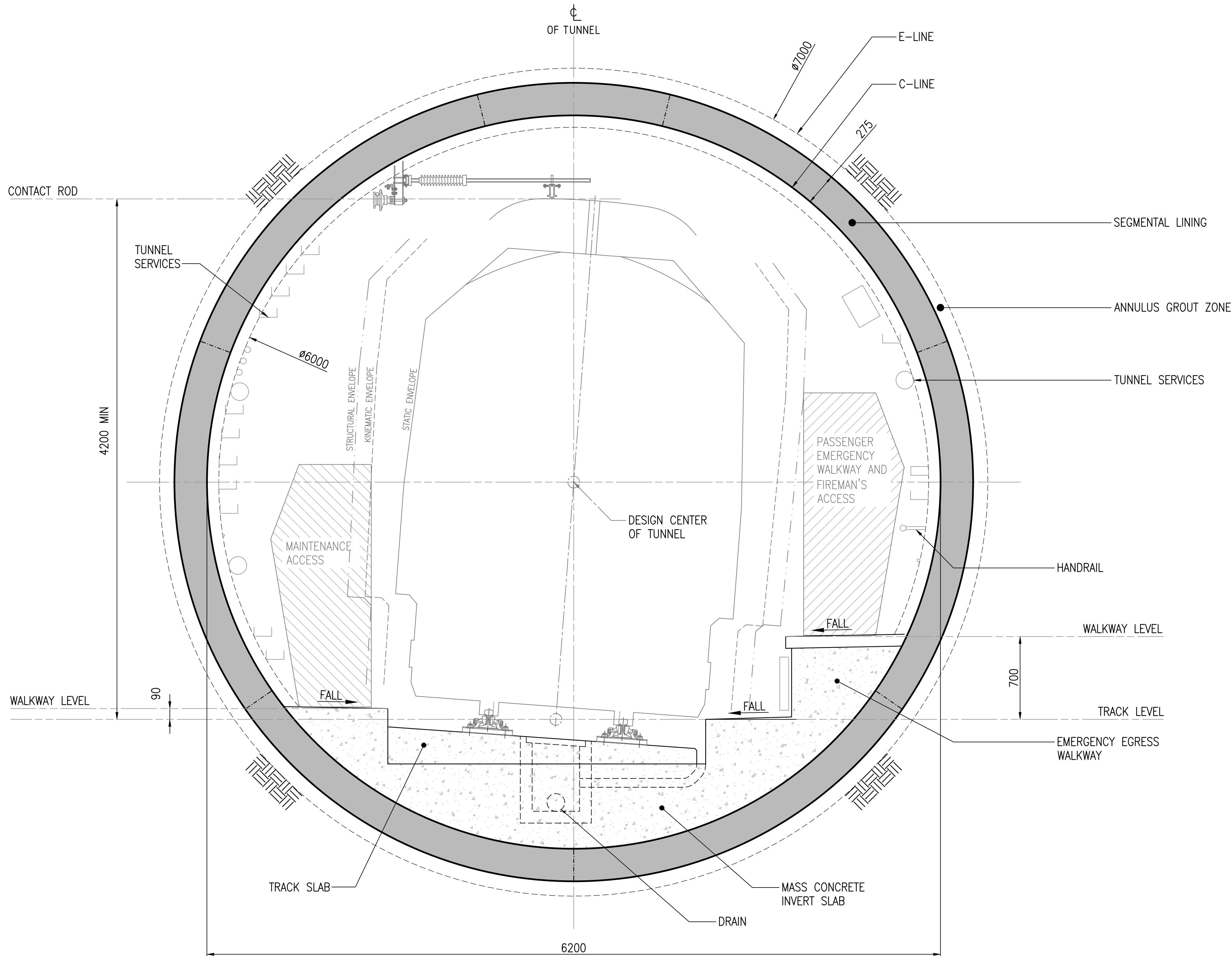


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7 February 2017



BORED TUNNEL – TYPICAL SECTION
SCALE 1:20

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:08pm XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	
Dimensions shown in except where shown otherwise	

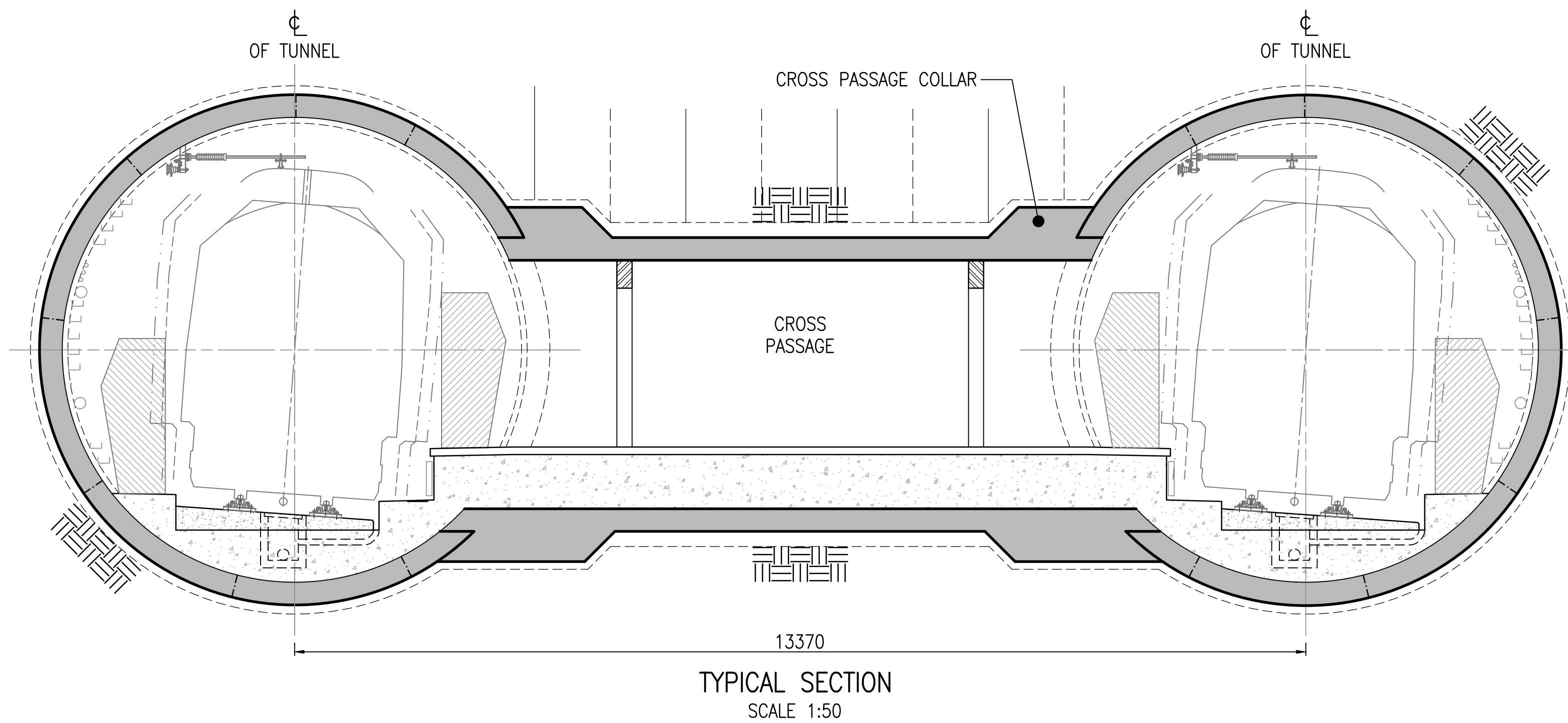
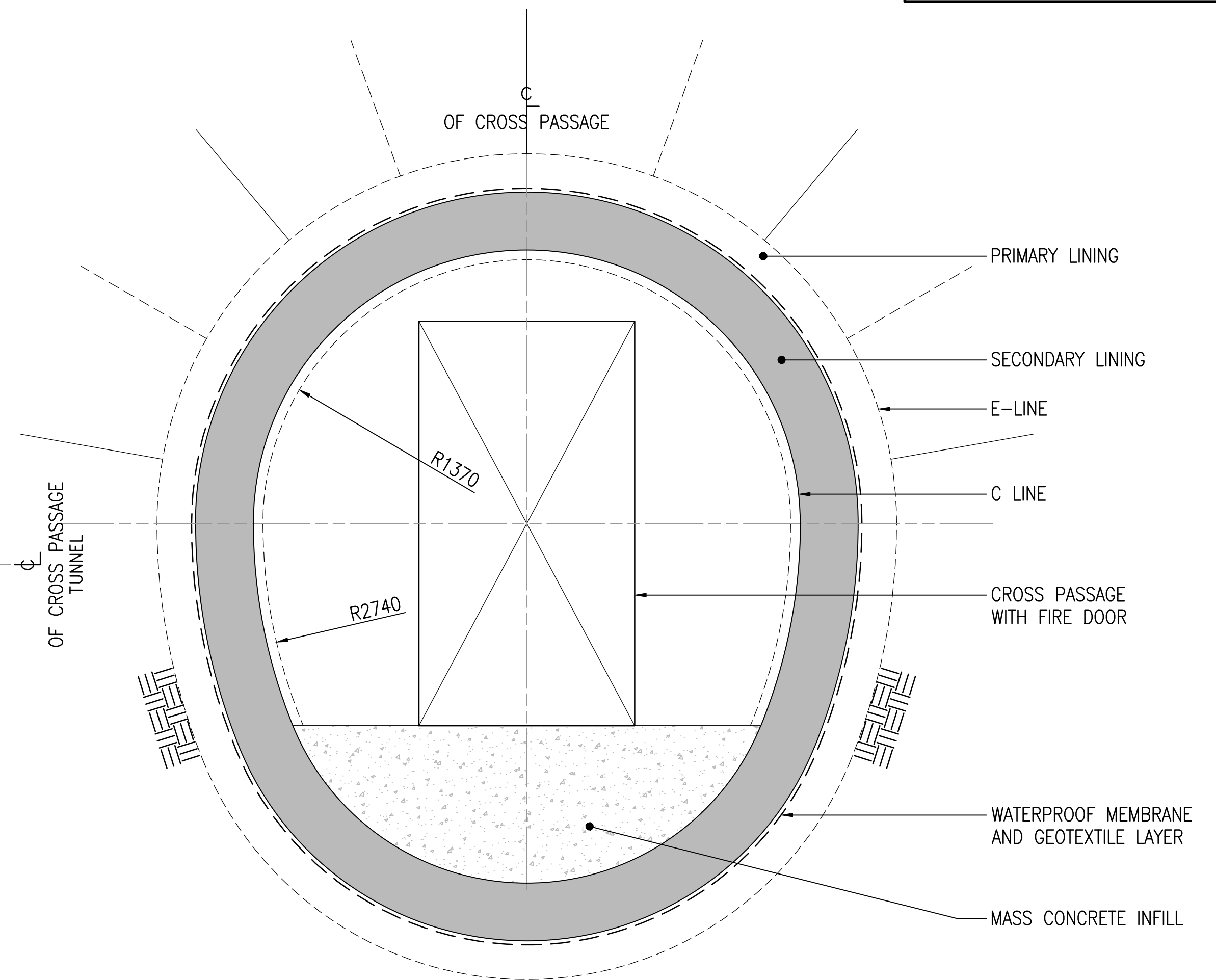
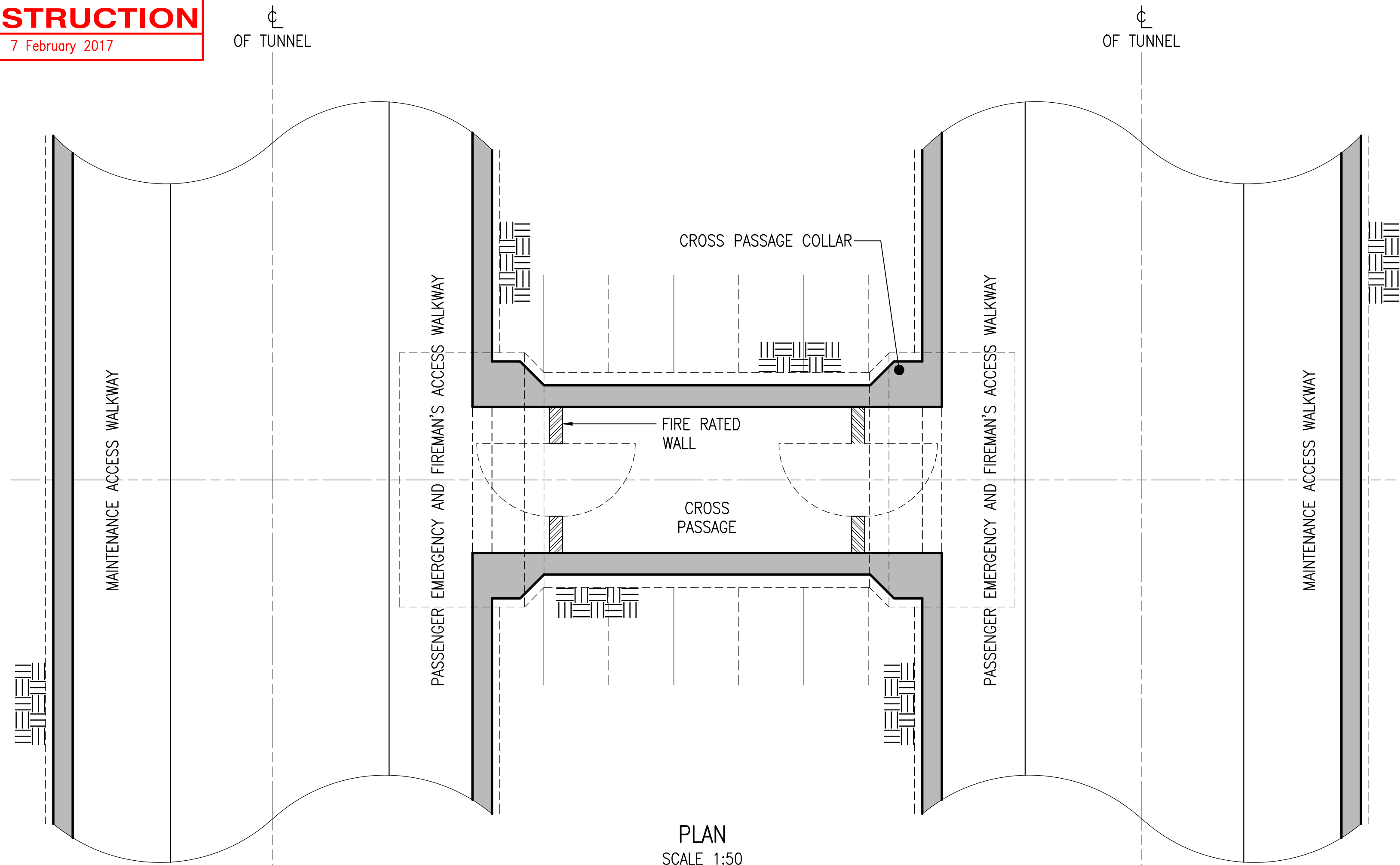
Scales
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1:20 / 1:40

BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS BORED TUNNEL TYPICAL SECTION				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
Designed JD	ENG. AREA CIVIL	NAME J. DONOHUE	SIGNATURE	NO. 7835 DATE 14/10/16

Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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7 February 2017



NOTES

- CROSS PASSAGE WALKWAY LEVEL SHALL MATCH WITH RUNNING TUNNELS' EMERGENCY EGRESS WALKWAY LEVEL.
- TYPICAL CROSS PASSAGE SECTION ALSO APPLICABLE BETWEEN MINED RUNNING TUNNELS.

LEGEND

- E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:08pm XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg

Revisions/Descriptions	Certification	Date	Microfiled
C MINOR REVISION		08/02/17	
B MINOR REVISION		02/11/16	
A ISSUE FOR RFPC		14/10/16	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books

Scales
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Dimensions shown in except where shown otherwise

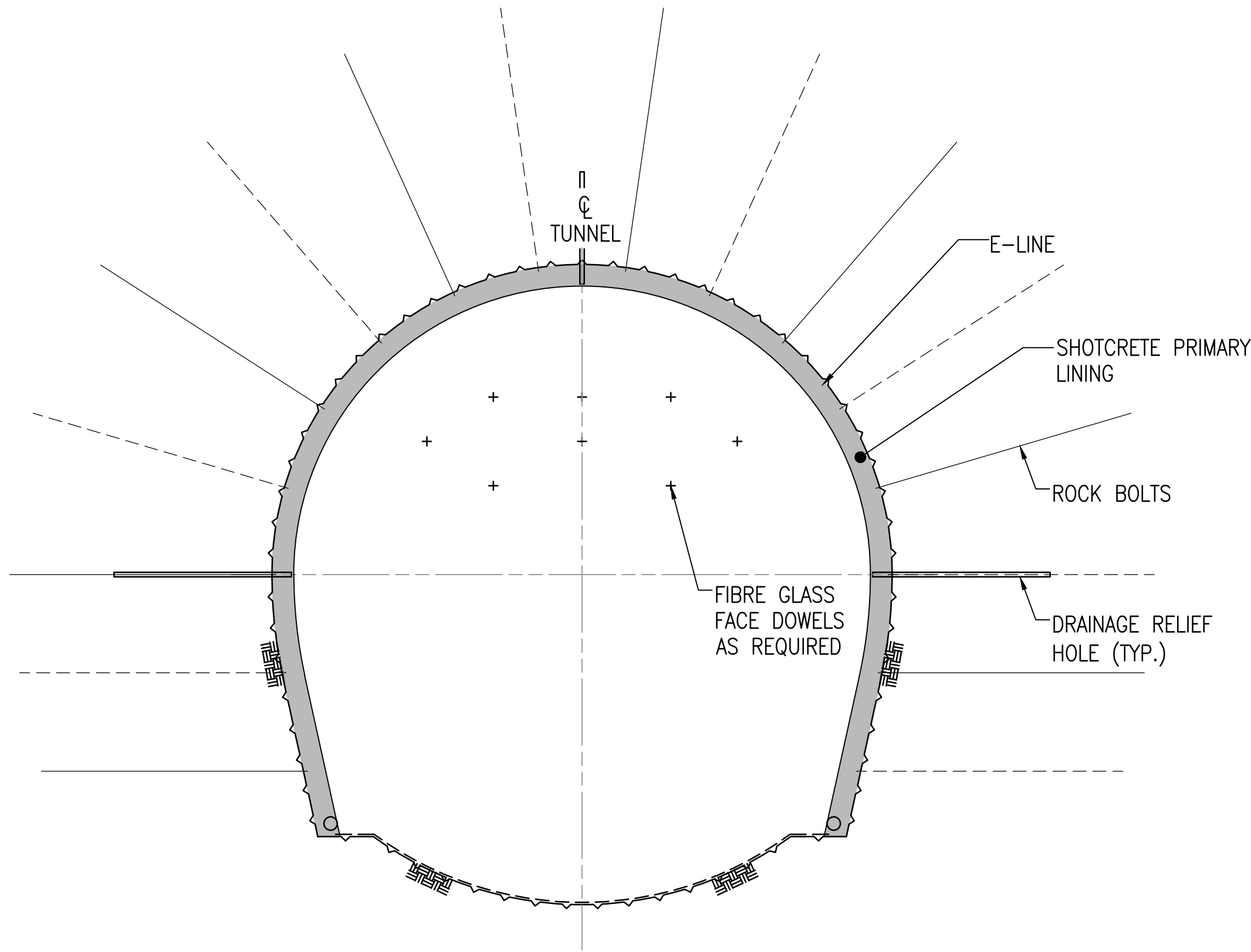
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Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS CROSS PASSAGE TYPICAL DETAILS				
Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)			
	ENG. AREA CIVIL	NAME J. DONOHUE	SIGNATURE	NO. 7835 DATE 14/10/16
Designed JD				

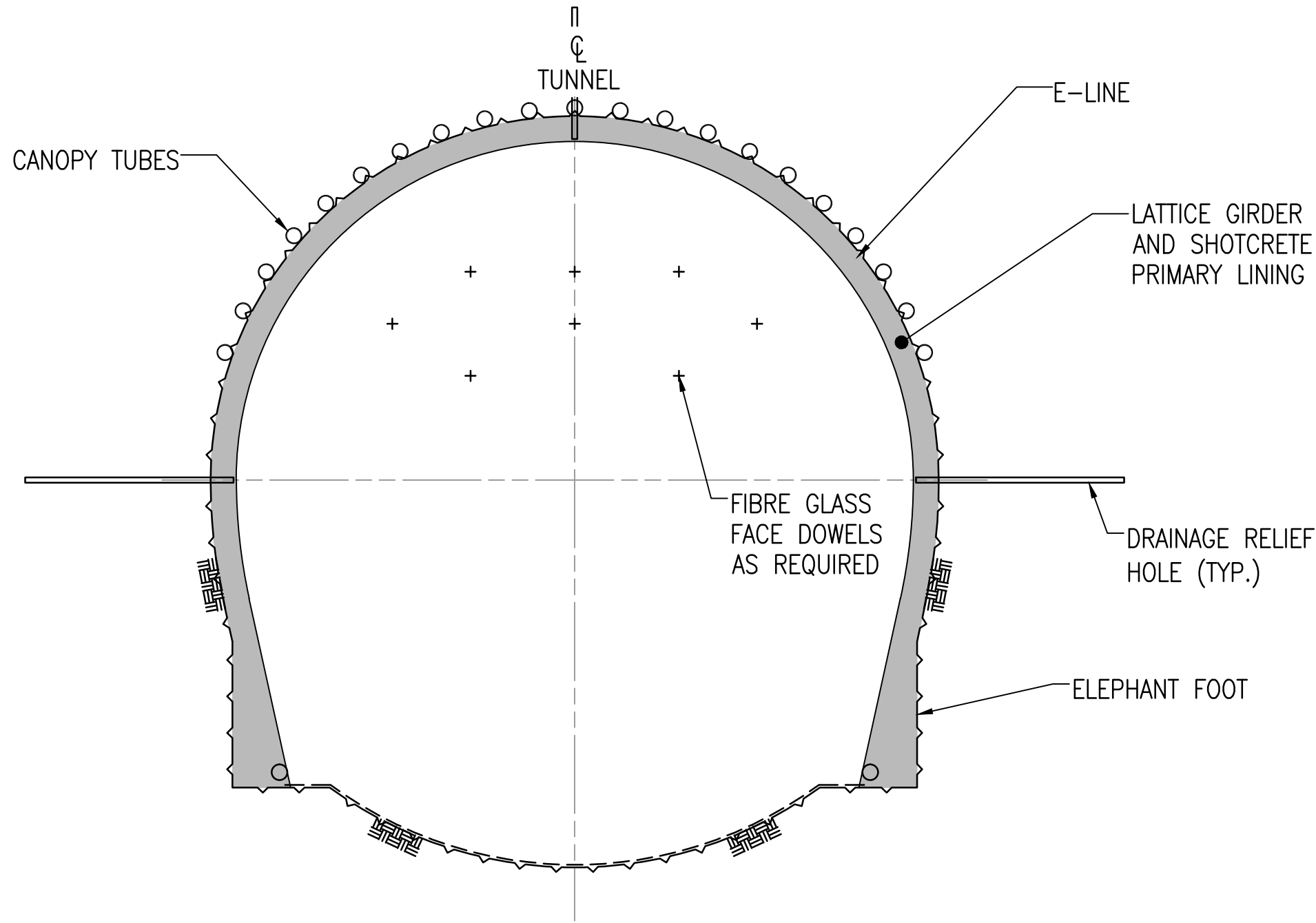
	Queensland Government
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017




MINED TUNNEL SINGLE TRACK – TYPICAL SECTION
PRIMARY SUPPORT TYPE 1
SCALE 1:50



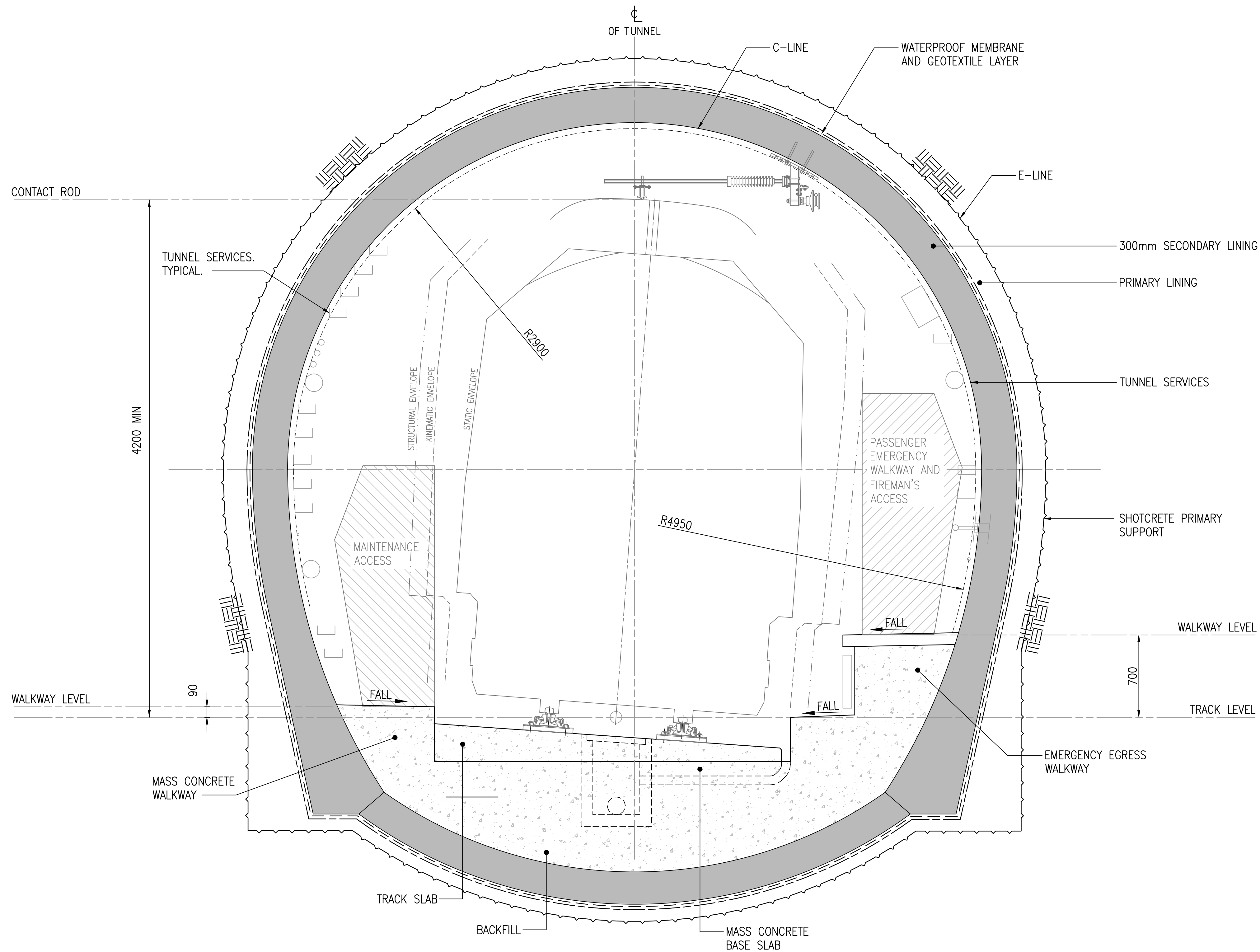
MINED TUNNEL SINGLE TRACK – TYPICAL SECTION
PRIMARY SUPPORT TYPE 2
SCALE 1:50

LEGEND
E LINE: EXCAVATION LINE

				Associated Job Nos	Survey Data		<div>Scales A1 / A3 0 1000 2000mm 1:50 / 1:100</div> <div>Dimensions shown in except where shown otherwise</div>	BRISBANE CITY				TUNNEL WORKS SINGLE TRACK MINED TUNNEL PRIMARY SUPPORTS TYPE 1 & 2						 <div>Queensland Government</div>			
					Datum	GDA94		CROSS RIVER RAIL													
				Auxiliary Drg Nos	Horiz. Grid	REFERENCE DESIGN (CHANGED PROJECT)															
C MINOR REVISION						Reference Points				Drawn NPK	ENGINEERING CERTIFICATION (RPEQ)					Job No.					
B MINOR REVISION						Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP					ENG. AREA	NAME	SIGNATURE	NO.	DATE	Contract. No.					
A ISSUE FOR RFPC											DESIGNED JD	CIVIL	J. DONOHUE		7835	14/10/16	Drawing No.		C		
Revisions/Descriptions				Certification	Date	Microfiled	Through Chainage from									Series Number	of			MRR_Detail (06/13)	
CAD FILES				C:\projectwise\bne_projects\austrin.ingils\dms97298\CRR-0002-TUN-GA-213.dwg																	

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7 February 2017



MINED TUNNEL SINGLE TRACK – TYPICAL SECTION
SECONDARY SUPPORT TYPE 1 & 2
SCALE 1:20

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified: 17 Feb 07, 2017 - 6:09pm
XREFS: MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg


C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Dimensions shown in except where shown otherwise	

Scales
A1 / A3 0 200 400 600 800mm
1:20 / 1:40

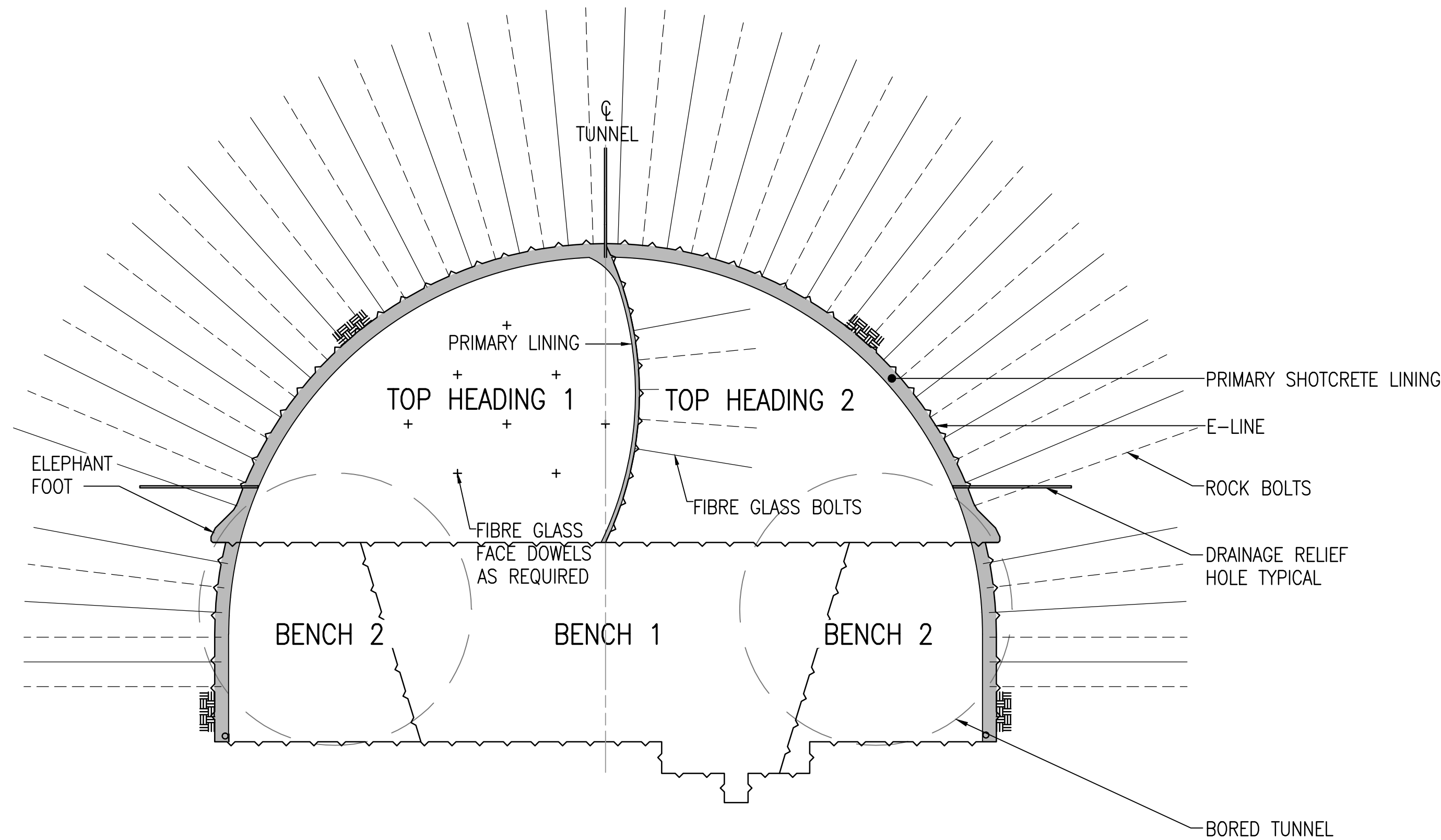
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Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS SINGLE TRACK MINED TUNNEL SECONDARY LINING PRIMARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

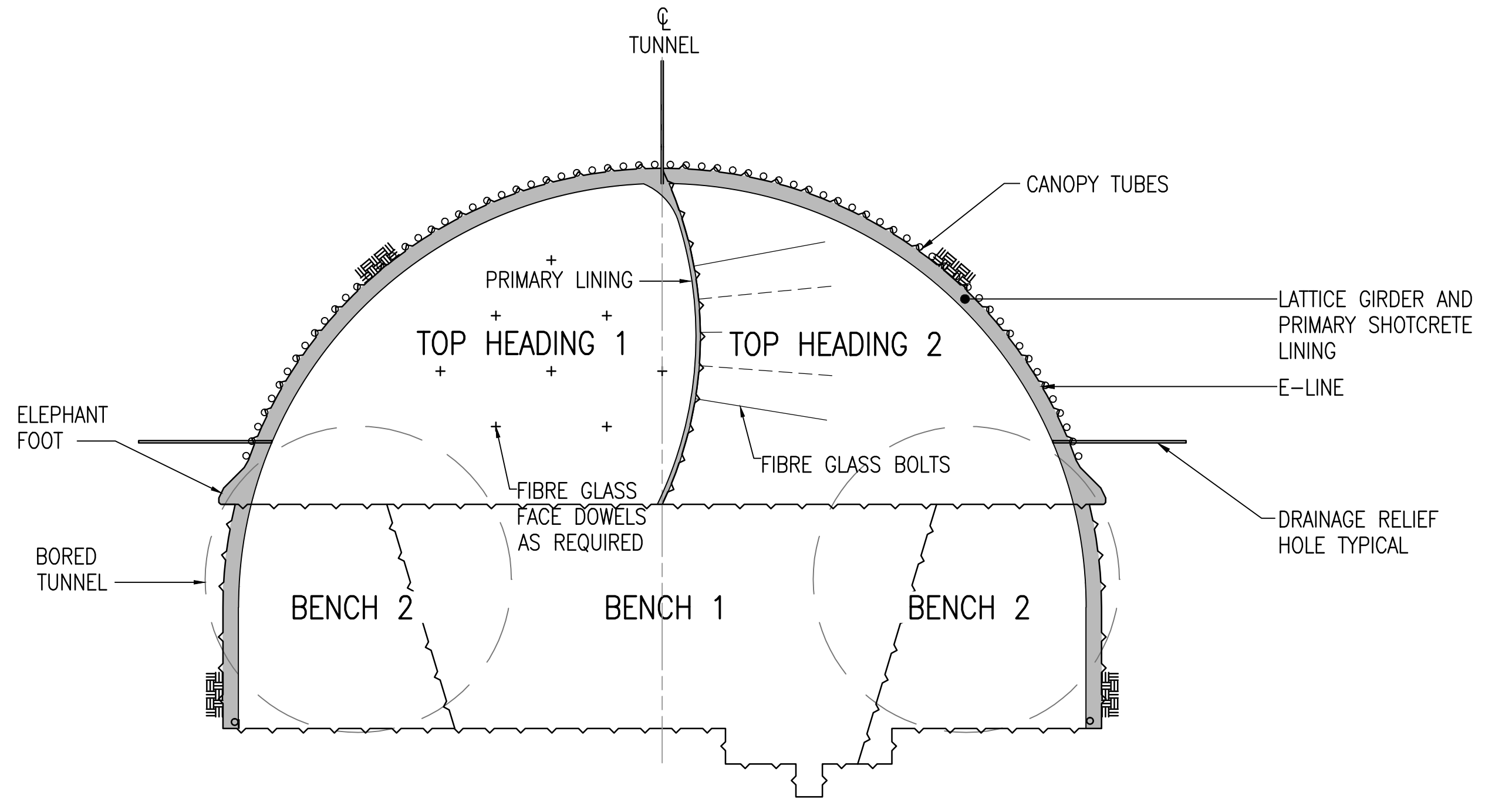
 Queensland Government	
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017



STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 1
SCALE 1:100



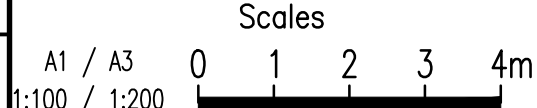
STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 2
SCALE 1:100

LEGEND
E LINE: EXCAVATION LINE

Last Modified: 17-Feb-2017 6:09pm
XREFS: MRR_DETAIL_A1_Rev.dwg : X-CRR-0TUN-0001-DETAILS.dwg


C	MINOR REVISION		08/02/17		
B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

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	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	
Dimensions shown in except where shown otherwise	



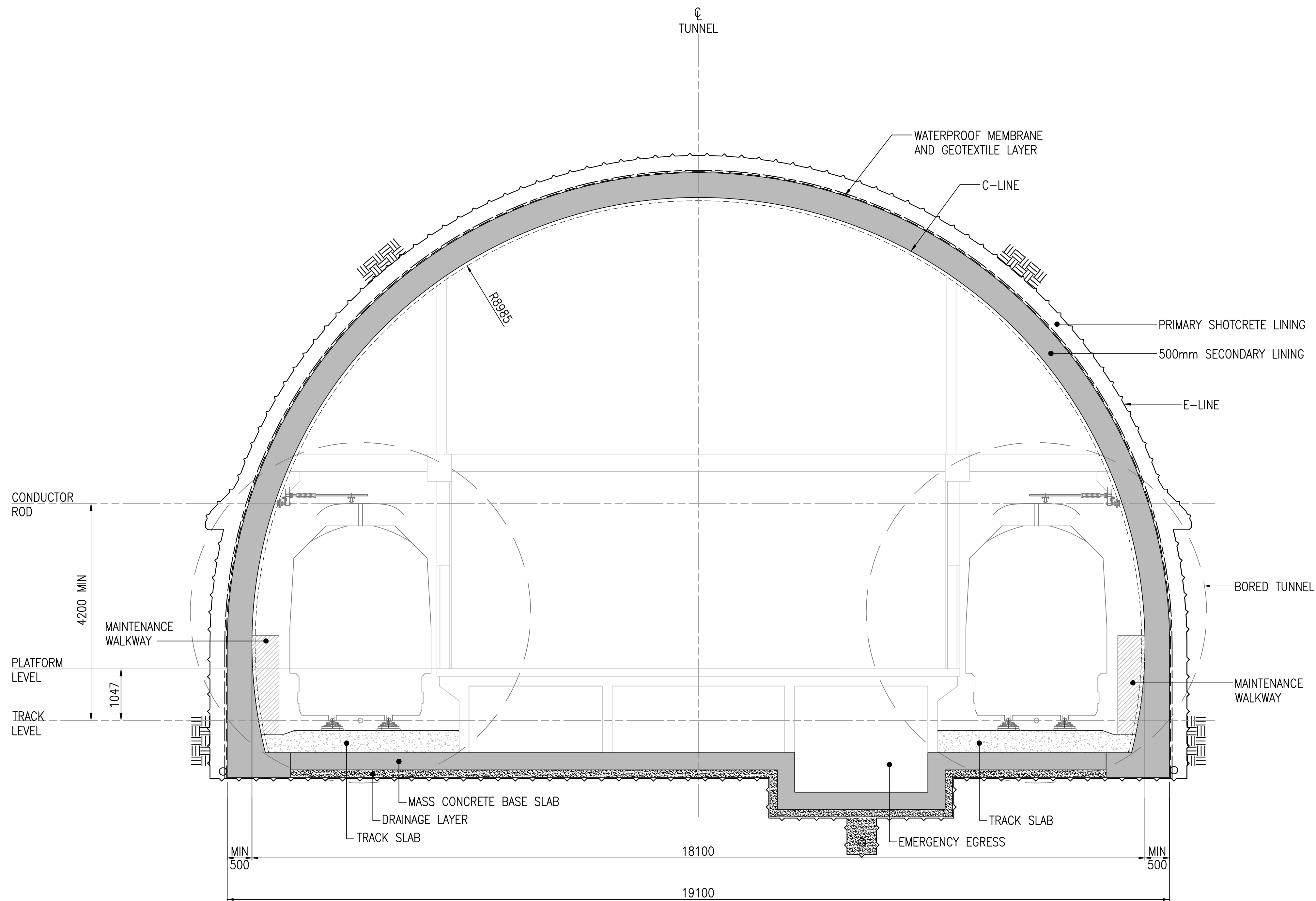
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Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS STATION CAVERN PRIMARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

 Queensland Government	
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

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CONSTRUCTION

7 February 2017



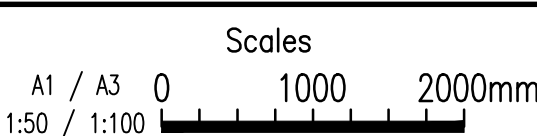
STATION CAVERN - TYPICAL SECTION
SECONDARY SUPPORT TYPE 1
SCALE 1:50

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF PERMANENT LINING

Last Modified : - Feb 07, 2017 - 6:09pm XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-0TUN-0001-DETAILS.dwg

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B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
Survey Books	Dimensions shown in except where shown otherwise



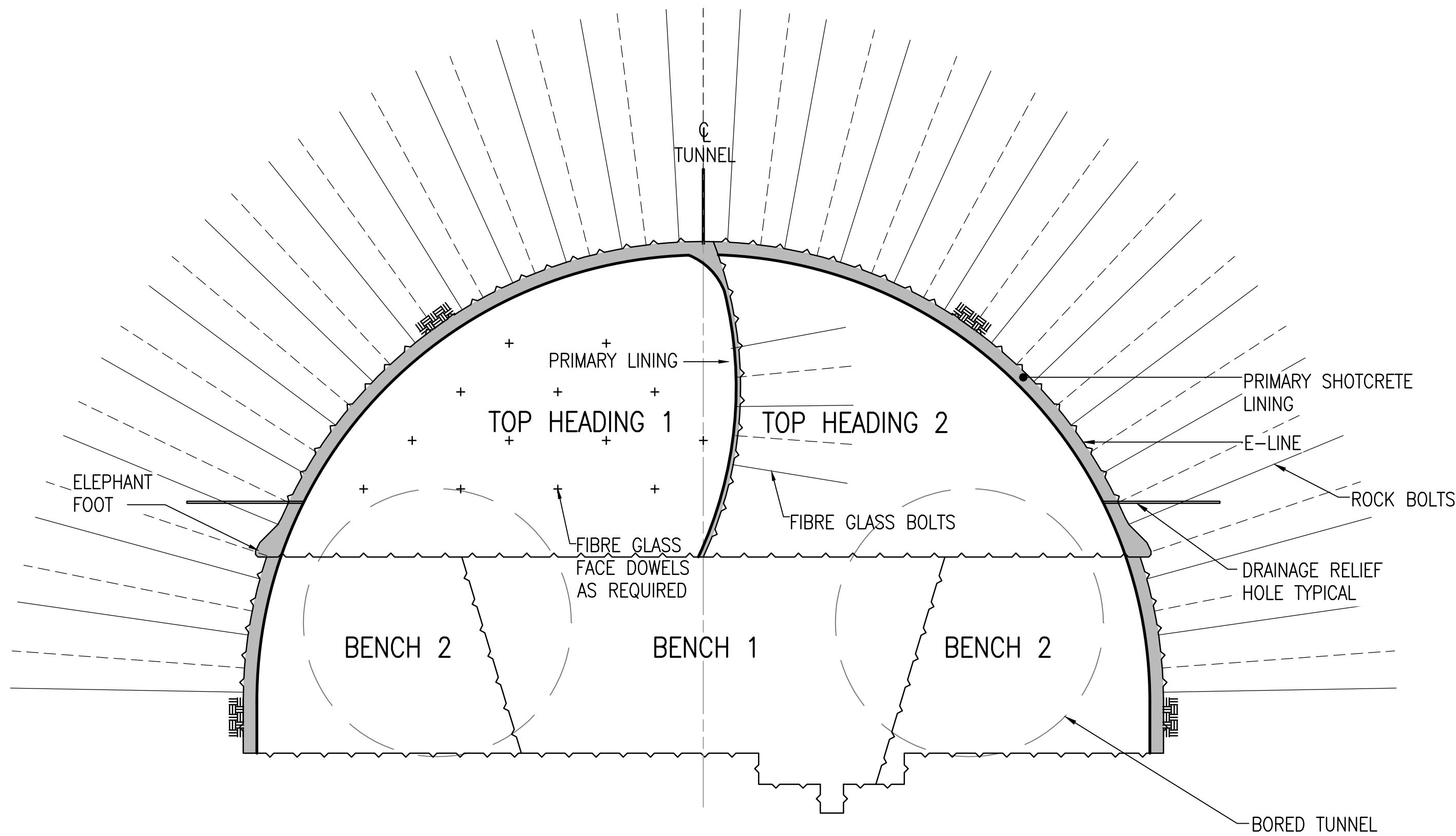
BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS STATION CAVERN SECONDARY SUPPORT TYPE 1				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16

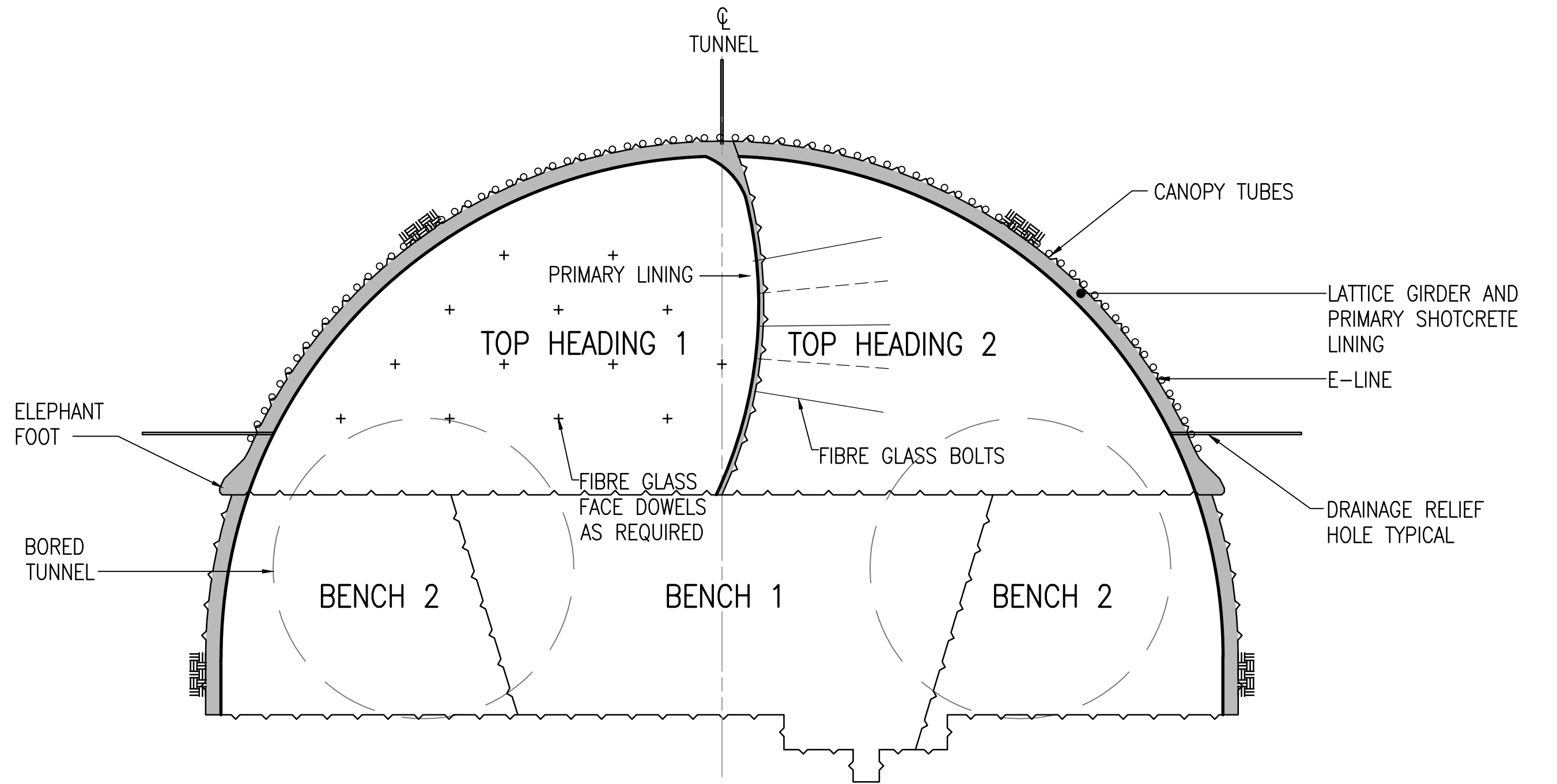
Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	

NOT FOR
CONSTRUCTION

7 February 2017




OVERSIZED STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 1
SCALE 1:100



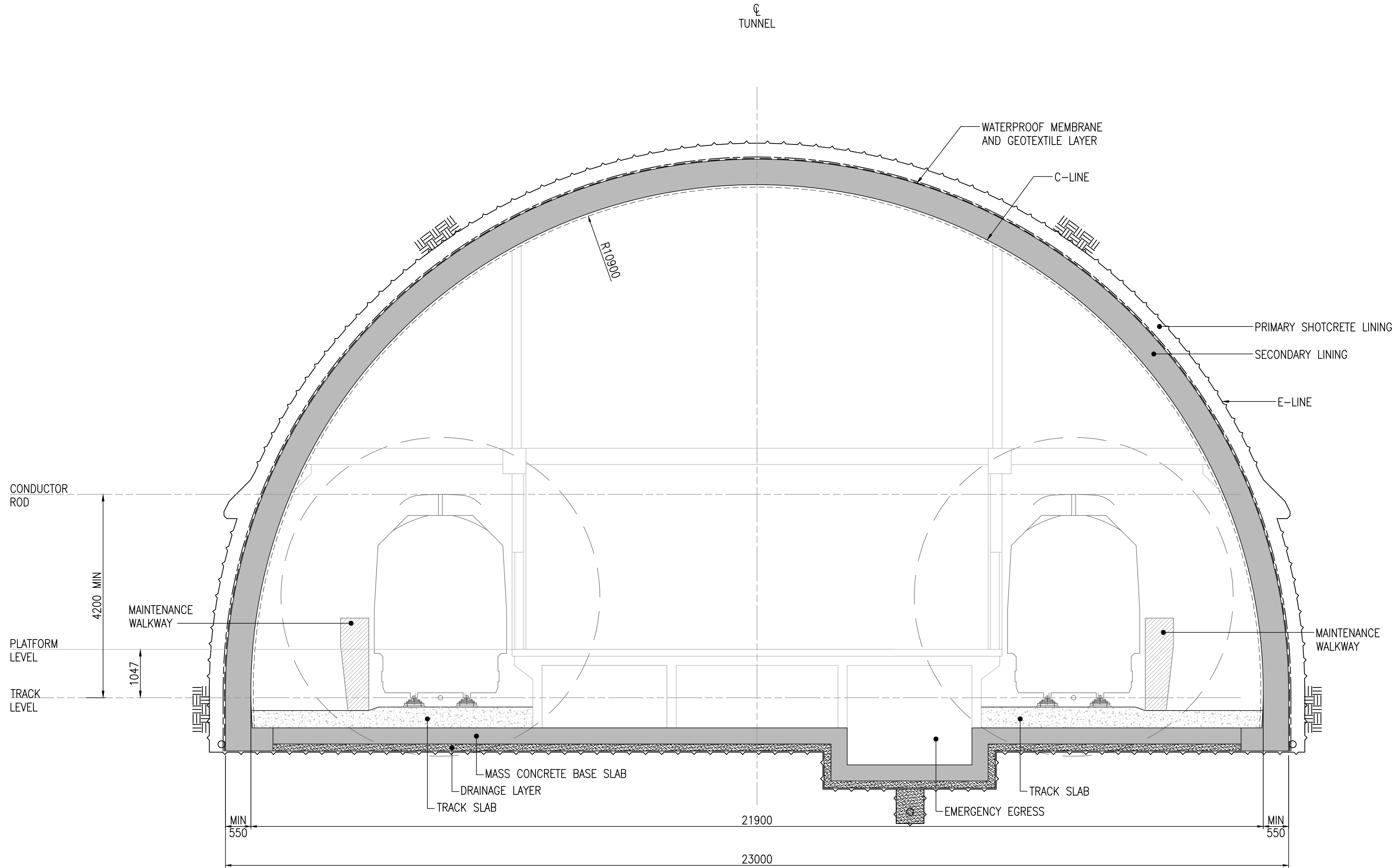
OVERSIZED STATION CAVERN – TYPICAL SECTION
PRIMARY SUPPORT TYPE 2
SCALE 1:100

LEGEND
E LINE: EXCAVATION LINE

				Associated Job Nos	Survey Data		<div><div>A1 / A3 1:100 / 1:200</div><div><div>01234</div>m</div></div>	BRISBANE CITY					TUNNEL WORKS OVERSIZED STATION CAVERN PRIMARY SUPPORT TYPE 1 & 2						Queensland Government	
					Datum	GDA94		CROSS RIVER RAIL												
					REFERENCE DESIGN (CHANGED PROJECT)															
					Auxiliary Drg Nos	Horiz. Grid		Reference Points			Drawn	ENGINEERING CERTIFICATION (RPEQ)					Job No.			
C	MINOR REVISION		08/02/17				Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP		Following RP	NPK	ENG. AREA	NAME	SIGNATURE	NO.	DATE	Contract No.	
B	MINOR REVISION		02/11/16				Height Origin							CIVIL	J. DONOHUE		7835	14/10/16	Drawing No.	
A	ISSUE FOR RFPC		14/10/16			Survey Books	Dimensions shown in except where shown otherwise					Designed						Series Number		of
Revisions/Descriptions				Certification	Date	Microfiled						JD						MRR_Detail (06/13)		
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CONSTRUCTION

7 February 2017



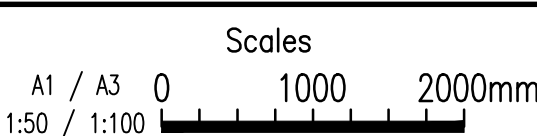
OVERSIZED STATION CAVERN – TYPICAL SECTION
SECONDARY SUPPORT TYPE 1 & 2
SCALE 1:50

LEGEND
E LINE: EXCAVATION LINE
C LINE: THEORETICAL POSITION OF INSIDE OF PERMANENT LINING

Last Modified : Feb 07, 2017 - 6:09pm XREFS :- MRR_DETAIL_A1_Ref.dwg : X-CRR-0TUN-0001-DETAILS.dwg

C	MINOR REVISION		08/02/17		
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Revisions/Descriptions		Certification	Date	Microfiled	

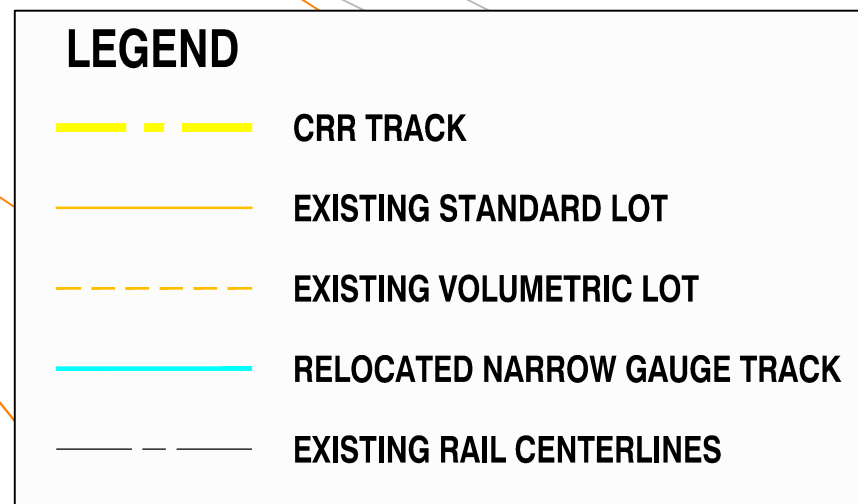
Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Dimensions shown in except where shown otherwise	



BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS OVERSIZED STATION CAVERN SECONDARY SUPPORT TYPE 1 & 2				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

Job No.	
Contract No.	
Drawing No.	C
Series Number	of
MRR_Detail (06/13)	



This diagram illustrates the proposed rail alignment from the 'AT GRADE' section to the 'BOGGO ROAD STATION'. Key features include an 'UPSTAND WALL' at the start, a long section of 'CANTILEVER PILE' supporting the track, and a 'CUT & COVER' section near the station. An 'EXISTING FREIGHT OVERPASS' is shown crossing the alignment. The 'EXISTING SURFACE LEVEL' is indicated by a dashed line on the right. The ground profile is shown in yellow, and the rail bed is detailed with numerous vertical pile sections.

The diagram illustrates the proposed rail alignment across different ground conditions. From left to right, the sections are labeled: 'AT GRADE', 'UPSTAND WALL', 'CANTILEVER PILE', and 'CUT & COVER'. The ground surface is shown as a sloped embankment on the left, transitioning to a flat surface on the right. The rail bed is shown with multiple tracks. A 'SURFACE LEVEL' line is indicated on the right side. An 'EXISTING FREIGHT OVERPASS' is shown crossing the alignment. The 'BOGGO ROAD STATION' is marked at the right end of the alignment. The ground is colored yellow, and the rail bed is colored grey.

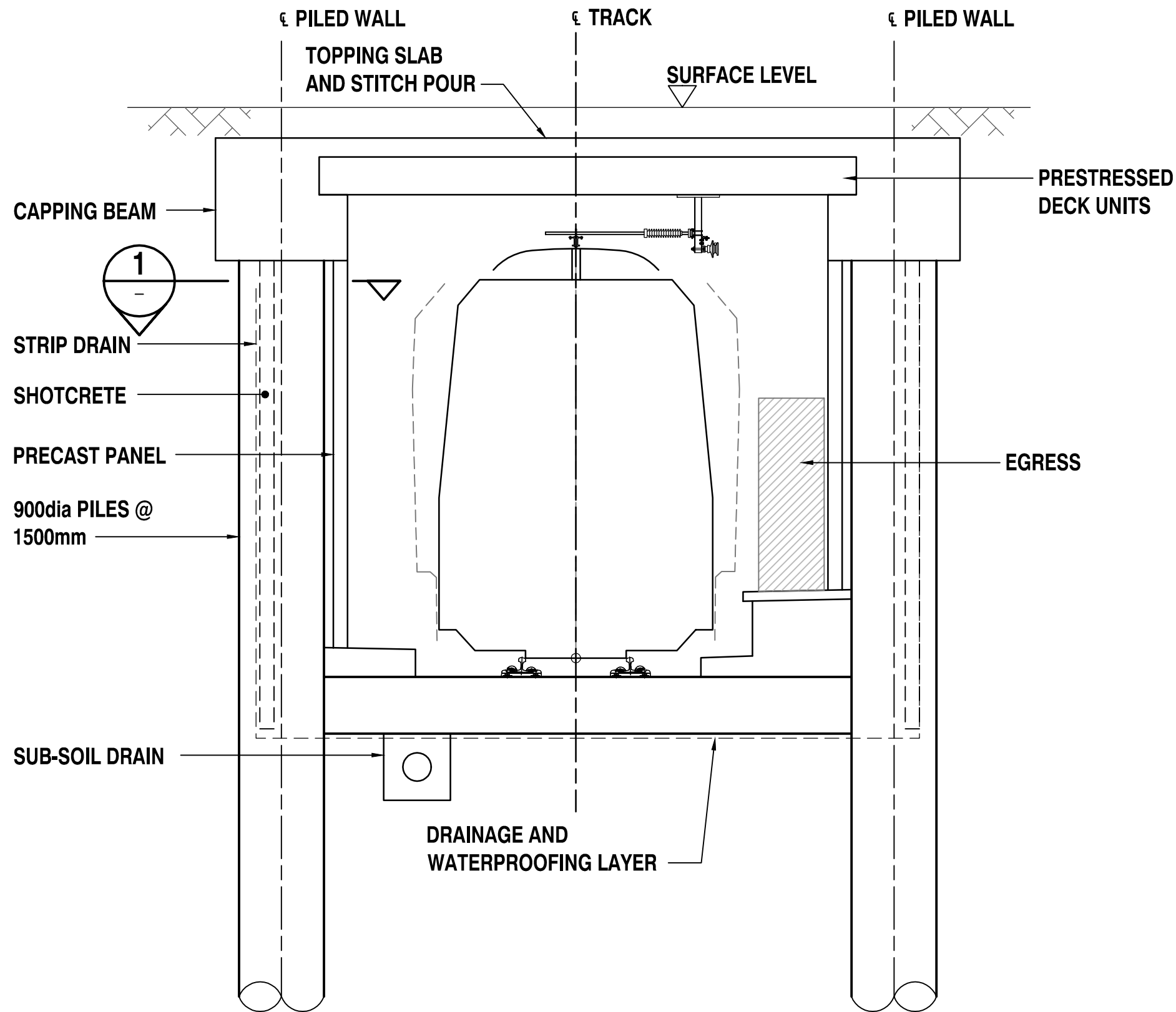
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2 November 2016

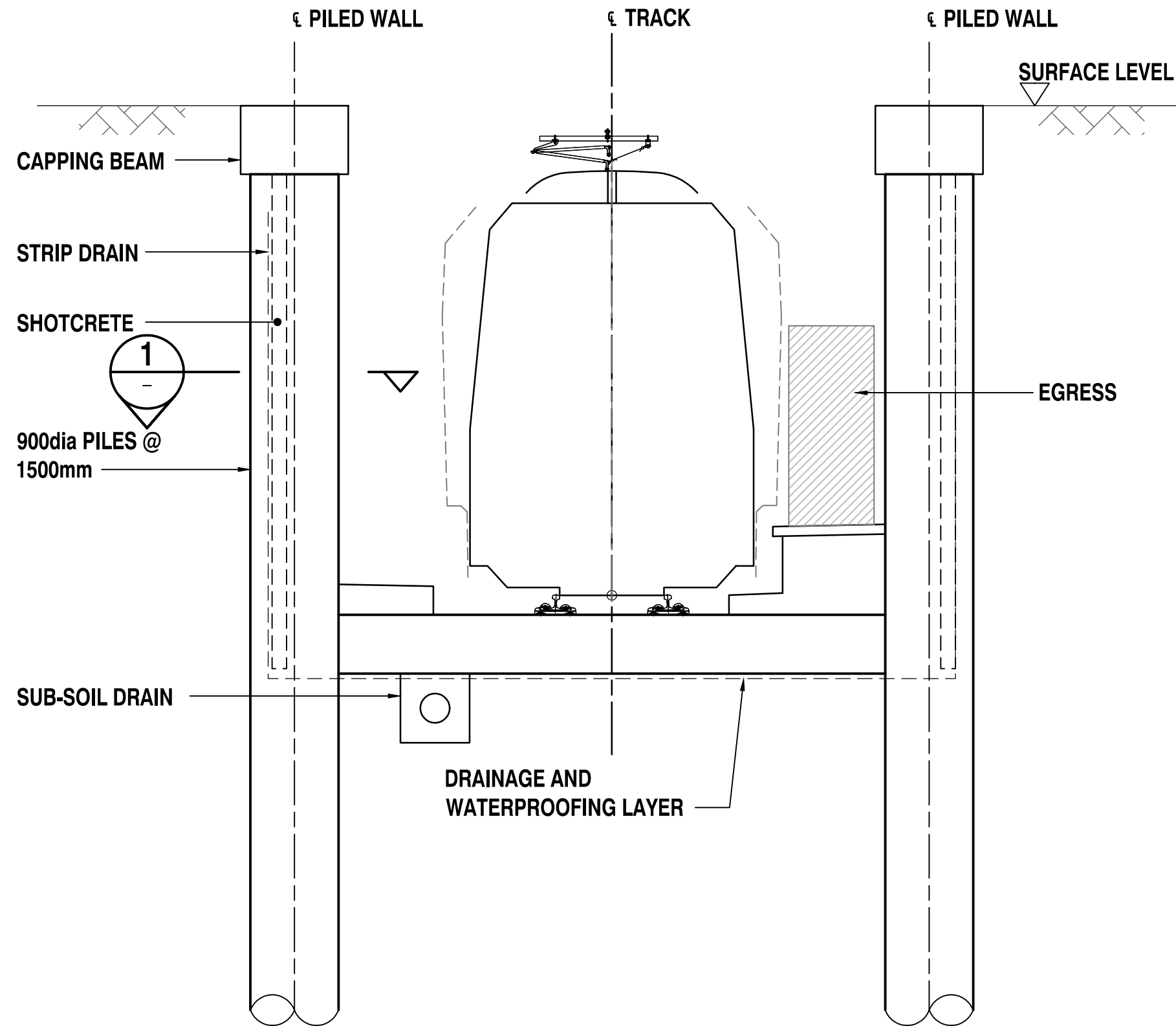
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NOT FOR
CONSTRUCTION

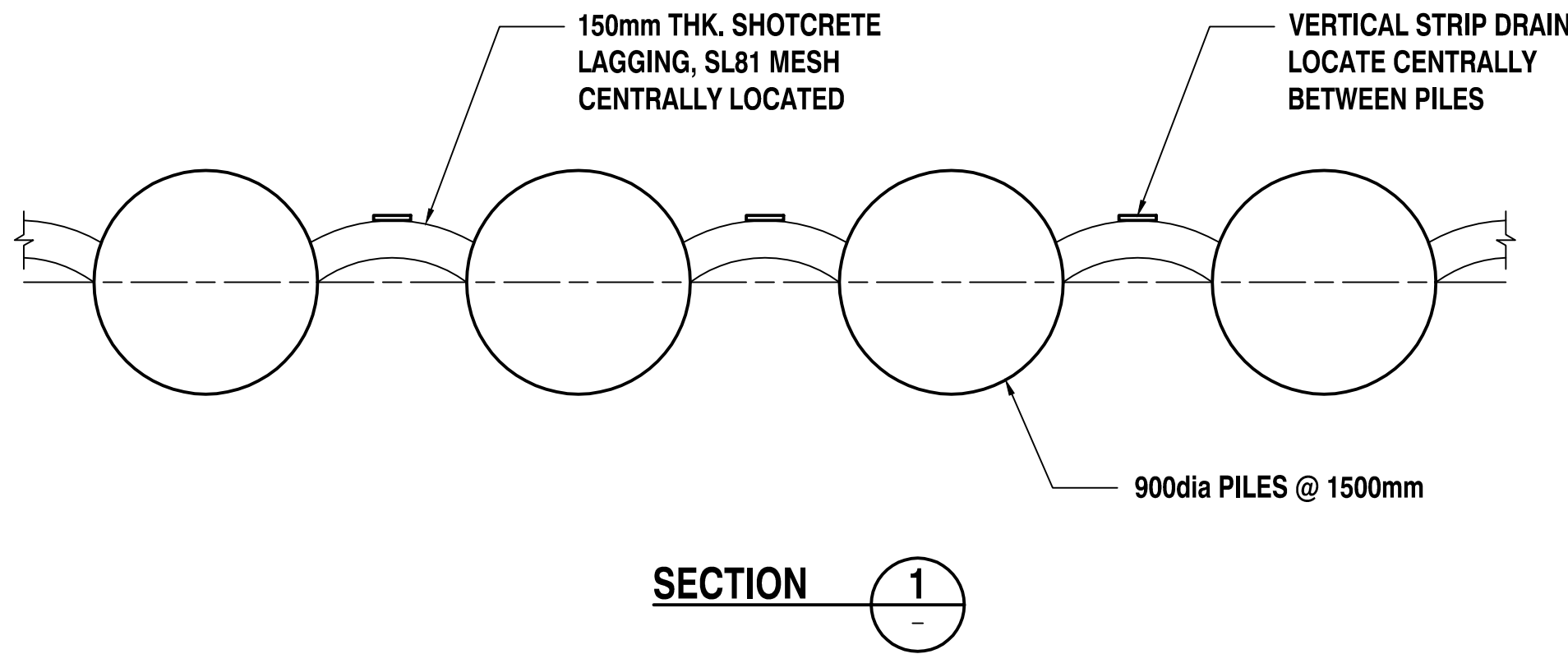
1 November 2016



CUT AND COVER
TYPICAL SECTION



TROUGH STRUCTURE - CANTILEVER PILE
TYPICAL SECTION



SECTION

1

Nov 01, 2016 - 4:25pm
Last Modified : -
MRR_DETAIL_A1_1_1.dwg : X-CRR-DTUN-0001-SOUTHERN_PORTAL_SECTIONS.dwg
XREFS : -


B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height
	Survey Books

Scales	
A1 / A3	0 5 10 15 20m
1:500 / 1:1000	
Dimensions shown in except where shown otherwise	

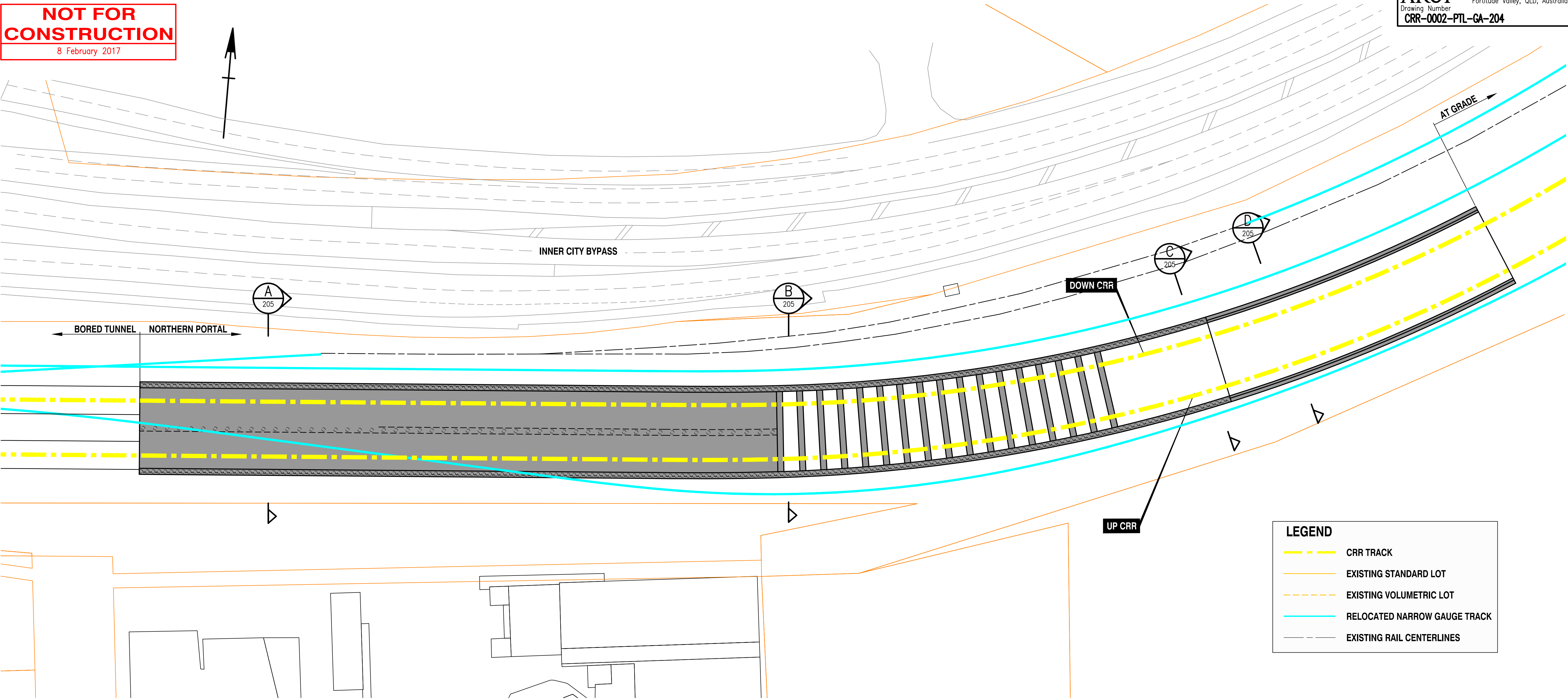
BRISBANE CITY				
CROSS RIVER RAIL				
REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS SOUTHERN PORTAL TYPICAL DETAILED SECTIONS				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

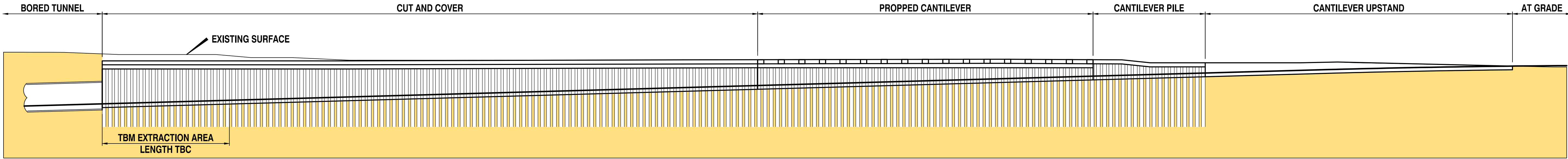
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Job No.	
Contract No.	
Drawing No.	B
Series Number	of
MRR_Detail (06/13)	

Last Modified : Feb 08, 2017 - 12:46pm
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 8 February 2017



NORTHERN PORTAL PLAN

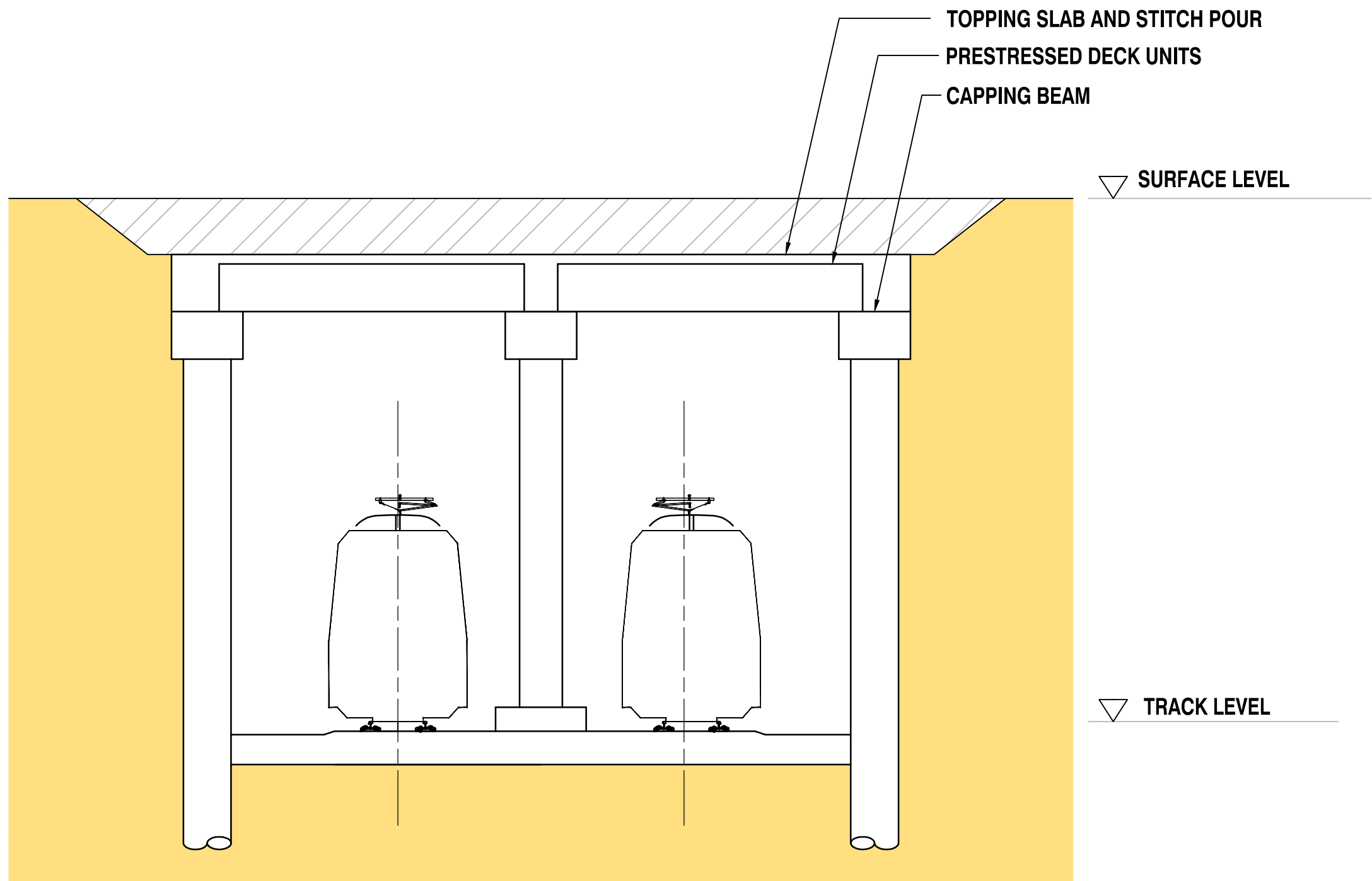


LONGITUDINAL SECTION

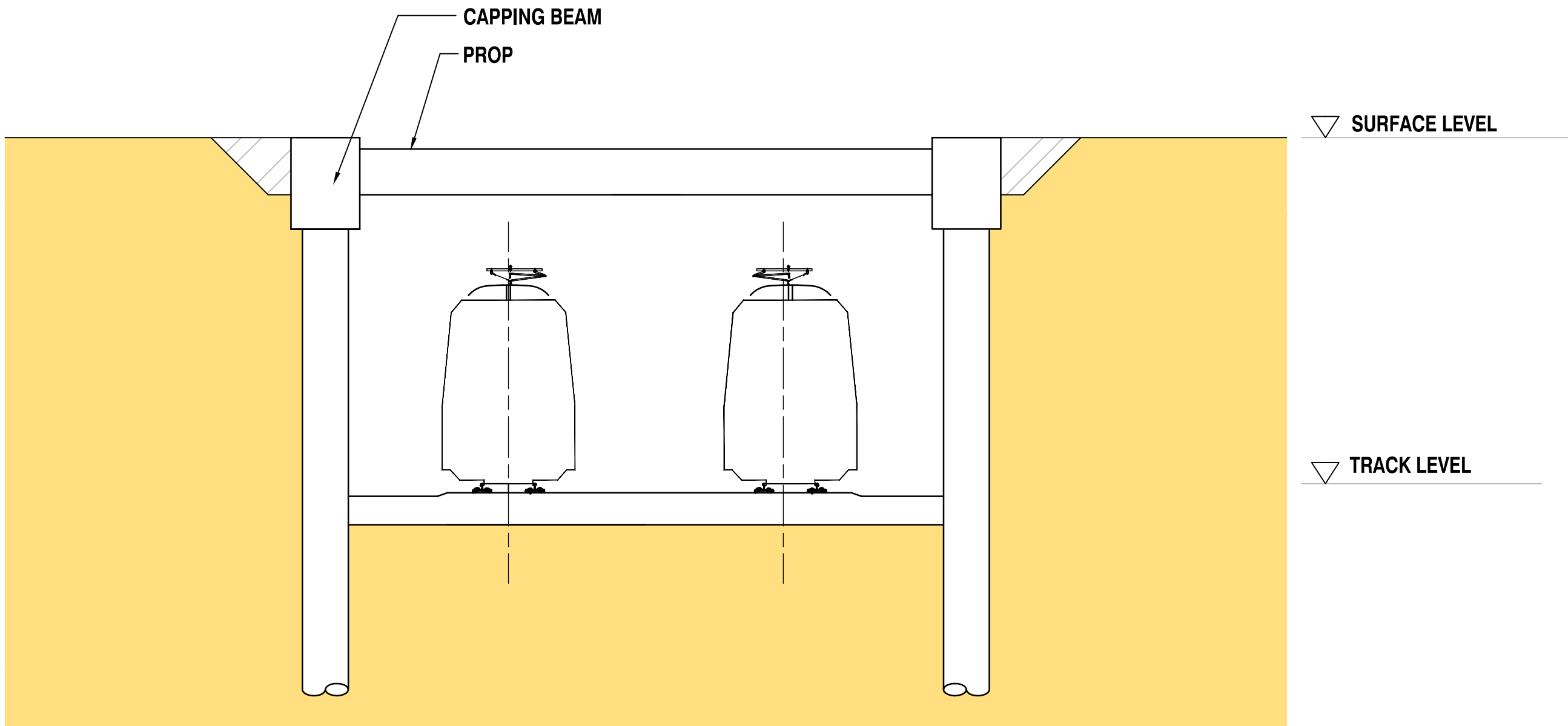
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					Datum	GDA94		CROSS RIVER RAIL															
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C	MINOR REVISION		08/02/17	Auxiliary Drg Nos	Horiz. Grid	Reference Points					Drawn	ENGINEERING CERTIFICATION (RPEQ)					Job No.						
B	MINOR REVISION		02/11/16		Height Origin	Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP						NPK	ENG. AREA	NAME	SIGNATURE	NO.	DATE		Contract. No.				
A	ISSUE FOR RFPC		14/10/16		Survey Books						Designed	CIVIL	J. DONOHUE		7835	14/10/16	Drawing No.		C				
Revisions/Descriptions					Certification	Date	Microfiled						JD						Series Number		of		
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NOT FOR
CONSTRUCTION

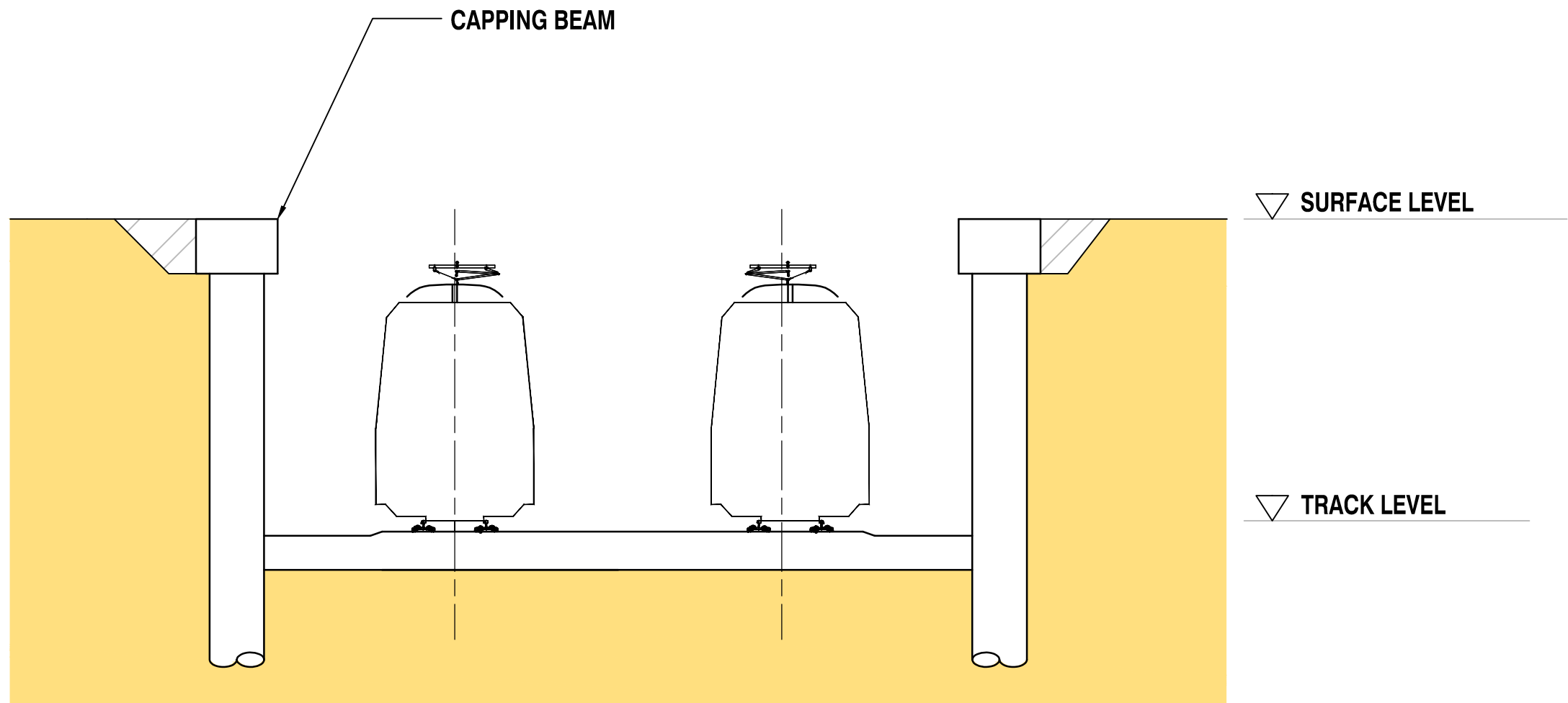
1 November 2016



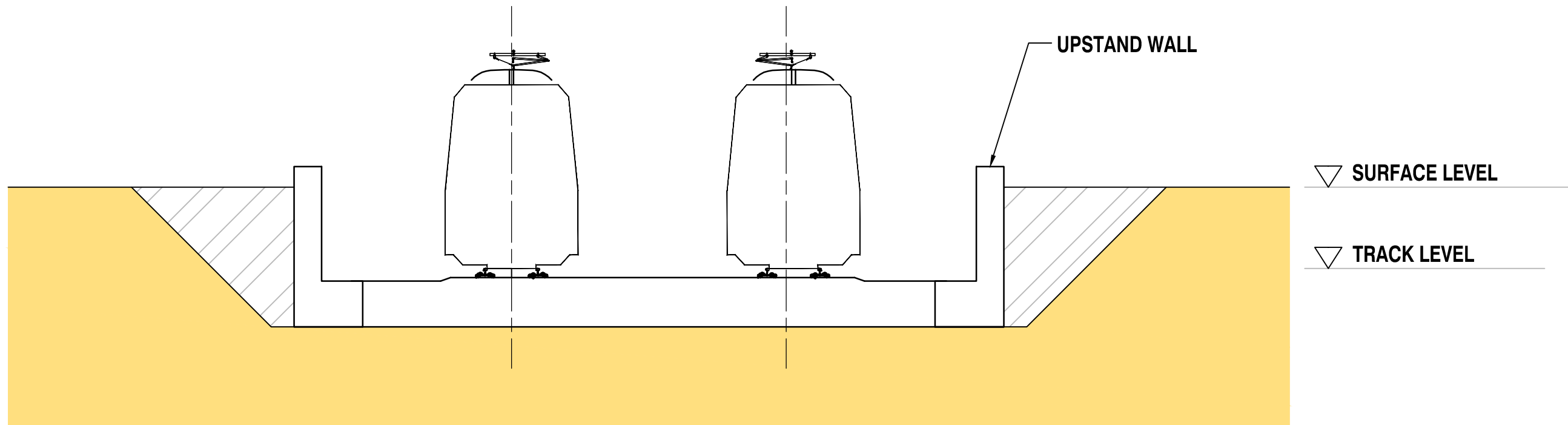
SECTION A



SECTION B



SECTION C



SECTION D


Nov 01, 2016 - 4:26pm XREFS :- MRR-DETAIL_A1_Ref.dwg : X-CRR-DTUN-0001-NORTHERN_PORTAL_SECTIONS.dwg

B	MINOR REVISION		02/11/16		
A	ISSUE FOR RFPC		14/10/16		
Revisions/Descriptions		Certification	Date	Microfiled	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books
Scales	
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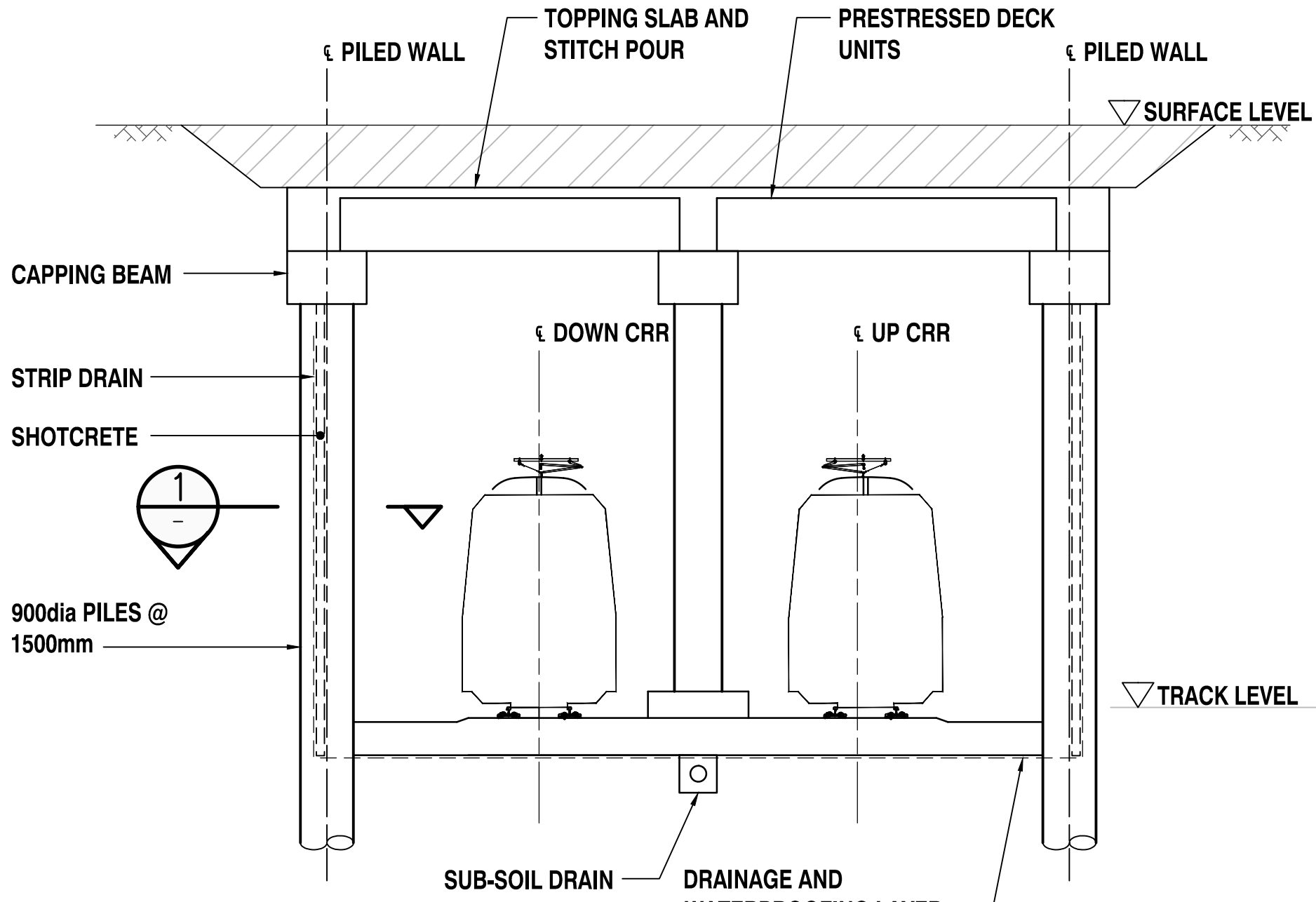
BRISBANE CITY				
CROSS RIVER RAIL				
REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS				
NORTHERN PORTAL				
TYPICAL SECTIONS				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16

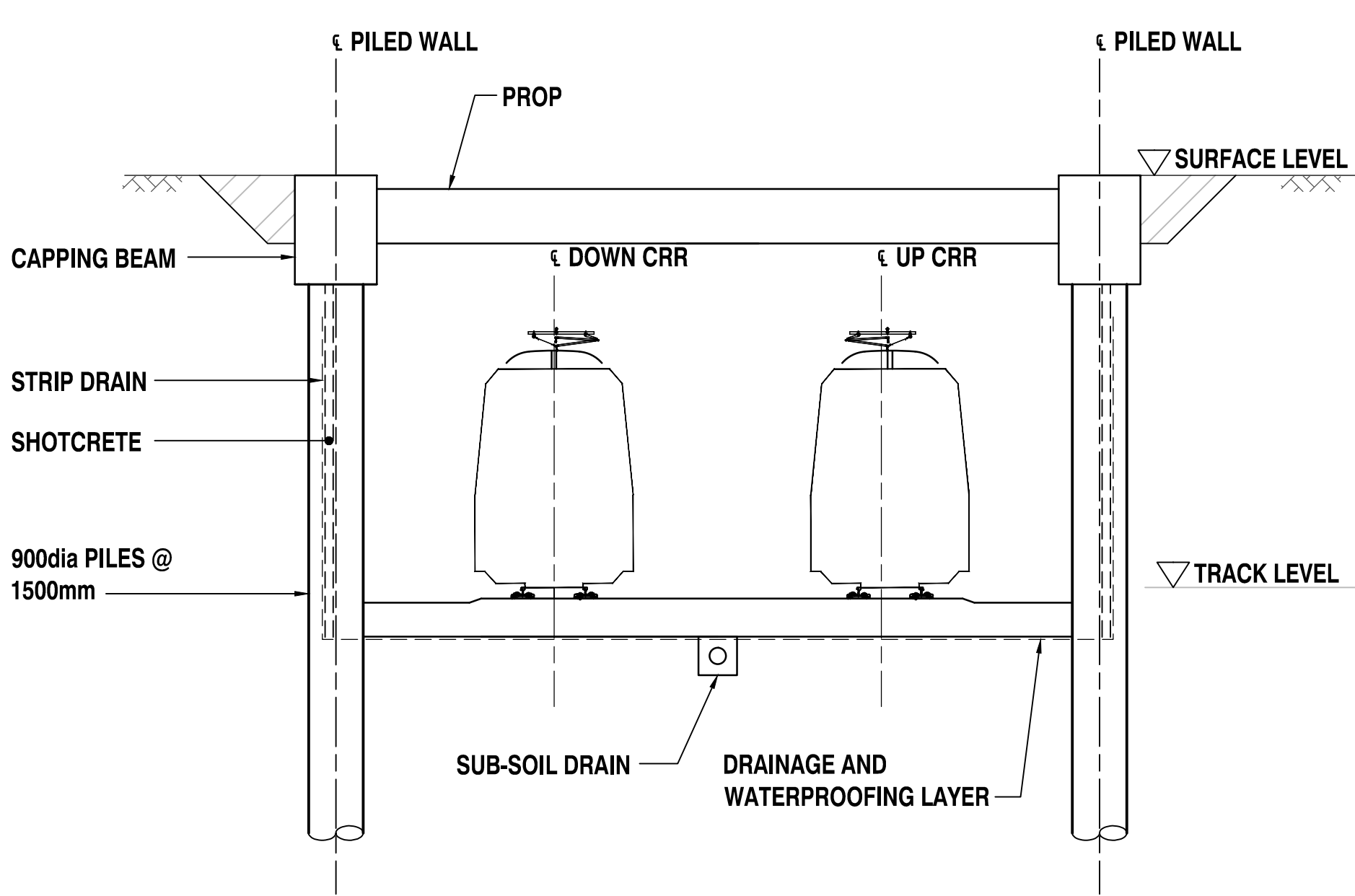
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Contract No.			
Drawing No.			B
Series Number			of
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NOT FOR
CONSTRUCTION

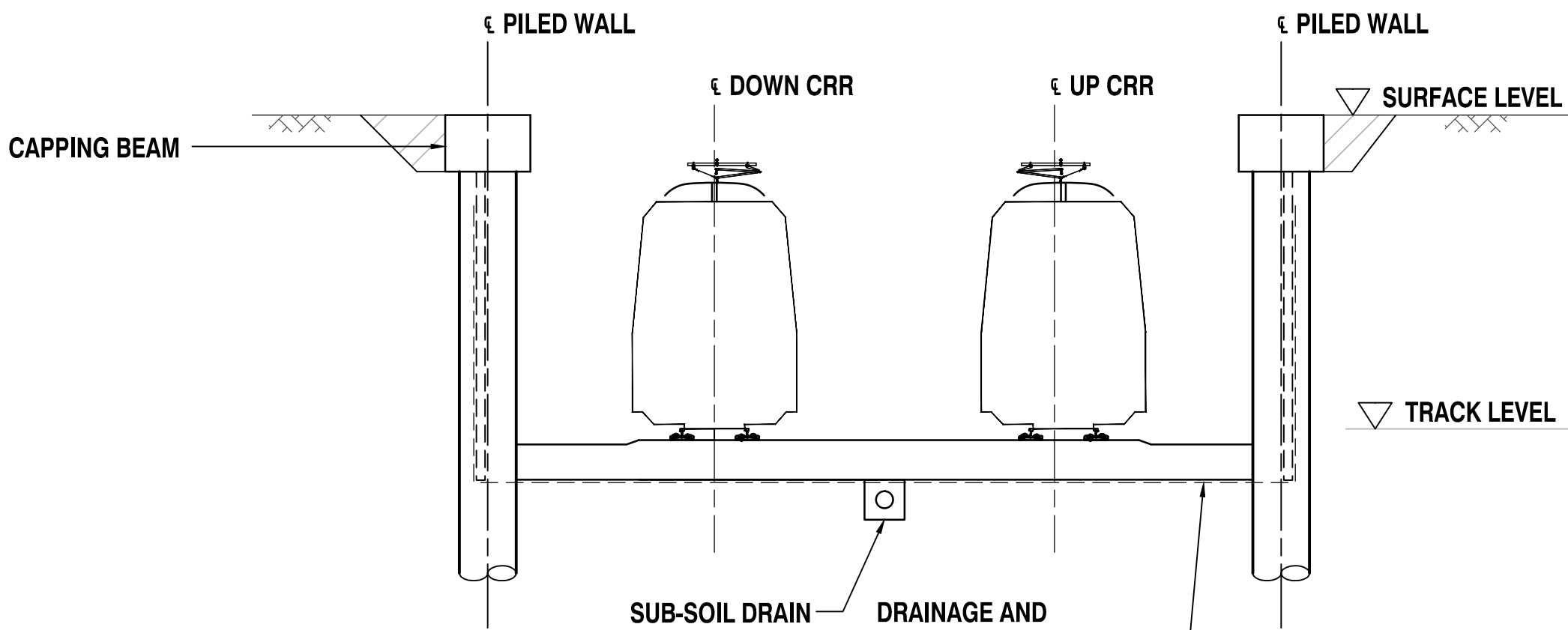
1 November 2016



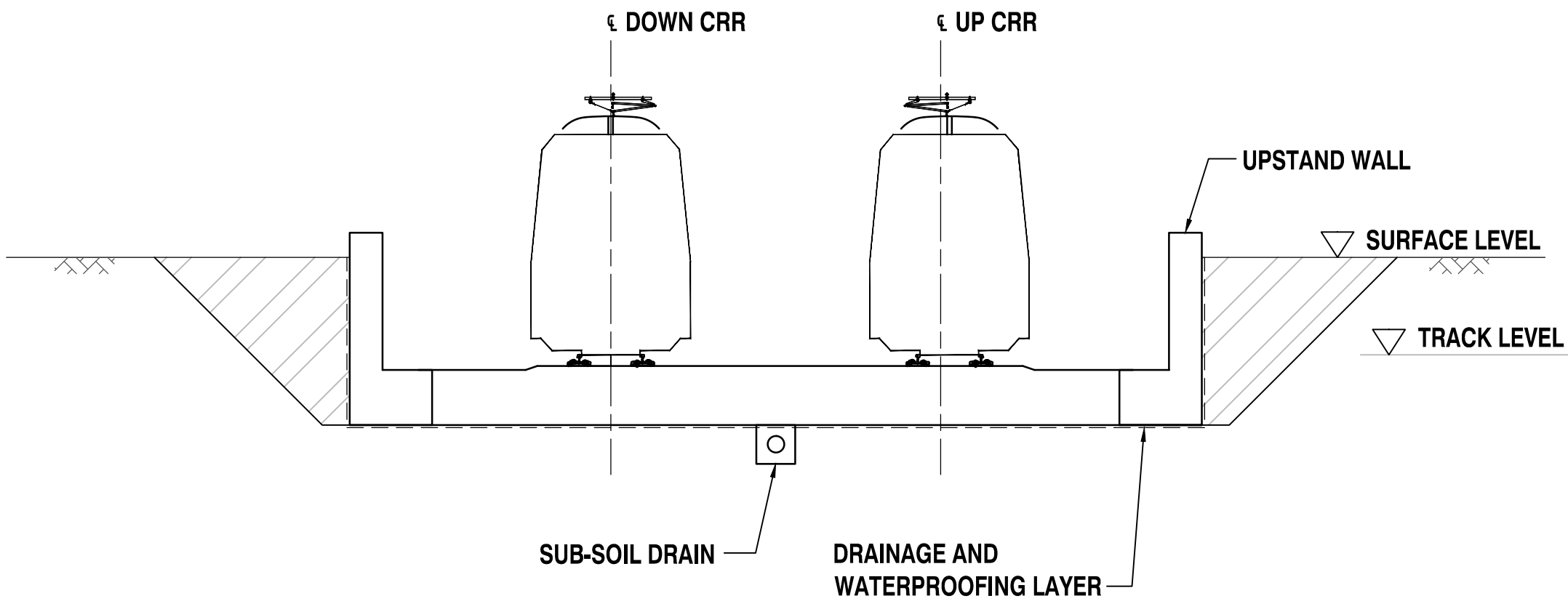
SECTION A



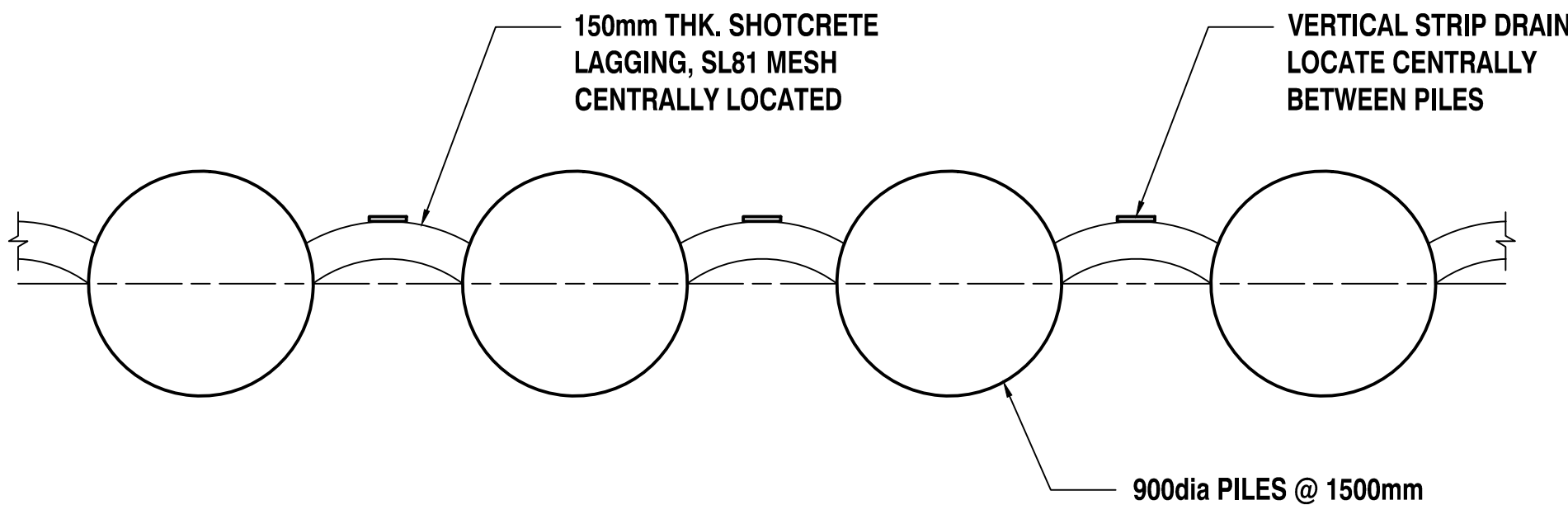
SECTION B



SECTION C

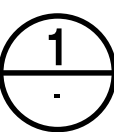


SECTION D



SECTION 1

SCALE 1:25



Nov 01, 2016 - 4:26pm
Last Modified : -
XREFS :- MRR_DETAIL_A1_Rev.dwg : X-CRR-DTUN-0001-NORTHERN_PORTAL_SECTIONS.dwg

Revisions/Descriptions	Certification	Date	Microfiled
B MINOR REVISION		02/11/16	
A ISSUE FOR RFPC		14/10/16	

Associated Job Nos	Survey Data
	Datum GDA94
Auxiliary Drg Nos	Horiz. Grid
	Height Origin
	Survey Books

Scales
A1 / A3 1:100 / 1:200 0 1 2 3 4m
A1 / A3 1:25 / 1:50 0 500 1000mm
Dimensions shown in except where shown otherwise

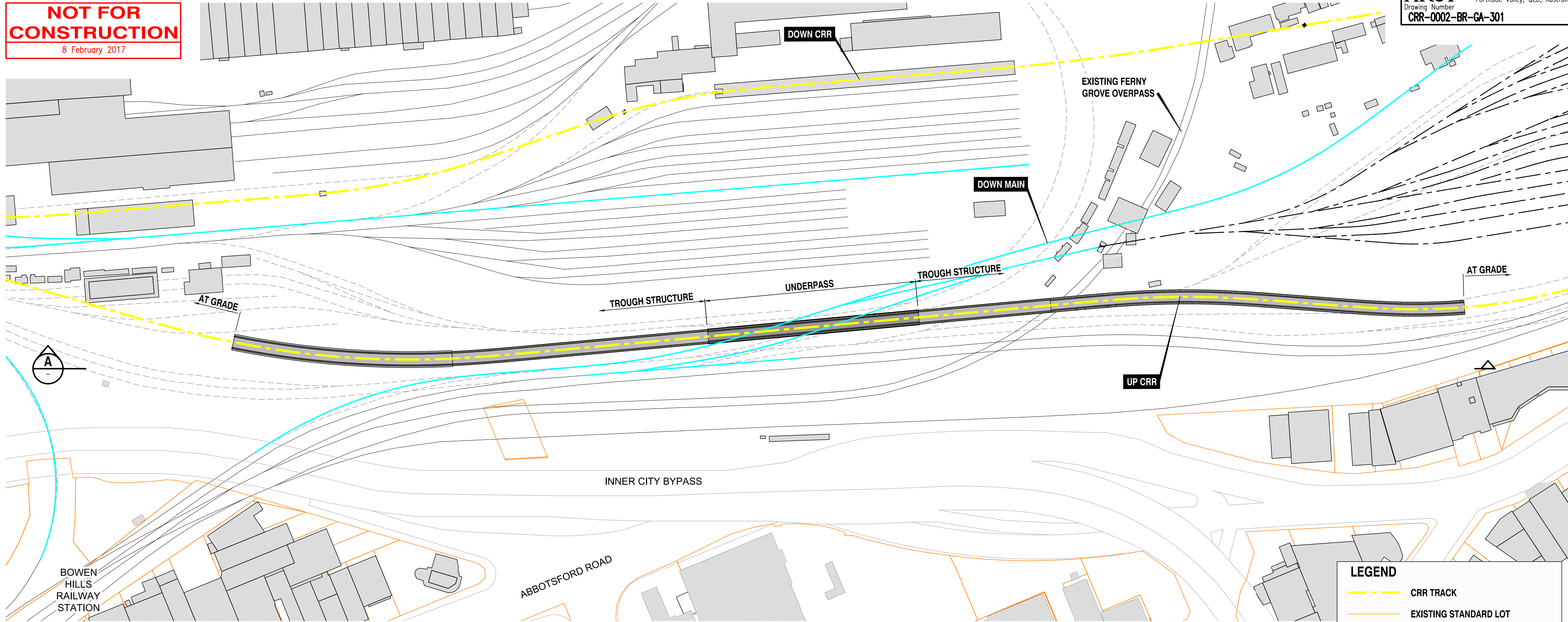
BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP
Through Chainage from				

TUNNEL WORKS NORTHERN PORTAL TYPICAL DETAILED SECTIONS				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

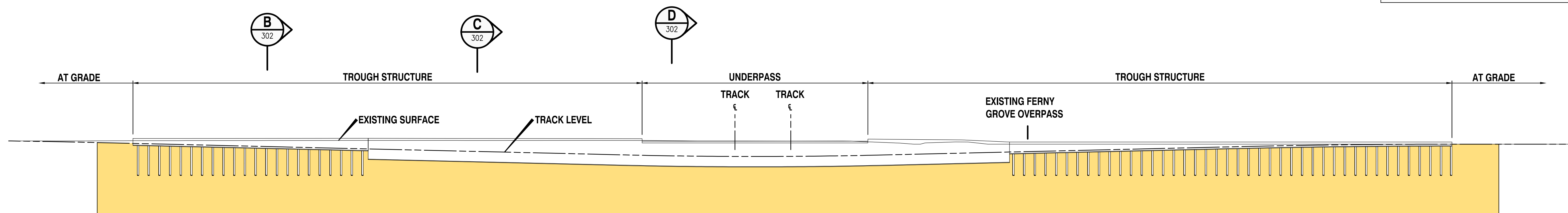
Queensland Government	
Job No.	
Contract No.	
Drawing No.	B
Series Number	of
MRR_Detail (06/13)	

**NOT FOR
CONSTRUCTION**

8 February 2017



PLAN

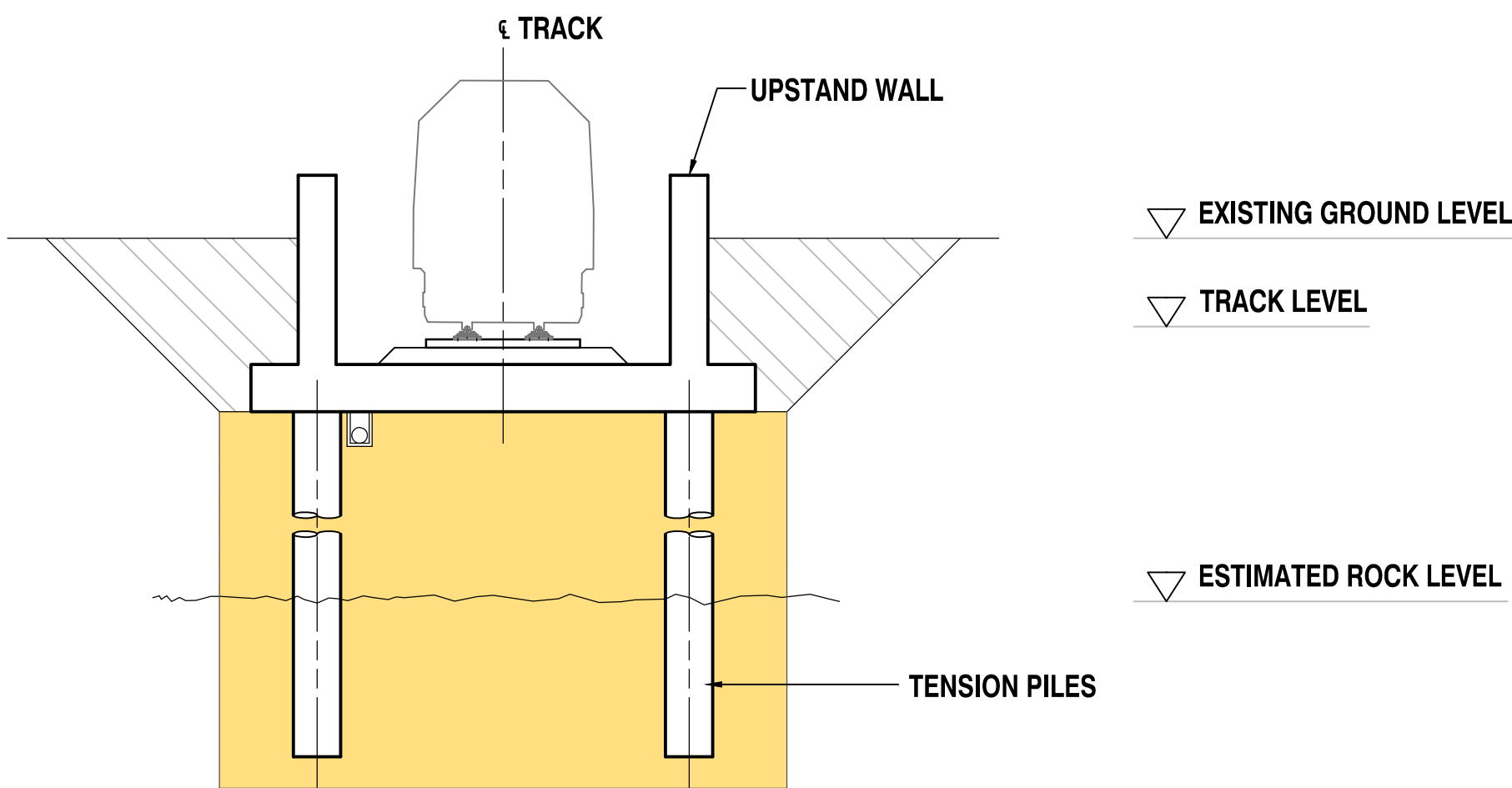


SECTION A

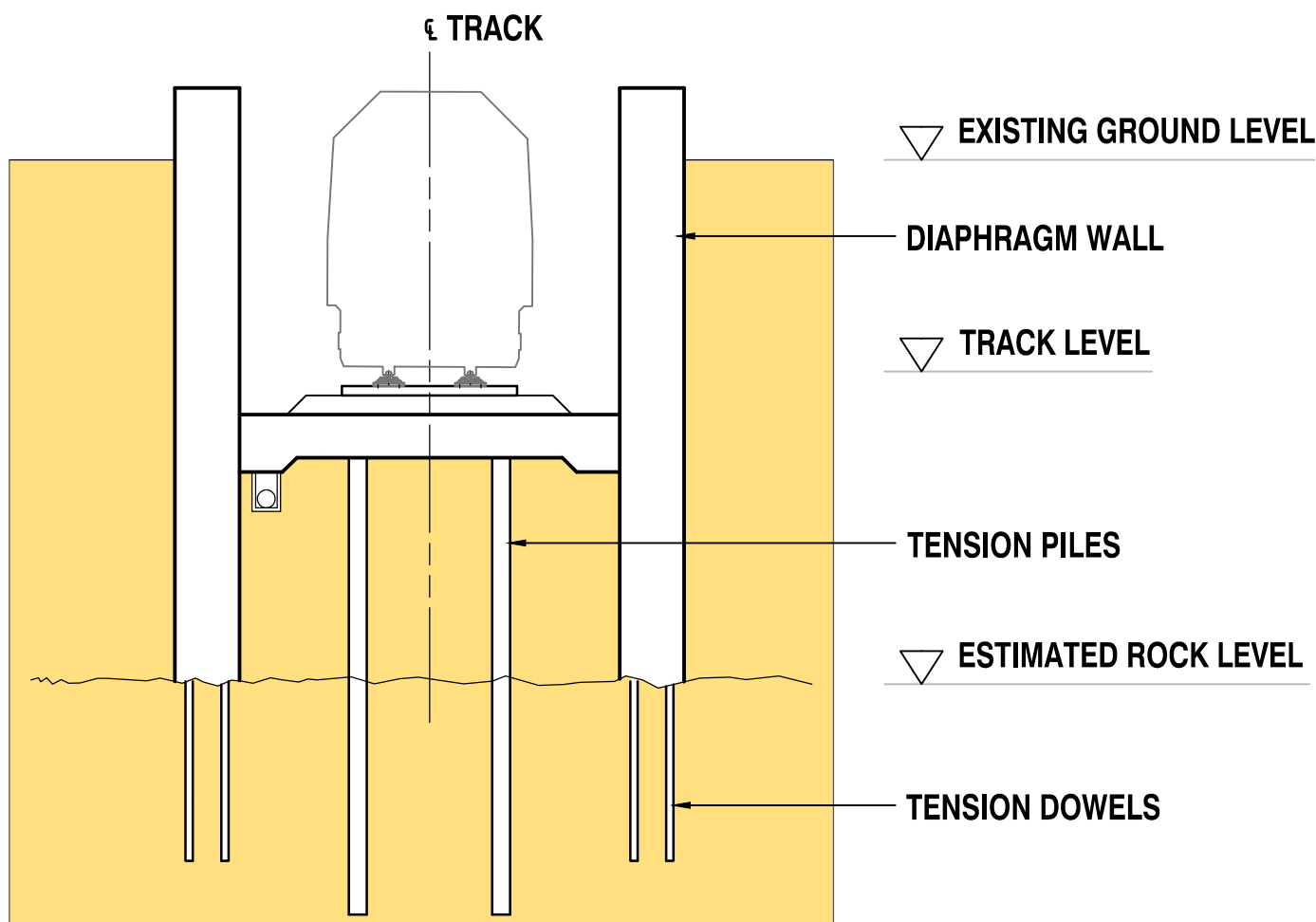
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NOT FOR
CONSTRUCTION

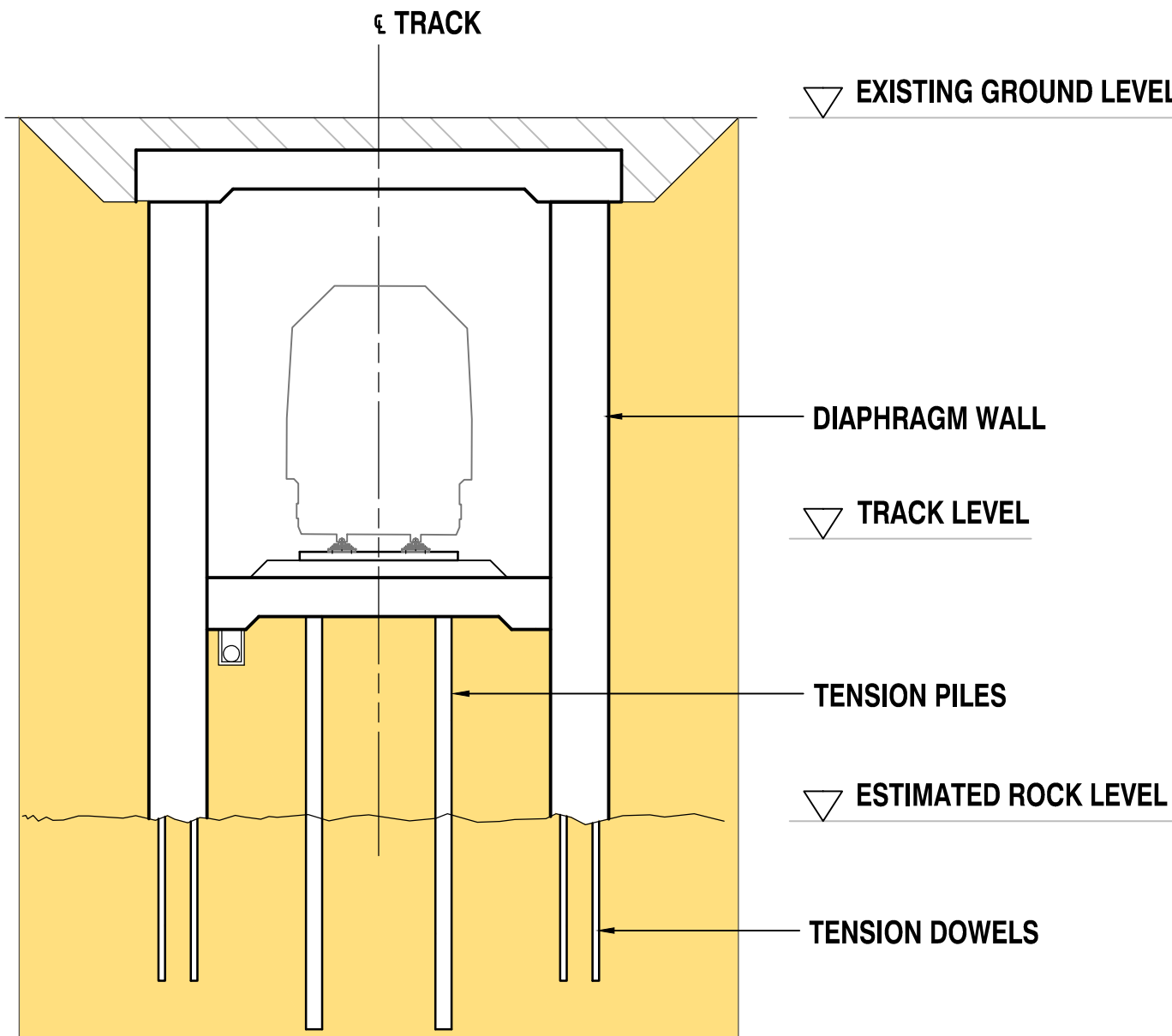
1 November 2016



SECTION B



SECTION C



SECTION D


Last Modified: 11/11/2016 4:24pm
XREFS: MRR_DETAIL_A1_Rev.dwg : X-CRR-DBRI-0001-MAYNE_UNDERPASS_DETAILS.dwg

					Associated Job Nos	Survey Data	
					Datum	GDA94	
					Auxiliary Drg Nos	Horiz. Grid	
B	MINOR REVISION		02/11/16			Height Origin	
A	ISSUE FOR RFPC		14/10/16			Survey Books	
Revisions/Descriptions		Certification	Date	Microfiled	Dimensions shown in except where shown otherwise		

Reference Points				
Preceding RP	Dist. to start of job (km)	From start to end of job	From end to Following RP	Following RP

BRISBANE CITY CROSS RIVER RAIL REFERENCE DESIGN (CHANGED PROJECT)				
Drawn	ENGINEERING CERTIFICATION (RPEQ)			
NPK	ENG. AREA	NAME	SIGNATURE	NO. DATE
Designed	CIVIL	J. DONOHUE		7835 14/10/16
JD				

MAYNE RAIL YARD UNDERPASS TYPICAL SECTIONS				
Through Chainage from				

 Queensland Government		Job No.	
Contract No.		Drawing No.	B
Series Number		of	
MRR_Detail (06/13)			