

SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE

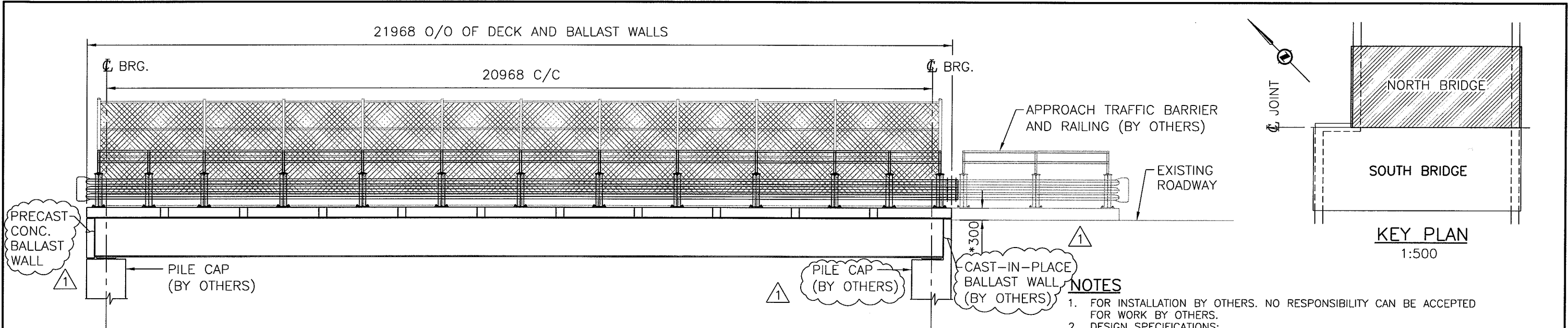


**Associated
Engineering**

DRAWING SCHEDULE

DRAWING No.	DESCRIPTION	REV.	DATE
2939-SK-301	GENERAL ARRANGEMENT	1	07/01/23
2939-SK-302	STEEL GIRDER SHEET 1	1	07/01/23
2939-SK-303	STEEL GIRDER SHEET 2	2	07/01/23
2939-SK-304	BEARING DETAILS	1	07/01/23
2939-SK-305	PRECAST DECK PANEL PLAN & LAYOUT	1	07/01/23
2939-SK-306	PRECAST DECK PANEL DETAILS - SHEET 1	1	07/01/23
2939-SK-307	PRECAST DECK PANEL DETAILS - SHEET 2	1	07/01/23
2939-SK-308	BALLAST WALL DETAILS	1	07/01/23
2939-SK-309	RAILING DETAILS - SHEET 1	1	07/01/23
2939-SK-310	RAILING DETAILS - SHEET 2	1	07/01/23
2939-SK-311	RAILING DETAILS - SHEET 3	1	07/01/23

GEOTECHNICAL ENGINEERING IS NOT INCLUDED WITHIN THE SCOPE OF SERVICES BEING PROVIDED BY ASSOCIATED ENGINEERING (B.C.) LTD. THEREFORE THIS DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL FIELD INVESTIGATION OR ADVICE. GROUND CONDITIONS MAY VARY. THE FOUNDATION REQUIREMENTS AND BRIDGE CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION. ASSOCIATED ENGINEERING (B.C.) LTD. ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DELAY OR ADDITIONAL COSTS WHICH MAY RESULT IF GROUND CONDITIONS VARY FROM THOSE ASSUMED. PLEASE CONTACT ASSOCIATED ENGINEERING (B.C.) LTD. IF GEOTECHNICAL DATA AND RECOMMENDATIONS ARE AVAILABLE FOR THIS BRIDGE CROSSING OR IF THE OWNER WISHES TO EXPAND THE ENGINEERING SERVICES TO INCORPORATE THIS EXTRA WORK.

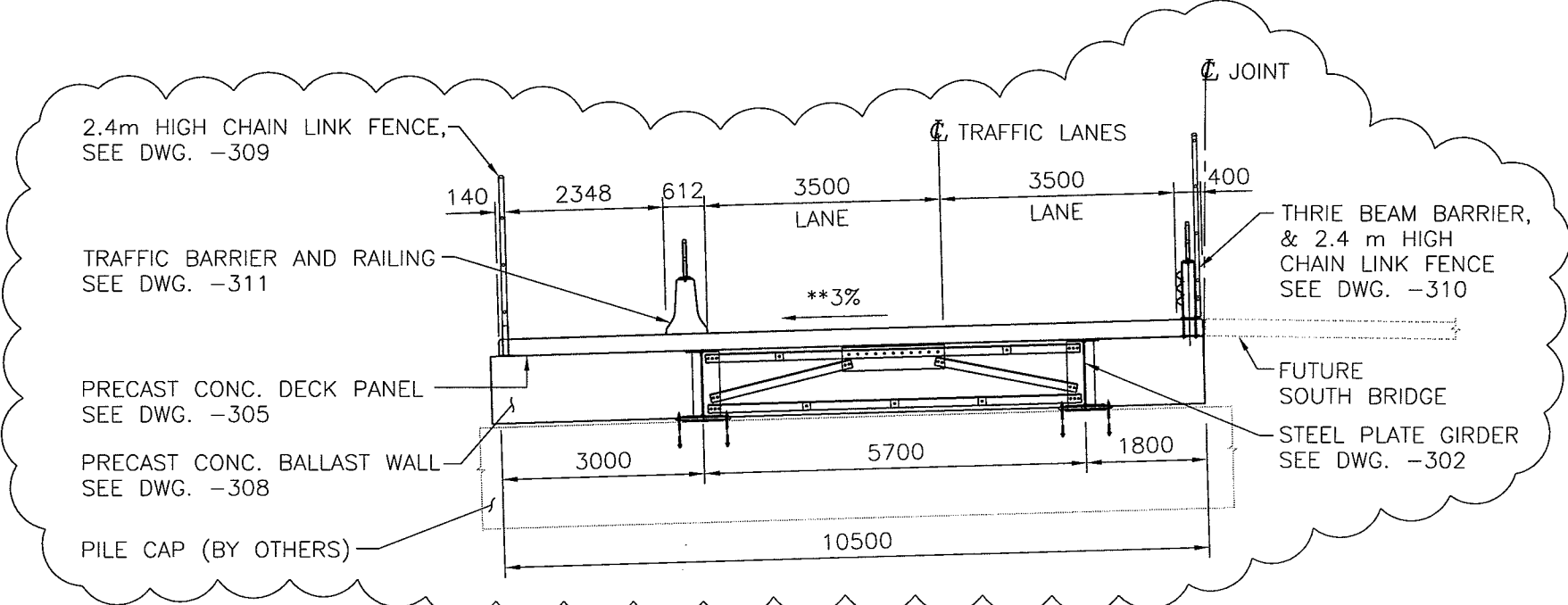


ELEVATION (LOOKING SOUTH)
1:100

NOTE:
* CONTRACTOR TO CONFIRM PRIOR TO CONSTRUCTION

NOTES

1. FOR INSTALLATION BY OTHERS. NO RESPONSIBILITY CAN BE ACCEPTED FOR WORK BY OTHERS.
2. DESIGN SPECIFICATIONS:
- CAN/CSA-S6-00 CANADIAN HIGHWAY BRIDGE DESIGN CODE.
3. DESIGN LOADS:
- 5.0 kN/m UNIFORMLY DISTRIBUTED LOAD ALONG THE LENGTH OF THE BRIDGE.
- 3.0 kN/m UNIFORMLY DISTRIBUTED LOAD TRANSVERSELY ACROSS THE BRIDGE 0.5m IN FRONT OF EACH ABUTMENT.
- 5.0 kN POINT LOADS FOR UTILITY SUPPORT TRUSSES ON THE OUTSIDE FACE OF EACH GIRDER AT QUARTER SPAN.
- 2-10 kN POINT LOADS FOR UTILITY SUPPORT TRUSSES ON THE OUTSIDE FACE OF EACH GIRDER AT CENTRE SPAN.
4. DESIGN TRUCK LOADING: CL 625
5. CONSTRUCTION EQUIPMENT: 85,000 lb EXCAVATOR, PLUS MAXIMUM 30,000 lb DECK PANEL. LOAD LOCATED AT CENTRE OF BRIDGE.
6. ALL STEELWORK TO CONFORM TO CSA SPECIFICATIONS CAN3-G40.21M GRADE AS FOLLOWS: ALL FLANGES AND WEBS: 350WT CATEGORY 3
STEEL PIPE: ASTM A53
ALL OTHER STEEL: 350W
7. WELDING TO CONFORM TO CSA W59 6mm FILLET WELD, U/N. FIELD WELDERS TO BE CERTIFIED TO CSA-W47.
8. FLANGE TO WEB WELDS SHALL BE BY AN AUTOMATIC PROCESS WHICH PROVIDES A CONTINUOUS WELD THROUGHOUT THE LENGTH OF EACH GIRDER SEGMENT.
9. ALL BOLTS TO CONFORM TO ASTM A325 M22, UNLESS NOTED OTHERWISE. INSTALLED IN ACCORDANCE WITH CAN/CSA-S6-00. TORQUE CURB ANCHOR BOLTS USING TURN-OF-THE-NUT METHOD.
10. SHEAR STUD CONNECTORS TO CONFORM TO ASTM A108 GRADE 1015, 1018, 1020.
11. ALL CONCRETE TO CONFORM TO CAN/CSA-A23.1 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS EXCEPT AS NOTED.
12. PRECAST CONCRETE: CSA A23.4 BY CSA CERTIFIED PLANT.
13. ALL EXPOSED EDGES OF CONCRETE TO BE CHAMFERED 20 EXCEPT AS NOTED.
14. ALL REINFORCING STEEL TO CONFORM TO CSA G30.18M GRADE 400.
15. WELDING OF REINFORCING IS NOT PERMITTED.
16. OZONE RESISTING NATURAL RUBBER BEARING, (NATURAL POLYISOPRENE) TO CAN/CSA-S6-00.
17. MINIMUM EDGE DISTANCE FOR DOWELS OR ANCHOR BOLTS INTO CONCRETE SHALL BE 75mm MEASURED TO THE CLOSEST EDGE OF CONCRETE.
18. GROUT: INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
19. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH MOT SS421.
20. SUPPLY AND INSTALLATION OF MISCELLANEOUS STEEL COMPONENTS SHALL BE IN ACCORDANCE WITH MOT SS422.
21. ABBREVIATIONS:
F.F. DENOTES FAR FACE
N.F. DENOTES NEAR FACE



ELEVATION (LOOKING EAST)
1:100

NOTE:
** BRIDGE TO BE CONSTRUCTED ON 3% GRADE AS SHOWN

REV	DATE	REVISION DESCRIPTION	ENG	DWN
	Y M D			
0	07 01 16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 01 23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

SNC-LAVALIN

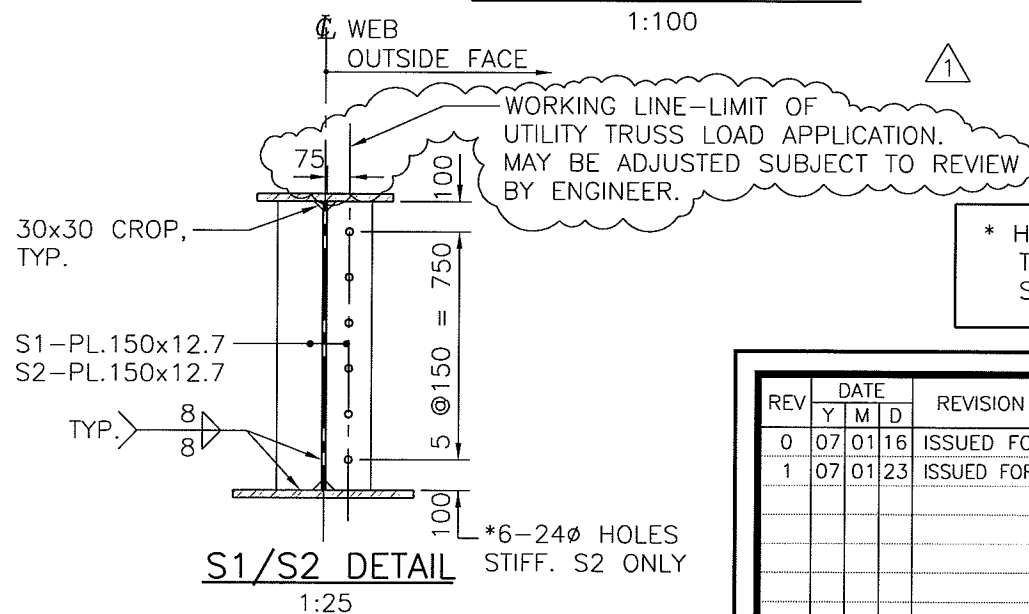
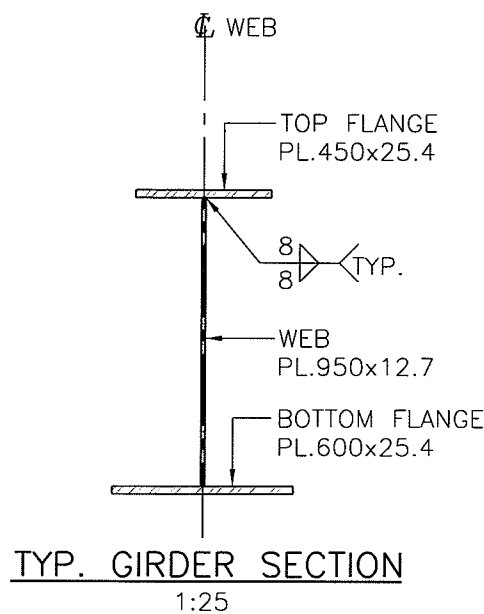
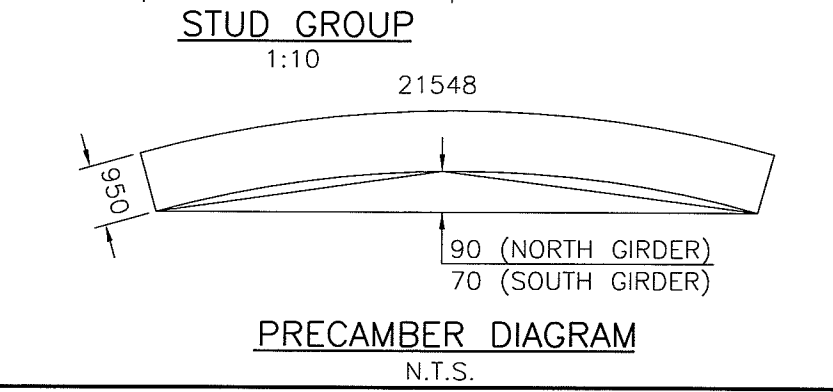
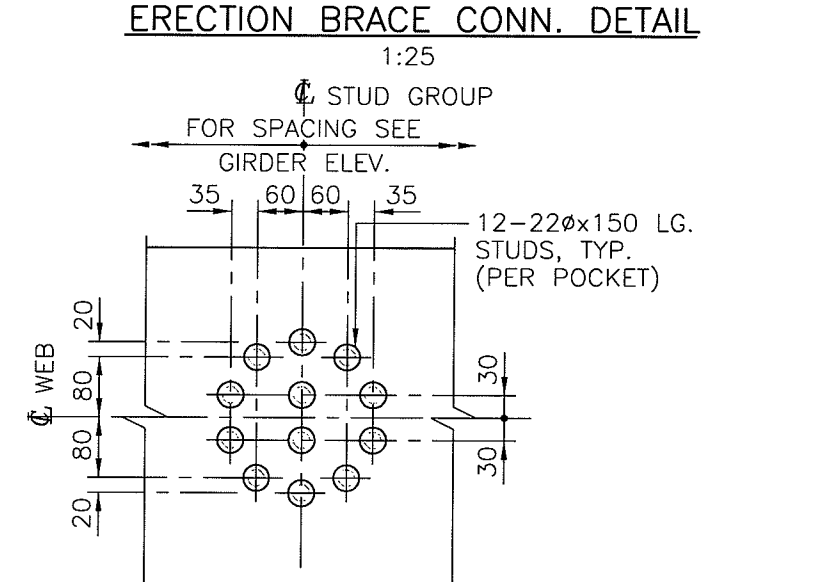
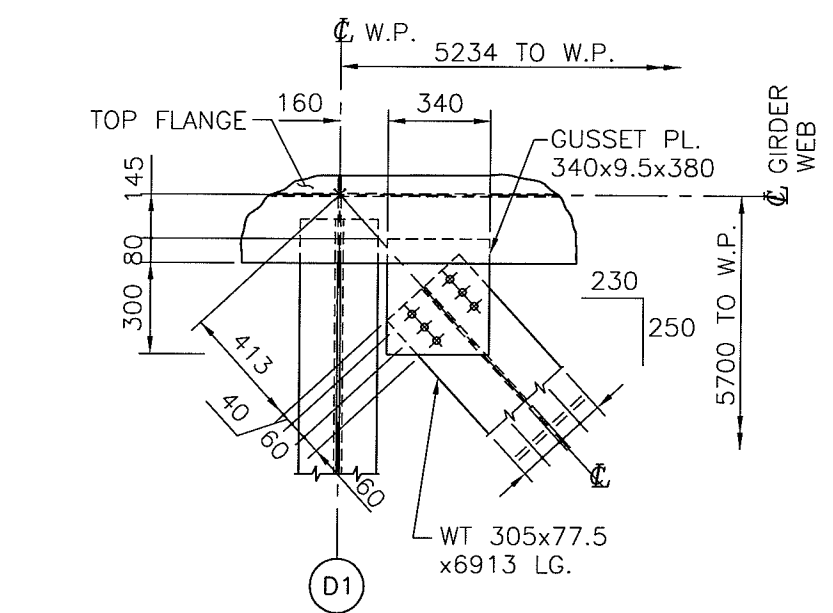
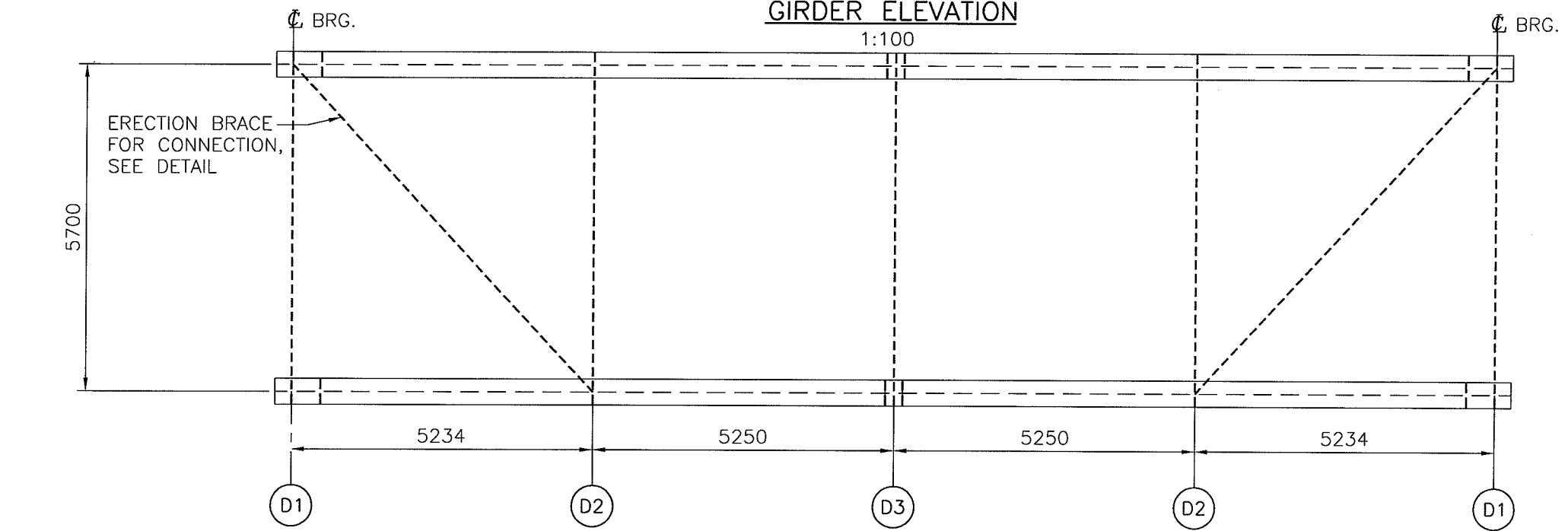
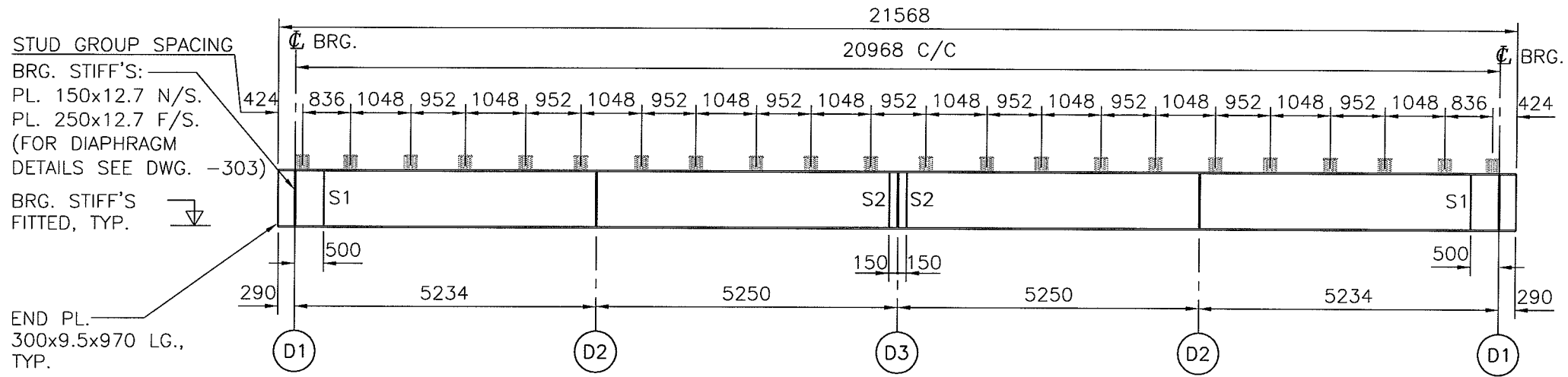
IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
GENERAL ARRANGEMENT

DESIGN: W.L.	
CHECK: B.R.	
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-301	1



AUTOCADD DRAWING No. 2939-302.DWG



* HOLE LOCATIONS MAY BE ADJUSTED TO SUIT UTILITY TRUSS CONNECTION, SUBJECT TO REVIEW BY ENGINEER.

REV	DATE	REVISION DESCRIPTION	ENG	DWN
0	07 01 16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 01 23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

SNC-LAVALIN

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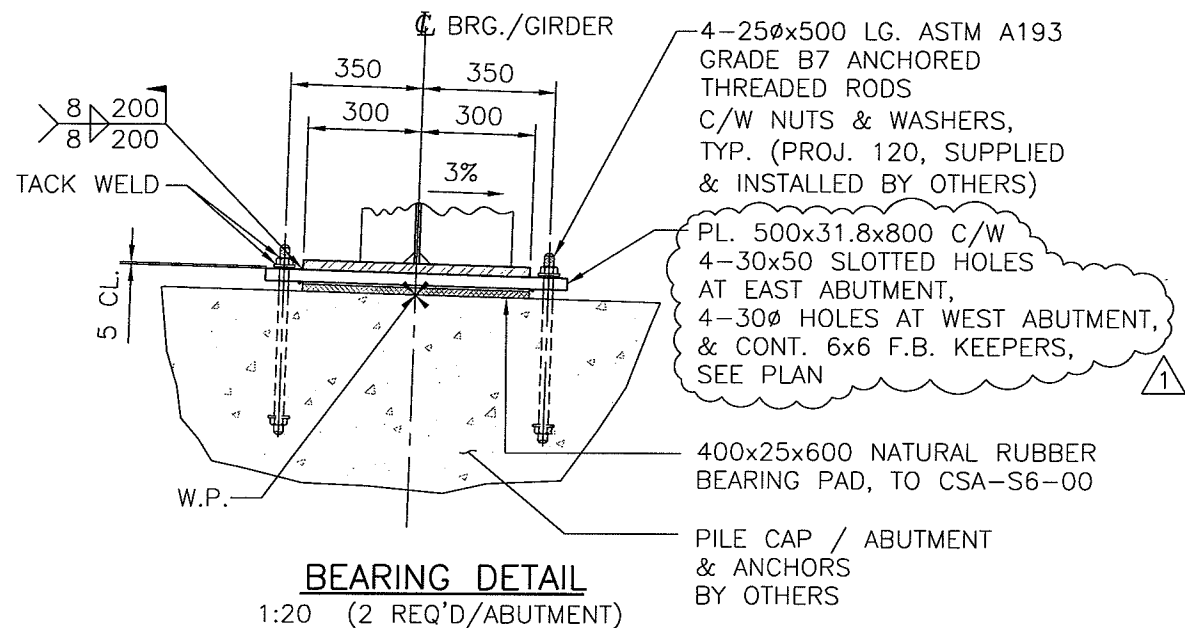
HASTINGS STREET - NORTH BRIDGE
STEEL GIRDER - SHEET 1

DESIGN:	W.L.
CHECK:	B.R.
DRAWN:	C.K.L.
DATE:	NOVEMBER 2006
SCALE:	AS SHOWN
JOB No.	20062939
DWG. No.	2939-SK-302

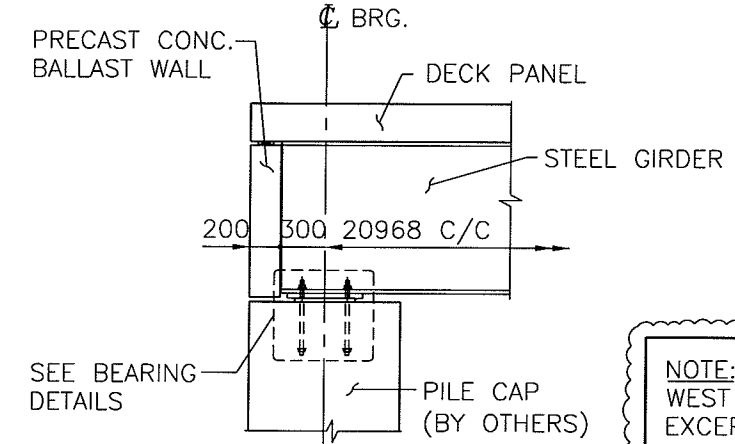


ALL DRAWINGS SUPERSEDED PRIOR TO REVISION

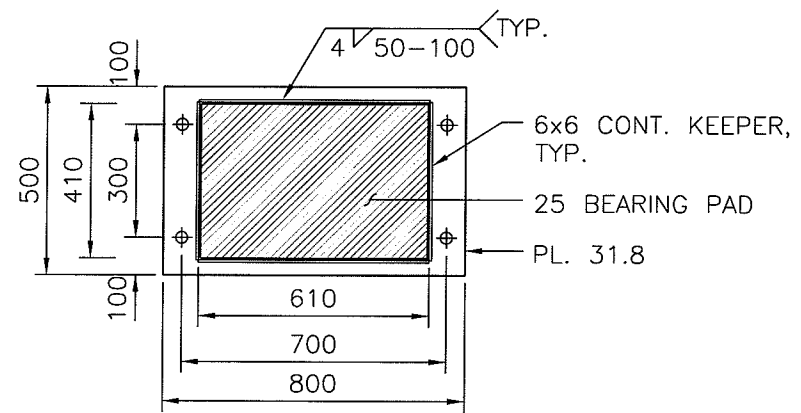
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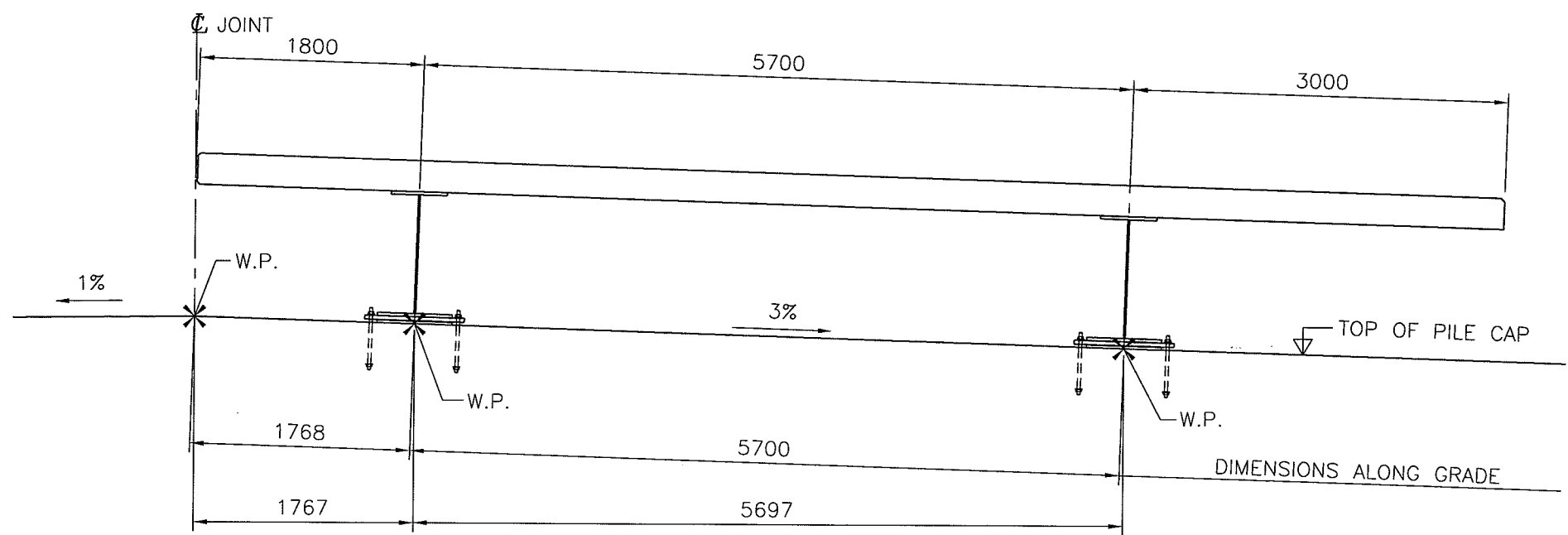
BEARING DETAIL
1:20 (2 REQ'D/ABUTMENT)



BEARING SECTION AT EAST ABUTMENT
1:50



PLAN ON KEEPERS
1:20



PILE CAP ANCHOR DETAIL
1:50

ABUTMENT BEARING DESIGN DATA (LOADS PER BEARING)		
	WEST ABUTMENT	EAST ABUTMENT
TOTAL UNFACTORED DEAD LOAD	542 kN	542 kN
TOTAL UNFACTORED LIVE LOAD *	853 kN	853 kN
TOTAL UNFACTORED LOAD	1395 kN	1395 kN

NOTE: * TOTAL UNFACTORED LIVE LOAD INCLUDES D.L.A.=1.25

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0	07 01 16	ISSUED FOR APPROVAL	W.L.	C.K.L.
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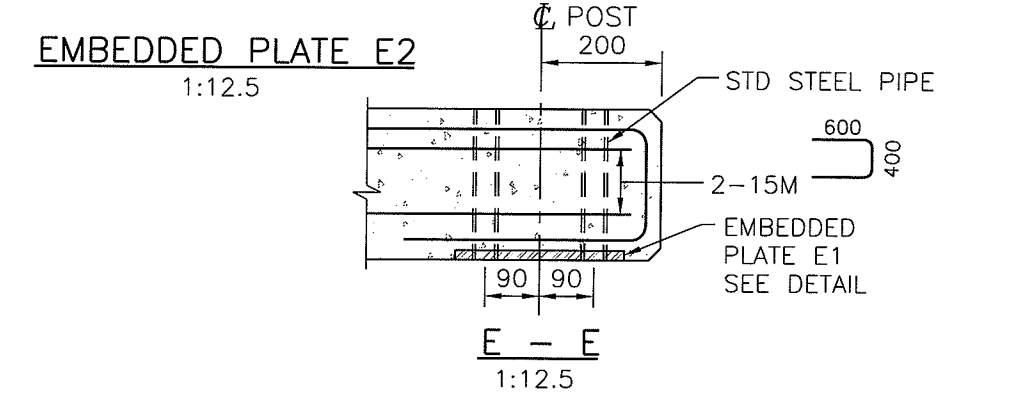
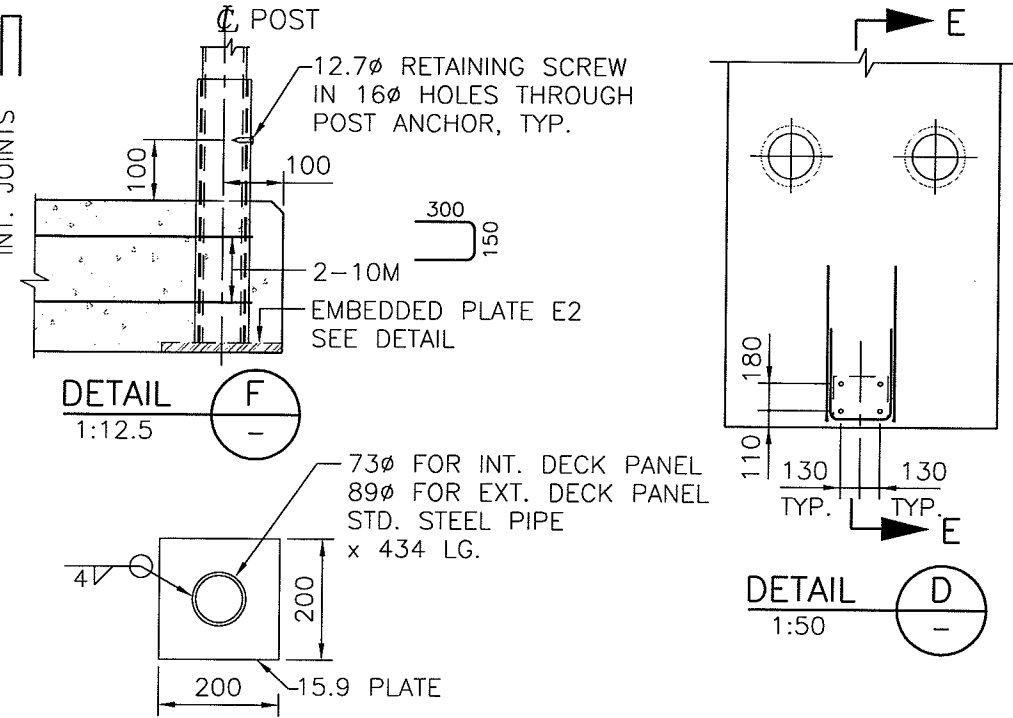
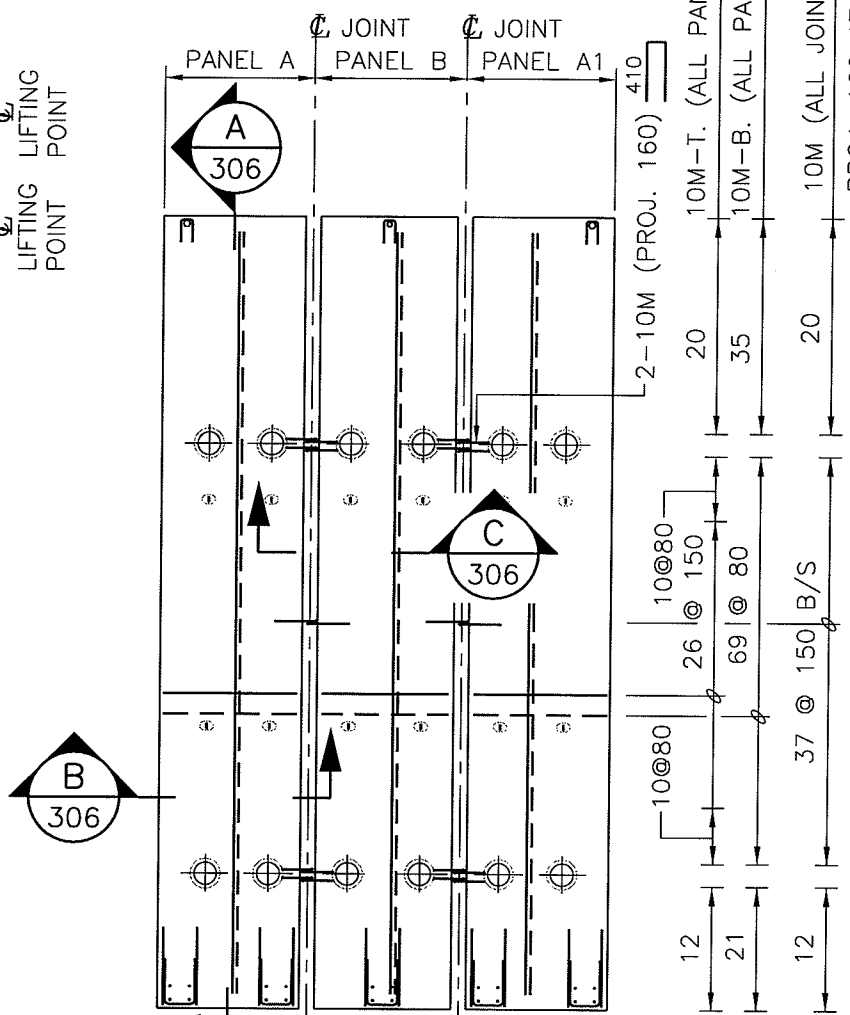
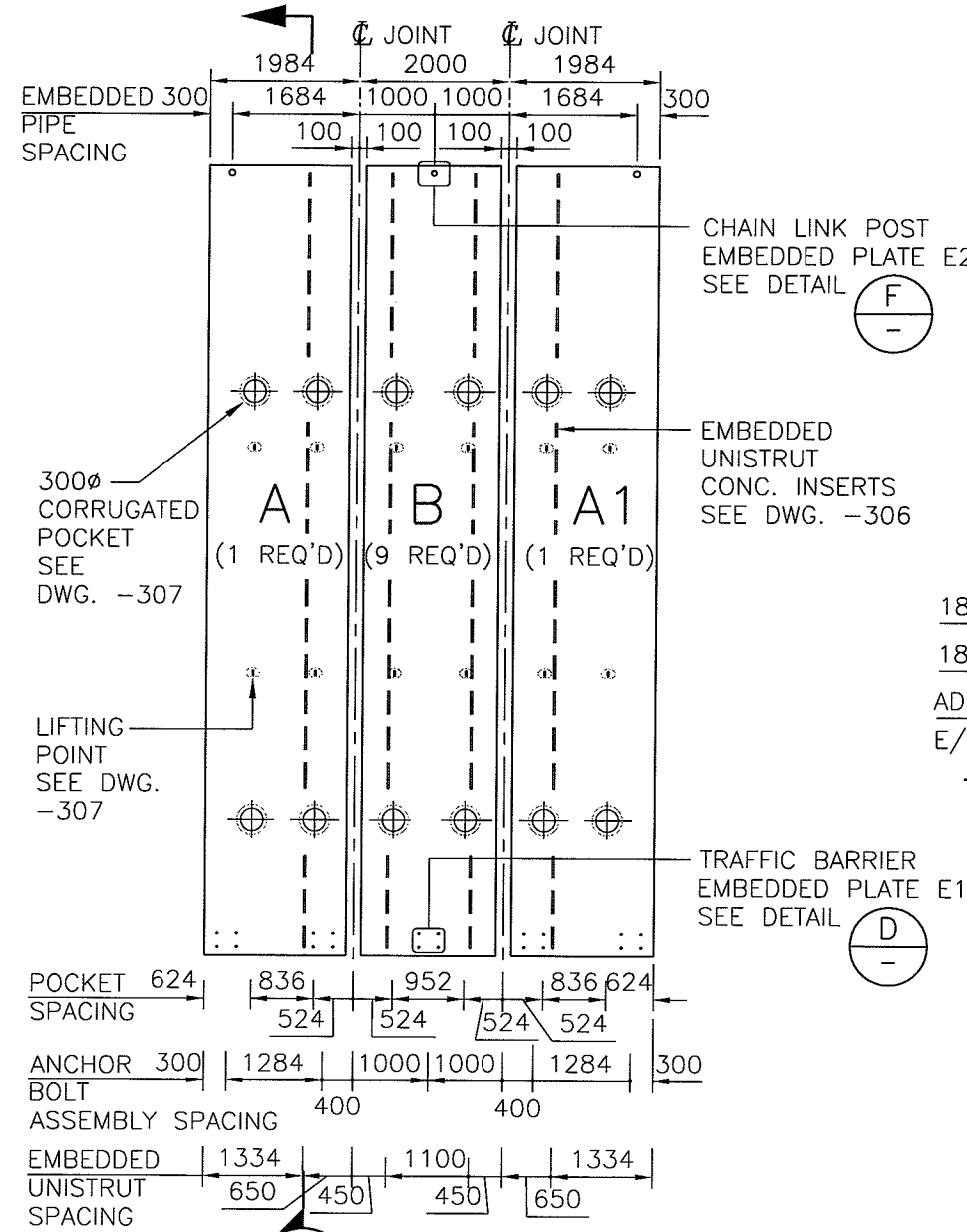
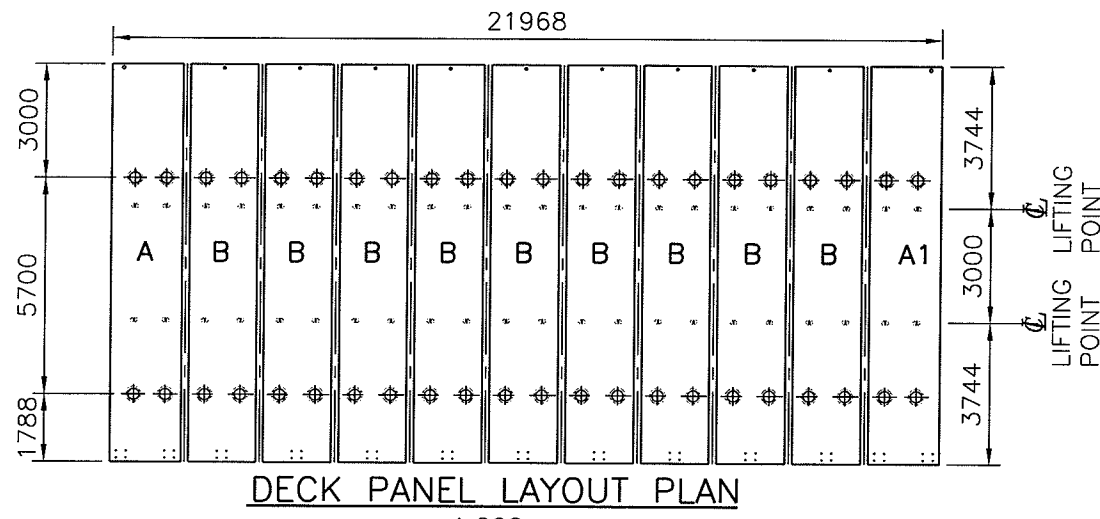
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
BEARING DETAILS

DESIGN: W.L.	
CHECK: B.R.	
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-304	1



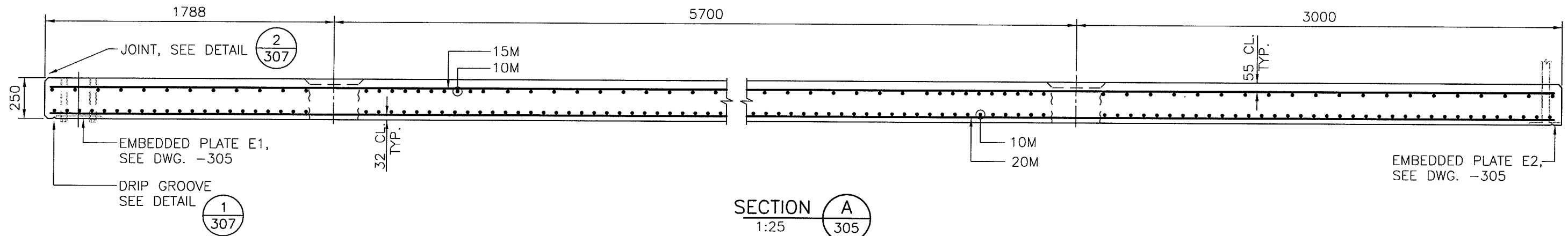


REV	DATE	REVISION DESCRIPTION	ENG	DWN
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1	07 01 23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

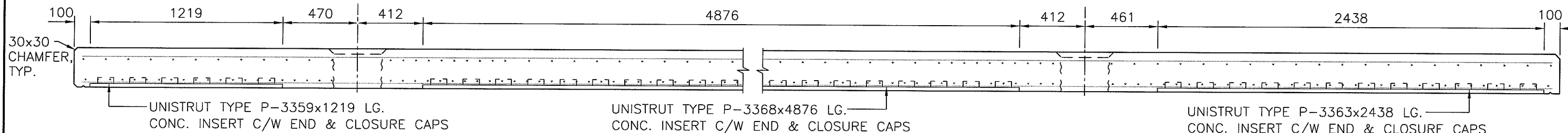
SNC-LAVALIN
IOTA CONSTRUCTION LTD.
HASTINGS STREET - NORTH BRIDGE
PRECAST DECK PANEL PLAN AND LAYOUT

DESIGN: W.L.
CHECK: B.R.
DRAWN: C.K.L.
DATE: NOVEMBER 2006
SCALE: AS SHOWN
JOB No. 20062939
DWG. No. 2939-SK-305

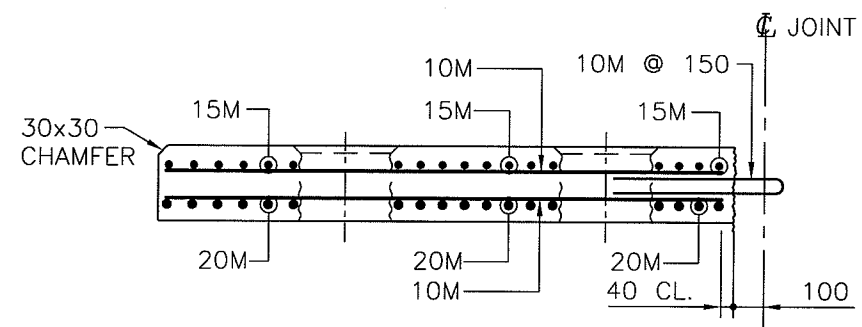




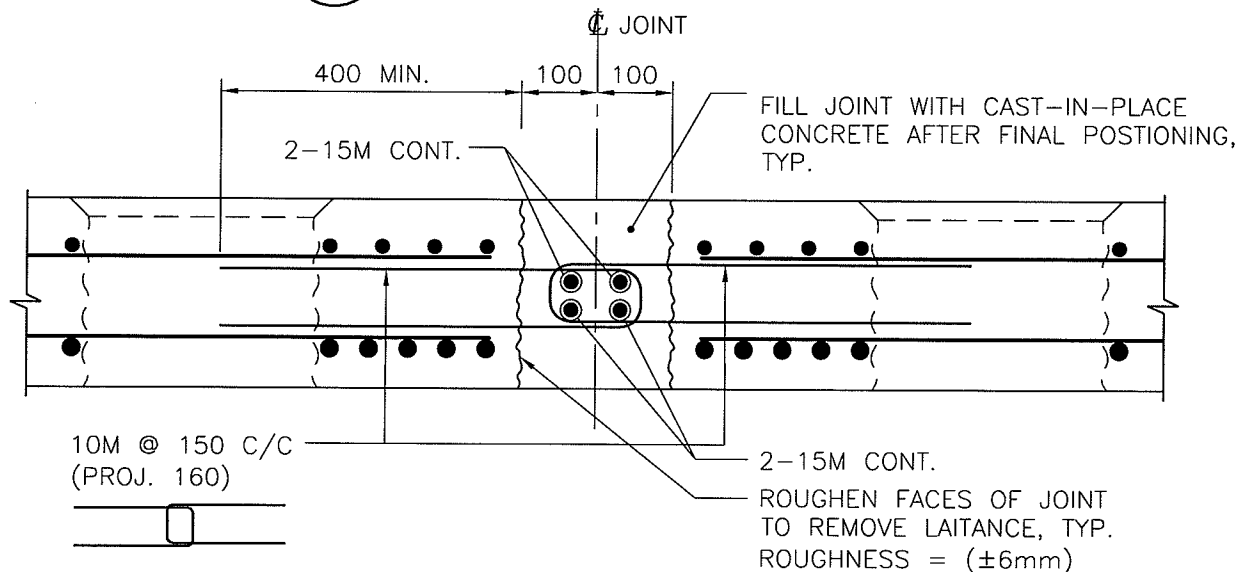
SECTION A
1:25



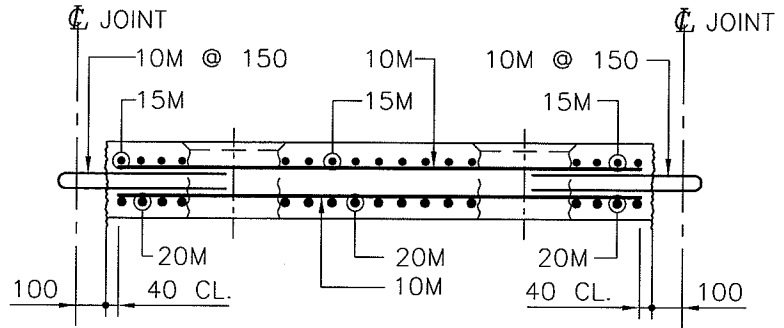
SECTION D
1:25



SECTION B
1:25



JOINT DETAIL BETWEEN DECK PANELS, TYP.
1:10



SECTION C
1:25

REV	DATE	REVISION DESCRIPTION	ENG	DWN
0	07 01 16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 01 23	ISSUED FOR CONSTRUCTION	W.L.	CK.L.

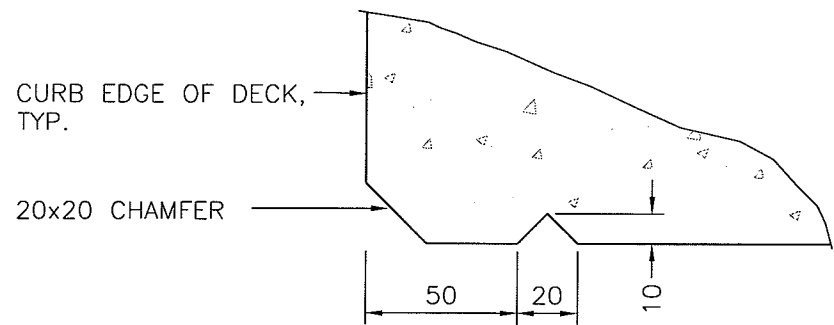
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IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
PRECAST DECK PANEL DETAILS - SHEET 1

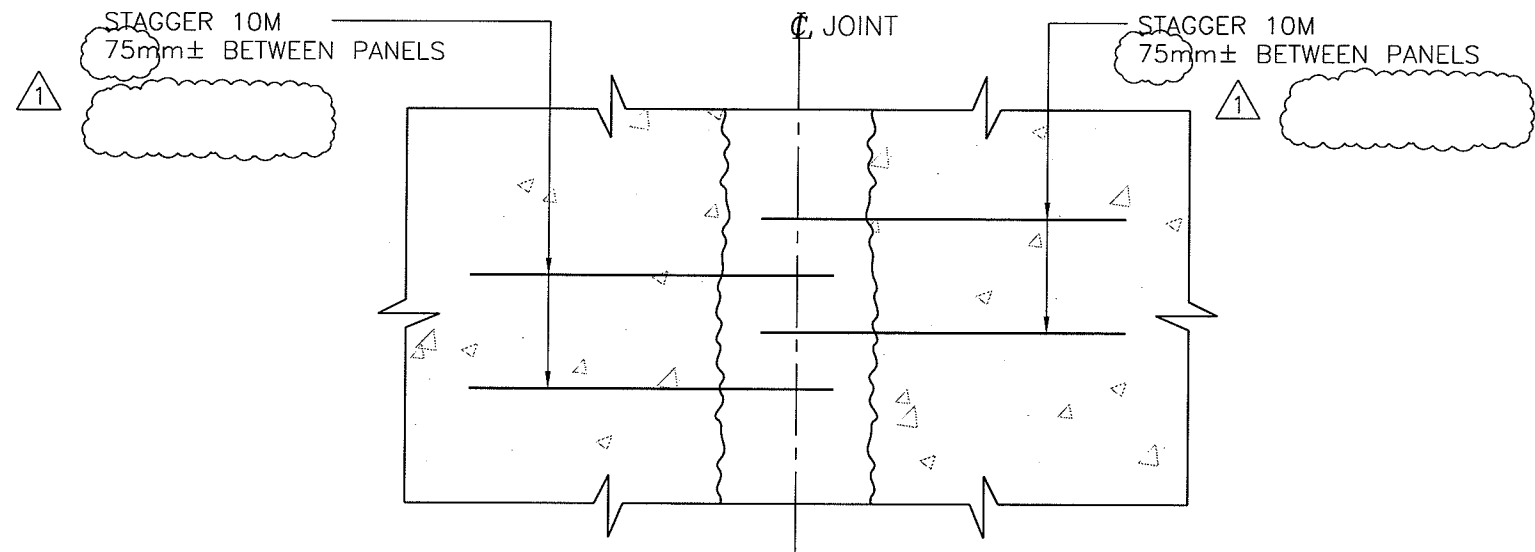
DESIGN:	W.L.
CHECK:	B.R.
DRAWN:	C.K.L.
DATE:	NOVEMBER 2006
SCALE:	AS SHOWN
JOB No.	20062939
DWG. No.	2939-SK-306



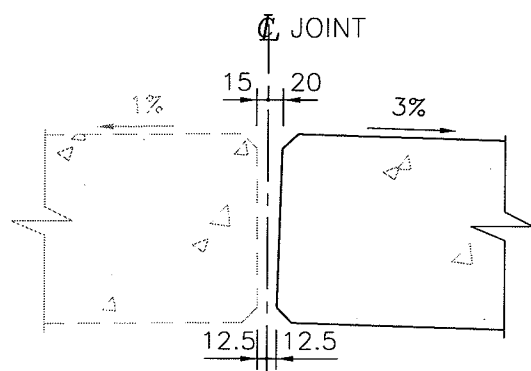


DRIP GROOVE DETAIL
1:2.5 (1/306)

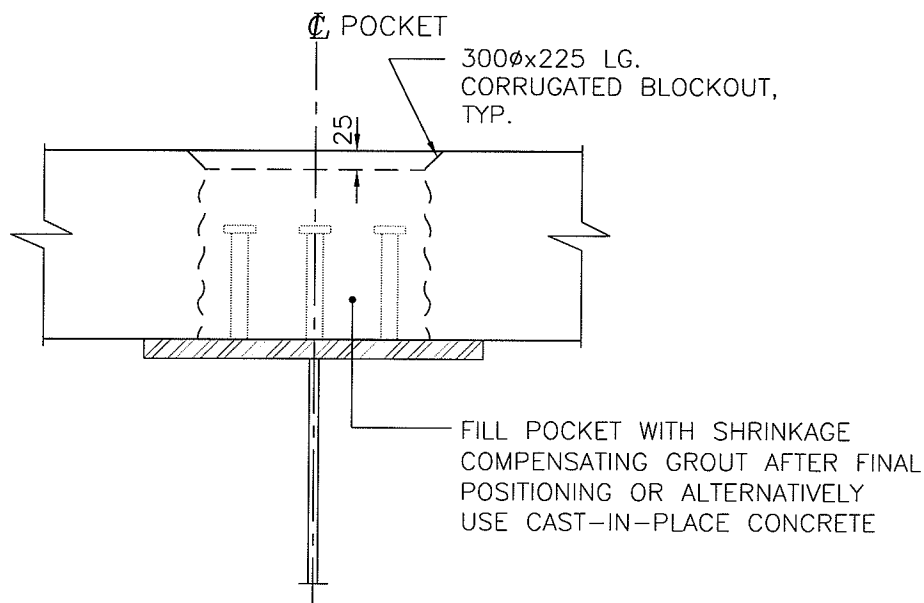
(CONTINUOUS ALONG FULL LENGTH OF BRIDGE EACH SIDE INTERRUPT AT RAILING AND POST ANCHORS AS REQUIRED)



STAGGER DETAIL
1:10

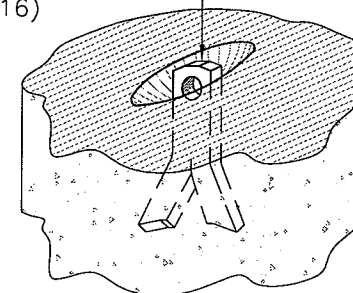


DETAIL 2
1:10 (2/306)



POCKET DETAIL, TYP.
1:10

RECESSED 4 TON BURKE SPREAD ANCHOR (No. 79-116)



LIFTING POINT DETAIL, TYP.
N.T.S. (4 REQ'D PER PANEL)

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	01	23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

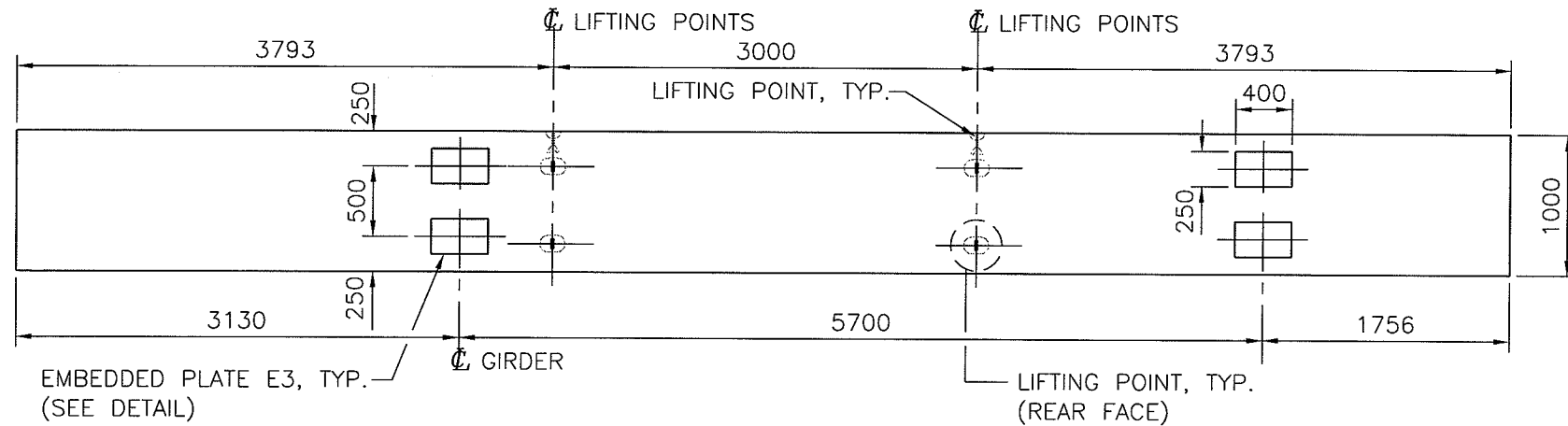
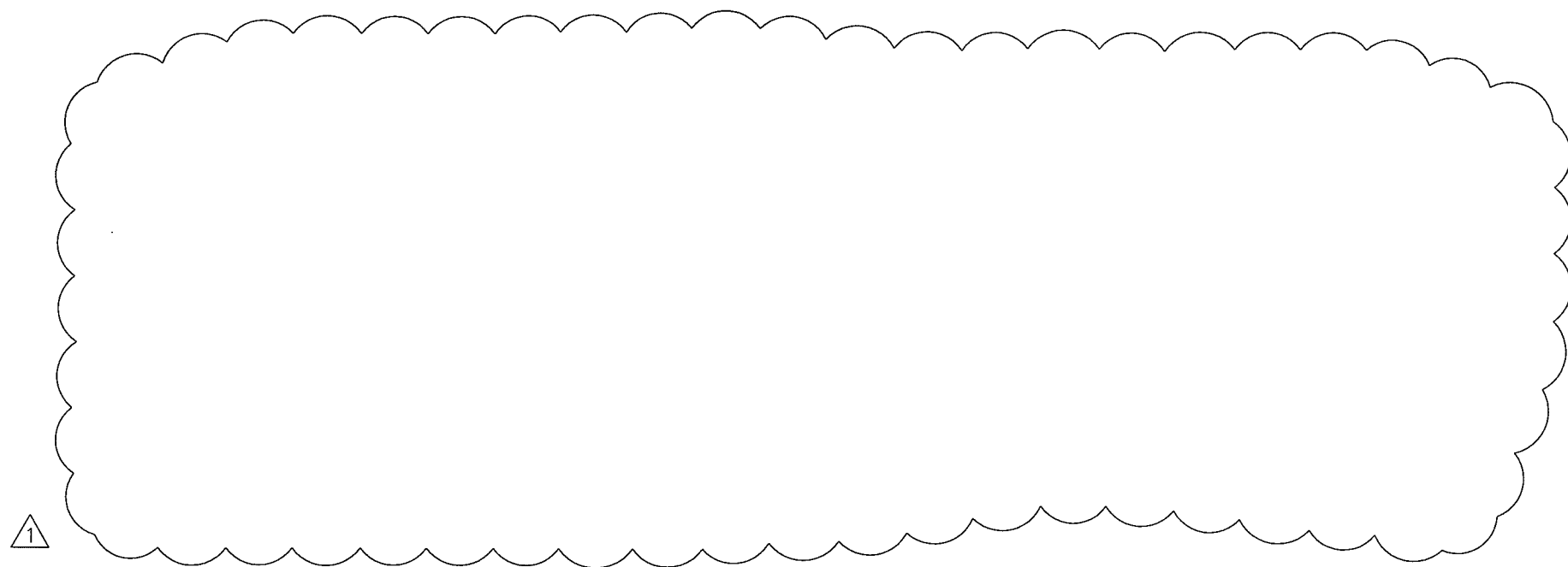
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
PRECAST DECK PANEL DETAILS - SHEET 2

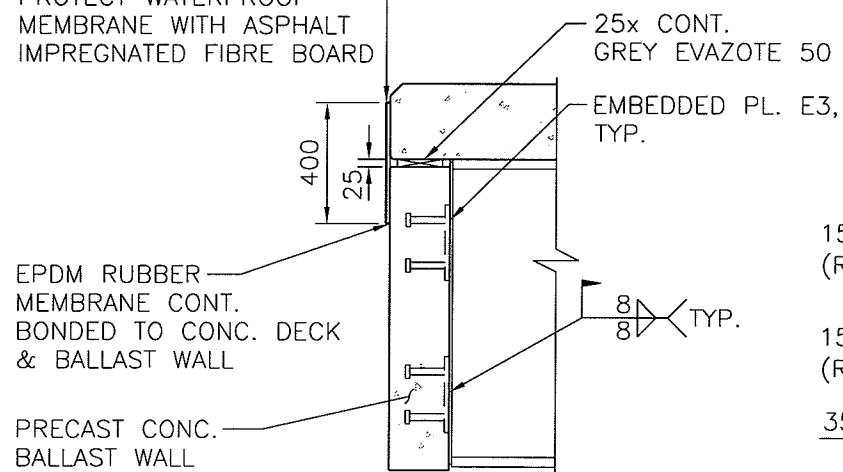
DESIGN:	W.L.
CHECK:	B.R.
DRAWN:	C.K.L.
DATE:	NOVEMBER 2006
SCALE:	AS SHOWN
JOB No.	20062939
DWG. No.	2939-SK-307



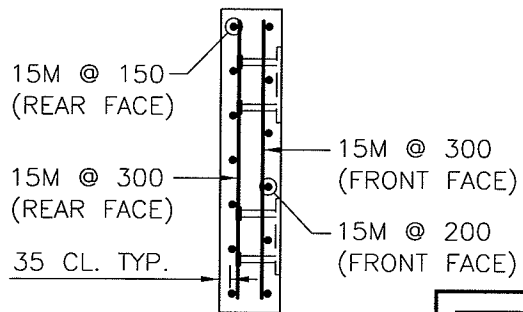


EAST BALLAST WALL ELEVATION
1:50 (1 REQ'D)

PROTECT WATERPROOF
MEMBRANE WITH ASPHALT
IMPREGNATED FIBRE BOARD

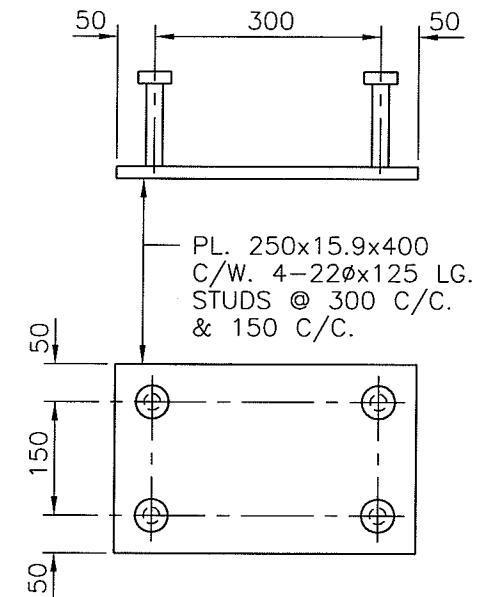


CONNECTION DETAIL



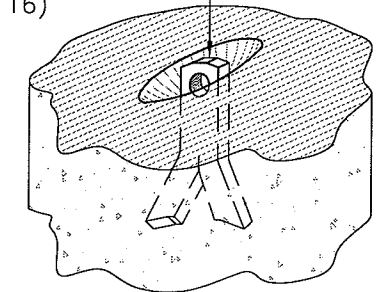
REINFORCEMENT DETAIL

BALLAST WALL DETAILS
1:25



EMBEDDED PLATE E3
1:10 (8 REQ'D)

RECESSED 4 TON
BURKE SPREAD ANCHOR
(No. 79-116)



LIFTING POINT DETAIL
N.T.S. (6 REQ'D PER WALL)

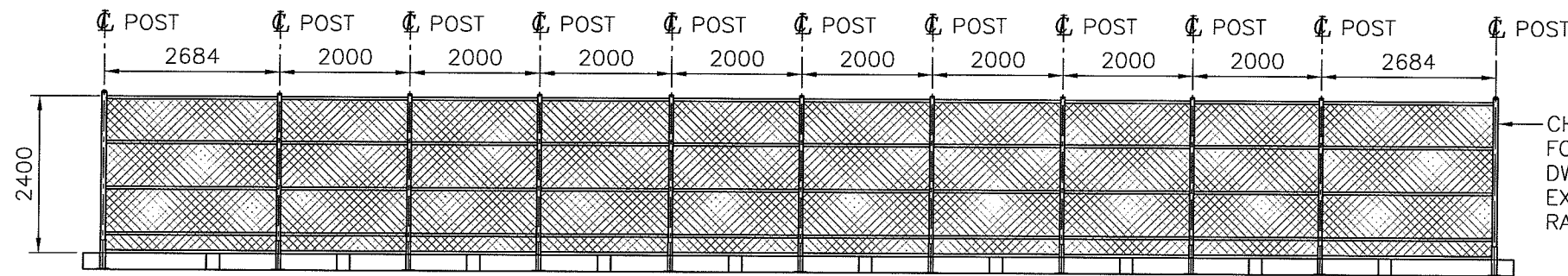
REV	DATE	REVISION DESCRIPTION	ENG	DWN
Y	M	D		
0	07	01 16	ISSUED FOR APPROVAL	W.L. C.K.L.
1	07	01 23	ISSUED FOR CONSTRUCTION	W.L. C.K.L.

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IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
BALLAST WALL DETAILS

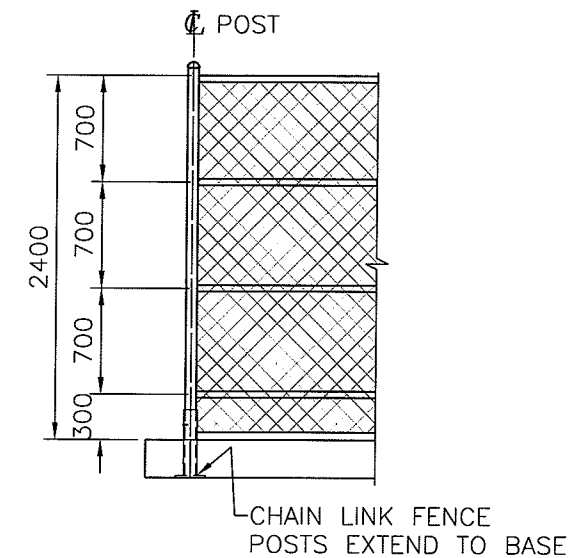
DESIGN: W.L.	
CHECK: B.R.	
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-308	1



CHAIN LINK FENCE ELEVATION

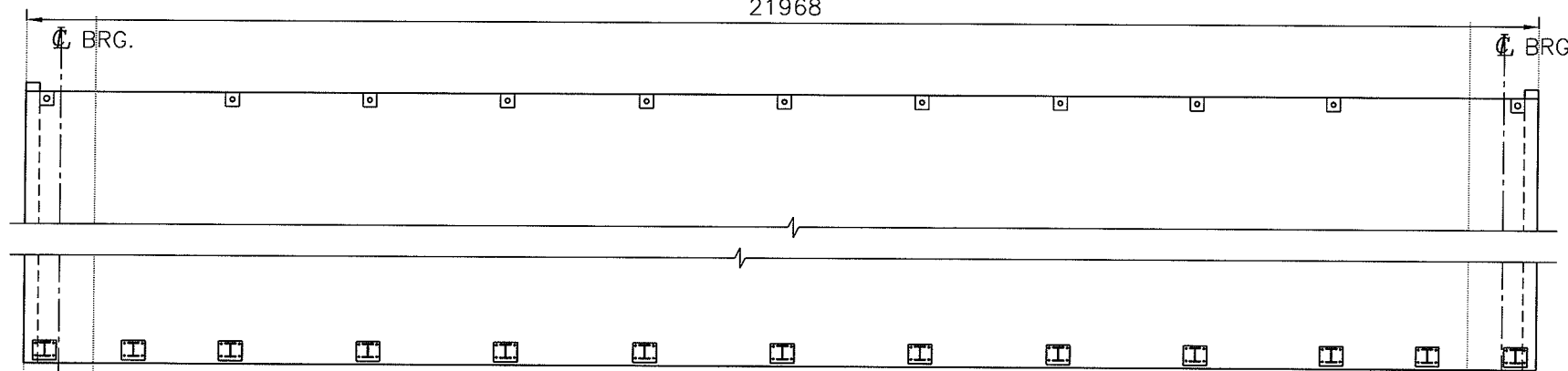
1:100

CHAIN LINK FENCE-TYPE D SECURITY
FOR DETAILS, SEE MOT STD.
DWG. SP741-05.01 & 02
EXCEPT HORIZONTAL BRACE
RAIL SPACING



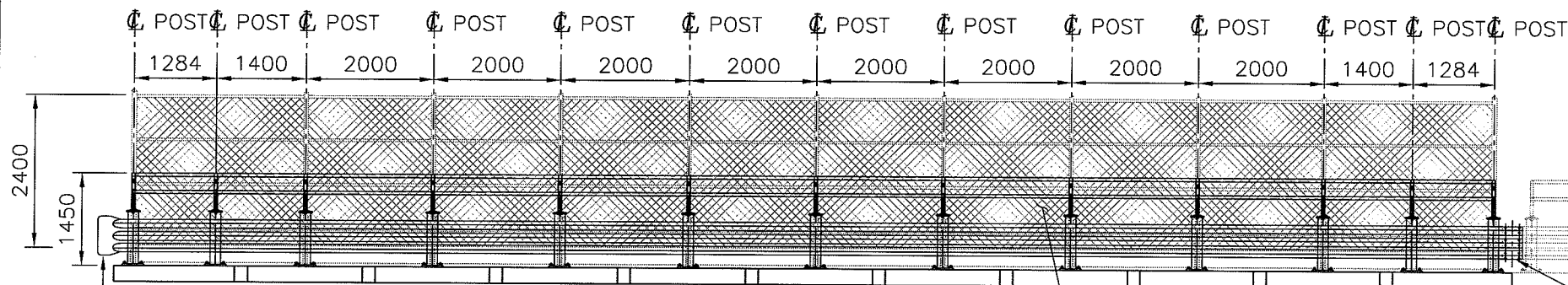
PEDESTRIAN SIDE BRACE RAIL DETAIL

1:50



BARRIER AND RAILING PLAN

1:100



TRAFFIC BARRIER ELEVATION

1:100

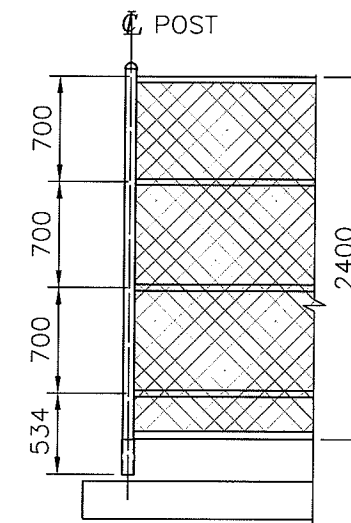
THRIE BEAM TRAFFIC BARRIER
FOR DETAILS, SEE DWG. -310

CHAIN LINK FENCE-TYPE D SECURITY
FOR DETAILS, SEE MOT STD.
DWG. SP741-05.01 & 02
EXCEPT HORIZONTAL BRACE
RAIL SPACING

APPROACH TRAFFIC BARRIER
AND RAILING (BY OTHERS)

EXISTING
ROADWAY

SEE SPLICE DETAIL,
DWG. -310



TRAFFIC SIDE BRACE RAIL DETAIL

1:50

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	01	23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
RAILING DETAILS - SHEET 1

DESIGN:	W.L.
CHECK:	B.R.
DRAWN:	C.K.L.
DATE:	NOVEMBER 2006
SCALE:	AS SHOWN
JOB No.	20062939
DWG. No.	2939-SK-309



CHAIN LINK FENCE POST, TYP.

230 LG. STD. STEEL PIPE
73 O.D., (67 I.D.)
FOR INTERIOR POST
89 O.D., (78 I.D.)
FOR EXTERIOR POST

APPLY SILICONE SEALANT
BENEATH WASHER, TYP.

5mm CAP PLATE
C/W 22Ø DRAINAGE HOLE

BED BASE PLATE P1
ON EPOXY GROUT
SEE DETAIL

4-25Ø ASTM A325
ANCHOR BOLTS
C/W NUTS AND WASHER
GROUTED INTO SLEEVE
USING EPOXY GROUT

16Ø ASTM A307
BUTTON HEAD
POST BOLTS, NUTS,
& WASHERS

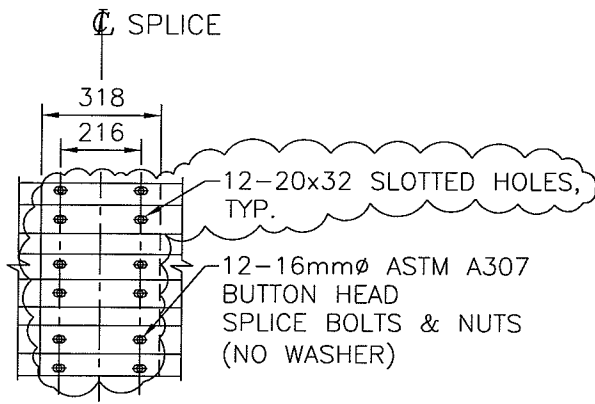
1-THRIE BEAM
RAIL ELEMENT
(10 GAUGE) C/W
END SECTIONS,
FOR DETAILS,
SEE DWG. -309

12.7Ø ASTM A307
THRU BOLT C/W
NUT & WASHER
IN 16Ø HOLES
THRU POST & ANCHOR

EMBEDDED BASE PLATE E1
SEE DWG. -305

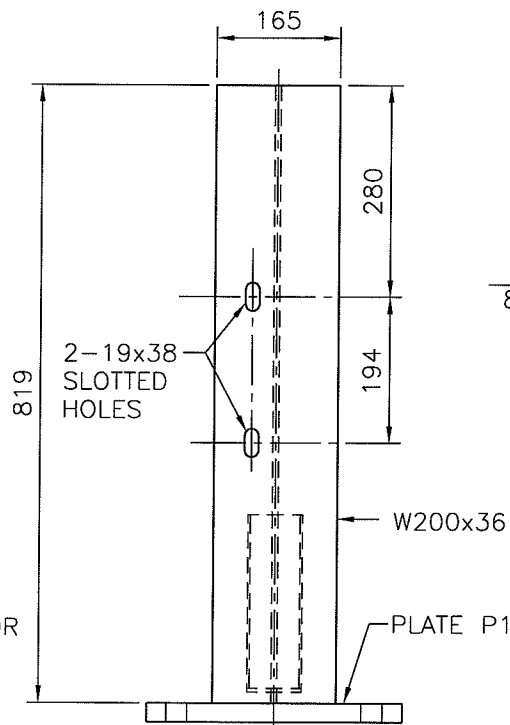
THRIE BEAM RAIL SECTION

1:10



**THRIE BEAM SPLICE DETAIL
AT WEST ABUTMENT**

1:20



POST DETAIL

1:10

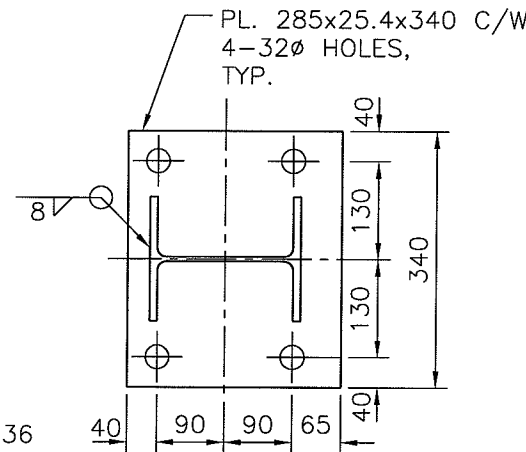


PLATE P1

1:10

PL. 150x15.9x220 C/W
2-SLOTTED HOLES
22Øx50 LG. TYP.

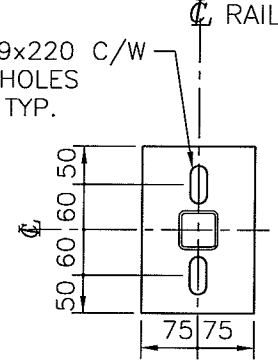
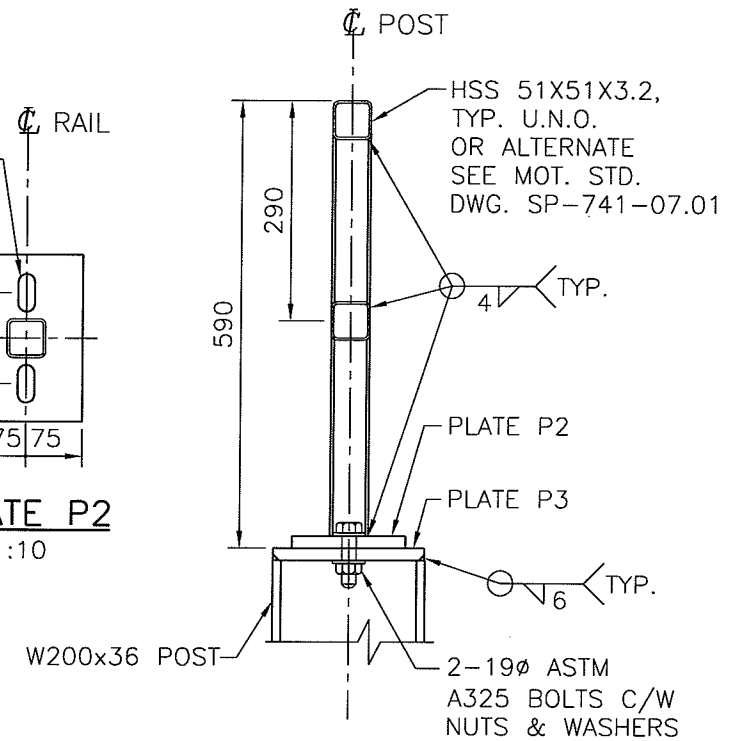


PLATE P2

1:10



RAIL DETAIL

1:10

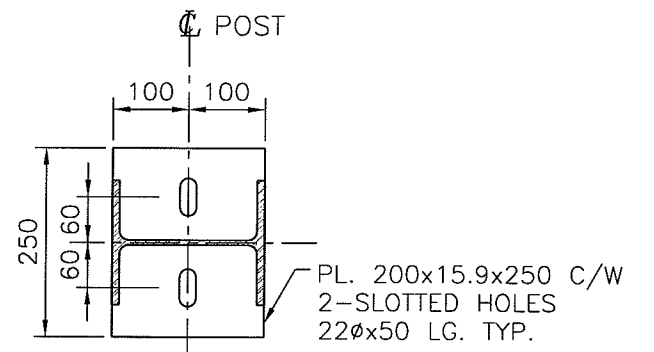


PLATE P3

1:10

NOTE:
1. FOR DETAILS OF RAILING ELEVATION NOT SHOWN, SEE MEDIAN BARRIER RAILING ELEVATION DWG. -311
2. TYPICAL THRIE BEAM SPLICE DETAIL SEE MOT STD. DWG. 6-SP312. FIELD REAM BOLT HOLES IN RAIL AT SPLICE LOCATIONS

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	01	23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

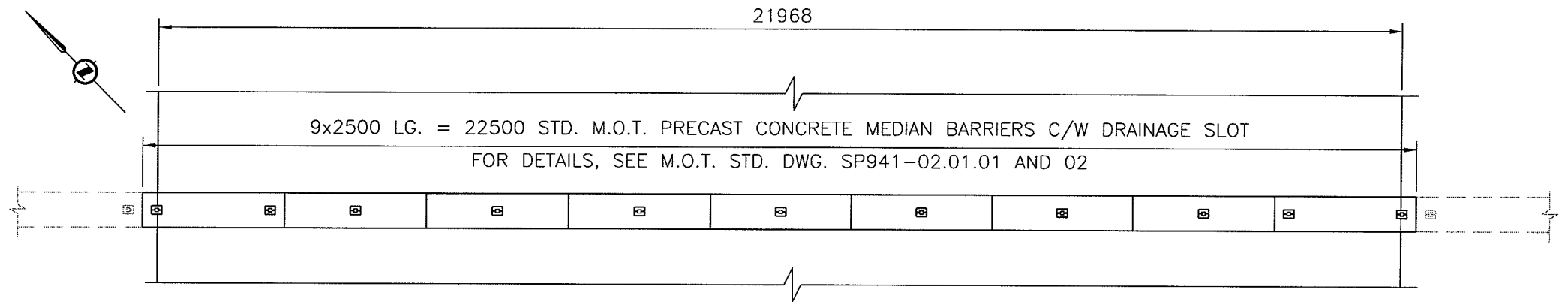
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

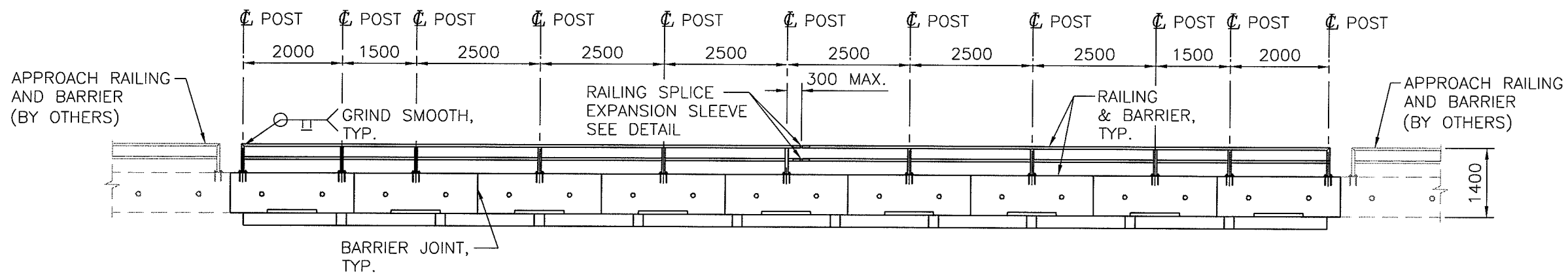
HASTINGS STREET - NORTH BRIDGE
RAILING DETAILS - SHEET 2

DESIGN:	W.L.
CHECK:	B.R.
DRAWN:	C.K.L.
DATE:	NOVEMBER 2006
SCALE:	AS SHOWN
JOB No.	20062939
DWG. No.	2939-SK-310

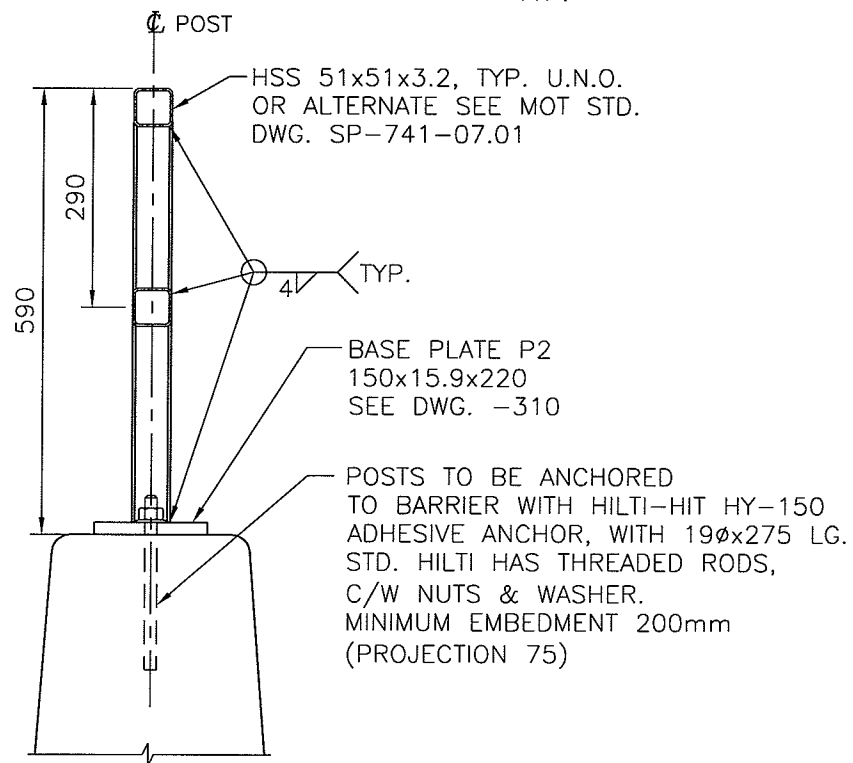




MEDIAN BARRIER PLAN
1:100

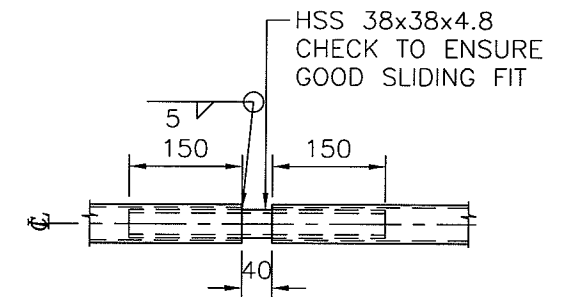


MEDIAN BARRIER AND RAILING
1:100



MEDIAN RAILING DETAIL
1:10

NOTE:
RAIL LENGTHS & POST SPACING MAY VARY TO SUIT PRECAST CONCRETE MEDIAN BARRIER. RAILS MUST SPAN 2 POSTS MINIMUM.



SLEEVE DETAIL
1:10

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	16	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	01	23	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

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IOTA CONSTRUCTION LTD.

HASTINGS STREET - NORTH BRIDGE
RAILING DETAILS - SHEET 3

DESIGN: W.L.	
CHECK: B.R.	
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-311	1



SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - SOUTH BRIDGE

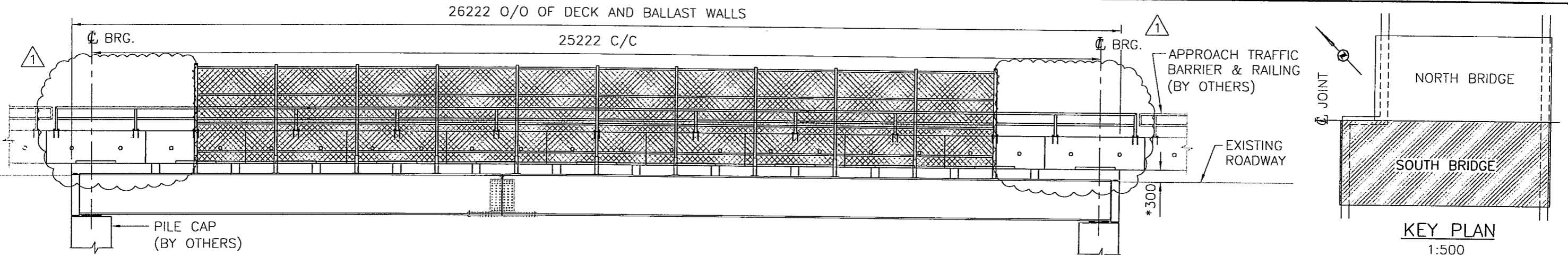


**Associated
Engineering**

DRAWING SCHEDULE

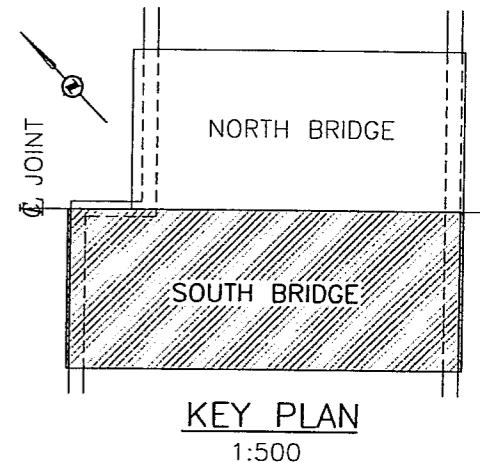
DRAWING No.	DESCRIPTION	REV.	DATE
2939-SK-201	GENERAL ARRANGEMENT	1	07/03/19
2939-SK-202	STEEL GIRDER SHEET 1	1	07/03/19
2939-SK-203	STEEL GIRDER SHEET 2	1	07/03/19
2939-SK-204	STEEL GIRDER SHEET 3	1	07/03/19
2939-SK-205	BEARING DETAILS	1	07/03/19
2939-SK-206	PRECAST DECK PANEL PLAN AND LAYOUT	1	07/03/19
2939-SK-207	PRECAST DECK PANEL DETAILS SHEET 1	1	07/03/19
2939-SK-208	PRECAST DECK PANEL DETAILS SHEET 2	1	07/03/19
2939-SK-209	BALLAST WALL DETAILS	1	07/03/19
2939-SK-210	RAILING DETAILS SHEET 1	1	07/03/19
2939-SK-211	RAILING DETAILS SHEET 2	1	07/03/19

GEOTECHNICAL ENGINEERING IS NOT INCLUDED WITHIN THE SCOPE OF SERVICES BEING PROVIDED BY ASSOCIATED ENGINEERING (B.C.) LTD. THEREFORE THIS DESIGN HAS BEEN PREPARED WITHOUT THE BENEFIT OF GEOTECHNICAL FIELD INVESTIGATION OR ADVICE. GROUND CONDITIONS MAY VARY. THE FOUNDATION REQUIREMENTS AND BRIDGE CONCEPT MAY NEED TO BE MODIFIED TO ACCOMMODATE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION. ASSOCIATED ENGINEERING (B.C.) LTD. ACCEPTS NO LIABILITY OR RESPONSIBILITY FOR DELAY OR ADDITIONAL COSTS WHICH MAY RESULT IF GROUND CONDITIONS VARY FROM THOSE ASSUMED. PLEASE CONTACT ASSOCIATED ENGINEERING (B.C.) LTD. IF GEOTECHNICAL DATA AND RECOMMENDATIONS ARE AVAILABLE FOR THIS BRIDGE CROSSING OR IF THE OWNER WISHES TO EXPAND THE ENGINEERING SERVICES TO INCORPORATE THIS EXTRA WORK.



ELEVATION (LOOKING NORTH)
1:100

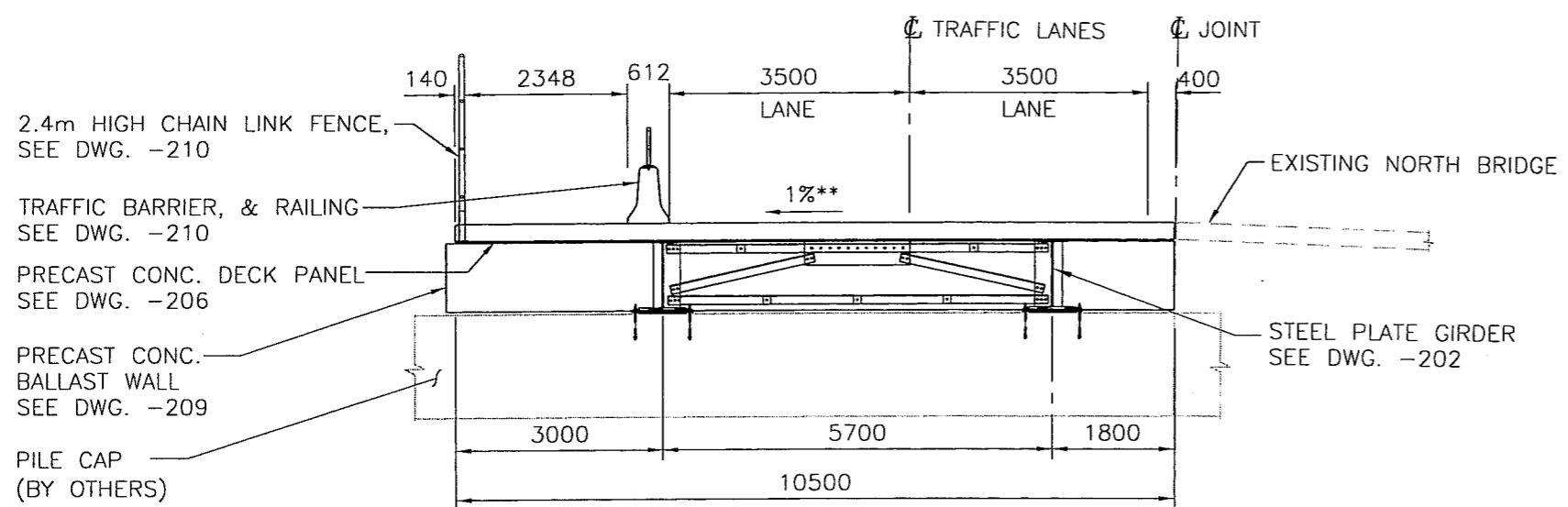
NOTE:
* CONTRACTOR TO CONFIRM PRIOR TO CONSTRUCTION



KEY PLAN
1:500

NOTES

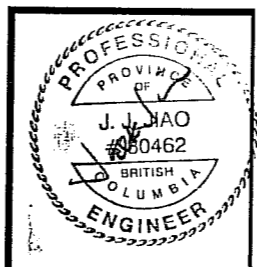
1. FOR INSTALLATION BY OTHERS. NO RESPONSIBILITY CAN BE ACCEPTED FOR WORK BY OTHERS.
2. DESIGN SPECIFICATIONS:
 - CAN/CSA-S6-00 CANADIAN HIGHWAY BRIDGE DESIGN CODE.
3. UTILITY DESIGN LOADS:
 - 5.0 kN/m UNIFORMLY DISTRIBUTED LOAD ALONG THE LENGTH OF THE BRIDGE.
 - 3.0 kN/m UNIFORMLY DISTRIBUTED LOAD TRANSVERSELY ACROSS THE BRIDGE 0.5m IN FRONT OF EACH ABUTMENT.
 - 5.0 kN POINT LOADS FOR UTILITY SUPPORT TRUSSES ON THE OUTSIDE FACE OF EACH GIRDER AT QUARTER SPAN.
 - 2-10 kN POINT LOADS FOR UTILITY SUPPORT TRUSSES ON THE OUTSIDE FACE OF EACH GIRDER AT CENTRE SPAN.
 - 56 kN POINT LOAD FOR WALKWAY FRAMING AT 2.5m FROM C/O OF WEST BEARING.
4. DESIGN TRUCK LOADING: CL 625
5. CONSTRUCTION EQUIPMENT: 85,000 lb EXCAVATOR, PLUS MAXIMUM 30,000 lb DECK PANEL LOAD (CENTERED BETWEEN GIRDERS)
6. ALL STEELWORK TO CONFORM TO CSA SPECIFICATIONS CAN3-G40.21M GRADE AS FOLLOWS: ALL FLANGES AND WEBS: 350WT CATEGORY 3
STEEL PIPE: ASTM A53
ALL OTHER STEEL: 350W
7. WELDING TO CONFORM TO CSA W59 6mm FILLET WELD, U/N.
FIELD WELDERS TO BE CERTIFIED TO CSA-W47.
8. FLANGE TO WEB WELDS SHALL BE BY AN AUTOMATIC PROCESS WHICH PROVIDES A CONTINUOUS WELD THROUGHOUT THE LENGTH OF EACH GIRDER SEGMENT.
9. ALL BOLTS TO CONFORM TO ASTM A325 M22, UNLESS NOTED OTHERWISE. INSTALLED IN ACCORDANCE WITH CAN/CSA-S6-00.
TORQUE RAILING ANCHOR BOLTS USING TURN-OF-THE-NUT METHOD.
10. SHEAR STUD CONNECTORS TO CONFORM TO ASTM A108 GRADE 1015, 1018, 1020.
11. ALL CONCRETE TO CONFORM TO CAN/CSA-A23.1 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS EXCEPT AS NOTED.
12. PRECAST CONCRETE: CSA A23.4 BY CSA CERTIFIED PLANT. (EXPOSURE CLASS C1)
13. ALL EXPOSED EDGES OF CONCRETE TO BE CHAMFERED 20 EXCEPT AS NOTED.
14. ALL REINFORCING STEEL TO CONFORM TO CSA G30.18M GRADE 400.
15. WELDING OF REINFORCING IS NOT PERMITTED.
16. OZONE RESISTING NATURAL RUBBER BEARING (NATURAL POLYISOPRENE) TO CAN/CSA-S6-00. (GRADE 55 ±5 DUROMETER)
17. MINIMUM EDGE DISTANCE FOR DOWELS OR ANCHOR BOLTS INTO CONCRETE SHALL BE 75mm MEASURED TO THE CLOSEST EDGE OF CONCRETE.
18. GROUT: INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
19. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH MOT SS421.
20. SUPPLY AND INSTALLATION OF MISCELLANEOUS STEEL COMPONENTS SHALL BE IN ACCORDANCE WITH MOT SS422.
21. ABBREVIATIONS:
F.F. DENOTES FAR FACE
N.F. DENOTES NEAR FACE



ABUTMENT ELEVATION (LOOKING WEST)
1:100

NOTE:
** BRIDGE TO BE CONSTRUCTED ON 1% GRADE AS SHOWN

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	03	19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



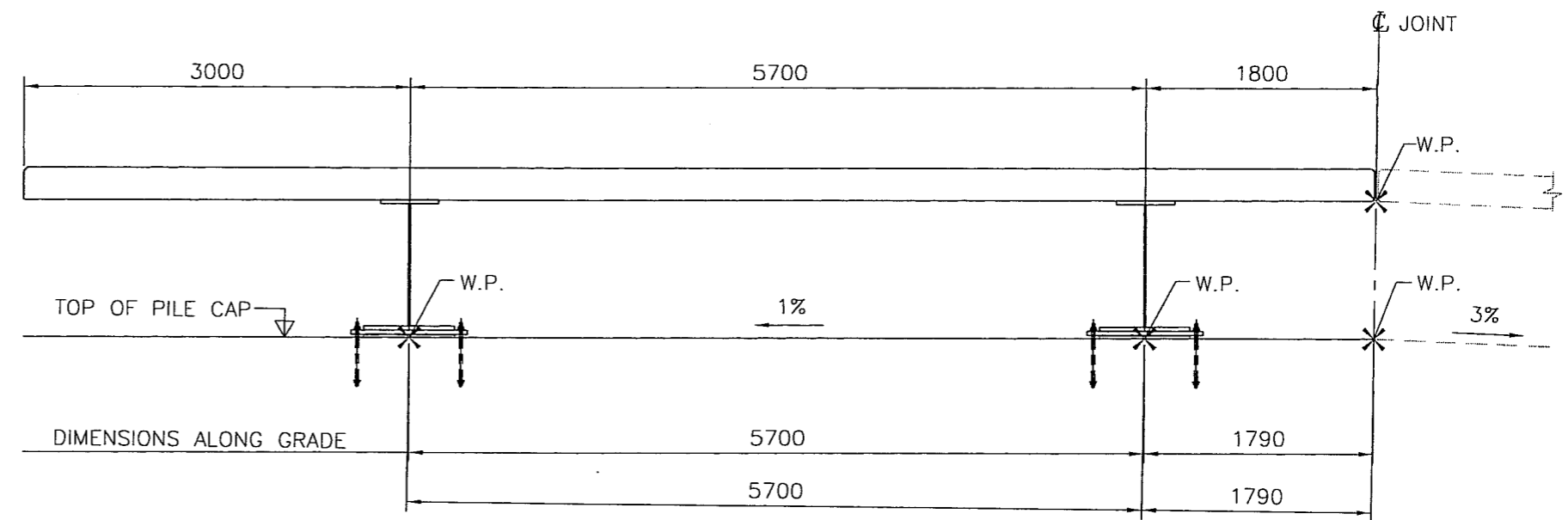
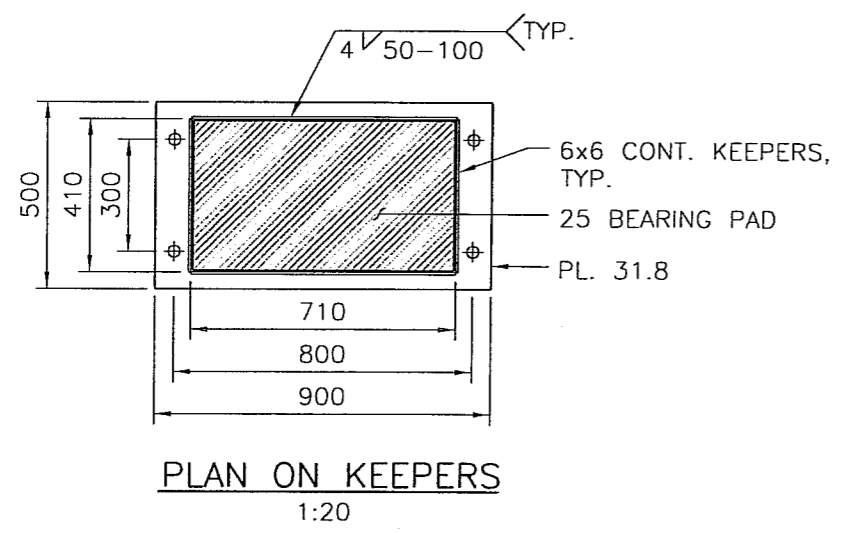
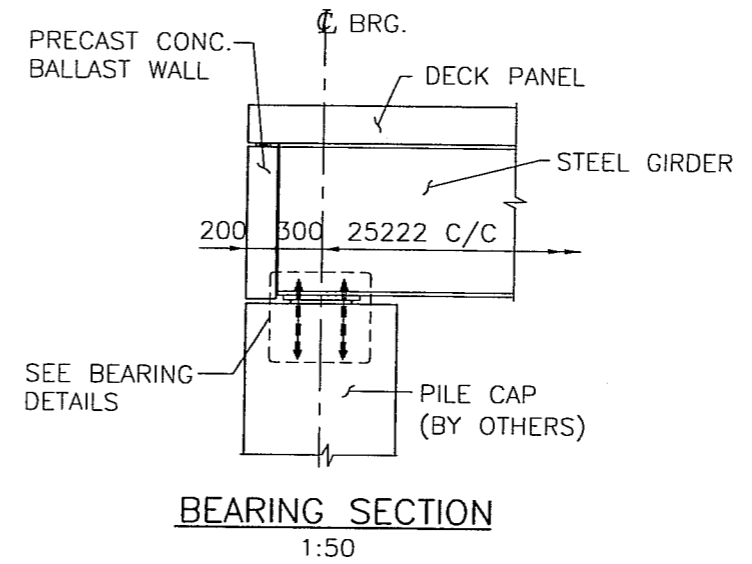
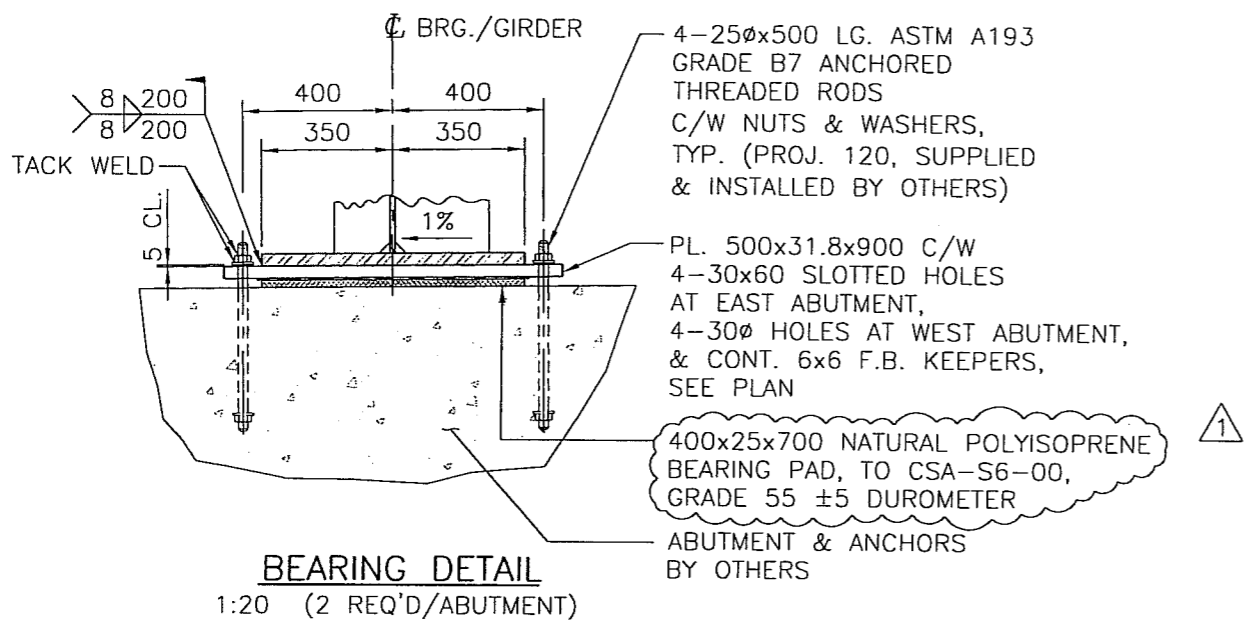
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - SOUTH BRIDGE
GENERAL ARRANGEMENT

DESIGN: W.L.	W
CHECK: B.R.	JS
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-201	1

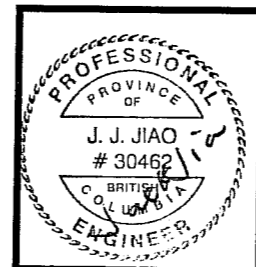




ABUTMENT BEARING DESIGN DATA (LOADS PER BEARING)		
	WEST ABUTMENT	EAST ABUTMENT
TOTAL UNFACTORED DEAD LOAD	809 kN	809 kN
TOTAL UNFACTORED LIVE LOAD *	916 kN	916 kN
TOTAL UNFACTORED LOAD	1725 kN	1725 kN

NOTE: * TOTAL UNFACTORED LIVE LOAD INCLUDES D.L.A.=1.25

REV	DATE	REVISION DESCRIPTION	ENG	DWN
0	07 01 29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 03 19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



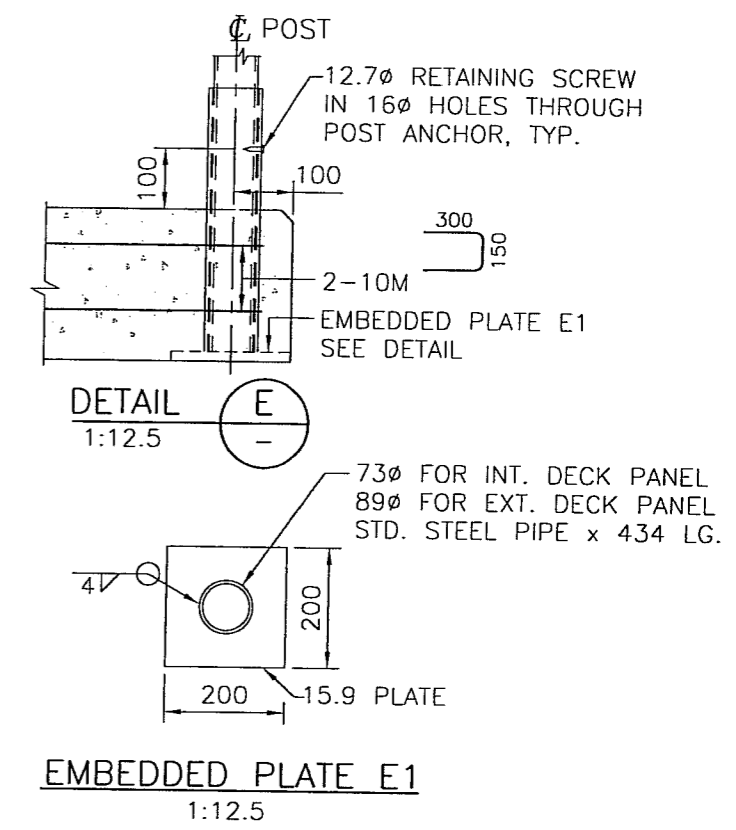
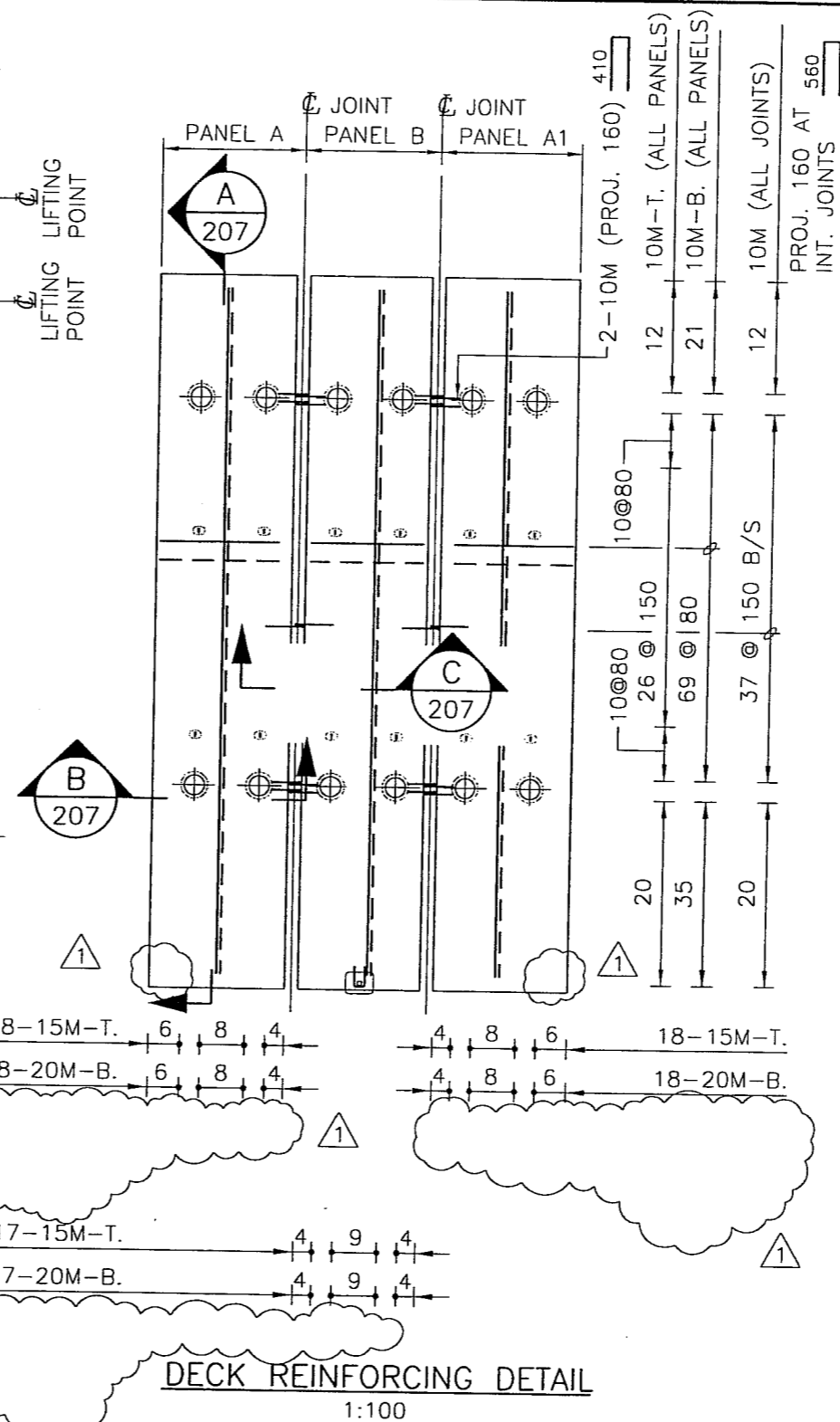
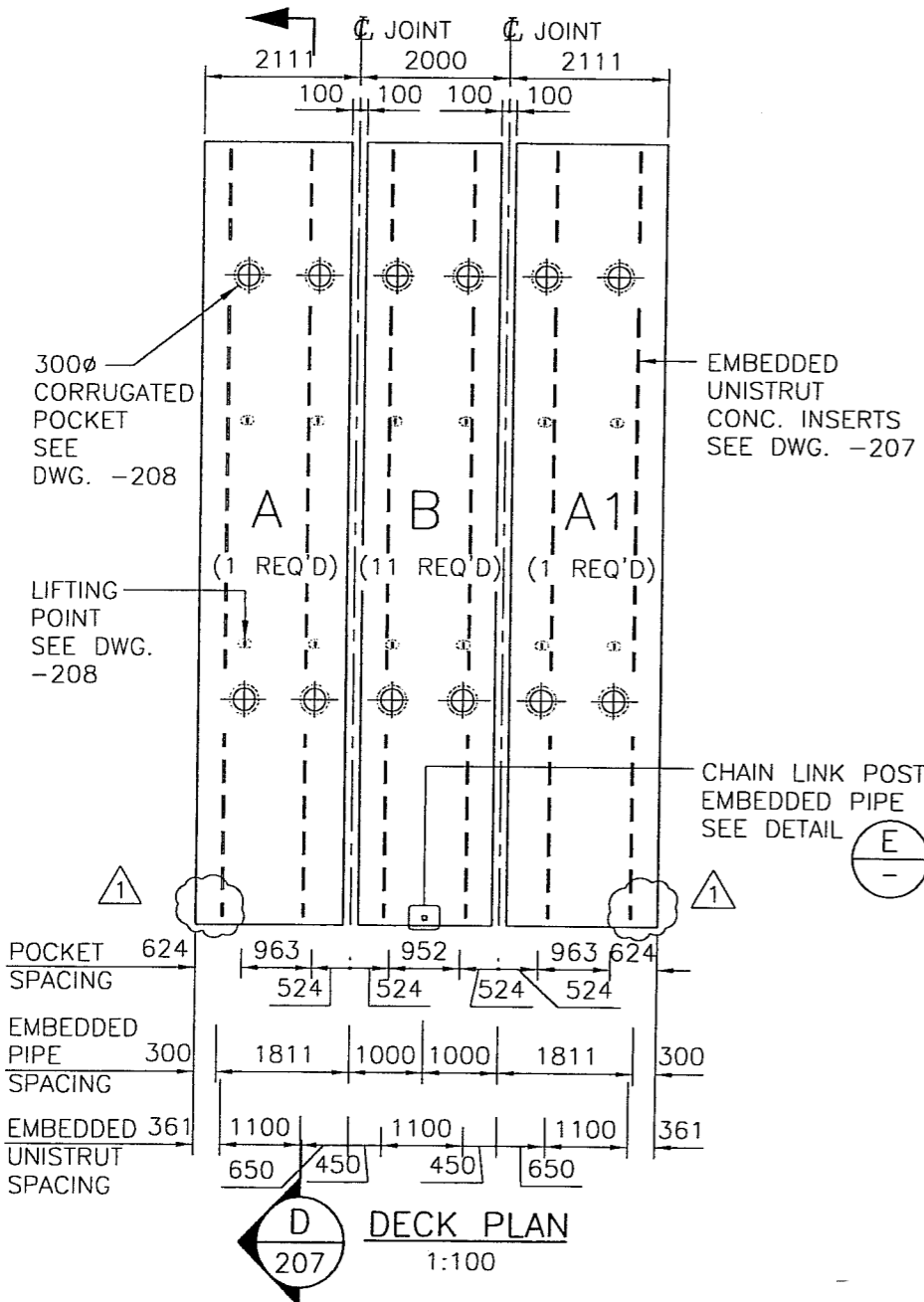
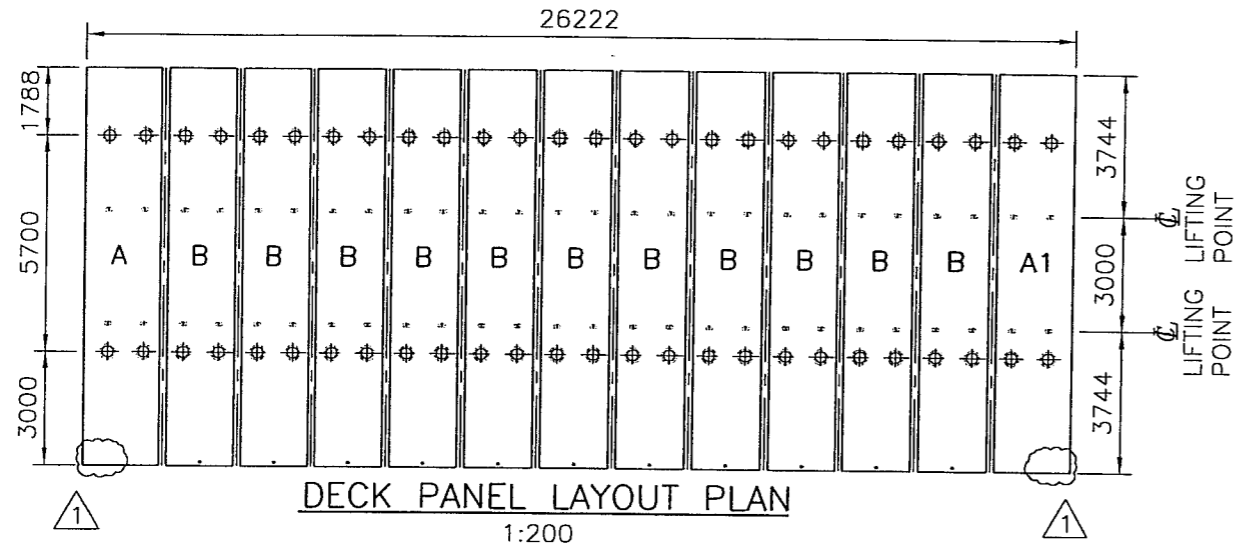
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

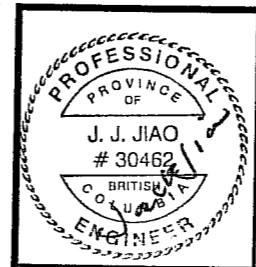
HASTINGS STREET - SOUTH BRIDGE
BEARING DETAILS

DESIGN: W.L.	<i>W</i>
CHECK: B.R.	<i>JJ</i>
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-205	<i>1</i>





REV	DATE	REVISION DESCRIPTION	ENG	DWN
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1	07	03 19	W.L.	C.K.L.

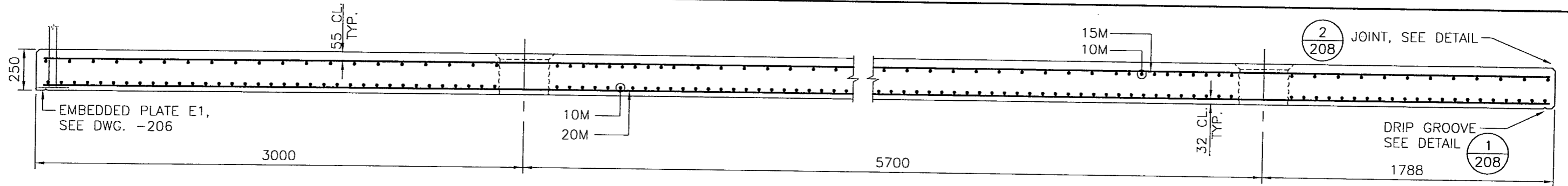


SNC-LAVALIN

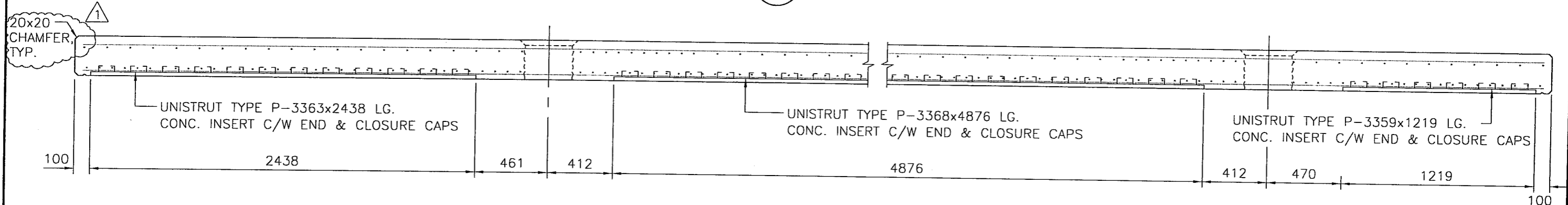
IOTA CONSTRUCTION LTD.

HASTINGS STREET - SOUTH BRIDGE
PRECAST DECK PANEL PLAN & LAYOUT

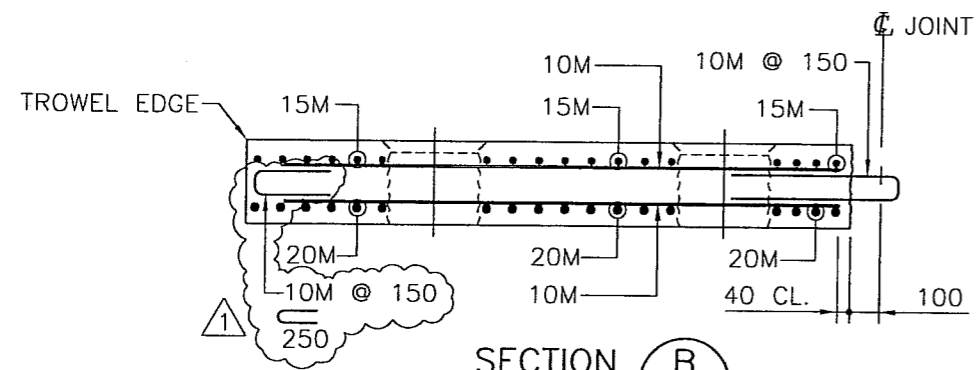
DESIGN: W.L.	W.L.
CHECK: B.R.	JJ
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-206	



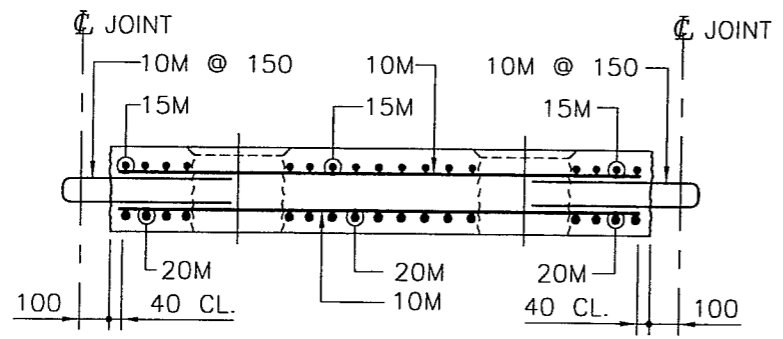
A SECTION
206 1:25



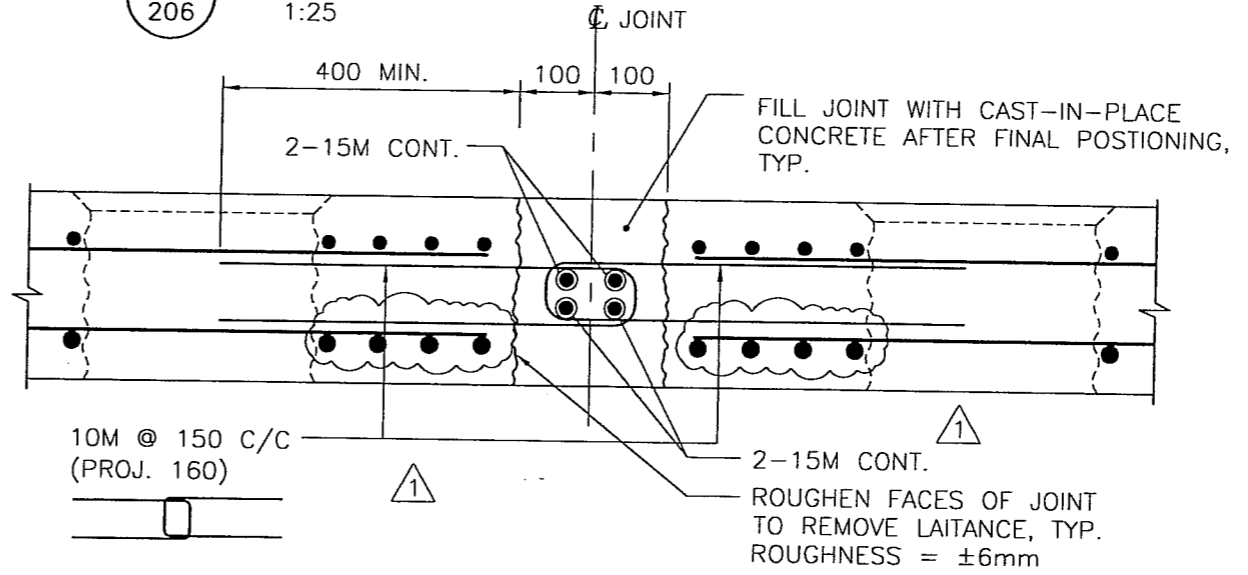
B SECTION
206 1:25



C SECTION
206 1:25

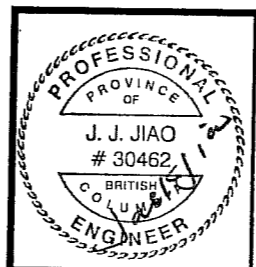


D SECTION
206 1:25



JOINT DETAIL BETWEEN DECK PANELS, TYP.
1:10

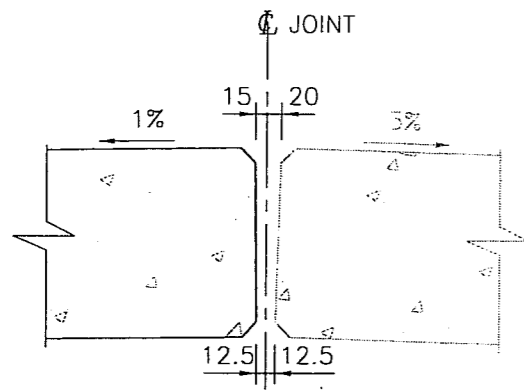
REV	DATE	REVISION DESCRIPTION	ENG	DWN
	Y M D			
0	07 01 29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 03 19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



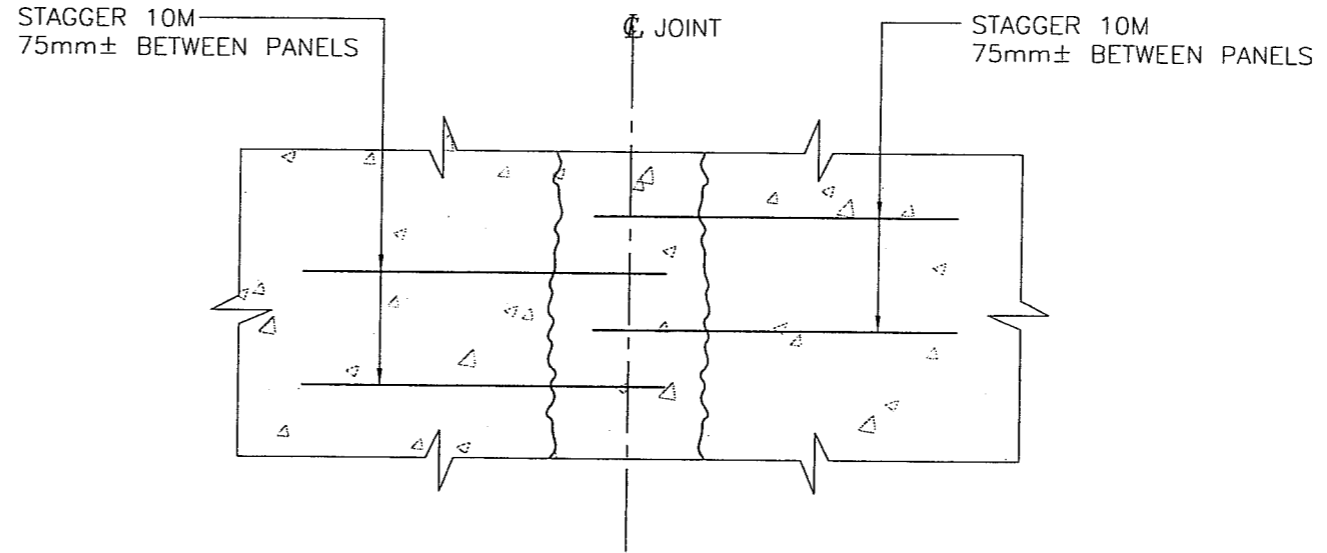
SNC-LAVALIN
IOTA CONSTRUCTION LTD.
HASTINGS STREET - SOUTH BRIDGE
PRECAST DECK PANEL DETAILS SHEET 1

DESIGN: W.L.	M
CHECK: B.R.	JS
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-207	1

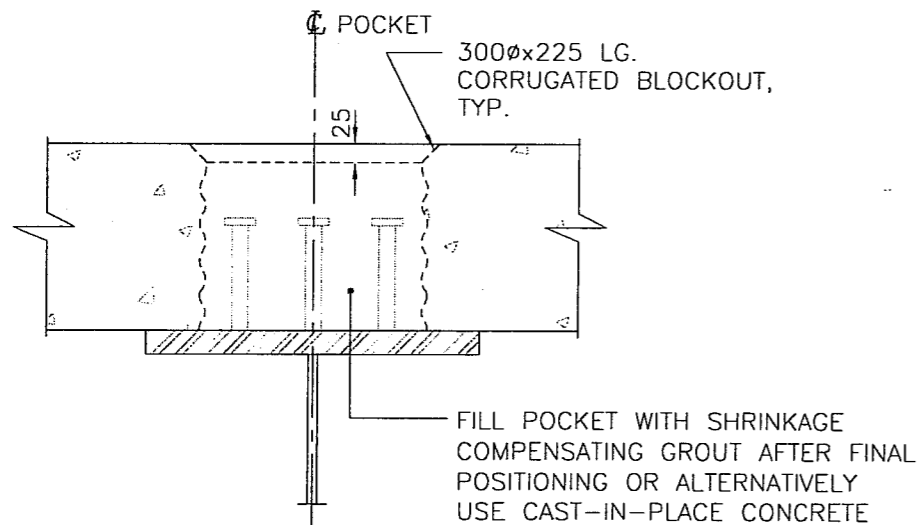




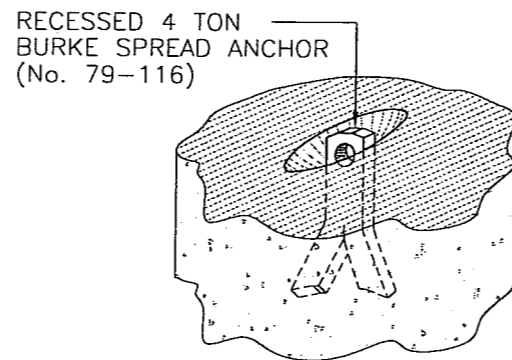
DETAIL 2
1:10 207



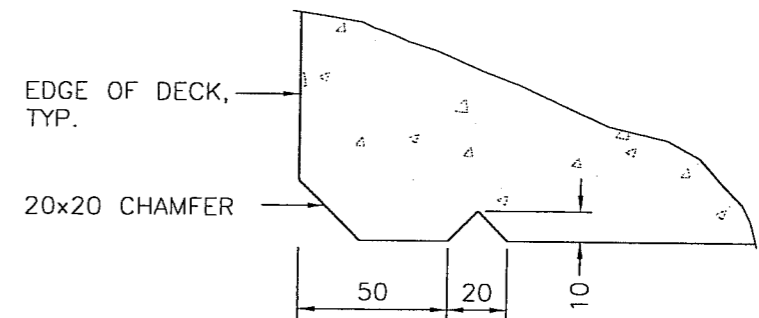
STAGGER DETAIL
1:10



POCKET DETAIL, TYP.
1:10



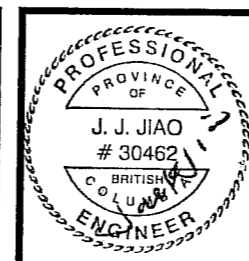
LIFTING POINT DETAIL, TYP.
N.T.S. (4 REQ'D PER PANEL)



(CONTINUOUS ALONG FULL LENGTH OF BRIDGE EACH SIDE INTERRUPT AT EMBEDDED PLATES AS REQUIRED)

DRIP GROOVE DETAIL 1
1:2.5 207

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	03	19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



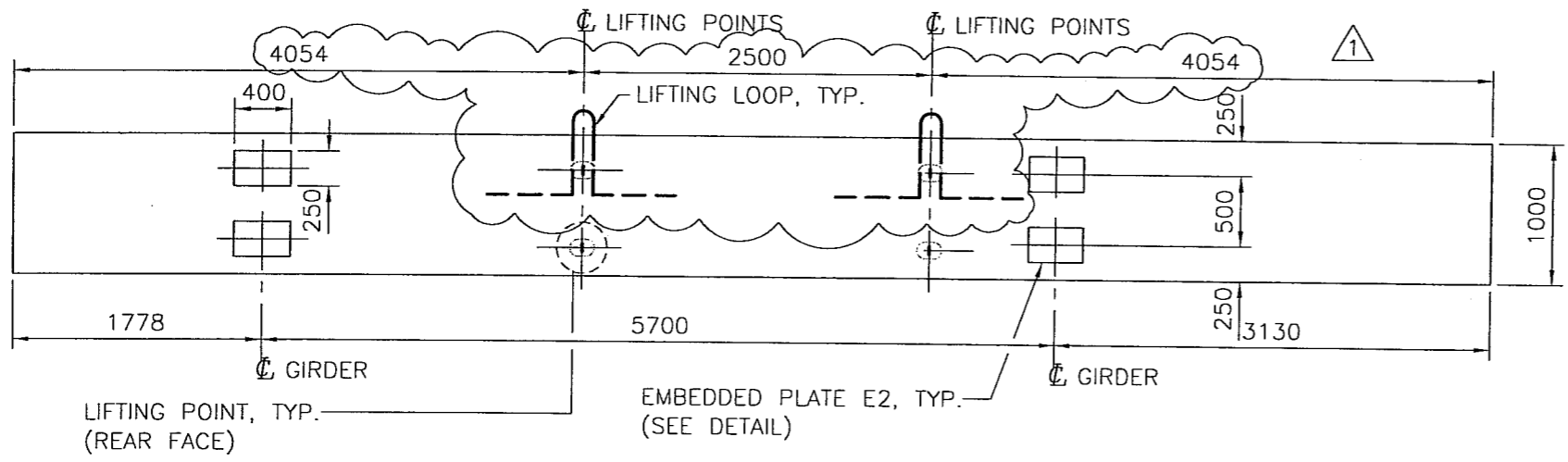
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

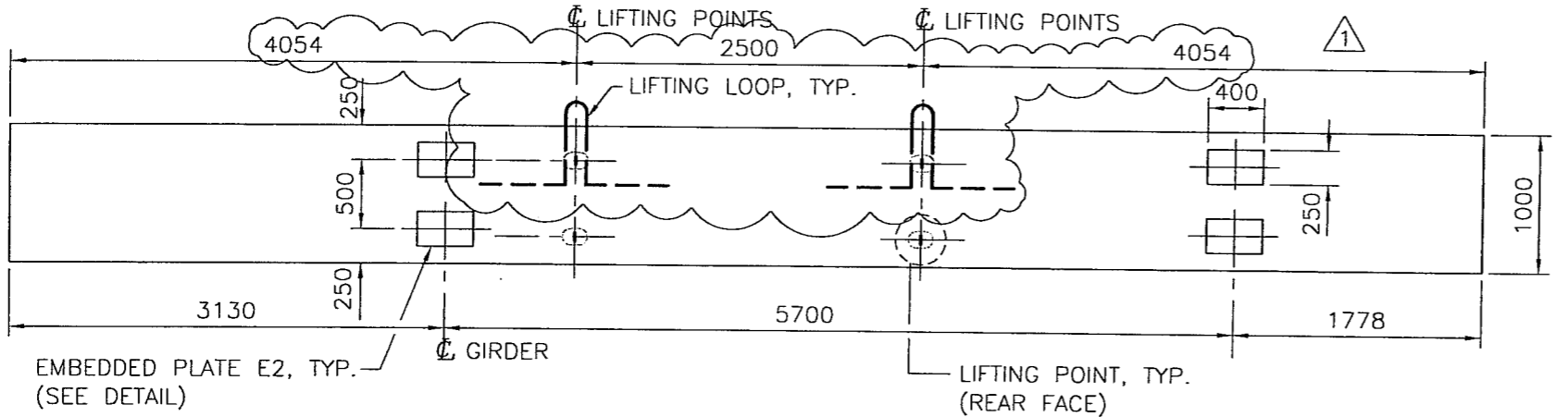
HASTINGS STREET - SOUTH BRIDGE
PRECAST DECK PANEL DETAILS SHEET 2

DESIGN: W.L.	<i>W</i>
CHECK: B.R.	<i>JS</i>
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-208	1

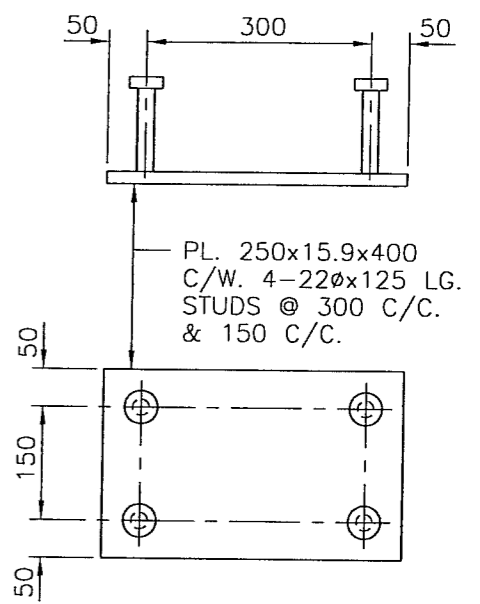




EAST BALLAST WALL ELEVATION
1:50 (1 REQ'D)

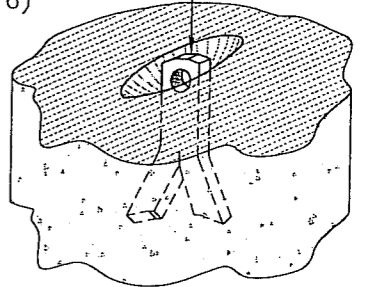


WEST BALLAST WALL ELEVATION
1:50 (1 REQ'D)

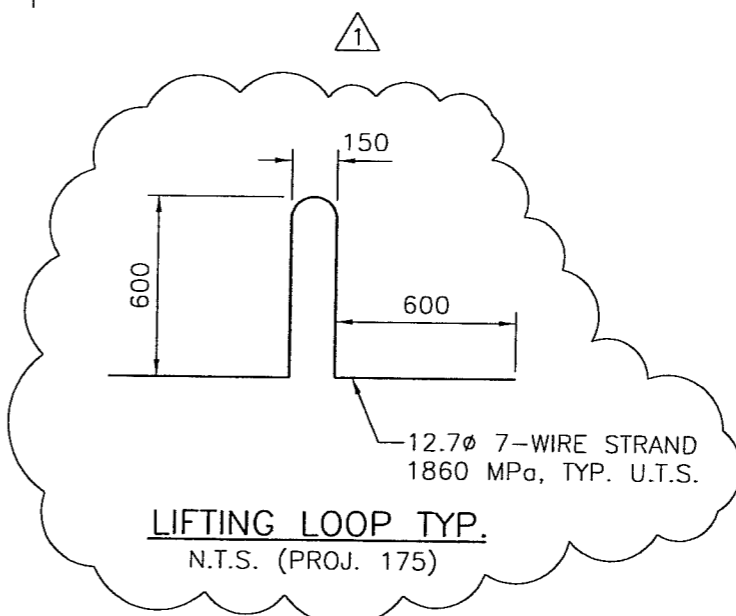


EMBEDDED PLATE E2
1:10 (4 REQ'D PER WALL)

RECESSED 4 TON
BURKE SPREAD ANCHOR
(No. 79-116)



LIFTING POINT DETAIL
N.T.S. (4 REQ'D PER WALL)

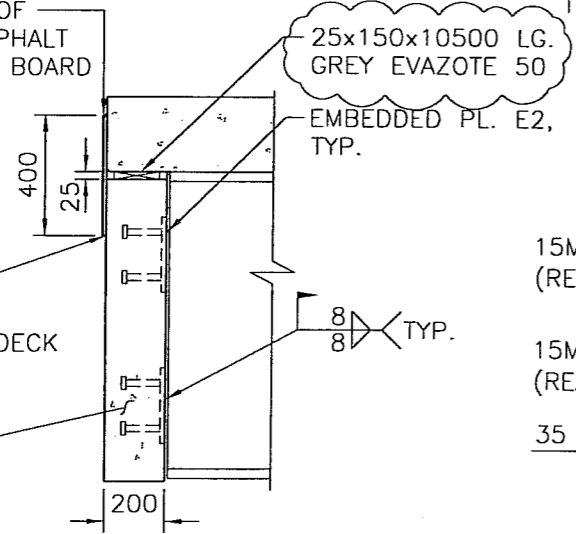


LIFTING LOOP TYP.
N.T.S. (PROJ. 175)

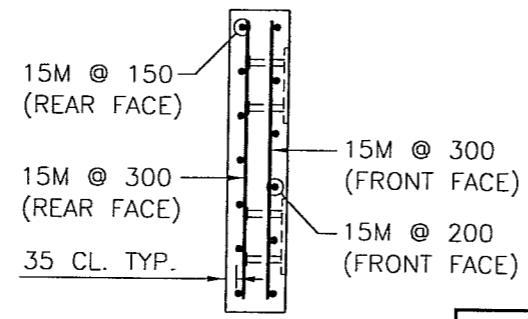
PROTECT WATERPROOF
MEMBRANE WITH ASPHALT
IMPREGNATED FIBRE BOARD

EPDM RUBBER
MEMBRANE CONT.
BONDED TO CONC. DECK
& BALLAST WALL

PRECAST CONC.
BALLAST WALL



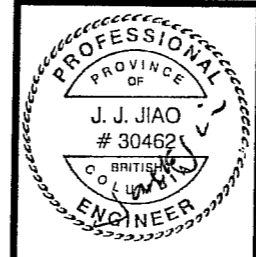
CONNECTION DETAIL



REINFORCEMENT DETAIL

BALLAST WALL DETAILS
1:25

REV	DATE	REVISION DESCRIPTION	ENG	DWN
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1	07 03 19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



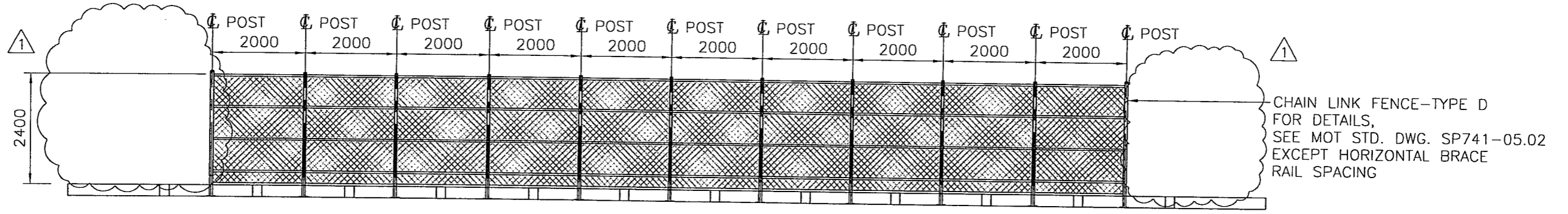
SNC-LAVALIN

IOTA CONSTRUCTION LTD.

HASTINGS STREET - SOUTH BRIDGE
BALLAST WALL DETAILS

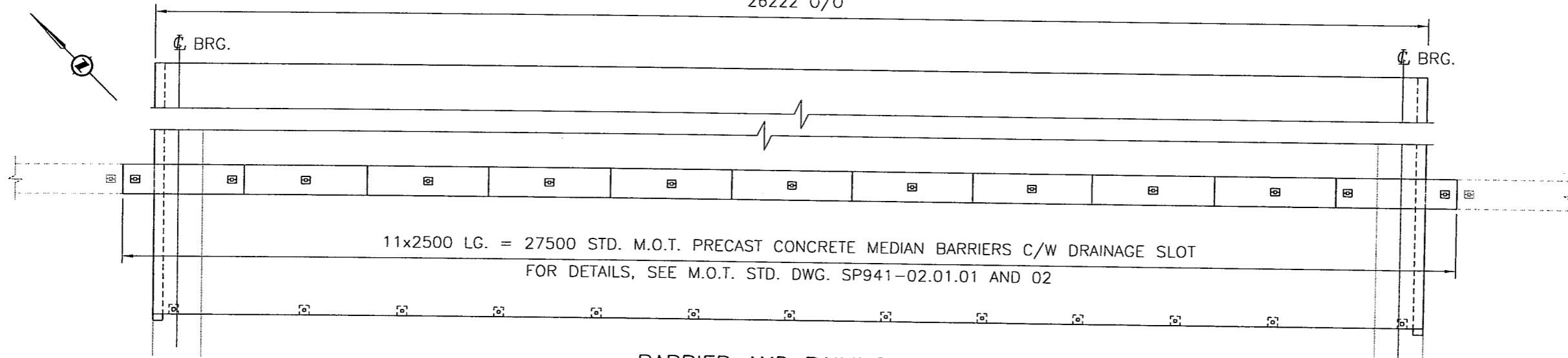
DESIGN: W.L.	W
CHECK: B.R.	JS
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-209	1





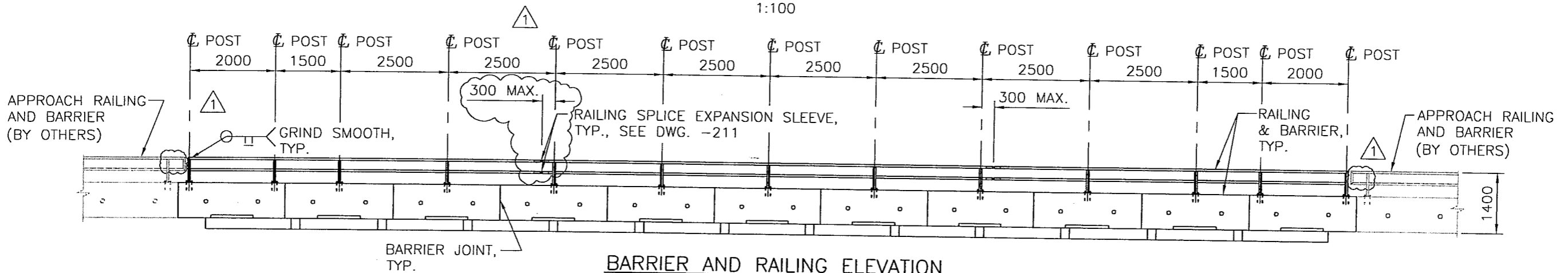
CHAIN LINK FENCE ELEVATION

1:100
26222 0/0



BARRIER AND RAILING PLAN

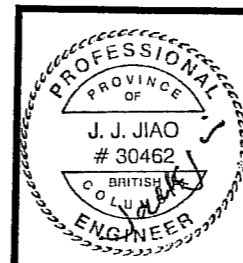
1:100



BARRIER AND RAILING ELEVATION

1:100

REV	DATE	REVISION DESCRIPTION	ENG	DWN
0	07 01 29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07 03 19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.

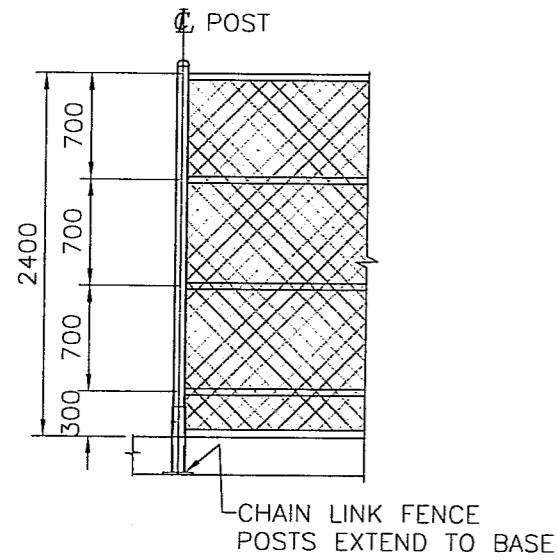


SNC-LAVALIN

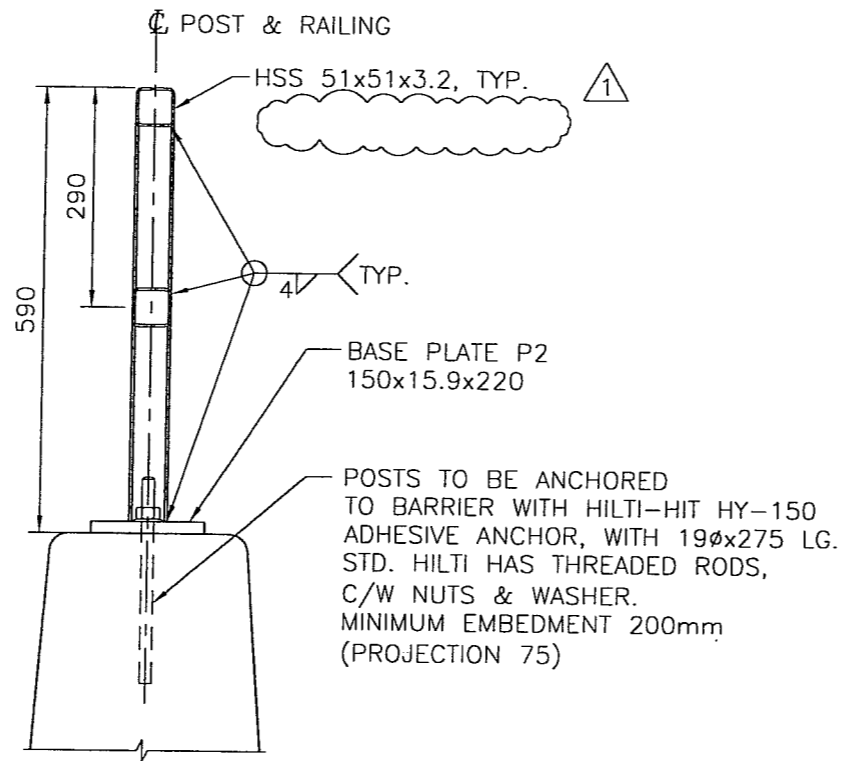
IOTA CONSTRUCTION LTD.

HASTINGS STREET - SOUTH BRIDGE
RAILING DETAILS SHEET 1

DESIGN: W.L.	<i>W.L.</i>
CHECK: B.R.	<i>B.R.</i>
DRAWN: C.K.L.	
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-210	1



HORIZONTAL BRACE RAIL DETAIL
1:50



MEDIAN RAILING DETAIL
1:10

PL. 150x15.9x220 C/W
2-SLOTTED HOLES
22øx50 LG. TYP.

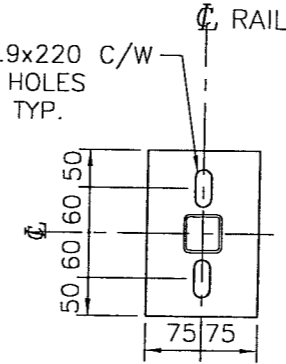
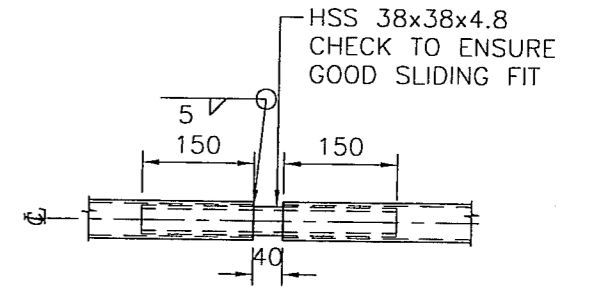


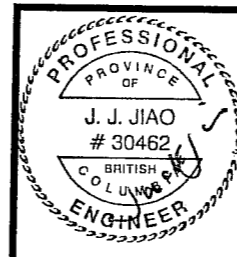
PLATE P2
1:10



SLEEVE DETAIL
1:10

NOTE:
RAIL LENGTHS & POST SPACING
MAY VARY TO SUIT PRECAST CONCRETE
MEDIAN BARRIER. RAILS MUST
SPAN 2 POSTS MINIMUM.

REV	DATE			REVISION DESCRIPTION	ENG	DWN
	Y	M	D			
0	07	01	29	ISSUED FOR APPROVAL	W.L.	C.K.L.
1	07	03	19	ISSUED FOR CONSTRUCTION	W.L.	C.K.L.



SNC-LAVALIN
IOTA CONSTRUCTION LTD.
HASTINGS STREET - SOUTH BRIDGE
RAILING DETAILS SHEET 2

DESIGN: W.L.	W.L.
CHECK: B.R.	B.R.
DRAWN: C.K.L.	C.K.L.
DATE: NOVEMBER 2006	
SCALE: AS SHOWN	
JOB No. 20062939	
DWG. No. 2939-SK-211	1