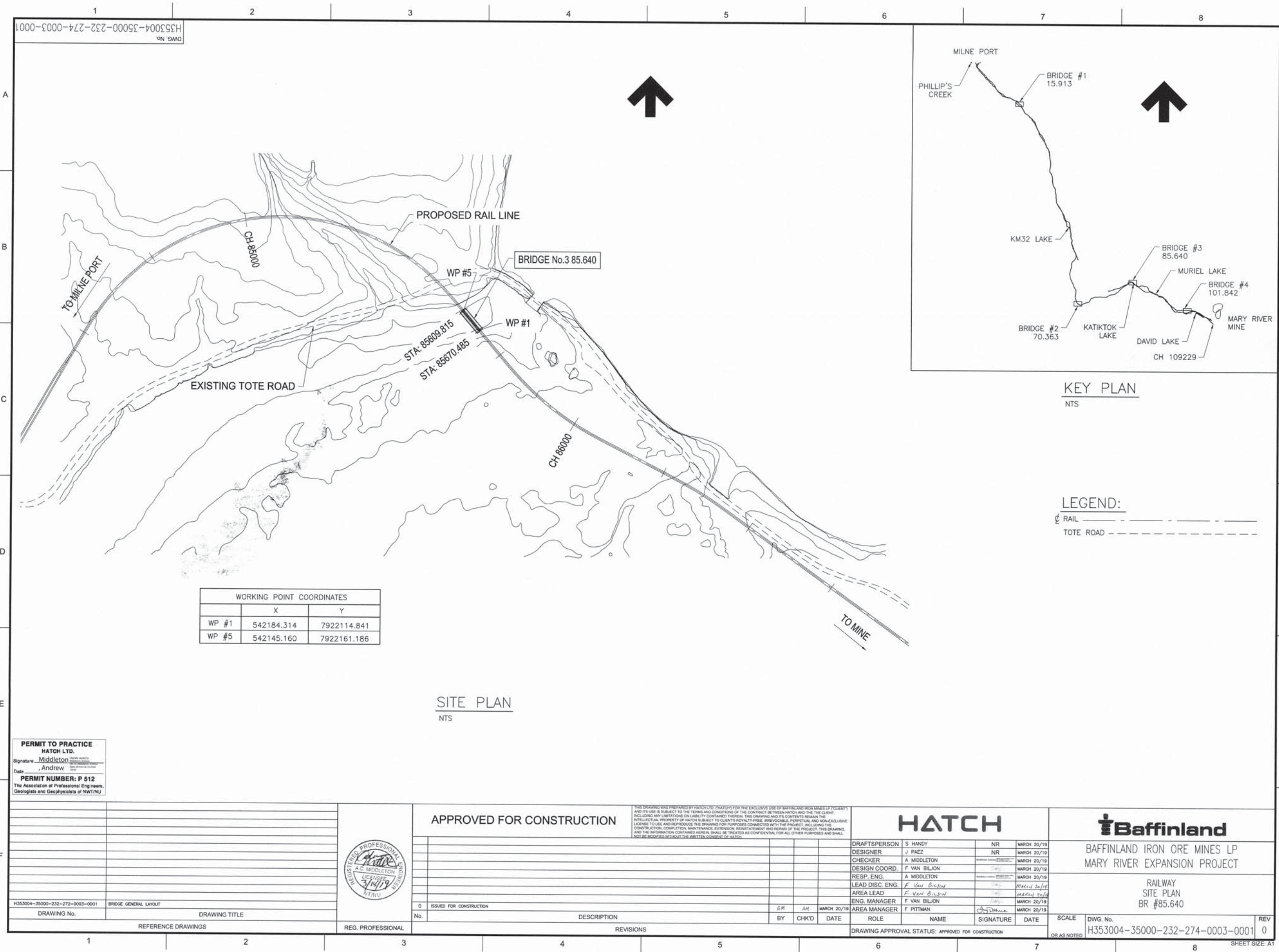


Attachment 13.8

North Railway Bridge Drawings

(31 Pages)



H353004-35000-232-274-0003-0001
DWG. No.

WORKING POINT COORDINATES		
	X	Y
WP #1	542184.314	7922114.841
WP #5	542145.160	7922161.186

SITE PLAN
NTS

KEY PLAN
NTS

LEGEND:

- RAIL
- TOTE ROAD

PERMIT TO PRACTICE
HATCH LTD.
Signature: Andrew
Date: 3/19/19
PERMIT NUMBER: P 512
The Association of Professional Engineers,
Geologists and Geophysicists of NWT/NJU

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HATCH

Baffinland

BAFFINLAND IRON ORE MINES LP
MARY RIVER EXPANSION PROJECT

RAILWAY
SITE PLAN
BR #85.640

DRAWING No.	DRAWING TITLE
H353004-35000-232-274-0003-0001	BRIDGE GENERAL LAYOUT

REG. PROFESSIONAL
A.C. MIDDLETON
3/19/19
NTNU

No.	DESCRIPTION	BY	CHK'D	DATE
0	ISSUED FOR CONSTRUCTION			MARCH 20/19

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	S. HANDY		MARCH 20/19
DESIGNER	J. PAEZ		MARCH 20/19
CHECKER	A. MIDDLETON		MARCH 20/19
DESIGN COORD.	F. VAN BILJON		MARCH 20/19
RESP. ENG.	A. MIDDLETON		MARCH 20/19
LEAD DISC. ENG.	F. VAN BILJON		MARCH 20/19
AREA LEAD	F. VAN BILJON		MARCH 20/19
ENG. MANAGER	F. VAN BILJON		MARCH 20/19
	F. PITTMAN		MARCH 20/19

SCALE	DWG. No.	REV
OR AS NOTED	H353004-35000-232-274-0003-0001	0

SUSSEMAN
STILES
SPILES

H353004-35000-232-274-0004-0001
DWG. No.

A

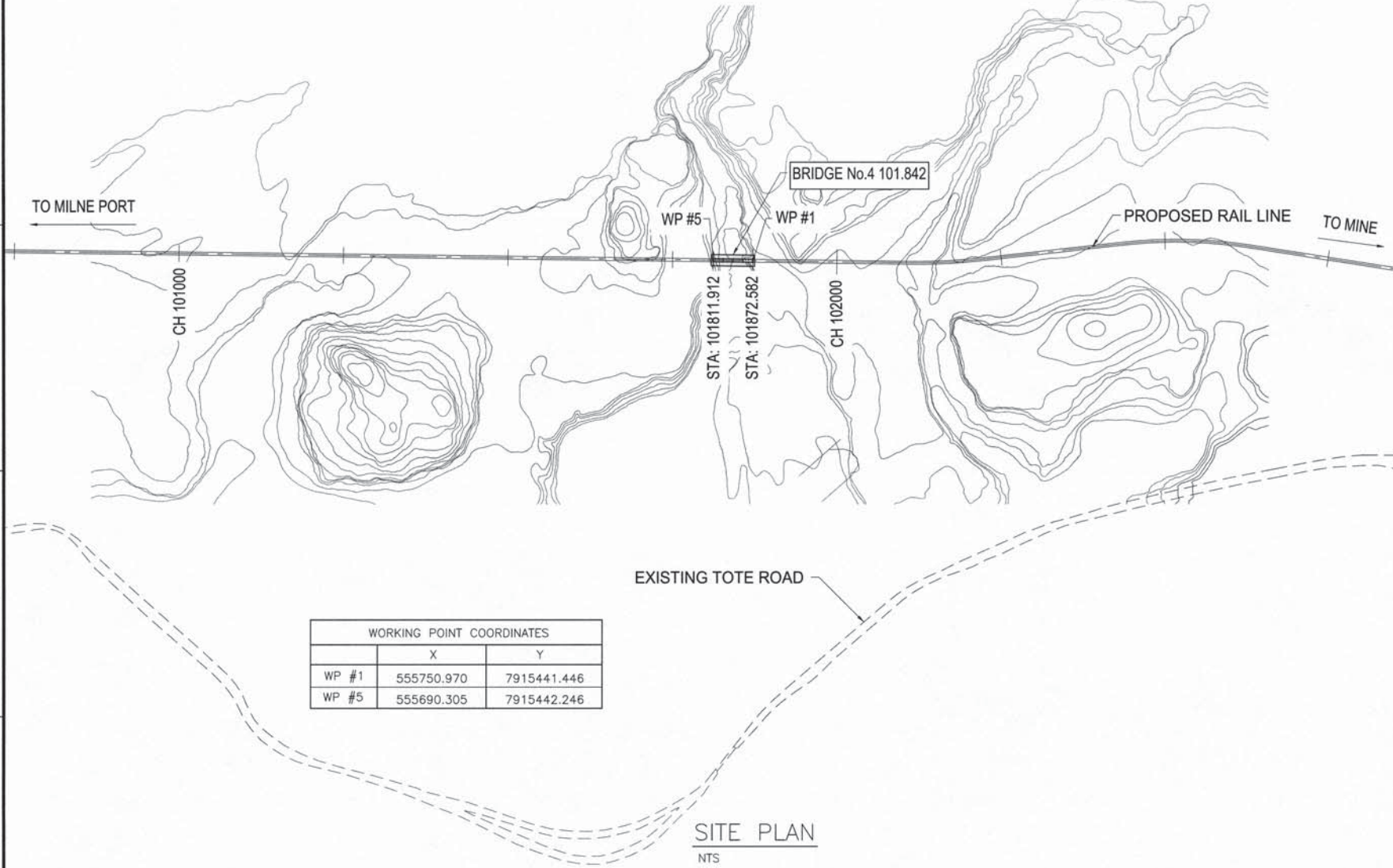
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C

D

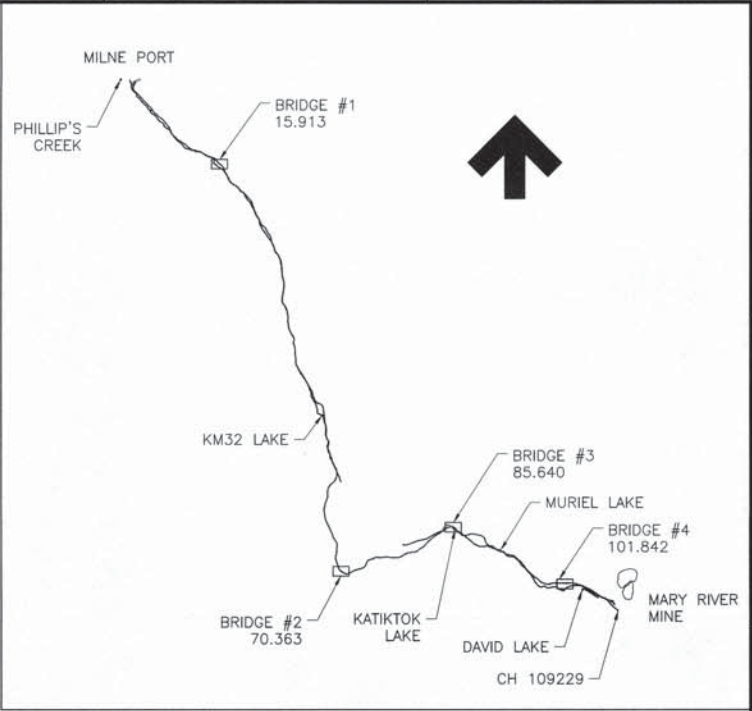
E

F



WORKING POINT COORDINATES		
	X	Y
WP #1	555750.970	7915441.446
WP #5	555690.305	7915442.246

SITE PLAN
NTS



KEY PLAN
NTS

LEGEND:

- RAIL
TOTE ROAD

PERMIT TO PRACTICE
HATCH LTD.
Signature: Middleton
Date: Andrew
PERMIT NUMBER: P 512
The Association of Professional Engineers,
Geologists and Geophysicists of NWT/NU

DRAWING No.	REFERENCE DRAWINGS	DRAWING TITLE
H353004-35000-232-274-0004-0001	BRIDGE GENERAL LAYOUT	



REG. PROFESSIONAL

APPROVED FOR CONSTRUCTION

No.	DESCRIPTION	BY	CHKD	DATE
0	ISSUED FOR CONSTRUCTION	AM	AM	MARCH 20/19

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HATCH

ROLE	NAME	SIGNATURE	DATE
DRAFTSPERSON	S. HANDY	NR	MARCH 20/19
DESIGNER	J. PAEZ	NR	MARCH 20/19
CHECKER	A. MIDDLETON	AM	MARCH 20/19
DESIGN COORD.	F. VAN BILJON	FVB	MARCH 20/19
RESP. ENG.	A. MIDDLETON	AM	MARCH 20/19
LEAD DISC. ENG.	F. VAN BILJON	FVB	MARCH 20/19
AREA LEAD	F. VAN BILJON	FVB	MARCH 20/19
ENG. MANAGER	F. VAN BILJON	FVB	MARCH 20/19
AREA MANAGER	F. PITTMAN	FPT	MARCH 20/19

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

Baffinland

BAFFINLAND IRON ORE MINES LP
MARY RIVER EXPANSION PROJECT

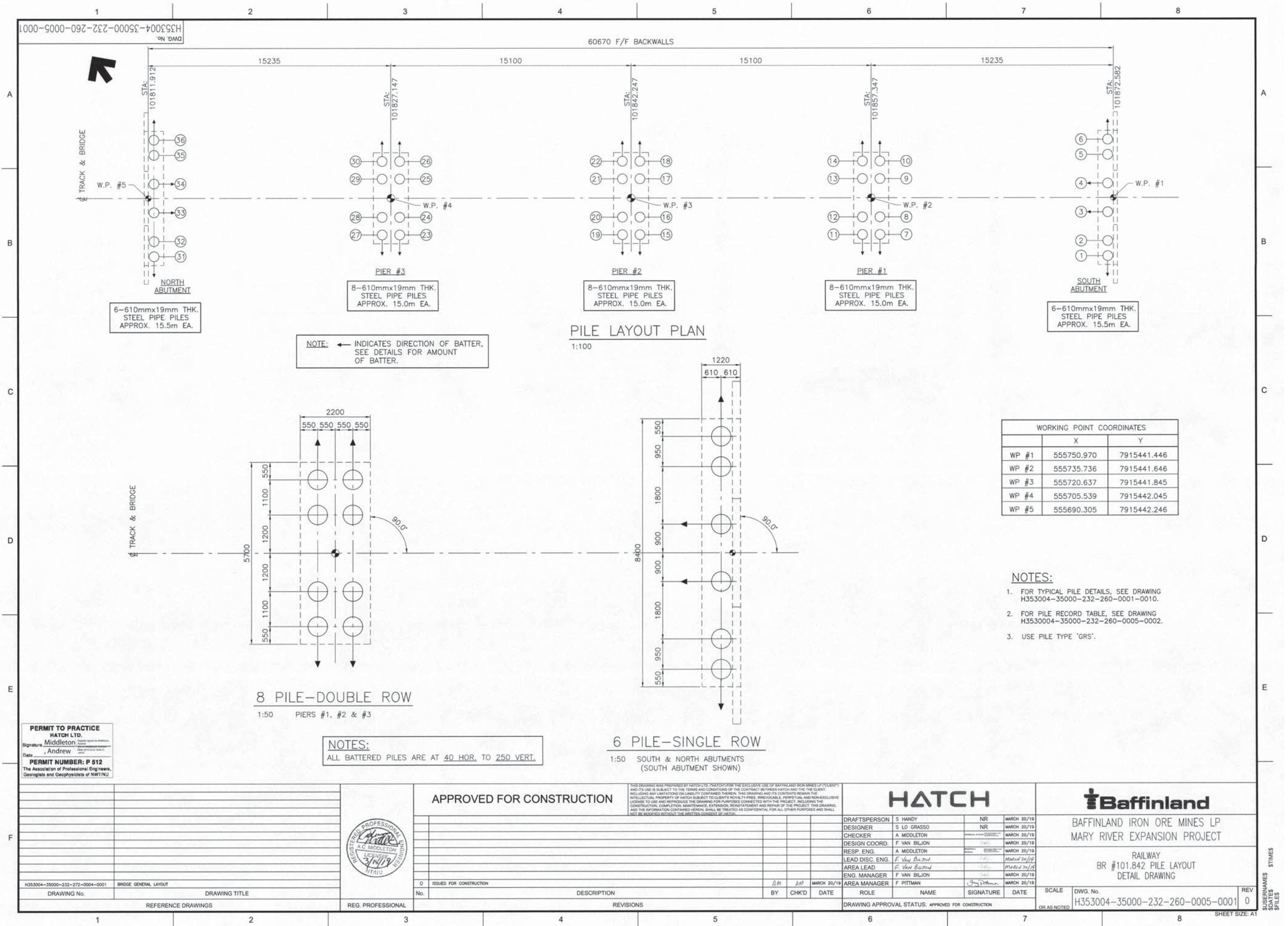
RAILWAY
SITE PLAN
BR #101.842

SCALE: DWG. No. H353004-35000-232-274-0004-0001
OR AS NOTED

REV 0

SUSANAMES
STIMES
SPILES

SHEET SIZE: A1



H353004-35000-232-260-0005-0003
DWG. No.

STEEL PRE-PRODUCTION TEST PILE TABLE							
PILE No.	PILE COORDINATES			PILE INFORMATION		PILE AXIAL LOADS & RESISTANCE	
	AS-BUILT			LENGTH "L" (mm)	EMBEDMENT LENGTH "LS" (mm)	TEST-ASTM D1143-METHOD 'B'	
	NORTHING	EASTING	CUT-OFF ELEVATION (m)			UNFACTORED DESIGN AXIAL COMPRESSIVE LOAD (kN)	TENSILE TEST LOAD-UP TO 150% DESIGN LOAD (kN)
1					2000	1212	
2					2000	1212	
(3)							
(4)							

STEEL PILE RECORD - 610x19mm THK. PIPE PILES									
PILE No.	PILE COORDINATES			PILE INFORMATION					
	DESIGN			AS-BUILT			LENGTH "L" (mm)	EMBEDMENT LENGTH "LS" (mm)	BATTERED PILE H:V
	NORTHING	EASTING	CUT-OFF ELEVATION (m)	NORTHING	EASTING	CUT-OFF ELEVATION (m)			
1	7915437.801	555750.566	169.049				15500	2000	40:250
2	7915438.751	555750.578							40:250
3	7915440.551	555750.602							40:250
4	7915442.351	555750.626							40:250
5	7915444.150	555750.650							40:250
6	7915445.100	555750.662							40:250
7	7915439.341	555736.256					15000	2000	40:250
8	7915440.440	555736.270							40:250
9	7915442.840	555736.302							40:250
10	7915443.940	555736.316							40:250
11	7915439.355	555735.156							40:250
12	7915440.455	555735.170							40:250
13	7915442.855	555735.202							40:250
14	7915443.955	555735.217							40:250
15	7915439.540	555721.157							40:250
16	7915440.640	555721.172							40:250
17	7915443.039	555721.203							40:250
18	7915444.139	555721.218							40:250
19	7915439.554	555720.057							40:250
20	7915440.654	555720.072							40:250
21	7915443.054	555720.103							40:250
22	7915444.154	555720.118							40:250
23	7915439.739	555706.058							40:250
24	7915440.839	555706.073							40:250
25	7915443.238	555706.105							40:250
26	7915444.338	555706.119							40:250
27	7915439.753	555704.959							40:250
28	7915440.853	555704.973							40:250
29	7915443.253	555705.005							40:250
30	7915444.353	555705.019							40:250
31	7915438.591	555690.613					15500	2000	40:250
32	7915439.541	555690.625							40:250
33	7915441.341	555690.649							40:250
34	7915443.141	555690.673							40:250
35	7915444.941	555690.697							40:250
36	7915445.890	555690.709							40:250

PERMIT TO PRACTICE
HATCH LTD.
Middleton
Signature: n, Andrew
Date: 2019
PERMIT NUMBER: P 512
The Association of Professional Engineers,
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APPROVED FOR CONSTRUCTION		HATCH		Baffinland	
DESIGNER: S LO GRASSO		CHECKER: A MIDDLETON		DESIGN COORD: F VAN BILJON	
RESP. ENG: A MIDDLETON		LEAD DISC. ENG: F Van Biljon		AREA LEAD: F Van Biljon	
ENG. MANAGER: F PITTMAN		DRAFTSPERSON: S HANDY		DESIGNER: S LO GRASSO	

H353004-35000-232-260-0001-0002
DWG No.

A

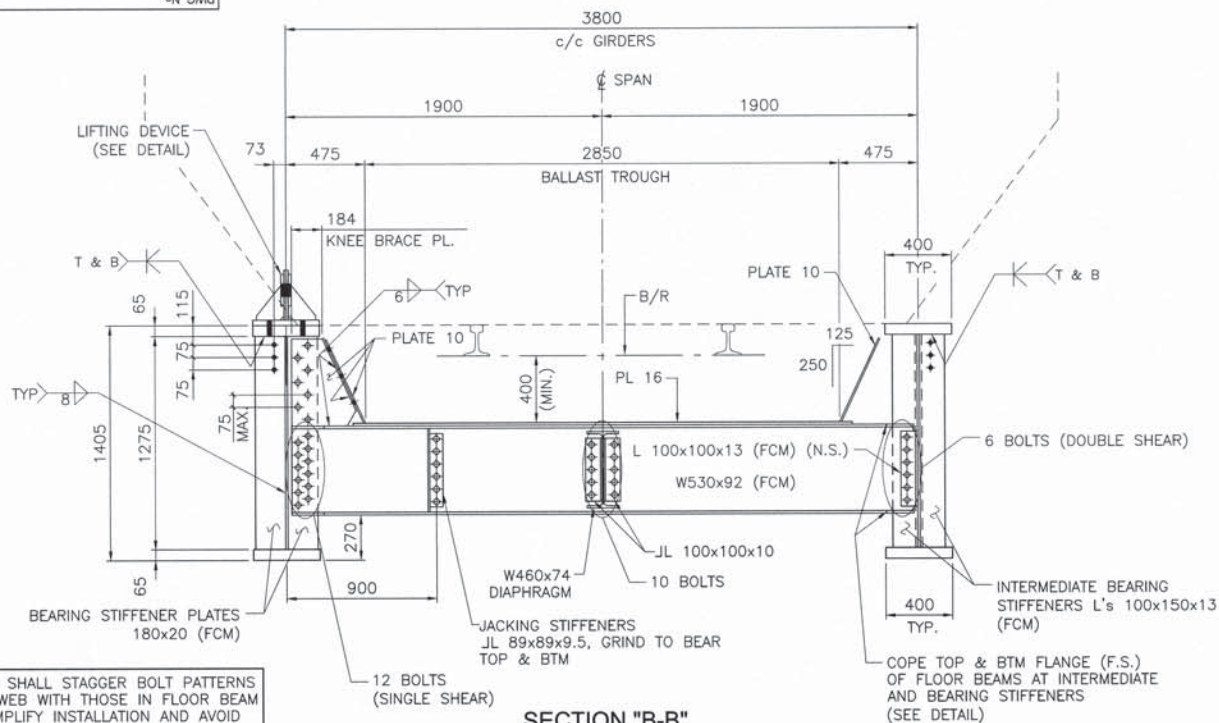
B

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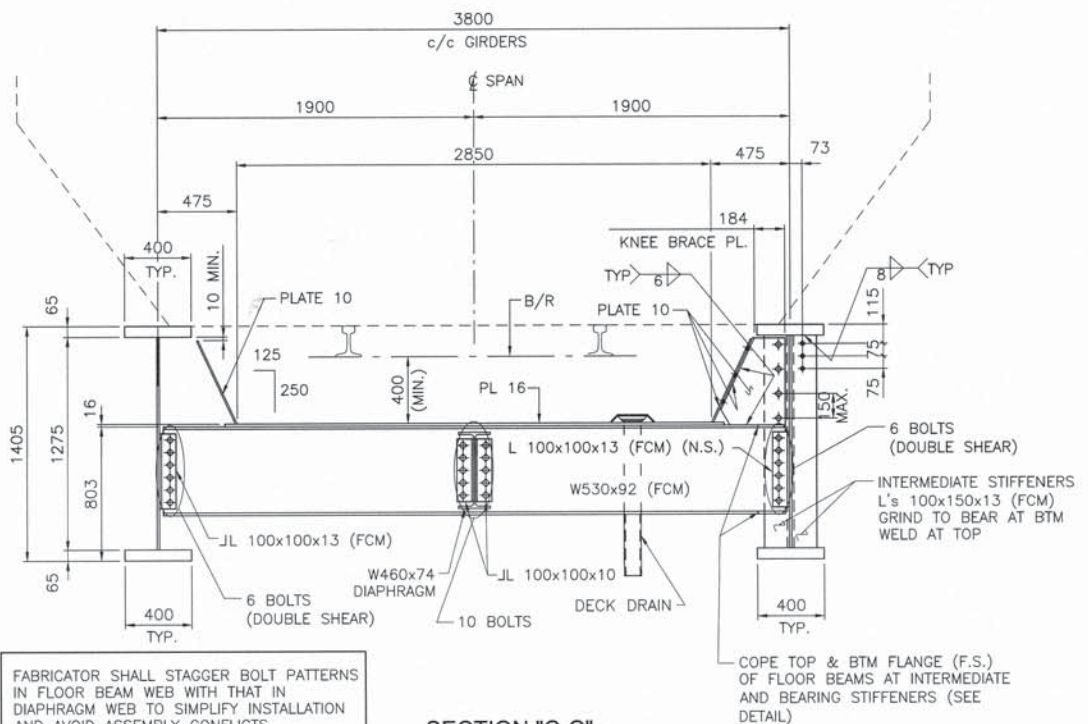


FABRICATOR SHALL STAGGER BOLT PATTERNS IN GIRDER WEB WITH THOSE IN FLOOR BEAM WEB TO SIMPLIFY INSTALLATION AND AVOID ASSEMBLY CONFLICTS

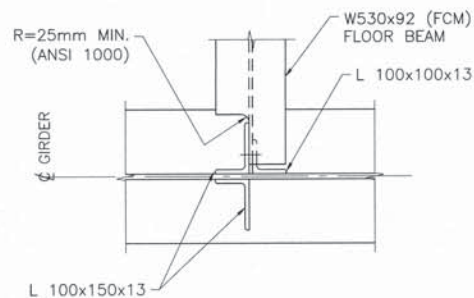
FABRICATOR SHALL STAGGER BOLT PATTERNS IN FLOOR BEAM WEB WITH THAT IN DIAPHRAGM WEB TO SIMPLIFY INSTALLATION AND AVOID ASSEMBLY CONFLICTS

PERMIT TO PRACTICE
HATCH LTD.
Signature: Middleton, Andrew
Date: 2019/03/27
PERMIT NUMBER: P 512
The Association of Professional Engineers, Geologists and Geophysicists of NWT/NU

SECTION "B-B"
SCALE 1:20

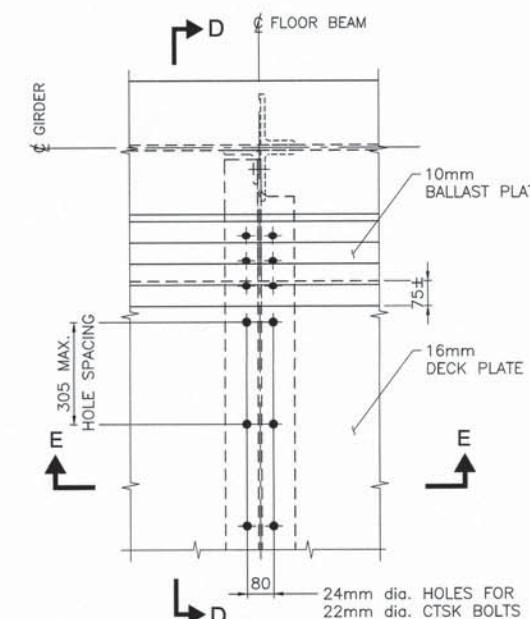


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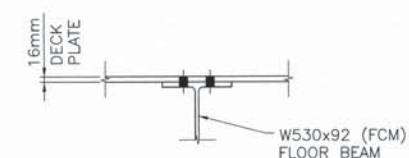


FREE-HAND FLAME CUTTING NOT PERMITTED

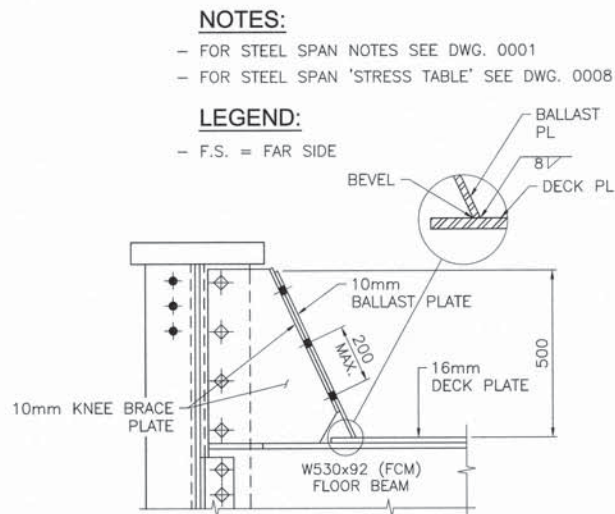
COPING DETAIL - FLOOR BEAMS



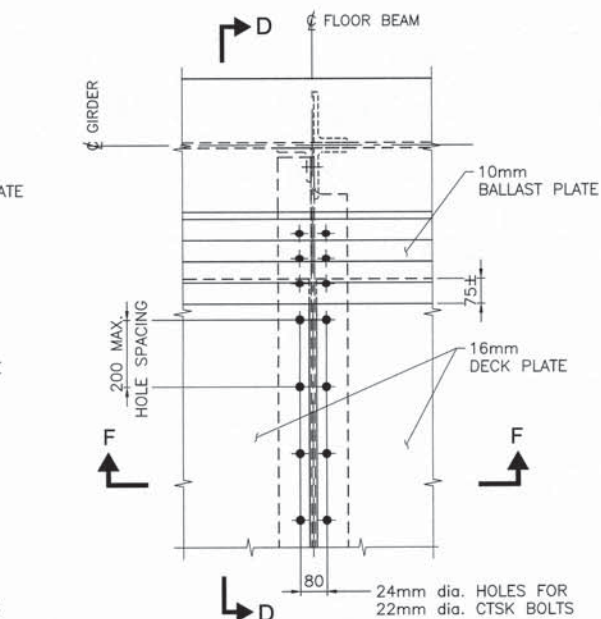
BOLTING DETAILS - DECK PLATE



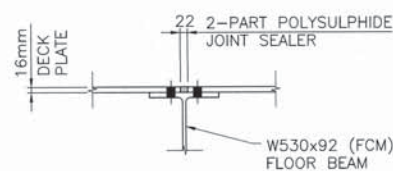
SECTION "E-E"



SECTION "D-D"



JOINT DETAILS - DECK PLATE



SECTION "F-F"

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HATCH

DRAFTSPERSON	S. HANDY	NR	MARCH 20/19
DESIGNER	J. PAEZ	NR	MARCH 20/19
CHECKER	A. MIDDLETON		MARCH 20/19
DESIGN COORD.	F. VAN BILJON		MARCH 20/19
RESP. ENG.	A. MIDDLETON		MARCH 20/19
LEAD DISC. ENG.	F. VAN BILJON		MARCH 20/19
AREA LEAD	F. VAN BILJON		MARCH 20/19
ENG. MANAGER	F. VAN BILJON		MARCH 20/19
AREA MANAGER	F. PITTMAN		MARCH 20/19

ROLE	NAME	SIGNATURE	DATE
ROLE	NAME	SIGNATURE	DATE

DRAWING APPROVAL STATUS: APPROVED FOR CONSTRUCTION

BAFFINLAND

BAFFINLAND IRON ORE MINES LP
MARY RIVER EXPANSION PROJECT

RAILWAY
T.P.G. SPAN - 14.500 c/c
SECTIONS AND DETAILS

SCALE	DWG. No.	REV
1:10 OR AS NOTED	H353004-35000-232-260-0001-0002	0

DRAWING No.	DRAWING TITLE
1	REFERENCE DRAWINGS

No.	DESCRIPTION	BY	CHK'D	DATE
0	ISSUED FOR CONSTRUCTION	AM	AM	MARCH 20/19

REVISIONS

SUSERRAMES
SIZES
FILES

