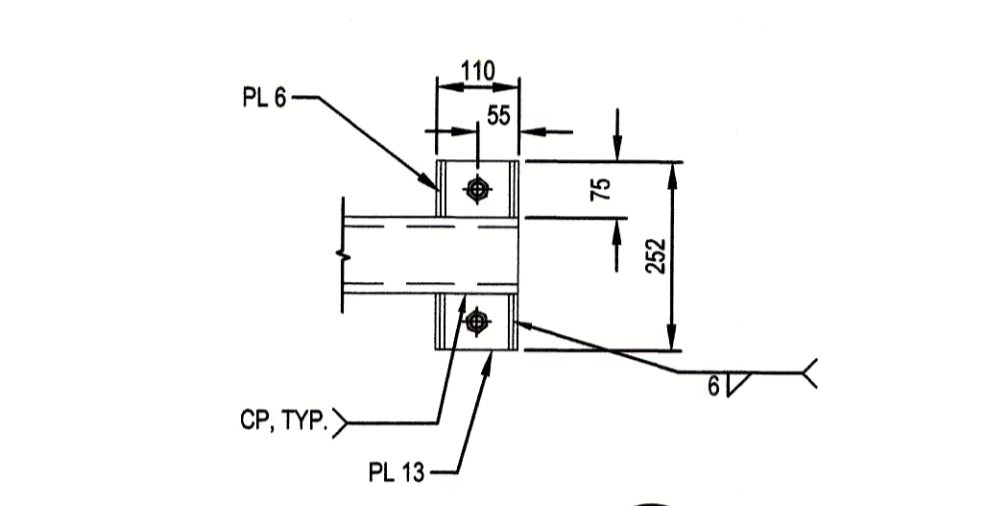
DETAIL B SCALE 1:20



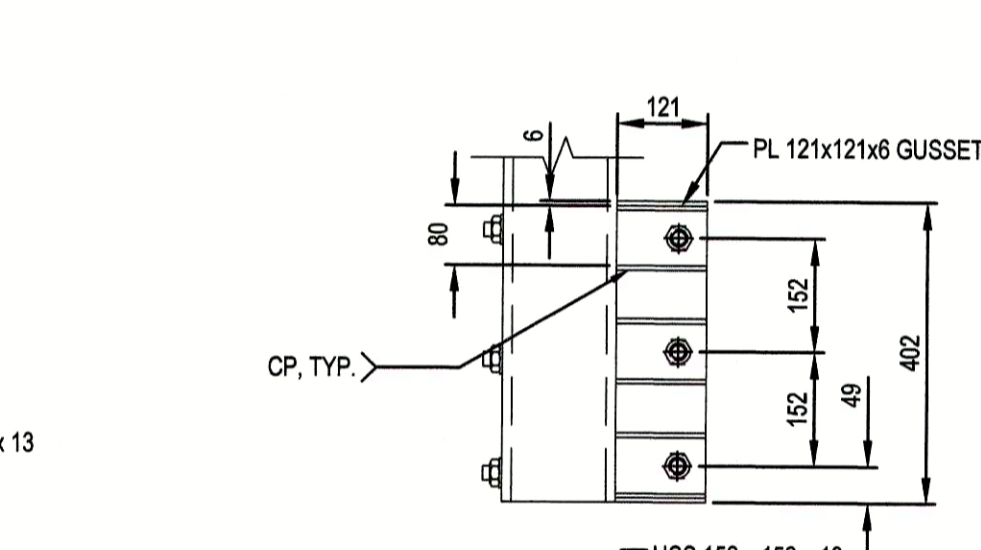
OUTBOARD PILE GUIDE



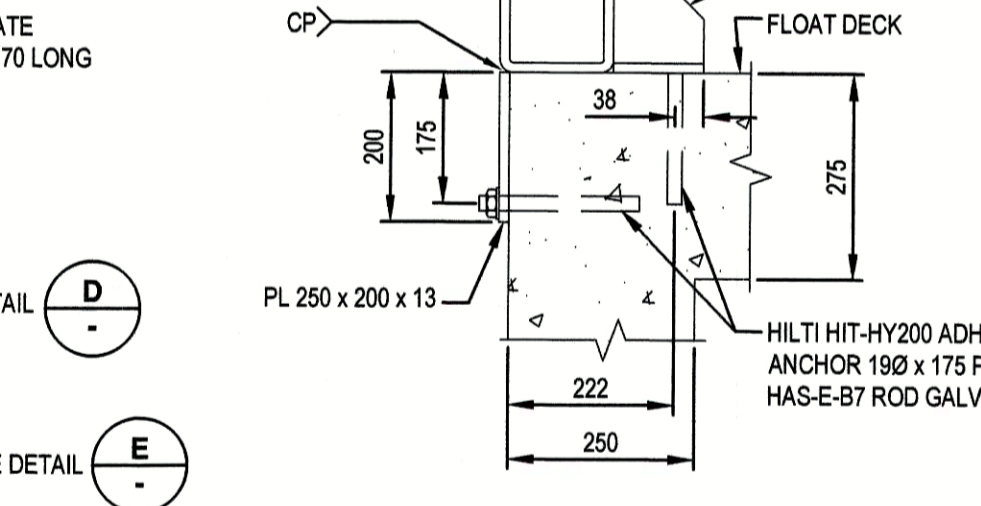
DETAIL F SCALE 1:10



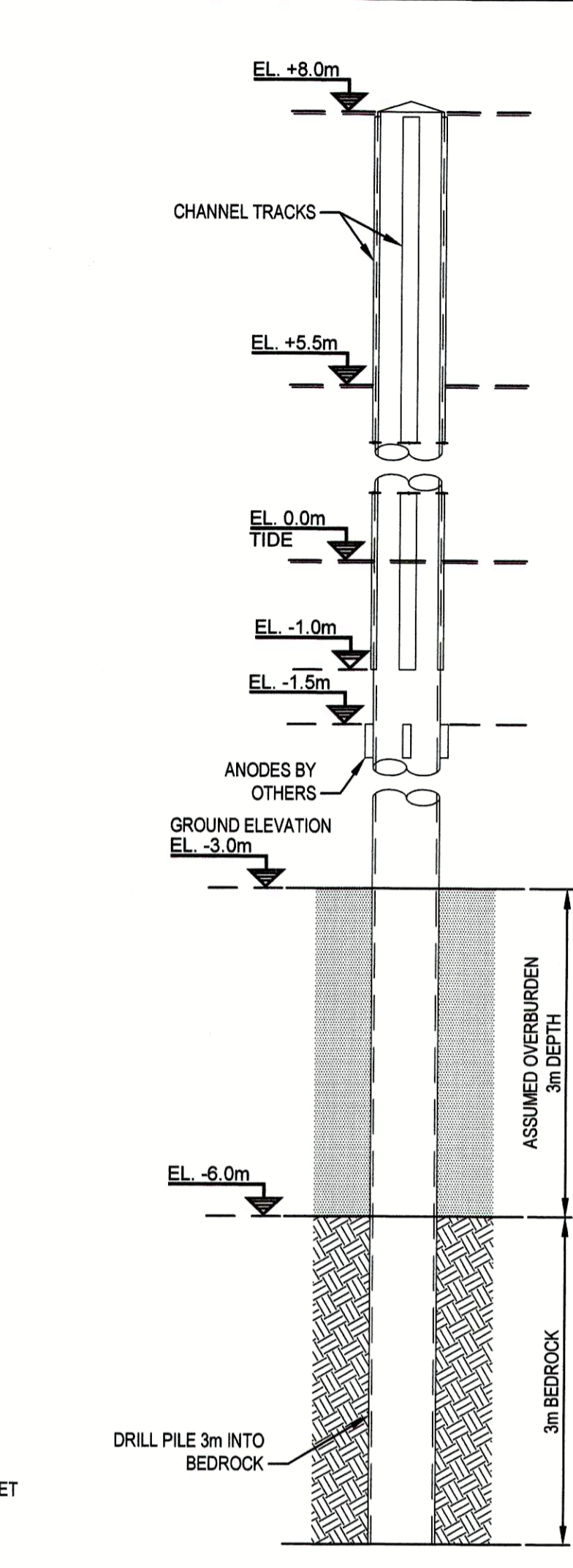
DETAIL E SCALE 1:10



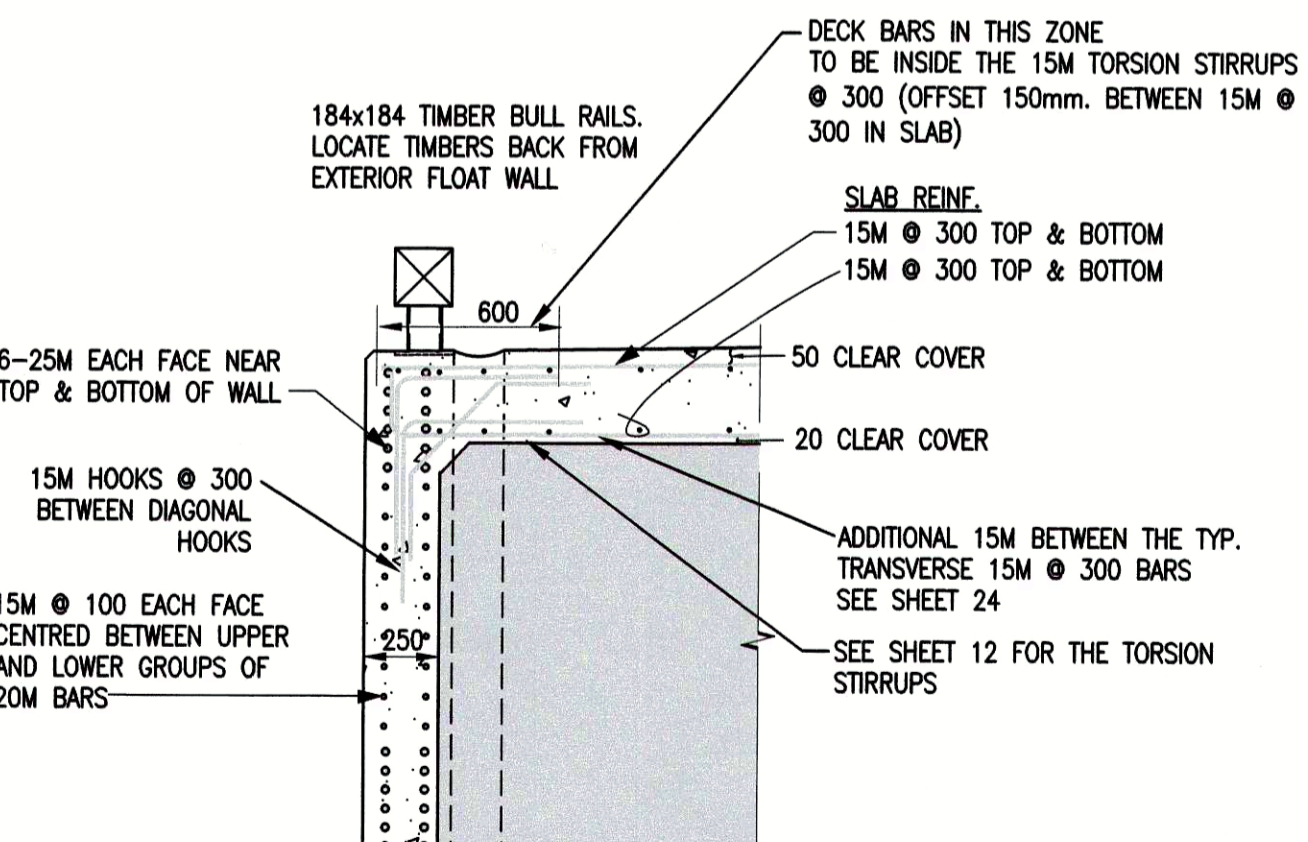
DETAIL D SCALE 1:10



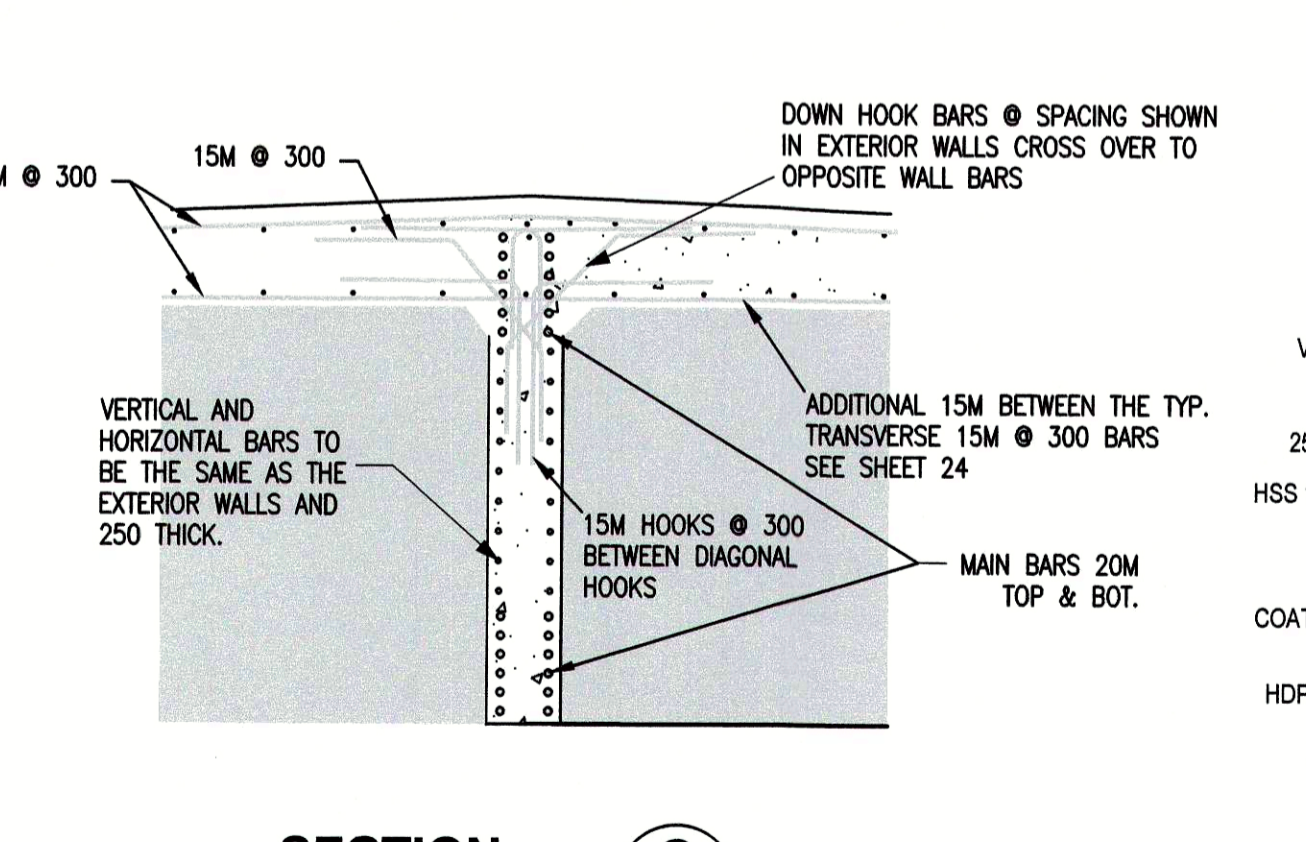
DETAIL C SCALE 1:10



PILE DETAIL

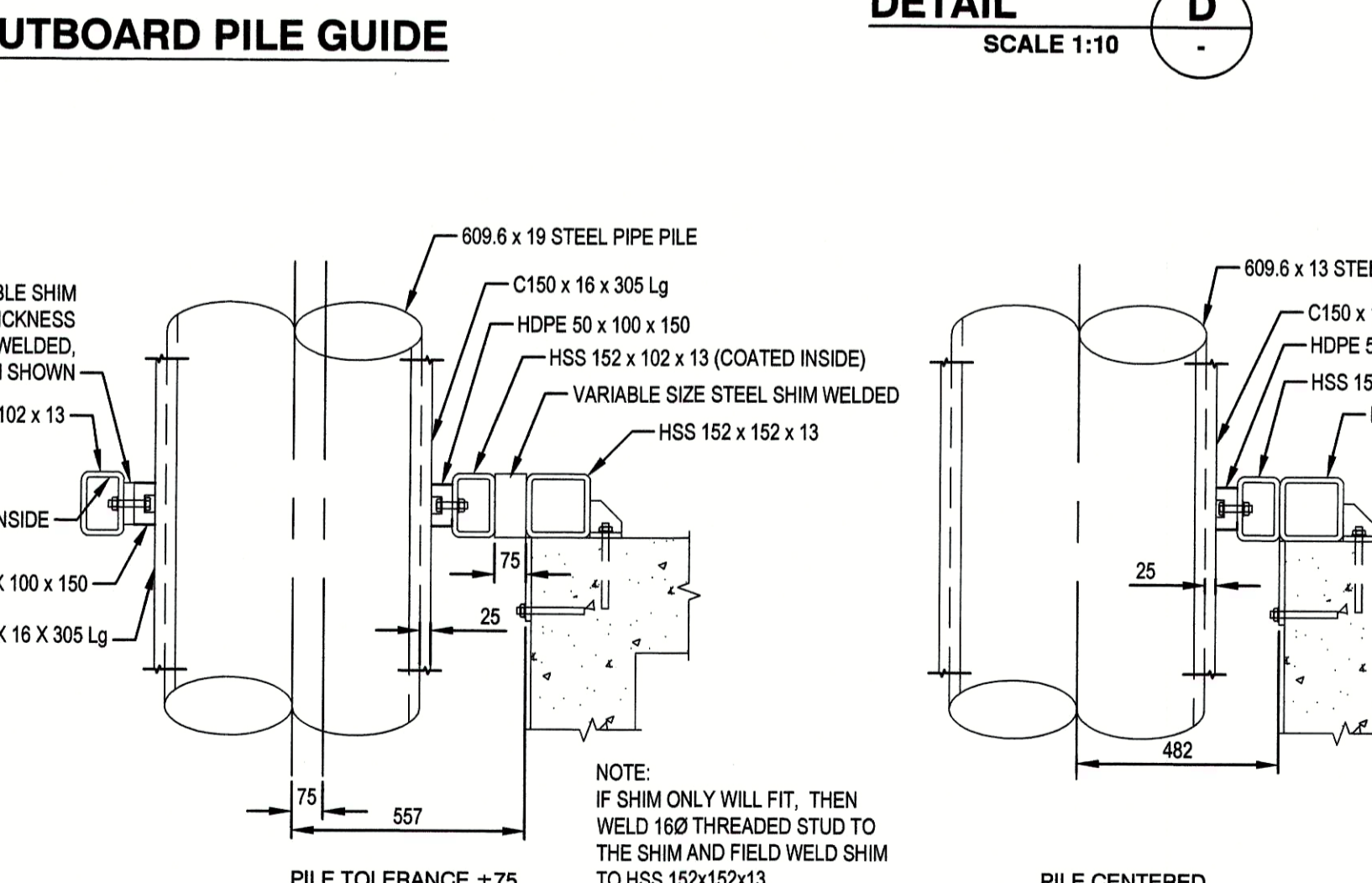


DETAIL 1 SCALE 1:25



SECTION C SCALE 1:13

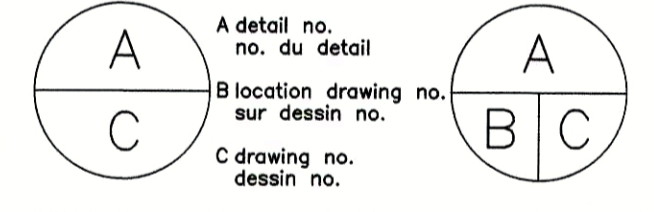
TYPICAL INTERIOR WALL REINFORCING LONG WALL



SECTION C SCALE 1:15



1	ISSUED FOR TENDER	9/3/17
revisions		date



project _____ projet _____

FISHERIES AND OCEANS CANADA REAL PROPERTY, SAFETY AND SECURITY

drawing _____ dessin _____

MOORING WELL DETAILS & LONGWALL REINFORCEMENT

DUAL TYPE II - STD FLOATS KITSILANO COAST GUARD

designed GJG concu

date 2017-02-17

drawn WSL dessine

date 2017-02-17

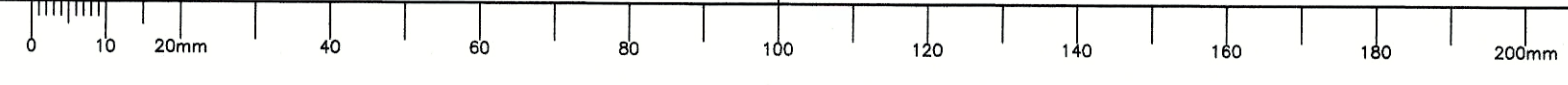
approved _____ approve

date _____

Tender Soumission

FWGSC Project Manager / Administrateur de projets TPSCC

project number / no. du projet
TRN.VHWY03002-06
drawing no. / no. du dessin
56134 - 0801 - R0 - CONCRETE FLOAT - SHEET 25





1	ISSUED FOR TENDER	9/3/17
revisions		date

A	A detail no. / no. du detail	A
B	B location drawing no. / sur dessin no.	B
C	C drawing no. / dessin no.	C

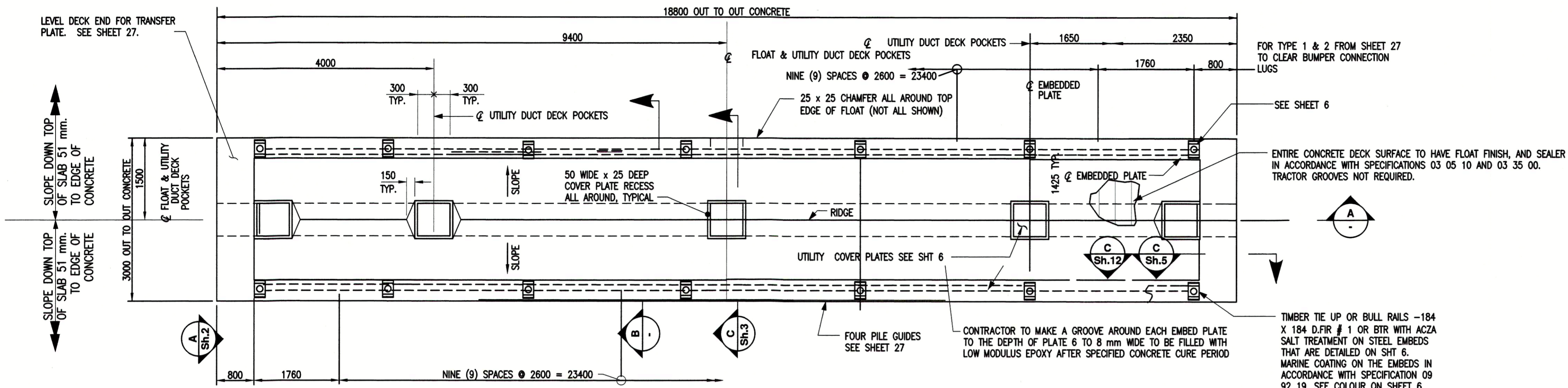
project: FISHERIES AND OCEANS CANADA
 REAL PROPERTY, SAFETY AND SECURITY

drawing: PLAN VIEW LAYOUT CONCRETE OUTLINE

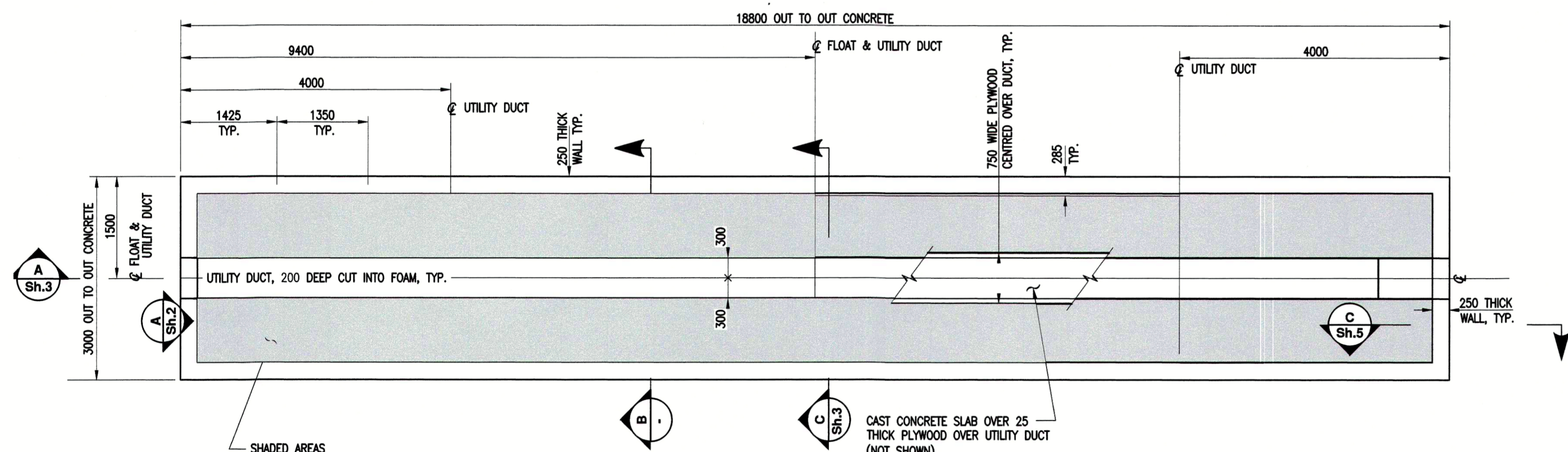
SINGLE 18.8m FLOAT
 KITSILANO COAST GUARD

designed GJG	concu
date 2017-02-15	
drawn WSL	dessine
date 2017-02-15	
approved	approuve
date	
Tender	Submission
PWGSC Project Manager / Administrateur de projets TPSGC	
project number / no. du projet	
TRN.VHWT03002-06	
drawing no. / no. du dessin	

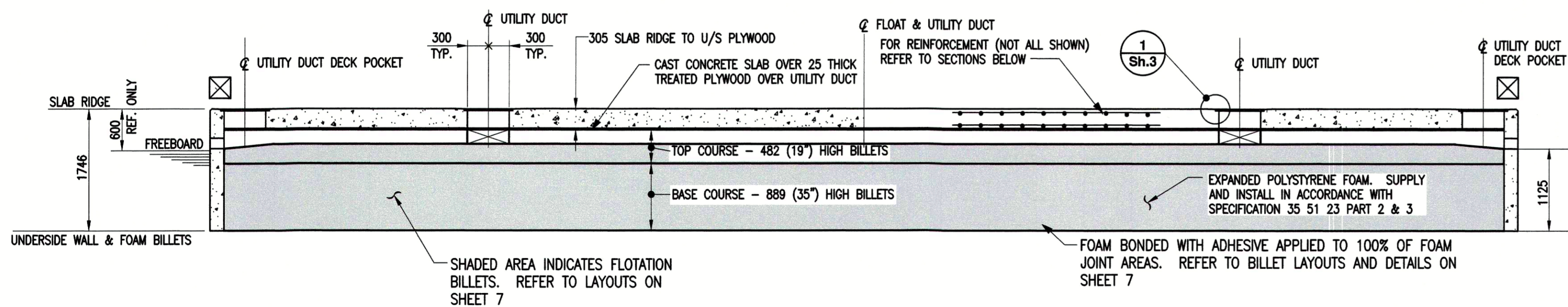
56134 - 0801 - R8 - CONCRETE FLOAT - SHEET 26



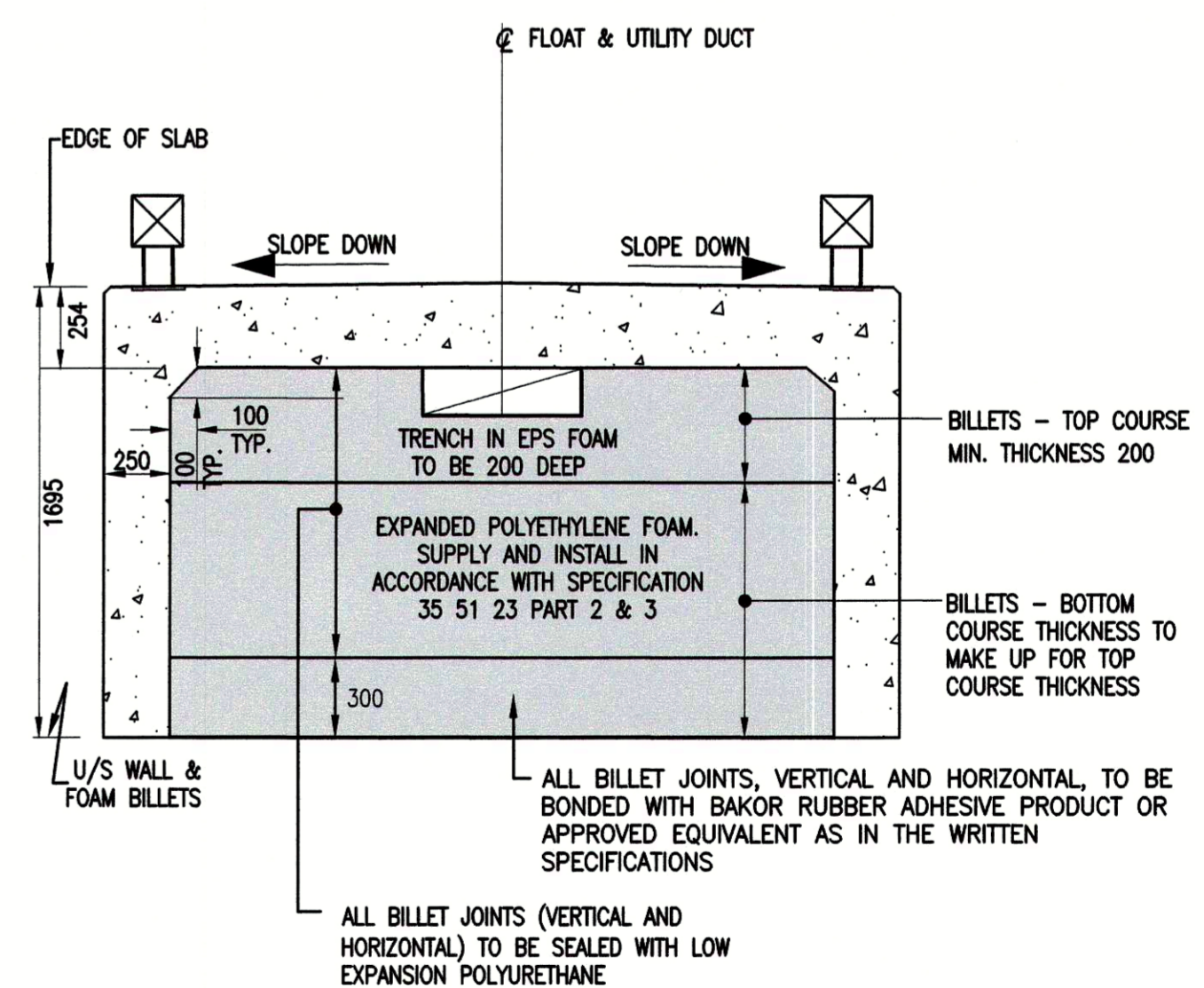
PLAN - TOP OF FLOAT
 SCALE 1:50



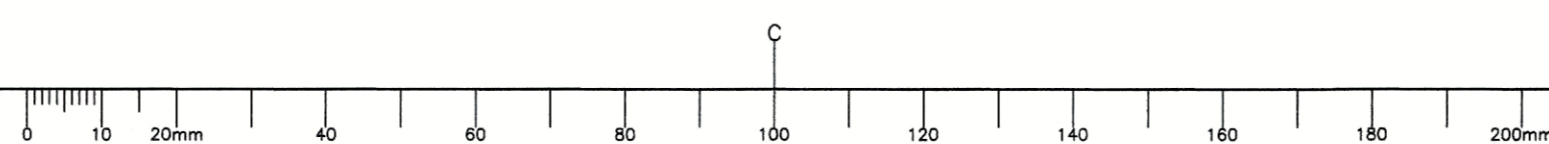
PLAN VIEW - SECTION TAKEN NEAR BOTTOM OF UTILITY DUCTS
 SCALE 1:50



SECTION A (TAKEN AT CENTRELINE OF FLOAT)
 SCALE 1:50



SECTION B FOR REINFORCEMENT, REFER TO DETAIL B, SHT 3
 SCALE 1:25



PROJECT DESCRIPTION

- FISHERIES AND OCEANS CANADA DEPARTMENT OF REAL PROPERTY, SAFETY AND SECURITY (RPSS) REQUIRES A CONCRETE FLOAT 18.8 METERS LONG BY 3.0 METERS WIDE AND 1.695 METERS DEEP TO PROVIDE A CONNECTION BETWEEN THE DUAL TYPE II FLOAT AND THE EXISTING CONCRETE FLOATS AT KITSILANO COAST GUARD STATION.
- A SINGLE FLOAT WAS SELECTED FROM THE DESIGN DRAWING SET FOR STANDARD CONCRETE FLOATS DESIGNED BY TETRA TECH FOR SMALL CRAFT HARBOURS DEPARTMENT OF FISHERIES AND OCEANS CANADA SEVERAL YEARS AGO.
- THE SINGLE FLOAT'S OVERALL DIMENSIONS WERE REVISED TO SUIT THE SIZE IN ITEM 1 ABOVE.
- THIS REVISED FLOAT IS DEPICTED ON SHEET 28.
- RPSS ALSO REQUIRED TETRA TECH TO REPLICATE DETAILS FROM THE PWGSC DESIGN DRAWINGS DATED 1993 FOR THE KITSILANO COAST STATION AND THE FOLLOWING DETAILS HAVE BEEN REPLICATED:
 - PILE GUIDES;
 - FENDERS; AND
 - TRANSFER PLATES.

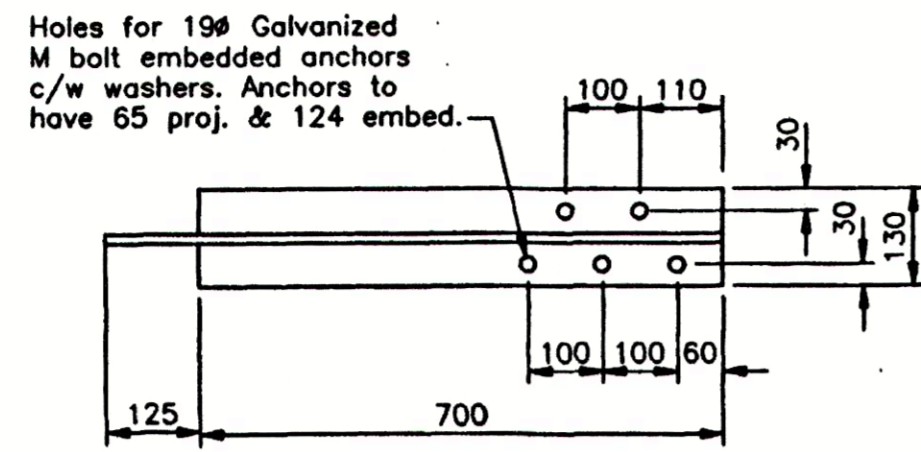
THESE DETAILS ARE SHOWN ON THIS SHEET 27 & 28.

DESIGN CRITERIA

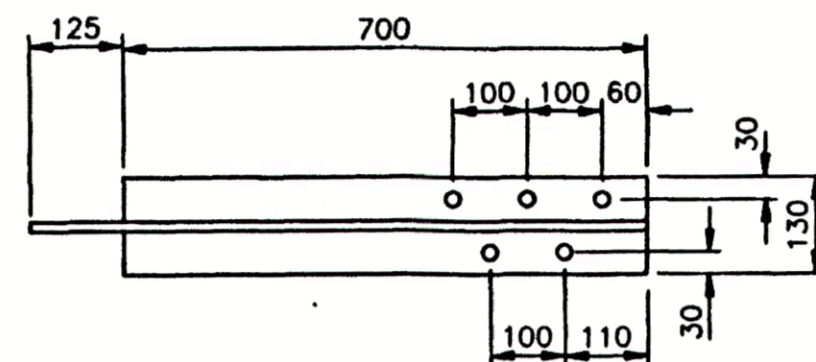
- STRUCTURAL ENGINEERING SERVICES FROM TETRA TECH WERE NOT REQUIRED AS DIRECTED BY RPSS FOR THIS FLOAT PROCUREMENT AND INSTALLATION.
- RPSS PROVIDED AS-BUILT DRAWINGS FOR THE LOCATIONS OF EXISTING MOORING PILES TO BE USED FOR THIS FLOAT.
- STEEL FABRICATION DETAILS ON THIS SHEET HAVE BEEN REPLICATED FROM PWGSC DRAWINGS DATED 1993

TECHNICAL SPECIFICATIONS

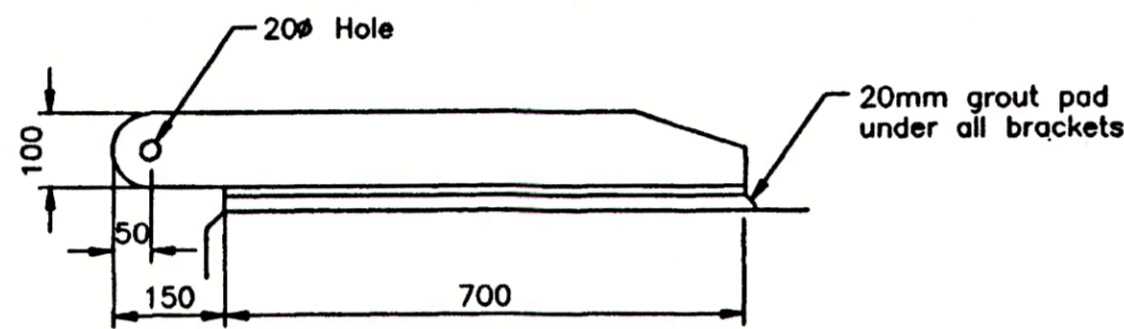
- STRUCTURAL STEEL SHAPES AND PLATES TO CSA G40.20 / G40.21 GRADE 350W.
- HSS STEEL TO CSA CLASS C G40.21 GRADE 350 W CATEGORY 4.
- ALL STEEL TO BE CLEANED, PREPARED AND COATED IN ACCORDANCE WITH THE MARINE COATING MANUFACTURER SPECIFICATIONS FOR A TWO PART COATING.
- STRUCTURAL BOLTS SHALL BE ASTM A 325 GALVANIZED AND SIZED AS SHOWN ON THE DRAWINGS UNLESS OTHERWISE SHOWN AS COATED BOLTS.
- ALL WELDING SHALL BE IN ACCORDANCE WITH CSA 48.13 AND CSA STANDARD W59-13.
- THE CONTRACTOR SHALL SUBMIT FOR REVIEW WELD DATA PROCEDURES AND SHOP DRAWINGS TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
- THE CONTRACTOR SHALL SUBMIT TO THE CONSULTANT DOCUMENTARY PROOF THAT THE FABRICATOR IS QUALIFIED UNDER THE CANADIAN WELDING BUREAU AND ALL WELDERS WILL HAVE PROPER WELDING TICKETS FROM THE CANADIAN WELDING BUREAU UNDER CSA W47.1.
- MINIMUM WELD SIZE IS 6 MM.
- ALL WELDING MATERIALS SHALL CONFORM TO CSA W59-13. WELDING ELECTRODES SHALL CONFORM TO E49XX.
- WELDING ELECTRODES SHALL BE 490 MPa AND SHALL BE LOW HYDROGEN ELECTRODES.
- RPSS SHALL ISSUE THE TECHNICAL SPECIFICATIONS FOR THE CONCRETE FLOAT RPSS THAT WERE PREPARED BY TETRA TECH FOR THE ORIGINAL DESIGN OF THE STANDARD CONCRETE FLOATS AS PART OF THIS TENDER PACKAGE
- THE CONTRACTOR SHALL SCAN THE CONCRETE SURFACES WITH AN ULTRASONIC DEVICE TO LOCATE THE REINFORCING STEEL BARS TO AVOID CUTTING THE BARS WHEN INSTALLING THE ADHESIVE ANCHORS FOR PILE GUIDES, OUTBOARD RUBBING TIMBERS, DECK MOUNTED FENDER SYSTEM OR EQUIPMENT AND ENCLOSURES WITH HAMMER DRILLS AND CORE DRILLS ARE NOT PERMITTED.
- EQUIVALENT POST INSTALL ADHESIVE ANCHORS WERE SELECTED FROM HILTI'S NORTH AMERICAN PRODUCT TECHNICAL GUIDE TO REPLACE CAST IN ANCHORS SHOWN ON THE AS-BUILTS.



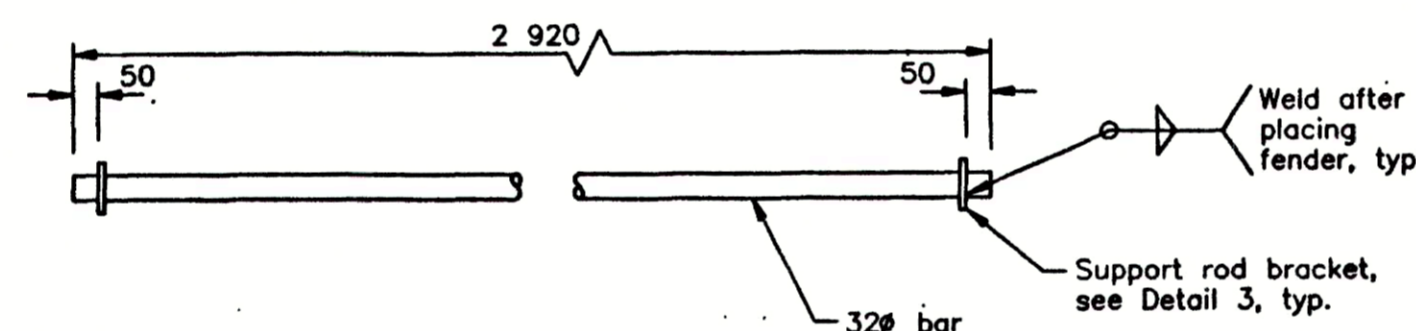
TYPE 1



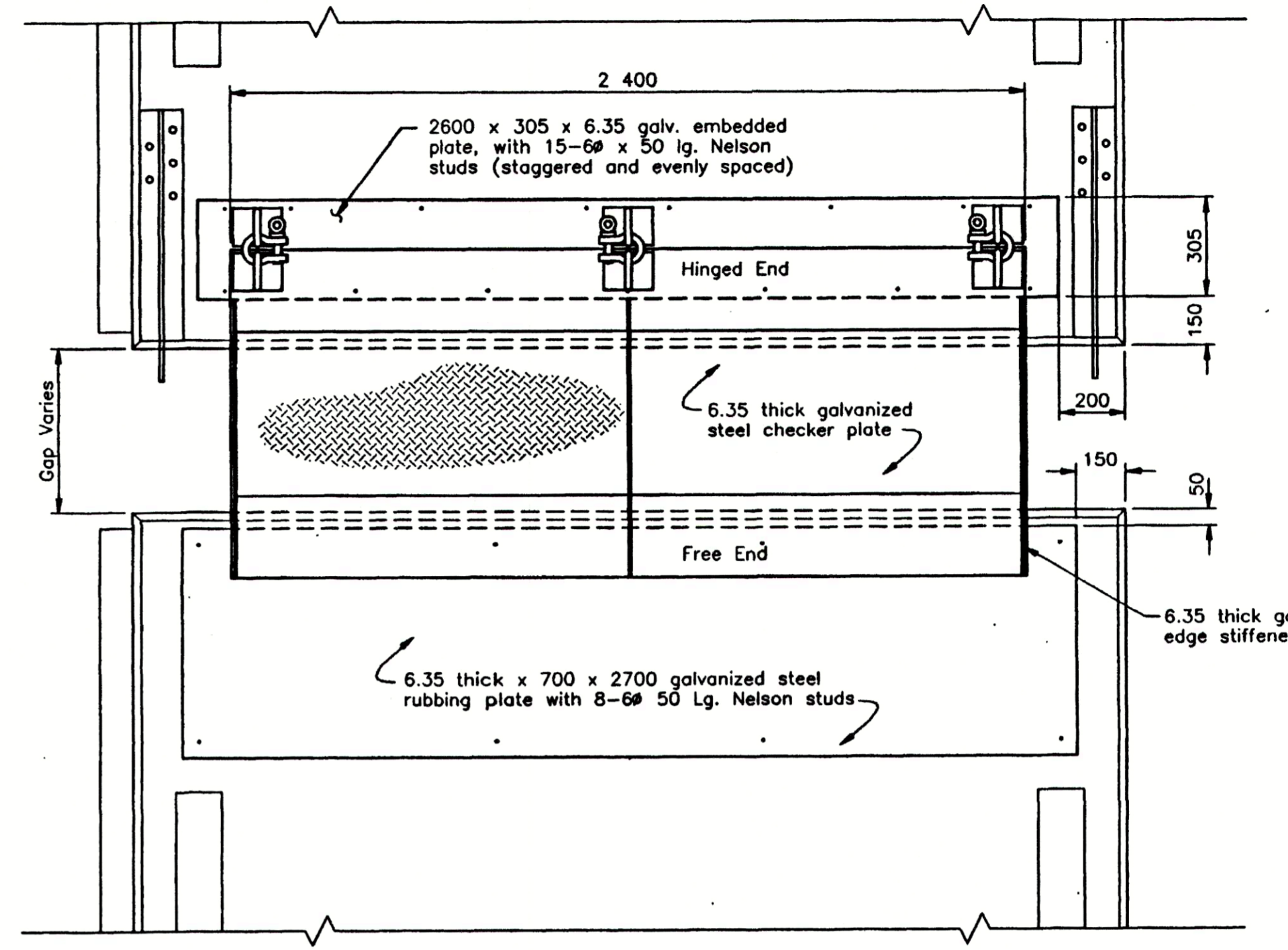
TYPE 2



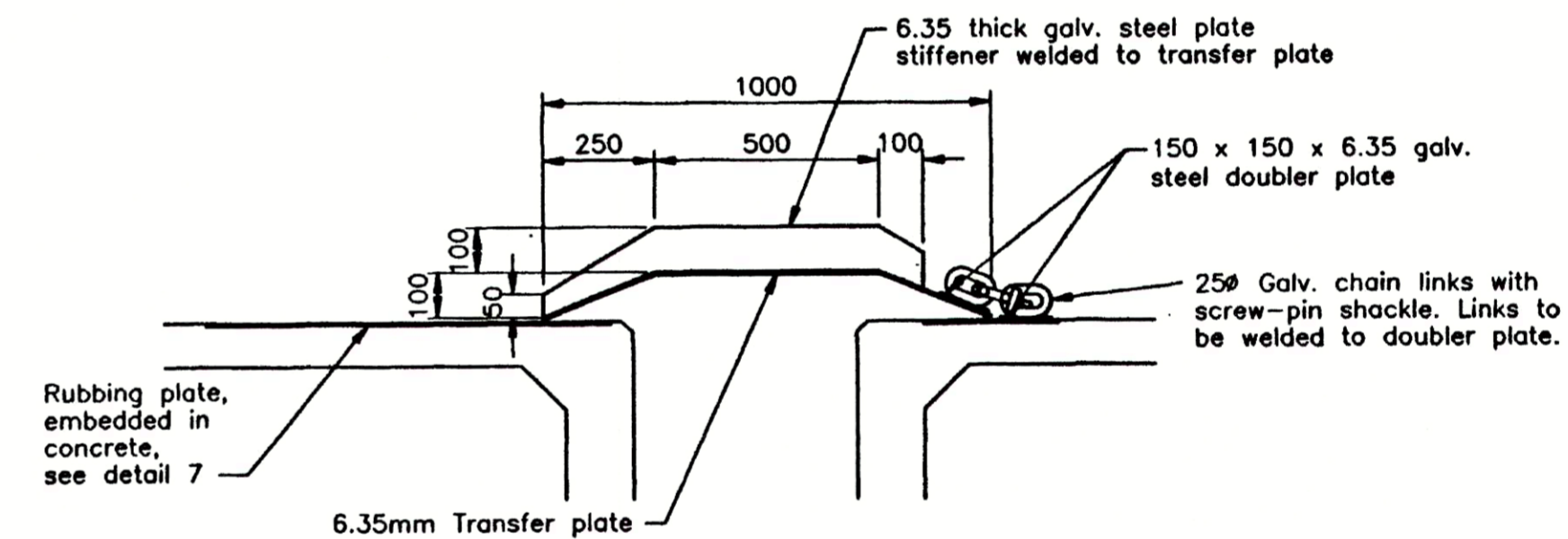
DETAIL 6
SCALE 1:10



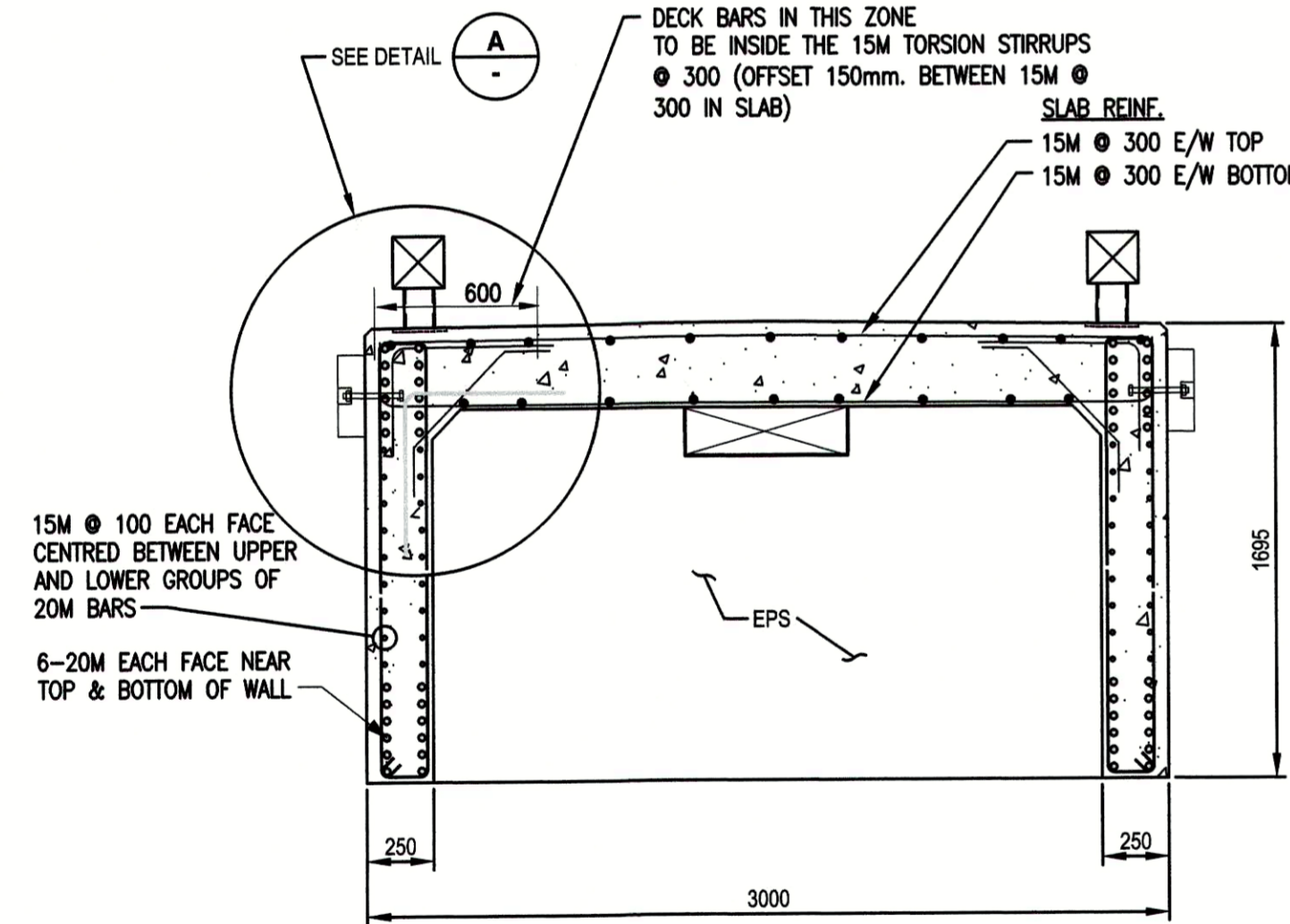
DETAIL 2
SCALE 1:15



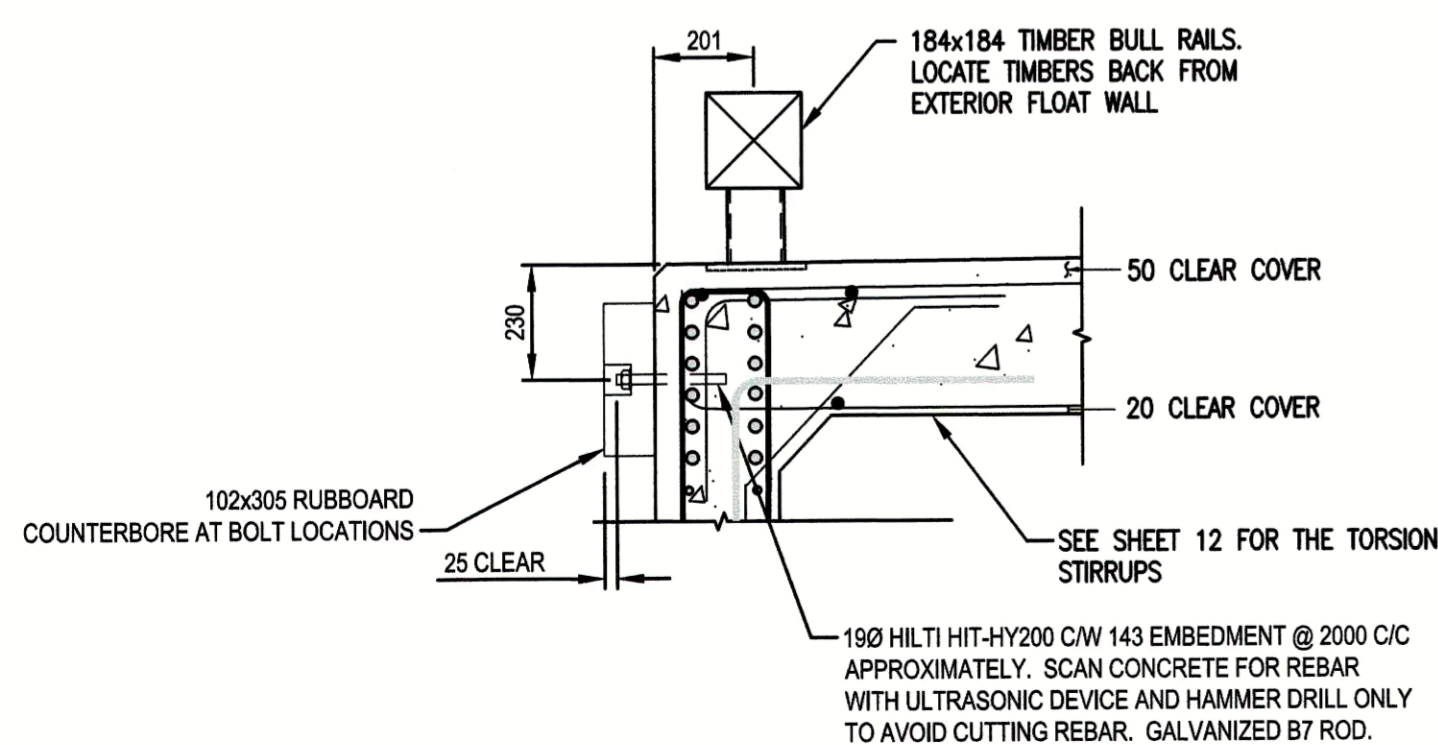
FLOAT TRANSFER PLATE



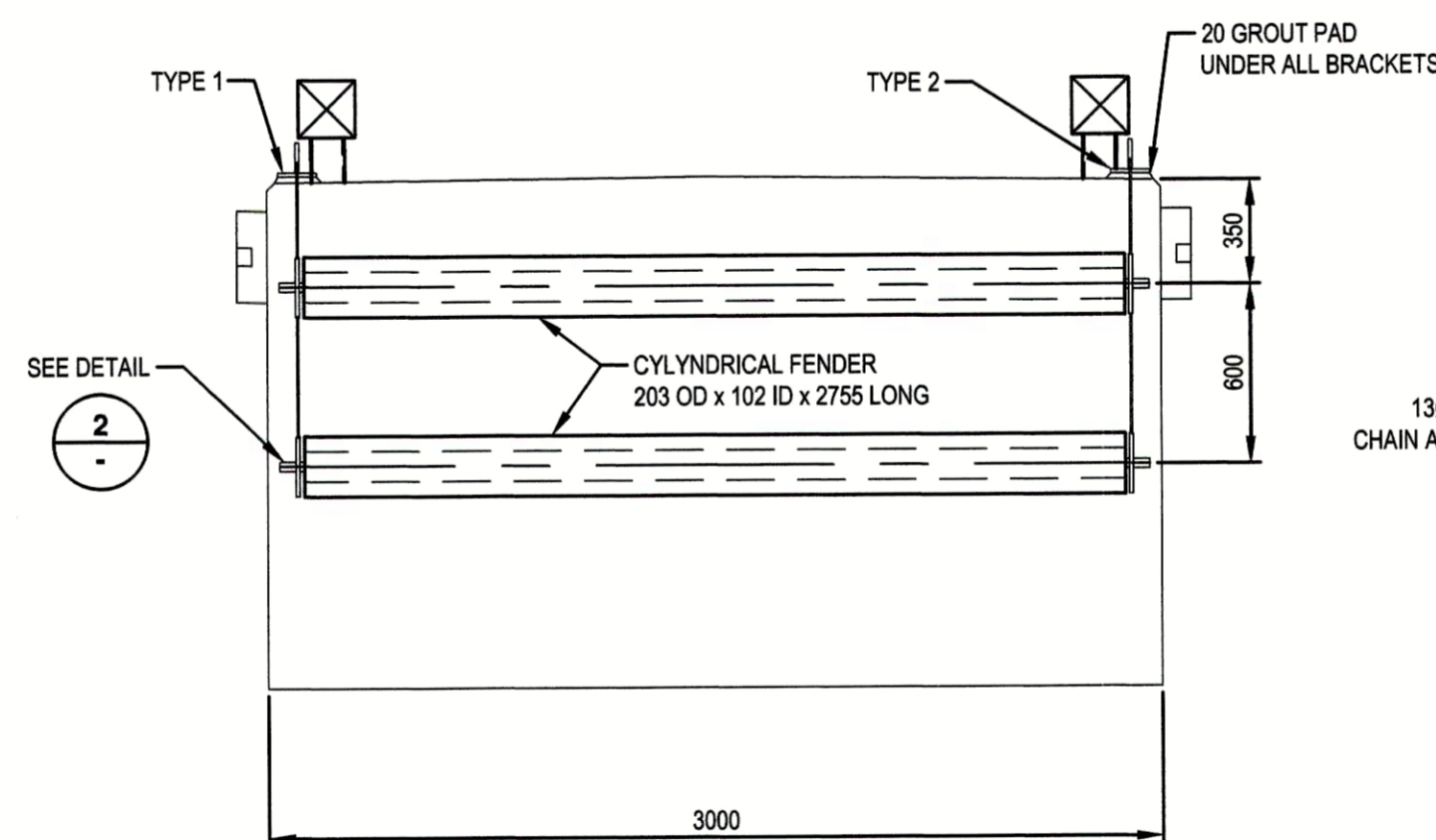
SECTION 8
SCALE 1:15



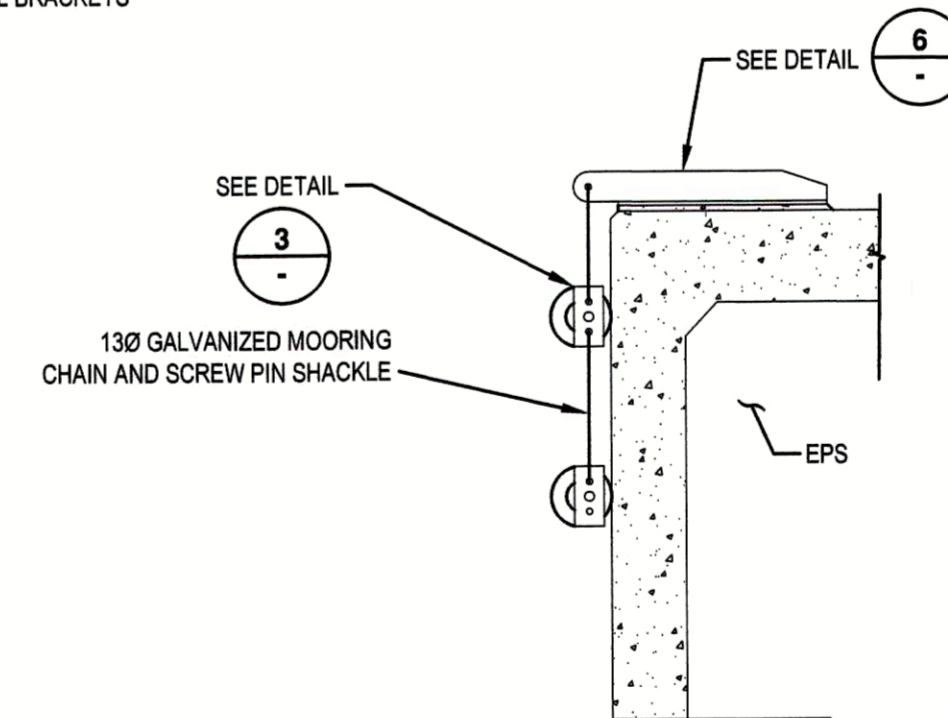
3m FLOAT



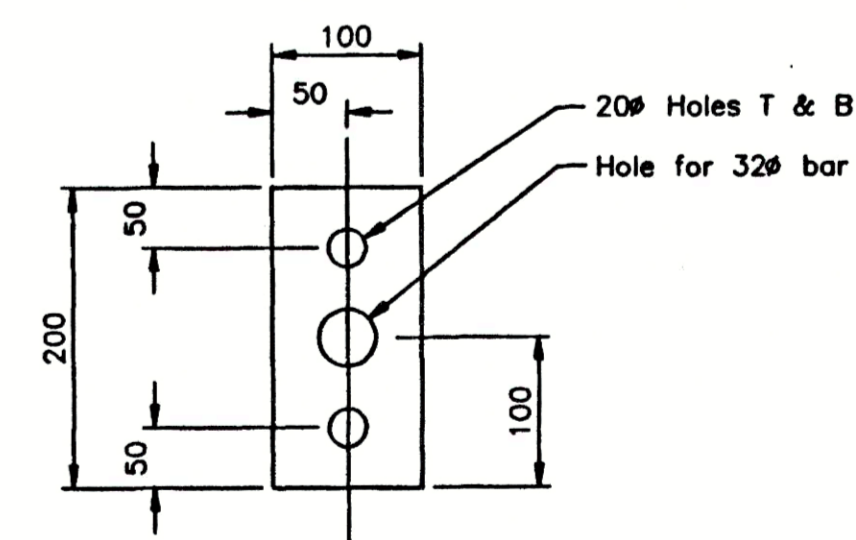
DETAIL A
SCALE 1:15



ELEVATION - 3m FLOAT CONCRETE END



DETAIL 3



DETAIL 3
SCALE 1:5

1	ISSUED FOR TENDER	9/3/17
revisions		date

A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B/C
C	C drawing no. dessin no.	C

project
**FISHERIES AND OCEANS CANADA
REAL PROPERTY,
SAFETY AND SECURITY**

drawing
DETAILS

**SINGLE 18.8m FLOAT
KITSILANO COAST GUARD**

designed	GJG	concu
date	2017-02-17	
drawn	WSL	dessine
date	2017-02-17	
approved		approuve
date		
Tender	Soumission	
PWGSC Project Manager	Administrateur de projets TPSPC	
project number	no. du projet	
TRN.VHWT03002-06		
drawing no.	no. du dessin	
56134 - 0801 - R8 - CONCRETE FLOAT - SHEET 27		

